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The Association Between Perceived Parenting Styles and Aggression in Mexican American Young Adults

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THE ASSOCIATION BETWEEN PARENTING STYLES, AGGRESSION, AND
ACCULTURATION IN MEXICAN AMERICAN YOUNG ADULTS

A Thesis

by

MARIA RITA MEDRANO

Submitted to Texas A&M International University
in partial fulfillment of the requirements
for the degree of

MASTER OF ARTS

May 2015

Major Subject: Counseling Psychology

The Association between Perceived Parenting Styles, Aggression, and Acculturation in

Mexican American Young Adults

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May 2015

Major Subject: Counseling Psychology

DEDICATION

For being my primary motivation, my strength, and my joy, I dedicate this to my children. You are the reason behind my greatest efforts and perseverance.

ABSTRACT

The Association between Parenting Styles, Aggression, and Acculturation in Mexican American Young Adults (May 2015)

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Chair of Committee: Dr. Monica E. Munoz

The relationship between parenting styles and aggression in children has recently received ample attention throughout the psychological literature, with some aspects of this relationship yielding consistent results while others involve more complex dynamics that require further exploration. One factor that may influence both parenting styles and aggression is culture. While many researchers have investigated the relationship between culture and parenting styles, as well as the relationship between culture and aggression, there appears to be a lack of research investigating the relationship and interactions among these three constructs. It is important to further explore the relationship between perceived parenting styles and aggression to understand the negative consequences that can result during young adulthood from exhibiting aggressive behaviors during primordial days. Given that research on this topic with Mexican American young adults is scarce, and the influence of parenting styles, and perceived parenting styles, that has often been found in the literature may not be applicable due to differences in culture, and levels of acculturation. The purpose of the present study was to investigate the relationship between perceived parenting styles

and aggression in young adults of Mexican descent, as moderated by individual differences in acculturation. Results indicated that perceived permissive and authoritative parenting, in interaction with acculturation are significant predictors of aggression. Perceived authoritarian and permissive parenting styles also significantly predict aggression.

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INTRODUCTION

Aggression is a behavior that can be defined as any action, or abstinence from action, by an individual to purposely inflict physical or psychological damage on another (Bergmüller, 2013). These actions encompass a variety of dimensions, such as, intensity and violation to personal resources, or the self (Severance, Bui-Wrzosinska, Gelfand, Lyons, Nowak, Borkowski, Soomro, Soomro, Rafaeli, Treister, Lee & Yamaguchi, 2013). According to Geen and Donnerstein (1998), a general definition of this construct has become an increasingly difficult task. This is due to the fact that the term “aggression” is oftentimes interpreted based on the researcher’s purpose. Nevertheless, Baron and Richardson (1994) provide a useful and accurate definition, which is appropriate for the purpose of the present research. Throughout this document aggression will be defined as “any form of behavior directed toward the goal of harming another living being who is motivated to avoid such treatment.”

Some researchers focus on the behavioral component of aggression, differentiating between aggressive behaviors that are explicit, such as the case of physical and verbal aggression, and conduct characterized by more subtle actions that may inherently be more difficult to identify (Kawabata, Alink, Tseng, van Ijzendoorn, & Crick, 2011). Others focus on the emotional and cognitive constituents. Attention has also been studied based on the link between consequences and future aggressive behavior. Additionally, the roles of physical and environmental conditions have been utilized to investigate and describe different types of aggression. (Geen & Donnerstein, 1989). The present study focuses on the relationship between aggression and environmental conditions, more specifically: parenting styles and

This thesis follows the style of *Journal of Aggression, Maltreatment & Trauma*.

levels of acculturation. These two constructs were selected for investigation given that negative early interactions and some environmental factors have been found to play a significant role in the development and maintenance of elevated levels of aggression (Geen & Donnerstein, 1998; Olweus, 1979).

It is of great importance to investigate the relationships between these three constructs in order to contribute to the development of effective intervention techniques for individuals and families. These findings can be a positive contribution to Science and society, especially given that there is massive evidence and support in the literature of the adverse consequences and life difficulties associated with elevated levels of aggression that can be detrimental not only to the aggressor, but to victims and other bystanders (Broidy, Nagin, Tremblay, Bates, Brame, Dodge, Fergusson, Horwood, Loeber, Laird, Lynam, Moffit, Pettit & Vitaro, 2013; Fite, Raine, Stouthamer-Loeber, Loeber, & Pardini, 2010; Martins, Liu, Hedden, Goldweber, Storr, Derevensky, Stinchfield, Ialongo & Petras, 2013).

Risk Factors and Consequences Associated with Aggressive Behavior

Numerous factors have been found to be related to aggression as either precedents or consequences. For instance, Miller, Grabell, Thomas, Bermann, and Graham-Bermann (2012) reported a significant relationship between aggressive behaviors among siblings, maternal depression, and exposure to violent media. An interaction of community violence and aggressive fathers was also reported. Additionally, Kanne and Mazurek (2011) found that children with Autism Spectrum Disorder (ASD) are more likely to display aggressive behaviors toward primary caregivers and non-caregivers when social and communication difficulties with parents exist, highlighting the importance of effective early interactions. Surprisingly, it was also found that aggression is not significantly related to the intensity of

ASD symptoms experienced by the child. These findings point to the importance of research on initial interactions (e.g., parent-child) and context (e.g., culture) to further understand dynamics of the development of aggressive behaviors. This appears to be a particularly valuable area of research since longitudinal studies have found that elevated levels of aggressive behavior can manifest during the early stages of life and continue over the individual's lifespan (Olweus, 1979). This stability has been reported repeatedly in the literature. Findings on the negative outcomes of childhood and adolescent aggression that continue through adulthood provide evidence for the necessity of further research to investigate this matter (Broidy et al., 2013; McEachern & Snyder, 2012).

The risk factors and consequences of aggressive behavior at various developmental stages have also been widely researched, such alarming outcomes underscore the need for a more thorough understanding of this phenomenon to develop effective interventions. Social rejection from peers has been identified as a predicting factor, and a relationship between early aggression and antisocial behavior has been found; such findings appear to be a more significant predictor for females than for male youth (McEachern & Snyder, 2012). Aggressive and disruptive behavior among males has also been found to be a significant predictor of involvement in gambling (Martins et al., 2013) and other negative life events. Bradshaw, Schaeffer, Petras, and Ialongo (2010) investigated the possible negative outcomes of aggression during adolescence and reported that highly aggressive youth were more likely to engage in early sexual activity, drop out of school, become unemployed, abuse chemical substances, and become pregnant at an early age compared to their moderately and non-aggressive peers. Additionally research indicates that, across nations, males with a history of aggressive behavior are at an increased risk of engaging in violent and non-violent criminal

activities (Broidy, et al., 2013). Longitudinal studies underscore the considerable significance of early experiences of aggression on young adults. Fite et al. (2010) investigated the life outcomes of aggressive behavior in adolescent males. Results of self and observer reports suggested that reactive aggression is related to adult experiences of negative emotionality (e.g. anxiety) and substance use. In addition, proactive aggression during adolescence appeared to be associated with substance abuse and psychopathic and antisocial behavior, in adulthood. Childhood aggression has also been suggested to be a moderate predictor of domestic violence, characterized by aggression directed at intimate partners and children (Temcheff, Serbin, Martin-Storey, Stack, Hodgins, Ledingham, & Schwartzman, 2008). These outcomes point toward early aggressive behaviors as precedents of child abuse that may lead to the transference of aggression from one generation to another. Furthermore, research points to, not only psychological, but physical health consequences in adulthood that are related to childhood aggression. Such negative outcomes include increased medical visits and use of services, and a higher rate of life-style related illnesses (Temcheff, Serbin, Martin-Storey, Stack, Ledingham, & Schwartzman, 2011).

The influence and relationship between aggression and early interactions, such as parenting techniques, and cultural values, appears to be a promising area of study to acquire a clearer understanding of this topic. Such relationships have been widely studied separately (Altschul & Lee, 2011; Hovee, Dubas, Gerris, Van der Laan, & Smeenk, 2011; Kawabata et al., 2011; Kuppens, Laurent, Heyvaert, & Onghena, 2012; Powels & Cillessen, 2013; Sullivan, Schwartz, Prado, Huang, Pantin, & Szapocznik, 2007; Smokowski & Bacallao, 2006; Smokowski, Rose, & Bacallao, 2009) however, their interactions as predictors of aggressive behavior in the Hispanic population have not received equal amounts of attention.

Studies on parenting styles suggest that harsh parenting techniques, low involvement, and low levels of warmth and responsiveness toward a child are associated with aggressive behaviors (Kawabata et al., 2011). Research regarding the relationship between parental psychological control and aggression has often yielded conflicting results; however, Kuppens et al. (2012) concluded that there is evidence to suggest a rather weak association among these constructs. Additionally, Hoeve et al. (2011) suggest that males who are raised by a neglectful father are at increased probabilities of engaging in delinquent behavior, while similar outcomes can be predicted for females with overly responsive or permissive parents. Furthermore, research on acculturation and aggression has resulted in conflicting results, with studies proposing that acculturation is a protective factor of aggressive behavior (Smokowski et al., 2009), while others report a positive association between aggressive behaviors and assimilation to the American culture (Sullivan et al., 2007). Other predictors of aggressive behavior related to acculturation that have been recently identified by researchers include, parent-adolescent conflict that may be due to the presence of an acculturation gap, and perceived discrimination (Smokowski & Bacallao, 2006). Additionally, Altschul and Lee (2011) underscore the importance of studying parenting techniques and culture, due to the fact that an individual's parenting styles may be influenced by their cultural beliefs. The findings of this particular study provide evidence of the negative association between the "foreign birth" dimension of acculturation and the use of aggressive parenting techniques.

Current findings in the literature stress the enormous impact that parent-child interactions and context have on individuals. Initial emotional bonds with primary caregivers, biological predispositions, culture, and observed behavior from child to parent are among the many factors that appear to interact to shape the worldview of a person from the very

beginning of his or her existence.

Although the relationship between childhood aggression and parenting styles has been widely researched, its interaction with culture and acculturation is not a frequently researched subject matter, especially with adults. Some interesting areas that can be investigated based on the previously discussed findings are the long term effects of parenting styles, acculturation, and childhood aggression. Sufficient evidence to suggest the relationship between parenting styles and aggression exists; therefore, long lasting effects would be an interesting topic. Research in this area can be extremely helpful for clinicians in developing culturally sensitive and effective interventions for individuals and families who are extremely affected by these issues. This can be especially helpful for individuals who experienced extreme forms of physical disciplinary techniques that may be severe enough to qualify as child abuse. Additionally, findings may aid clinicians working with parents seeking to improve parenting skills for the benefit of their child.

Finally, despite the myriad advantages that can result from further investigation of these psychological constructs, researchers must approach this with caution. This is especially true when attempting to measure concepts that are likely to vary and acquire different meanings from one society to another. Therefore, cultural sensitivity is an essential part of research in this area. Such precautions will be taken into consideration throughout the implementation of the present study.

Typologies of Aggression

Aggression is a psychological construct that encompasses a variety of dimensions. Such dimensions include the level of potential damage to the victim, the degree to which the perpetrator intends to violate the self or personal resources of another, and damage to self-

worth (Severance et al., 2013). Many behavioral strategies to inflict harm on another individual exist; these differences have led to the categorization of different types of aggressive activities that have been studied in the literature. While some definitions may overlap, and even be utilized interchangeably, there are important distinctions to be made. One of the main differentiations that researchers have identified is that of direct and indirect aggression. Direct aggression is characterized by explicitly harmful acts toward the targeted victim (e.g., kicking), and indirect aggression involves the use of other, more discrete, means with the purpose of damaging an individual, such as damage to the person's self-esteem through social exclusion (Severance et al., 2013). Indirect aggression can be further separated into relational and social subdivisions. When an individual's preferred method is relational, behaviors are aimed at the use and manipulation of relationships as a means to harm another individual; this can take the form of the "silent treatment," or menaces to finalize a relationship if the victim does not succumb to the perpetrator's wishes. Social aggression is a similar construct in which actions, such as the dissemination of malicious rumors, are taken with the intent to socially isolate an individual and harm his or her self-esteem (Kawabata et al., 2011). Additionally, direct aggression can take a verbal or physical form. Physical aggression resembles violent behaviors in which an individual harms another with the utilization of instruments such as weapons or body parts. Verbal aggression is similarly overt; however, it entails the use of spoken words or written communication as means of causing damage to the victim (Severance et al., 2013).

Furthermore, researchers distinguish between proactive and reactive aggressive behaviors. Proactive aggression has been defined as a set of malicious, unprovoked, behaviors against a victim with the purpose of obtaining personal benefits. In contrast,

reactive aggression is characterized by a hostile response to real or perceived offenses (White, Jarrett, & Ollendick, 2013). For instance, an aggressive individual may react to verbal provocations of another with a physical attack. One specific type of reactive aggression that has been identified is affective, or angry aggression. It is characterized by a response to a negative change in an individual's environment, or to what that change represents to the aroused individual; the main objective of the aggressor is to inflict harm on the victim (Geen & Donnerstein, 1998). Reactive aggression is often associated with self-control difficulties (Little, Jones, Henrich, & Hawley, 2003). In contrast, instrumental aggression is not primarily motivated by harm, but by the aggressor's perceived personal gain, such as a monetary reward or increased social status. This type of proactive aggression manifests in a variety of behaviors, including coercion, and has been associated with criminal behavior (Ojanen & Kiefer, 2013). Fite, et al (2010) propose that reactive and proactive aggression have different underlying mechanisms and can be explained by different theoretical frameworks. This may not only be the case for these two kinds of aggression, but for all the previously described typologies. It is possible that a variety of factors interact and lead a person to select one method of aggression over another.

Theoretical Frameworks of Aggression

Attachment theory.

Attachment theory (Bowlby, 1979) was developed in England during World War II in an effort to investigate the effects of early parent-child separation on innate drives, including aggression. This theory is based on the proposition that human beings are naturally equipped with a behavioral system that prompts infants to seek physical contact with caregivers for comfort and security. This system was coined the Attachment Behavioral System (ABS;

Cervone & Pervin, 2010). The ABS involves several attachment behaviors that facilitate physical proximity, including clinging and smiling (McAdams, 2009). Once the child, in a healthy parent-child relationship, reaches a certain level of security, he or she is believed to feel safe to explore their surroundings. Additionally, attachment theory indicates that, through initial parent-child interactions, children acquire internal working models that help the infant develop beliefs about the self and significant others. These internal working models are believed to have lifetime enduring effects.

Furthermore, according to attachment theory, infants develop an emotional bond with their primary caregiver. This is identified as the child's first attachment, which is believed to be fully developed by the time the infant is approximately seven or eight months of age. Once the attachment is developed, it serves three purposes: to foster the infant-caregiver bond, protection, and safety when the infant experiences distress. As previously mentioned, these initial interactions aid the child in the development of a framework of the world.

Ainsworth, Bleher, Waters, and Wall (1978) investigated individual differences in attachment styles through direct observation in “The Strange Situation” and identified three types: *secure*, *anxious/avoidant*, *anxious/ambivalent*, and later, *disorganized attachment*. In “The Strange Situation” children’s behavior upon separation and reunion with their mother was monitored. Some children displayed distress during separation and comfort as their mother returned; these children were categorized as *securely attached*. *Anxious/avoidant* children were less sensitive as they were separated from their mothers and avoidant upon her return. Finally, a small percentage of children experienced complications during the separation and reunion, they were classified as *anxious/ambivalent* (Cervone & Pervin, 2010).

Research has demonstrated that securely attached infants form a healthy emotional bond and view their primary caregiver as a secure base. The three latter types are considered insecure, due to the fact that the child may lack the ability to feel safe and experience higher levels of anxiety (Broderick & Blewitt, 2009). The development of insecure attachments has been attributed to low responsiveness and insensitivity from the parents to the child. It has also been suggested that insecure attachment is associated with relational aggression (Kawabata et al., 2011). This relationship is believed to be influenced by the poor social skills that are characteristic of insecure attachments (Kawabata et al., 2011). Additionally, early interaction with caregivers that lead the child to expect rejection and unreliability have been linked to insecure styles of attachment, which in turn, have been found to foster traits such as anger and hostility (Muris, Meesters, Morren, & Moorman, 2004).

Emotion regulation.

Emotion regulation refers to the techniques and set of processes individuals utilize to stabilize, prolong, or intensify emotions, whether they are positive or negative (Gross, 2002). According to Gross (1998), emotion regulation is initialized by a person's assessment of external and internal cues that elicit behavioral, experiential, or psychological tendencies, which aid in selecting an adaptive response. This model of emotion regulation suggests that individuals have the ability to modulate emotions by exercising control over preceding events to a specific emotion or subsequent reactions. Gross (1998) differentiates between two types of emotional regulation: antecedent-focused and response-focused regulation. Antecedent-focused emotion regulation refers to the processes that occur prior to emotional activation. In contrast, response-focused emotional regulation indicates the course of action taken while an individual experiences a certain emotion. The two types are further divided into five

“families” of possible emotion regulation responses: *situation selection*, *situation modification*, *attentional deployment*, *cognitive change*, and *reducing/intensifying strategies* (Weytens, Luminet, Verhofstadt, Mikolajczak (2014). In *situation selection*, an individual avoids situations that are likely to evoke negative emotions. For instance, a person may decide to evade places with irritating sounds that trigger negative emotional responses. *Situation modification* takes place when an individual attempts to change a situation with the purpose of changing its emotional effect. Furthermore, *attentional deployment* is an emotion regulation strategy that focuses one specific aspect of a situation to modulate the feelings it elicits. Individuals may also choose to re-assess situations as a manner of regulating emotion; such process is known as *cognitive change* in this particular model. Finally, this model suggests that emotion regulation is possible while a person is emotionally aroused through several intensifying or diminishing strategies.

Although infants appear to lack the abilities enumerated above, they continue to develop these skills and strategies with the help of caregivers. Sensitivity and responsiveness to the infant are of great importance for the child to experience more positive emotions, and develop effective coping skills that continue to evolve later in life (Broderick & Blewitt, 2009). The lack of a responsive caregiver may lead the child to express more negative feelings for longer periods of time, and thwart the development of adaptive emotion regulation and social skills (Kawabata et al., 2011). Difficulties with self-regulation have been found to be associated with psychological maladjustment and reactive aggression (White et al., 2013).

Social learning theory.

It has been suggested that individuals possess the capacity to learn by observing

other's behaviors, especially if ideal conditions are present in the environment, through a series of processes involved in observational learning or modeling (Bandura, 1973).

According to Albert Bandura, the developer and major contributor to Social Learning Theory (SLT), a person can acquire new behaviors by observing another individual's conduct; the person being observed is identified as the model. The presence of a model does not ensure successful learning; rather, the following series of interconnected sub-processes are necessary: *attentional process*, *retention process*, *motor reproduction process*, and *motivational process*. In the first step, *attentional process*, the individual decides which model will receive attention and be observed. This decision is influenced by certain features such as constant exposure, attractiveness, distinctive features, and social status, among many. At this time, the observer also decides what behaviors he or she will look at closely. Once a model acquires the observer's attention the *retention process* generally follows. In SLT, this refers to successfully understanding and encoding the behavior being observed in order to retrieve it in the future. These memories serve as internal guides that can become activated in the absence of the model. *Motor reproduction* refers to the actual performance of the observed behavior. For this process to take place the observer must possess the skills necessary to reenact the learned behavior, otherwise, it will simply remain a mental representation. Once a behavior is learned and can be successfully reproduced the individual assesses whether it has favorable or negative consequences. If the behavior yields a positive outcome, the learner is likely to adopt the behavior. On the contrary, if the behavior results in punishment, it may remain encoded, but is not likely to be reenacted; this process is referred to as *reinforcement and motivational*. The last process highlights an important distinction in SLT: learning a behavior through observation does not necessarily lead to its performance in

the future. In turn, the inability or unwillingness to perform a behavior does not represent the absence of learning (Bandura, 1973).

This assumption, along with the four observational learning processes, was exemplified in the infamous Bobo Doll Experiment (Bandura, Ross, & Ross, 1961). In this study, children were exposed to a film in which a model behaved aggressively toward a plastic doll. Participants were divided into three groups, one with no consequences for the model's behavior, one in which the model was rewarded, and finally, one in which the aggressive behavior was followed by punishment. The three groups of children were further divided into two conditions. In condition one, the participants were left alone with several toys, including the plastic doll. Condition two has a similar setting, with the exception that children who reenacted the aggressive behavior were rewarded. Results indicated that children who witnessed the model's punishment for aggressive behavior modeled the aggressive behavior less often than those who witnessed no consequences or a reward. Nevertheless, these differences were eliminated once incentives for participating children were introduced. This classic experiment demonstrated the observational learning process, and the previously mentioned distinction between learning and performance. Bandura (1973) observed that children who did not reenact the behavior did not do so due to the inability to learn, rather, they chose not to perform the behavior. This was concluded based on the fact that participants who initially did not aggress the doll, effectively reproduced the behavior when rewards were present.

As previously discussed, the most predominant assumption of social learning theory is that individuals learn behaviors through observation, whether it is by modeling (Broderick & Blewitt, 2009) or through vicarious reinforcement (Kawabata et al., 2011). Learning takes

place as the person imitates the targeted behavior and achieves expected results. However, in regards to vicarious reinforcement, personal consequences appear to have a greater impact in behavior reenactment than the consequences faced by the model (Cervone & Pervin, 2010).

In relation to aggressive behaviors, evidence in support of this theory can be examined when a child witnesses the primary caregiver display negative feelings (e.g., anger) through violence toward another individual, object, or even the household pet; the observing child utilizes similar methods of expression and maladaptive coping skills. Additionally, if a parent successfully utilizes aggression to obtain a specific means, the child may develop an understanding of such behavior as acceptable and effective. According to social learning theory, the child will imitate the behavior in the future (Broderick & Blewitt, 2009). Bandura (1973) explains that, in terms of aggression, the emotional arousal of an individual (e.g., anger) leads to the retrieval of learned behaviors (e.g., aggression) that are perceived to be effective.

Social information processing.

Social Information Processing models focus on human's ability to acquire, make sense of, and communicate information. This theoretical framework compares these human cognitive abilities to artificial intelligence information processing to explain behavior. For instance, environmental changes are considered analogous to input, which lead to a variety of internal activations and cognitive processes, and generate an output (i.e., behavior). Social information processing is concerned with memory, encoding and retrieval, and their relationship and influence on human behavior. Memory is suggested to aid in the development of schemas, general knowledge of concepts, their attributes, and how they associate with other concepts. Additionally, schemas link to other similar schemas to form

scripts for appropriate behavior in social settings and problem solving strategies. In turn, schemas influence social attributions, which are assumptions about the reasons behind an individual's actions and beliefs; social attributions can, in turn, influence how individuals respond to other's behavior or events. (Geen & Donnerstein, 1998).

According to the social information processing perspective, individuals respond to social cues based on their subjective interpretation (Arsenio & Lemerise, 2004). Past experiences, attachment styles, and learned behavior are some of the factors that may contribute to the manner in which individuals process social information (Kawabata et al., 2011). For instance, it has been found that aggressive, socially rejected children display more deficits and social attributional biases than their peers (Dodge & Coie, 1987). Similarly, Crick, Grotpeter, and Bigbee (2002) reported that physically and relationally aggressive individuals are more likely to interpret social information utilizing hostile attributions. Some researchers have concluded that aggressive responses to seemingly neutral or benign social cues may be the result of hostile attributions. It has been concluded in the literature that hostile attributional biases are influenced by schemas with negative concepts of an individual's environment (Epps & Kendall, 1995).

In addition, traumatic early interactions and emotional attachment are related to the development of social information processing deficits, and in turn, aggressive behaviors in children and adults. This possibility has been explored in the literature, with results indicating an association between emotional abuse, neglect, and hostile attributional biases in adulthood (Chen, Coccaro, Lee, & Jacobson, 2012). It is possible that mistreated children develop insecure attachment styles that impair their ability to properly interpret social cues; this is an alarming possibility, given that such processes are believed to have long lasting

effects. However, further research is necessary to test this hypothesis.

Genetics.

Research indicates that some individuals are genetically predisposed to exhibit higher levels of aggression. The possibility of aggression as a heritable psychological mechanism has made some advances. Research on male and female monozygotic and dizygotic twins revealed that approximately 50% the variability of proactive aggression, and 38% of the variability of reactive aggression, can be attributed to genetics (Baker, Raine, Liu, & Jacobson, 2008). Such findings are more applicable to males; researchers suggested that aggressive behaviors are more attributable to environmental factors in females. Although genetics can explain some of the variance of aggressive behavior, an interaction between genes and environment is generally present. Simons, Simons, Lei, Beach, Brody, Gibbons, and Philibert (2013), investigated the role of genetics and parenting on adult aggression toward romantic partner. Results indicated that genetic predispositions of aggressive behavior and harsh parenting predicted intimate partner aggression, while those who were genetically predisposed to display aggressive behaviors and did not experience harsh parenting as children displayed less hostility toward their partner.

Although a single aggression gene has not been identified, several genes and their association with aggression have been investigated. Among the most widely studied gene in this area of research is monoamine oxidase (MAOA), also known as the “warrior gene” (Buchmann, Zohsel, Blomeyer, Hohm, Hohmann, Jennen-Steinmetz, Reutlein, Becker, Banaschewski, Schmidt, Esser, Brandeis, Poustka, Zimmermann, & Laucht, 2014; McDermott, Tingley, Cowden, Frazzetto, & Johnson, 2009). This gene has been found to be associated with aggressive reactions to provoking stimuli. Furthermore, individuals

categorized as low activity MAOA (MAOA-L) reportedly display low activity in the prefrontal cortex area and higher reactivity in the amygdala during emotional arousal, pointing to more impulsive aggressive behaviors (McDermott et al., 2009). Additionally, the dopamine receptor gene (DRD4) has earned the alias “risk allele” for externalizing problems; its interaction with prenatal stress has been associated with aggression (Buchmann et al., 2013). These findings underscore the importance of the interaction between nature and nurture in regards to aggressive behavior.

Parenting Techniques and Aggressive Behaviors

As previously mentioned, environmental factors play a significant role in child development (Simmons et al., 2013). Parenting is one of these major variables, to which children’s responses may vary, depending on the techniques utilized by the caregivers. It has been indicated in the literature that children with a tendency to display more negative affect are more affected by harsh or irresponsive parenting techniques, which can be evidenced by increased levels of aggression compared to their non-aggressive counterparts. (Broderick & Blewitt, 2009). Several positive and negative disciplinary tactics and their possible consequences have been studied. McKinney, Milone, and Renk (2011) point out three categories of disciplinary strategies: *power and assertion*: these include physical punishment, threats, and removal of privileges, *love withdrawal*: involves isolation, ignoring, and expression of dislike toward the child, and finally *induction*: techniques involve effective communication and standards.

Parental rejection and other negative parenting techniques have been associated with aggressive behavior, rebellion, internalizing and externalizing problems, and psychological instability (Cervone & Pervin, 2010; McKinney et al., 2011). Some of the parenting and

disciplinary techniques mentioned previously have also been investigated in relation to conduct problems in children. Corporal/physical punishment, inconsistent disciplinary strategies, and lack of parental involvement are all parenting practices that have been found to be related to higher levels of aggression and increased symptoms of Oppositional Defiant Disorder (ODD). Additionally, a positive relationship between inconsistent disciplinary methods and reactive and proactive aggression has been reported in the literature (Pederson & Fite, 2014). Findings suggest that parenting techniques play a significant role in an individual's psychological development, with negative parenting fostering future conduct problems, and positive parenting facilitating psychological competency and other positive outcomes (Cyr, Pasalich, McMahon, & Spicker, 2014; McKinney et al., 2011).

Parenting Styles

The theory of parenting styles was developed in response to the preference of permissive child rearing strategies as the most effective at the time. Parenting styles have been defined as the collection of attitudes, beliefs, and practices preferred and utilized by caregivers to shape their child's behavior (Olivary, Tagliabue, & Confalonieri, 2013). In her seminal work, Baumrind (1966) introduced the three most widely studied parenting typologies. She termed the following prototypes of adult control: authoritative, authoritarian, and permissive. They mainly differ in the dimensions of warmth and control. The warmth dimension entails parental responsiveness to the child, which involves attending to the child's needs and parental involvement. Furthermore, the control dimension refers to demand, or the degree to which care givers execute and implement rules. Depending on parental techniques, both dimensions can become either child-centered or parent-centered, based on whose interests are being fulfilled (Broderick & Blewitt, 2009).

Researchers have expanded on Baumrid's (1966) work and identified several dimensions that fall under each parenting style. The authoritarian style is composed of: warmth/involvement, reasoning/induction, democratic participation, and good natured/easygoing. The authoritative parenting style involves: verbal hostility, corporal punishment, non-reasoning punitive strategies, and directiveness. Finally, the permissive style includes the following factors: lack of follow-through, ignoring misbehavior, and self-confidence (Olivary et al., 2013).

Despite the categorization, it is necessary to note that parents may adopt different techniques from all four parenting styles; however, the overall pattern that caregivers use is likely to resemble one style over the others. Additionally, it is possible for caregivers in the same household to favor one parenting style over the other (Broderick & Blewitt, 2009).

The authoritarian style.

The authoritarian parenting style is characterized by low responsiveness and warmth toward the child and high control. Parent-child communication is often one sided, given that the caregiver places little value on the child's opinion. Authoritarian parents generally enforce strict rules that the child is expected to obey without question and seldom display affection towards the child (Broderick & Blewitt, 2009). According to Baumrid's (1966) description of the authoritarian parenting style, these individuals utilize power and control as a means of shaping the child's behavior. Failure of the child to meet the authoritative parent's standards typically results in harsh punishment without explanations. Additionally, the child's autonomy is limited.

These parenting techniques are often associated with negative social outcomes, including aggressive behavior (Kawabata et al., 2011). Nevertheless, more recent cultural

findings suggest that while these assumptions might be applicable to individualistic societies, authoritarian parenting may result in positive outcomes in collectivistic cultures. It is suggested that this may be due to the high value placed on submissiveness to authority, and other characteristic beliefs (Sorkhabi, 2012). Additionally, Baumrind (1966) explains that punishment, including mild physical punishment, can have positive effects on a child when utilized reasonably.

The permissive style.

The permissive parenting style received much support in earlier times without much empirical evidence to suggest the effectiveness of the parenting methods associated with it. It was simply accepted that attending and pleasing one's child was an integral part of parenting (Baumrind, 1966). Based on research, permissive parents can be considered the opposite of the authoritarian style, due to their tendency to be highly responsive to their offspring's needs, but demanding relatively little in return from the child. The primary caregiver may often display high levels of affection toward the child without effectively enforcing or stating clear rules and standards (Broderick & Blewitt, 2009). These individuals are typically the parents who seek to establish a horizontal relationship with their child which resembles a friendship and lacks an authority figure. Therefore parents are frequently viewed as resources and not role models. Permissive parents avoid using power, control, or punitive techniques to influence the child and more often opt for indirect means, such as manipulation. They are relatively uninvolved in shaping the child's conduct and behave in an accepting and affirmative way toward the child (Baumrind, 1966).

This particular constellation of parenting techniques has often been associated with children's inability to regulate emotions, due to the lack of parental monitoring, which in

turn, is associated with the display of higher levels of aggression (Kawabata et al., 2011). In addition, permissive parenting patterns have been found to be positively correlated with delinquent behaviors in adolescent females (Hoeve et al., 2011).

The authoritative style.

Parents who favor authoritative techniques are considered to be more successful in their ability to maintain a trusting relationship with their children and set reasonable boundaries. Clear sets of standards are also characteristic techniques that are thought to be influence the beneficial outcomes associated with this parenting style (O'Reilly & Pederson, 2014).

Additionally, high levels of responsiveness and demand are distinguishing features of authoritative techniques, also recognized as positive parenting (Kawabata et al., 2011). While parents may display affection and care for the child's needs, clear ground rules are set and enforced. Similar to authoritarian parents, authoritative parents utilize power; the major difference in this case is that the latter group additionally uses reason, especially when the child is punished. For instance, if the child is being reprimanded for unacceptable behavior, the parent helps him/her understand why the behavior is improper and encourages discussions about the consequences. This leads to a two way parent-child communication style that provides a healthy relationship and atmosphere in which the child's point of view is valued and respected. (Baumrind, 1966).

This particular parenting style is associated with positive outcomes during childhood and throughout the individual's lifetime, and lower levels of aggression (Broderick & Blewitt, 2009). Research on this parenting style has reported interesting results in regards to delinquent behavior. It has been reported that while individuals who experience negative

parenting styles as children (e.g., authoritarian, permissive, or neglectful) are more likely to be delinquent, the presence of at least one authoritative caregiver compensates for the negative effects and reduces the likelihood of future delinquent behavior (Hoeve et al., 2011).

Perceived Parenting Practices and Aggression

Parenting techniques to shape child behavior and their long term effects have been studied extensively (Baumrind, 1966; Broderick & Blewitt, 2010; Hoeve et al., 2011), with good reason, given that, as Cevone and Pervin (2010) point out, they greatly impact the child's current and future behavior. Three manners in which parents are influential are identified: they serve as role models, chose when and if child behaviors will be rewarded, or punished, and are responsible for placing children in situations that evoke different behaviors. Although this idea has received much support from the literature, it is crucial for researchers to pay close attention to the reported discrepancies between parents and their offspring in regards to their perceptions of parenting styles. There is a tendency for caregivers to present their parenting techniques in a more positive light and for children to report less healthy patterns. According to Bögels and van Melick (2004), these discrepancies may be the result of a difference in parent and child subjective experiences and perceptions. Additionally, they recognize that the child's perception of parenting may have a greater impact on their psychological development than the parenting techniques themselves.

The fact that the individual's perception of parental behavior, rather than the parent's views, appears to be more influential in regards to social adjustment (Buschgens, Van Aken, Swinkels, Ormel, Verhulst, & Buitelaar, 2010) points to a different approach in this area of research. Researching the offspring's perceptions of parental rearing is a promising methodology that can provide valuable, new information to this field.

Currently, research in the topic of perceived parenting styles and aggression is scarce; the majority of the findings in the literature have focused on child rearing styles from the parent's perspective (Broderick & Blewitt, 2009; Hovee et al., 2011; Kawabata et al., 2011; Simmons et al., 2013). However, several findings on perceived parenting styles have been reported. It has been observed that individuals who sensed their parent's styles to be low on warmth and high on rejection displayed elevated levels of hostility. (Meesters, Muris, & Esselink, 1995). Similarly, Muris et al. (2004) reported that high levels of anger and hostility in individuals were positively related with high levels of perceived parental rejection, control, and inconsistency; all characteristics of the authoritarian parenting style. Additionally, they found elevated anger and hostility to be negatively correlated with sensed parental emotional warmth.

Acculturation and Aggression

The process of acculturation is considered a complex and multidirectional process that can take place individually or as group. It is defined as the product of constant exposure to a new culture, in which change, adaptation, and social and ecological changes are essential (Chun, Balls Organsita, & Marin, 2003). Although the previously enumerated factors are involved in acculturation, many other variables can hasten, elongate, or revert the process. Additionally, it is possible for a person to never fully adopt the values and beliefs of the new culture, a construct termed assimilation. One important factor related to acculturation is ethnic identity, the degree to which one has feelings of belonging to a specific group. This construct can also change over time, sometimes due to factors related to acculturation, and in a bidirectional manner (Chun et al., 2003). For instance, a person can either begin to identify with the new culture they are exposed to or maintain a sense of identity with the original

group.

Chun et al. (2003) explain that acculturation can lead to adjustment or complete modification of an individual's belief system to values that are more characteristic of the new culture. One cultural value that has been extensively studied in the Hispanic population is Familialism, a deep sense of connection to one's immediate and extended family. It has been suggested that high levels of acculturation can have a negative impact on Familialism, due to a decrease in family involvement and support; it is also related to greater familial conflict. Furthermore, in terms of parent-child relations, more acculturated individuals tend to resist parental authorities and experience an increase in conflict. This is assuming acculturation to American cultural values (Chun et al., 2003).

Culture can be defined as "a shared system of beliefs, values, expectations, and behavior meanings developed by a group over time" (Bond, 2004). Furthermore, cultures can be identified as individualistic or collectivistic, depending on the most prevalent values. Bergmüller (2013) describes individualism and collectivism as the bipolar dimensions that characterize the level of integration among the members of a specific culture or group. Highly individualistic societies embrace autonomy and are the least integrated, such cultures place great importance on diligent efforts to achieve one's individual goals and aspirations. In contrast, at the end of the spectrum, collectivistic cultures may interpret the previously mentioned values in a negative manner; for instance, placing great importance to one's own goals may be considered egotistical. This is due to the fact that the goals and values of the entire group are considered to be far more important than individual aspirations. Just as belief systems vary, cultures vary in what behaviors are considered aggressive and what behaviors are considered acceptable. For instance, Severance et al. (2013) investigated aggression

across cultures and found that some behaviors are considered more aggressive or offensive than others in different nations, while others may seem more acceptable; these differences may lead to higher levels of displayed aggression in certain cultures. Bergmüller (2013) investigated this assumption with elementary school children across nations. He found that principals at institutions located in collectivistic societies reported less aggressive student behaviors than principals in individualistic cultures. In addition, it has been suggested that parenting styles depend on culture and levels of acculturation (Cauce, 2008; Le, Ceballo, Chao, Hill, Murry, & Pinderhughes, 2008). Members of collectivistic cultures, who value indisputable compliance, have been found to favor authoritarian parenting styles. Such techniques result in positive outcomes for children in this type of culture, while authoritarian styles are preferred in individualistic societies and have similar outcomes (Sorkhabi, 2012). The former is reported to be often the case in Latino parents and other minorities (Le et al., 2008).

Moreover, parent and child levels of acculturation may be highly influential in the relationship, especially when there is a possibility of an acculturation gap (Smokowski & Bacallao, 2006). In relation to aggression and parenting styles, Altschul and Lee (2011) emphasize the need for research in parenting techniques and culture based on their findings of a negative relationship between maternal acculturation and aggressive parenting techniques.

The purpose of this study is to contribute to the growing knowledge of the relationships between aggression, acculturation, and perceived parenting styles in the Mexican-American population. Based on current findings in the literature, the following hypotheses were generated:

1. Perceived authoritative parenting styles will be associated with lower levels of aggression.
2. Authoritarian and permissive parenting will be associated with elevated levels of aggression.
3. Acculturation will be a moderating variable in the relationship between parenting styles and aggression. Increased levels of this construct will be associated to stronger relationships between perceived permissive and authoritarian parenting with aggression.
4. Finally, higher levels of acculturation will be associated with a weaker correlation between perceived authoritative parenting and aggression.

METHODS

Design

The present investigation examined three parenting styles (i.e., authoritative, authoritarian, and permissive) and their interaction with acculturation as predictors of aggressive behavior in Mexican-American young adults. The measures for these constructs were uploaded using the online survey generator [surveymonkey.com](https://www.surveymonkey.com) as a means to collect data. All participants above the age of 18 who consented to participation were provided access to the survey. It is hypothesized that authoritative parenting styles are associated with lower levels of aggression, while permissive and authoritarian parenting styles are positively correlated with higher levels of aggression. Furthermore, acculturation will play a moderating role, strengthening the relationship between authoritarian and permissive parenting styles and aggression. Lastly, it is hypothesized that lower levels of acculturation will weaken the correlation between authoritative parenting and aggression.

Participants

Participants were recruited at Texas A & M International University via electronic mail. Faculty and staff at the University received a recruitment electronic message (see appendix E) which included the link to an online survey containing the materials utilized in the present study. Data provided by participants who lacked a significant amount of data were excluded from all statistical analyses. All Mexican American students above the age of 18, from a variety of fields of study were considered eligible participants. 324 participant responses were originally collected, this sample was composed of 78.42% females (n=248) and 21.52% males (n=68). After exclusions were made the total number of participants was 133 (n=133).

Materials

Acculturation. Acculturation is a change in attitudes, beliefs, and values, which resemble those of a new culture that an individual has been exposed to. In the current study, acculturation of Mexican-Americans was assessed using the *Acculturation Rating Scale for Mexican Americans-II* (ARSMA-II). This instrument consists of two scales; only scale 1 was utilized in the present study. Scale 1 is composed of a total of 30 items measuring the dimensions of assimilation, integration, and marginalization. In this particular measure, higher scores indicate higher levels of acculturation, while lower scores indicate lower levels of acculturation (Davis & Engel, 2010). A Cronbach's α of .87 was previously reported (Cuellar, Arnold, & Maldonado, 1995).

Perceived Parenting Styles. Parenting styles are characterized by the behaviors and attitudes exhibited by primary caregivers that help develop or hinder an emotional bond (Olivari et al., 2013). Perceived parenting styles in the present study were defined as an individual's perception of these attitudes in their primary caregiver(s). The proposed study measured these constructs with the use of an adaptation of the *Parenting Styles and Dimensions Questionnaire* (Robinson, Mandaleco, Olsen, & Hart, 1995). This measure consists of 62 items measuring three parenting styles (authoritative, authoritarian, and permissive) so three subscale scores can be calculated. Higher scores on each facet indicate increased use of techniques characteristic of that corresponding parenting style. The PSDQ appears to be a reliable instrument with reported Cronbach's α ranging from .75 to .91.

The modified version of the PSDQ included all 62 items. However, these items and the instructions were altered to measure perceived parenting styles. For instance, item 1 originally states "encourage the child to talk about the child's troubles" (Robinson et

al., 1995) and was modified to “encouraged me to talk about my troubles.” Furthermore, the original instructions included the following statement: “Below are several statements that some people sometimes use to describe parents. How much do you agree or disagree that each statement describes ‘pretty good’ parents?” (Robinson et al., 1995). The modified instructions in the present study read as follows: “Below are several statements that some people sometimes use to describe parents. Based on your childhood experiences with your parents, how much do you agree or disagree that each statement describes your parents?”

The adapted version of the PSDQ utilized in the present study showed Cronbach’s α of .69 for the permissive parenting scale .87 for the authoritarian scale, and .94 for the authoritative scale.

Aggression. Aggression is a behavior that can be defined as any action, or abstinence from action, by an individual to purposely inflict physical or psychological damage on another (Bergmüller, 2013). In the present study, this construct was measured utilizing the *Brief Aggression Questionnaire* (BAQ; Webster, DeWall, Pond, Deckman, Jonason, Le, Nichols, Sember, Crysel, Crosier, Smith, Paddock, Nezlek, Kirkpatrick, Bryan, & Bator, 2014). This self-report questionnaire is an adaptation by Webster et al. of the Aggression Questionnaire, developed by Buss and Perry (1992). It includes a total of 12 items, to which examinees must respond to, using a ten point Likert-type scale in which 1 signifies “extremely uncharacteristic of me” and 10 indicates “extremely characteristic of me.” The BAQ has been found to be a reliable instrument with reported Cronbach’s α that range from .72 to .80 (Webster et al., 2014).

Procedure

The present study was announced via electronic mail. Staff and faculty instructing a

variety of graduate and undergraduate level courses at Texas A & M International University received an electronic message requesting assistance in recruiting participants; the message included the link to the online survey. Prior to accessing the questionnaires subjects were presented an online consent form. All individuals who granted consent were directed to a brief demographics survey and subsequently to the modified form of Parenting Styles and Dimensions Questionnaire, ARSMA-II, and the Aggression Questionnaire in that order. The time spent responding to the survey was approximately 30 minutes. Those who did not grant consent were directed to a disqualification page. No specified location was necessary for subjects to respond to the survey, all individuals with an electronic device with internet access had the opportunity to participate.

RESULTS

Statistical Analysis

Hierarchical multiple regression was the appropriate statistical analysis procedure for the purposes of the present study because each of the investigated parenting styles were analyzed as separate predicting variables. Parenting styles were additionally analyzed in interaction with reported levels of acculturation, as predictors of aggression levels during adulthood. The relationships between the predicting variables and reported levels of aggression during adulthood were assessed using Pearson correlation analyses. This procedure was also performed as an assessment to detect or discard issues of collinearity among independent variables. Furthermore, VIF's were also analyzed for the purpose of testing for collinearity. Additionally, reliability analyses were performed for all materials and subscales utilized in the present study.

Descriptive Statistics

The reliability analyses revealed that all instruments, including the modified form of the PSDQ, utilized in the present study were reliable measures of each construct. Cronbach's α for the acculturation measure (ARSMA-II) was satisfactory .84 ($M = 107.9$, $SD = 13.85$) and overall reliability of the BAQ was considered acceptable ($\alpha = .81$, $M = 52.52$, $SD = 18.39$). Finally, reliability analyses for the PSDQ subscales revealed that the current modified version of this instrument were reliable, resulting in Cronbach's α of .69 ($M = 33.79$, $SD = 6.99$), .87 ($M = 59.59$, $SD = 13.16$), and .94 ($M = 98.24$, $SD = 18.7$) for the permissive, authoritarian, and authoritative perceived parenting styles scales respectively. The results of reliability analyses and descriptive statistics for each scale and subscales are displayed on Table 1.

Table 1
Descriptive Statistics and Reliability of Measures

Scale	Mean	Standard Deviation	N of Items	Cronbach's α
ARSMA-II	107.9	13.85	30	.84
BAQ	52.52	18.39	12	.81
Permissive Parenting	33.79	6.99	15	.69
Authoritarian Parenting	59.59	13.16	20	.87
Authoritative Parenting	98.24	18.70	27	.94

Correlations and Collinearity Analysis

The relationships between perceived parenting styles, as separate variables, and aggression levels during adulthood were analyzed. In addition to these analyses, Pearson's correlations among all predicting variables and aggression were performed to assess statistically significant relationships, and as a method to detect issues of collinearity. Table 2 displays a correlation matrix, which includes all variables. As predicted, Pearson's correlations resulted in a positive relationship between permissive parenting and aggression $r(131) = .30, p < .05$. Correlation analyses additionally revealed a positive relationship between perceived authoritarian parenting styles and levels of $r(131) = .45, p < .05$. Finally, perceived authoritative parenting was not found to be significantly associated with aggression levels during adulthood $r(131) = .18, p > .05$.

Minimal and non-significant correlations among independent variables indicated that no issues of collinearity were present. Additional tests for collinearity suggested equally with reported VIF's ranging from 1.001 to 1.373.

Table 2

Correlation Matrix of All Predicting Variables

Measure	Aggression	Acculturation	Permissive	Authoritative	Authoritarian
Aggression	-				
Acculturation	-.11	-			
Permissive	.30**	-.15	-		
Authoritative	-.13	.11	-.06	-	
Authoritarian	.45**	-.06	.07	-.37**	-

Note. Correlations of total number of participants ($n = 133$). *correlation is significant at the $p < .05$ level. **correlation is significant at the $p < .001$ level.

Regressions

Hierarchical multiple regressions were performed with aggression scores as the dependent variable and each parenting style separately and in interaction with acculturation scores as predicting variables. Three separate models were analyzed using SPSS statistics to assess statistical significance. Results indicated that all regression models with permissive parenting ($F = (1,131) = 13.13, p < .001$) and acculturation ($F = (2,130) = 6.51, p < .001$) as predicting variables of aggression separately, and in interaction ($F = (3,129) = 6.27, p < .001$) were significant. In addition, all three models with authoritarian parenting ($F = (1,131) = 32.76, p < .001$), and acculturation ($F = (2,130) = 16.41, p < .001$) as predicting variables of aggression, alone and in interaction ($F = (3,129) = 11.43, p < .001$) were significant. Table 3 displays standardized regression coefficients β 's and R-squares. Hierarchical multiple

regressions were performed to test the hypothesis that the interaction of permissive parenting and acculturation will predict higher levels of aggression. Results indicate that the interaction between these two predicting variables is a significant predictor of aggression, ($\beta = .22$, $t(129) = 2.31$, $p < .05$). Therefore, individuals who perceived their parents as permissive and reported higher levels of acculturation were found to be more aggressive. The interaction of permissive parenting and acculturation explained 13% of the variance in aggression scores ($R^2 = .13$, $F(1,129) = 5.34$, $p < .05$). Permissive parenting alone accounted for approximately 9% of the variance in aggression scores ($R^2 = .09$, $F(1,131) = 13.13$, $p < .05$). This suggests that the interaction of permissive parenting and acculturation accounted for a significant, but small portion of the change in variance in aggression scores, R^2 change = .04, $F(3,129) = 5.34$, $p < .05$. The hypothesis that the interaction of perceived authoritative parenting and acculturation will be associated with lower levels of aggression was also tested. Contrary to what was predicted, hierarchical multiple regressions concluded that perceived authoritative parenting styles, in interaction with acculturation significantly predict aggression levels ($\beta = .18$, $t(129) = 2.07$, $p < .05$). These results indicate that individuals who viewed their parents as authoritative during childhood and reported higher levels of acculturation are more likely to be aggressive adults. This interaction accounted for a moderate proportion of the variance in aggression ($R^2 = .05$, $F(1,129) = 4.26$, $p < .05$), an additional 3% of the variance in aggression was attributed to this interaction R^2 change = .03, $F(3,129) = 4.27$, $p < .05$. Furthermore, the hypothesis perceived permissive parenting will be associated with aggression was supported. Results indicated that perceived permissive parenting alone is a significant predictor of aggression ($\beta = .30$, $t(130) = 3.62$, $p < .05$), suggesting that individuals who perceived their parents to be permissive are more likely to report higher

levels of aggression during adulthood. Finally, the hypothesis that authoritarian parenting will predict elevated aggression level was supported. Hierarchical regression analyses concluded that authoritarian parenting alone is the strongest predictor of aggression ($\beta = .45$, $t(130) = 5.7$, $p < .05$). This suggests that individuals who perceive their parents to be authoritarian during childhood are more likely to report higher levels of aggression during adulthood. These individuals are predicted to be more aggressive than those who report higher levels of acculturation and perceive their parents to be permissive or authoritarian. This parenting style accounted for a significant portion of the variance in aggression levels, $R^2 = .20$, $F(1,131) = 13.13$, $p < .05$. Figures 1 through 4 exhibit the interactions reported above.

No evidence was found to support two of the hypotheses presented in the current investigation. Multiple regression analyses indicated that authoritarian parenting, in interaction with acculturation levels did not significantly predict aggression scores ($\beta = .06$, $t(130) = .59$, $p > .05$). Moreover, perceived authoritative parenting was found to be a predictor of lower levels of aggression. However, these findings were not statistically significant ($\beta = -.13$, $t(130) = .317$, $p > .05$).

Table 3

Hierarchical Multiple Regressions Analyses Predicting Aggression

Predictor	β	R ²
Permissive Parenting and Acculturation	.22*	.13*
Authoritative Parenting and Acculturation	.18*	.05*
Authoritarian Parenting and Acculturation	.06	.21
Permissive Parenting	.30**	.09**
Authoritative Parenting	-.13	.02
Authoritarian Parenting	.45**	.20**

Note. * $p < .05$. ** $p < .001$.

Figure 1. 1. Perceived Permissive Parenting and Acculturation as Predictors of Aggression.

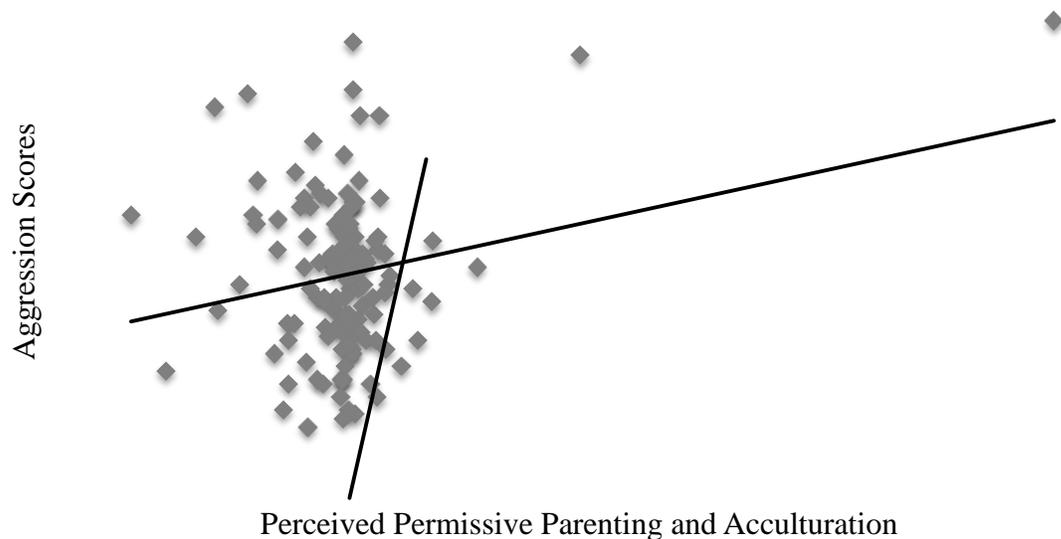


Figure 1.1 Results of hierarchical regression analysis with the interaction of perceived permissive parenting and acculturation as predictor of aggression.

Figure 2.1. Perceived Authoritative Parenting and Acculturation as Predictors of Aggression.

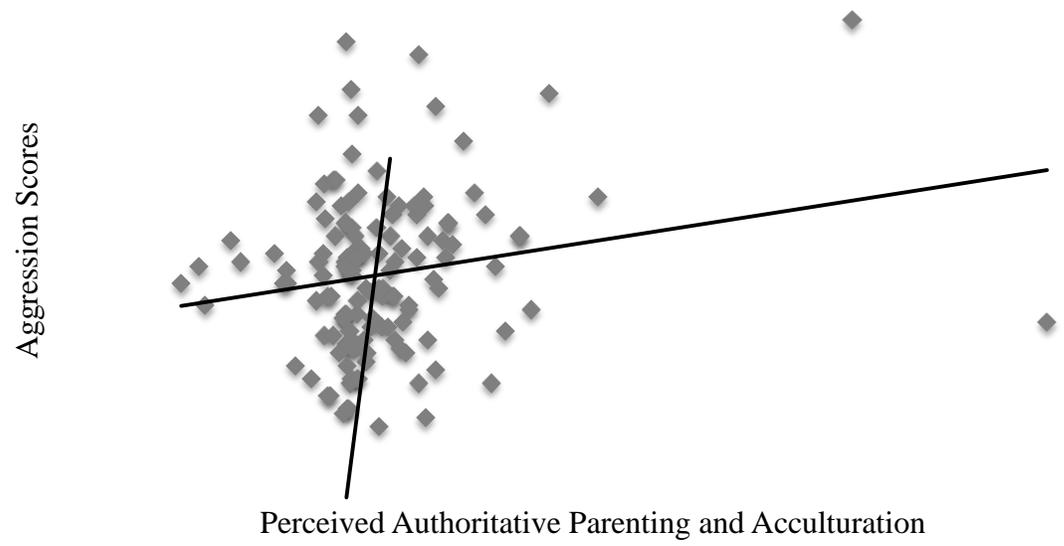


Figure 2. Results of hierarchical regression analysis with the interaction of perceived authoritative parenting and acculturation as predictor of aggression.

Figure 3.1. Perceived Permissive Parenting as a Predictor of Aggression.

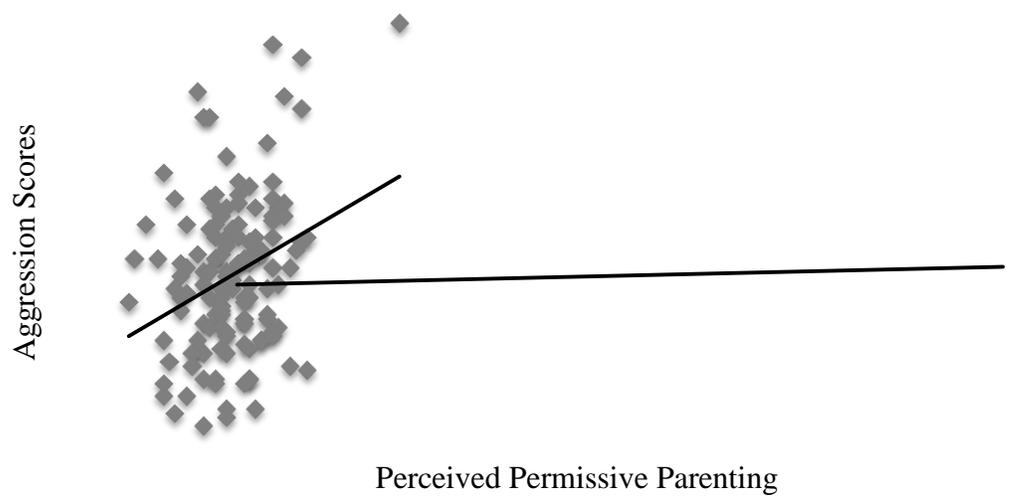


Figure 3. Results of hierarchical regression analysis with perceived permissive parenting as predictor of aggression levels.

Figure 4.1. Perceived Authoritarian Parenting as a Predictor of Aggression.

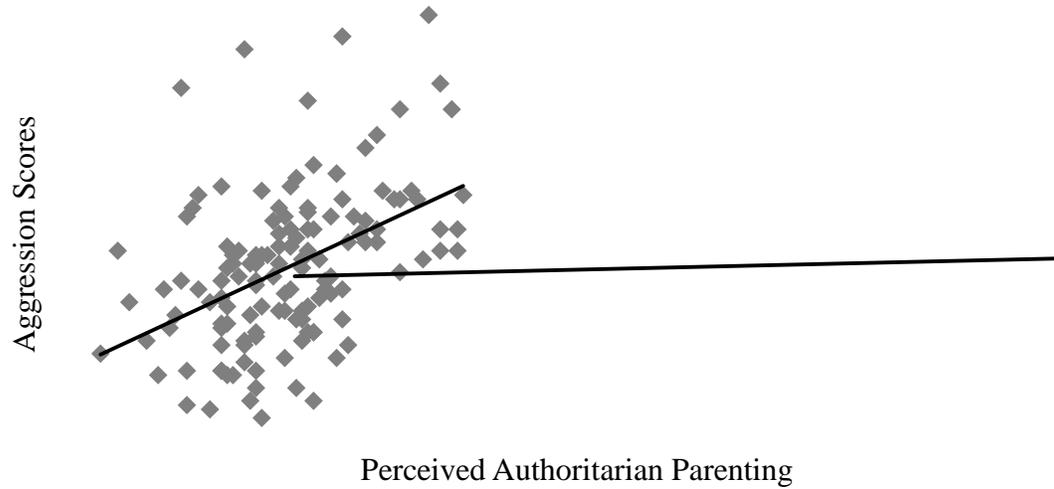


Figure 4. Results of hierarchical regression analysis with the perceived authoritarian parenting as a predictor of aggression levels.

DISCUSSION

The present study was implemented to examine the relationship between aggression and perceived parenting styles, and the moderating role of acculturation in Mexican American young adults. Based on previous findings, it was expected that the relationship between aggression and permissive parenting would be positive, and the interaction of this particular parenting style with higher levels of acculturation were expected to intensify this relationship. These predictions were also made for authoritarian parenting as a predictor of aggression. Authoritative parenting was hypothesized to predict lower levels of aggression, in interaction with acculturation. Evidence for some of these hypotheses was found. Results yielded support for perceived permissive parenting and its interaction with acculturation as predictors of aggression. One interesting finding was the interaction of perceived authoritative parenting and acculturation as predictors of higher levels of aggression, given that authoritative parenting is not commonly found to be associated with aggression,. Additionally, similar to the most predominant findings in the literature, data analysis revealed supporting evidence for perceived permissive and authoritative parenting as predictors of aggression, with authoritarian parenting being the strongest predictor alone. There was no evidence to support the hypothesis of perceived authoritative parenting as a predictor of lower levels of aggression. Finally, the interaction of perceived authoritarian parenting and acculturation was not found to be a significant predictor of aggression; therefore, this hypothesis was not supported by current findings.

According to the present findings, acculturated individuals who perceived parenting techniques as permissive during childhood are more likely to display aggressive behavior during adulthood. This probability remains similar even when acculturation is not present.

Therefore it is suggested that acculturation does influence, but does not play a crucial role in predicting aggressive behavior when parents are perceived as permissive. Perhaps, due to the lack of control in permissive parenting, children begin to acculturate to an individualistic society earlier; therefore the role of acculturation is less discernible once they become adults.

Interestingly, acculturation appears to have a greater impact on aggression levels of Mexican-American adults when parenting styles are perceived as authoritative during childhood. Although authoritative parenting is not associated with aggressive behaviors, perceived authoritative parenting and its interaction with acculturation does predict higher levels of aggression. Nevertheless, these individuals report lower levels of aggression than those who are acculturated and viewed their caregivers as permissive. One possible explanation for this is that the individual's perception of freedom of expression and entitlement to opinions different than the parent's (Baumrind, 1966) may facilitate acculturation and the process of change in belief systems which are more tolerant of aggression. As individuals grow out of childhood and become more acculturated, their exposure to aggressive behaviors is likely to increase. There is a possibility that this activates the attentional process involved in Observational Learning (Bandura, 1973). If the process continues, the individual begins to perceive acts of aggression as having more functional value and engage in them, especially when they are less sanctioned in individualistic societies. This, along with possible vicarious learning may reverse or cancel the suggested effects of authoritative parenting. Current findings displayed a negative, but, non-significant, relationship between authoritative parenting and aggression, this relationship was moderated by acculturation and resulted in this interaction as a significant predictor of aggression. However, because this proposed observation is only partially supported in the present study

more research is necessary. In addition, parent-child conflict is associated with acculturation, which may strain authoritative parenting and the child's perception (Chun et al., 2003).

In addition to the earlier discussed interactions, the present study concluded that an individual's perceptions of permissive parenting during childhood predict aggression during adulthood, even without the slight moderating role of acculturation. A possible explanation for this is the perceived lack of an active role model for effective coping skills, given that permissive parenting styles are characterized by uninvolved and passive parenting techniques (Baumrind, 1966). For instance, if a child experiences an aggressive tantrum, a permissive parent is likely to either ignore the child's behavior, or bribe the child with an incentive to discontinue the behavior. In both scenarios, the child may either, not learn how to regulate emotions effectively (given that the child is ignored), or learn that aggressive behavior can lead to an incentive, a factor that increases the likelihood of this behavior in the future, according to Social Learning Theory (Bandura, 1973).

Similar to the majority of findings in the literature on parenting styles and aggression, the current results indicate that participants who perceived their parent's styles as authoritarian during childhood reported higher levels of aggression than those who viewed their parents as permissive or authoritative. This may be due to the high demand and low warmth that characterizes authoritarian parenting (Broderick & Blewitt, 2009), some individuals may perceive this as rejection or lack of affection from the parent. This in turn, may lead to issues of attachment (Bowlby, 1979) and social information processing difficulties (e.g., hostile attributional bias). As previously mentioned, socially rejected children display deficits in social attribution, often perceiving neutral situations as hostile (Dodge & Coie, 1987). If individuals perceive rejection from caregivers, this subjective

experience will be associated with elevated levels of aggression, as current findings suggest.

Contrary to what was hypothesized, acculturation did not play a moderating role in the relationship between authoritarian parenting and aggression. This indicates that perceptions of authoritarian parenting techniques are far more influential in future aggressive behavior than acculturation in the Mexican-American population. This is an important observation, given that authoritative parenting has been found to be the predominant parenting style in this particular population (Varela, Venberg, Sanchez-Sosa, Riveros, Mitchell & Mashunkashey, 2004).

The findings in the present study suggest the need for future theory based research to further analyze the relationships between aggression, perceived parenting styles and acculturation. This is especially important since research on child/offspring perceptions is scarce, and could contribute more valuable information. Moreover, given the ethnic diversity in the United States, similar research can be expanded to other cultures and the differences in their acculturation process and aggressive behaviors. One particularly interesting area is the interaction of authoritarian parenting and acculturation as a predictor of aggression. Additionally, further analysis of the presently discussed relationships and interactions can greatly contribute to the literature in this topic and in the development of effective prevention and intervention techniques. Experimental studies can supply researchers and practitioners in the mental health field with valuable knowledge that can be incorporated into culturally sensitive individual or family therapy for clients with aggression issues.

Several limitations in the present study are acknowledged. One of the main limitations of the present study was the significant reduction in eligible participants. Due to excessive missing data, the sample decreased from 324 participants to 133. A larger sample

may have yielded significant results in variable interactions that were not supported by the results. Additionally, the instrument utilized to measure perceived parenting styles was an adaptation that has not been used in previous research. For these reasons, reliability analyses were performed, these results suggested that the measure is reliable; however more research is necessary to investigate the psychometrics of this instrument.

The possibility of the participant's mother and father displaying diverse parenting styles is another limitation that should be noted; participant's perceptions of parenting styles was assessed without differentiating one caregiver's style from the other. Additionally, the family structure of participants was not assessed. Furthermore, the participant's perceptions parenting styles may have been differed during childhood and adulthood. For this reason, the instructions in the perceived parenting styles measure required participants to respond based on their childhood experiences. Future researchers are advised to consider these limitations in further investigations. The methodology utilized in the present study was implemented to reduce the previously mentioned limitations and contribute valuable knowledge.

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APPENDICES

Appendix A

The Parenting Styles and Dimensions Questionnaire Adaptation: Online Survey

Below are several statements that some people sometimes use to describe parents. Based on your childhood experiences with your parents, how much do you agree or disagree that each statement describes your parents?

Click on:

1, if you **STRONGLY DISAGREE** with the statement.

2, if you **DISAGREE** with the statement.

3, if you are **UNSURE**.

4, if you **AGREE** but not strongly.

5, if you **STRONGLY AGREE** with the statement

My parents:

	1 Strongly Disagree	2 Disagree	3 Unsure	4 Agree	5 Strongly Agree
1.Encouraged me to talk about my troubles.	1	2	3	4	5
2.Guided me with punishment.	1	2	3	4	5
3. Knew the names of my friends.	1	2	3	4	5
4.Found it difficult to discipline me.	1	2	3	4	5
5.Gave me praise when I was good.	1	2	3	4	5
6.Spanked me when I was disobedient.	1	2	3	4	5
7.Joked and played with me.	1	2	3	4	5
8.Wouldn't scold or criticize me even when I would act against their wishes.	1	2	3	4	5
9.Showed empathy when I was hurt or frustrated.	1	2	3	4	5

10.Punished me by taking away privileges with few explanations.	1	2	3	4	5
11.My parents spoiled me.	1	2	3	4	5
12.Gave me comfort and understanding when I was upset.	1	2	3	4	5
13. Had to yell or shout when I would misbehave.	1	2	3	4	5
14.Were easy going and relaxed with me.	1	2	3	4	5
15.Allowed me to annoy someone else.	1	2	3	4	5
16.Told me about my behavior expectations before I began an activity.	1	2	3	4	5
17.Scolded and criticized me to make me improve.	1	2	3	4	5
18.Showed patience with me.	1	2	3	4	5
19.Grabbed me when I was being disobedient.	1	2	3	4	5
20.Stated punishments to me but didn't actually do them.	1	2	3	4	5
21.Responded promptly to my needs or feelings.	1	2	3	4	5
22.Allowed me to contribute to making family rules	1	2	3	4	5
23.My parents argued with me.	1	2	3	4	5
24.Were confident about their parenting abilities.	1	2	3	4	5
25.Explained to me why rules should be obeyed.	1	2	3	4	5
26.Knew that their feelings were more important than my	1	2	3	4	5

feelings.

27. Told me that they appreciated what I try to do or accomplish.	1	2	3	4	5
28. Punished me by putting me off somewhere alone with few explanations.	1	2	3	4	5
29. Encouraged me to talk about the consequences of my actions.	1	2	3	4	5
30. Were afraid that disciplining me for misbehavior would cause me to dislike them.	1	2	3	4	5
31. Considered my desires before asking me to do something.	1	2	3	4	5
32. Expressed strong anger towards me.	1	2	3	4	5
33. Were aware of problems or concerns about me at school.	1	2	3	4	5
34. Threatened me with punishment more often than actually giving it.	1	2	3	4	5
35. Expressed affection to me by hugging, kissing, and holding me.	1	2	3	4	5
36. Ignored my misbehavior.	1	2	3	4	5
37. Used physical punishment (spanking, grabbing, pushing, slapping) to discipline me.	1	2	3	4	5
38. Carried out discipline immediately after I misbehaved.	1	2	3	4	5

39. Apologized to me when they made a mistake.	1	2	3	4	5
40. Told me what to do.	1	2	3	4	5
41. Gave into me when I caused a commotion about something; for example in the grocery store or someone else's house.	1	2	3	4	5
42. Discussed my misbehavior with me.	1	2	3	4	5
43. Slapped me when I misbehaved.	1	2	3	4	5
44. Disagreed with me.	1	2	3	4	5
45. Allowed me to interrupt others.	1	2	3	4	5
46. Had warm and intimate times with me.	1	2	3	4	5
47. When I was fighting with another child, the disciplined me first and asked questions later.	1	2	3	4	5
48. Encouraged me to freely express myself even when disagreeing with them.	1	2	3	4	5
49. Used rewards, treats, or favors to get me to obey.	1	2	3	4	5
50. Scolded or criticized me when my misbehavior didn't meet their expectations.	1	2	3	4	5
51. Encouraged me to express my own opinions.	1	2	3	4	5
52. Set strict well established rules for me.	1	2	3	4	5

53.Explained to me how they felt about my good and bad behavior.	1	2	3	4	5
54.Used threats as punishment with little or no justification.	1	2	3	4	5
55.Though about my preferences when making plans for the family.	1	2	3	4	5
56.Told me “Because I said so” or “Because I am you parent” when I asked why I have to obey.	1	2	3	4	5
57.Were unsure how to solve my misbehavior.	1	2	3	4	5
58.Explained to me the consequences of my misbehavior.	1	2	3	4	5
59.Demanded me to do things.	1	2	3	4	5
60.Redirected my behavior into an activity that was more acceptable.	1	2	3	4	5
61.Shoved me when I was disobedient.	1	2	3	4	5
62. Emphasized reasons for rules	1	2	3	4	5

Appendix B

The Acculturation Rating Scale for Mexican Americans-II: Online Survey

Please indicate whether the following statements apply to you by clicking:

- 1, if not at all
- 2, very little, not very often
- 3, moderately
- 4, much or very often
- 5, extremely often or almost always

	1 Not at all	2 Very little, not very often	3 Moderately	4 Much or very often	5 extremely often or almost always
1.I speak Spanish.	1	2	3	4	5
2.I speak English.	1	2	3	4	5
3.I enjoy speaking Spanish.	1	2	3	4	5
4.I associate with Anglos	1	2	3	4	5
5.I enjoy listening to Spanish language music	1	2	3	4	5
6.I enjoy listening to Spanish language music.	1	2	3	4	5
7.I Enjoy listening to English language music.	1	2	3	4	5
8.I enjoy Spanish language on TV.	1	2	3	4	5
9.I enjoy English language on TV.	1	2	3	4	5
10.I enjoy English	1	2	3	4	5

language movies.

11.I enjoy Spanish language movies.	1	2	3	4	5
12.I enjoy reading (e.g. books in Spanish).	1	2	3	4	5
13.I enjoy reading (e.g. books in English).	1	2	3	4	5
14.I write letters in Spanish.	1	2	3	4	5
15.I write letters in English.	1	2	3	4	5
16.My thinking is done in the English language.	1	2	3	4	5
17.My thinking is done in the Spanish Language.	1	2	3	4	5
18.My contact with Mexico has been:	1	2	3	4	5
19.My contact with the USA has been:	1	2	3	4	5
20.My father identifies or identified himself as 'Mexicano.'	1	2	3	4	5
21.My mother identifies or identified herself as 'Mexicana.'	1	2	3	4	5
22.My friends, while I was growing up were of Mexican origin.	1	2	3	4	5
23.My friends while I was growing up were of Anglo origin.	1	2	3	4	5
24.My family cooks	1	2	3	4	5

Mexican foods.

25. My friends now are of Anglo origin.	1	2	3	4	5
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26. My friends now are of Mexican origin.	1	2	3	4	5
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27. I like to identify myself as Anglo American.	1	2	3	4	5
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28. I like to identify myself as Mexican American.	1	2	3	4	5
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29. I like to identify myself as a Mexican.	1	2	3	4	5
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30. I like to identify myself as an American.	1	2	3	4	5
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Appendix C

The Brief Aggression Questionnaire: Online Survey

On a scale of 1 to 10 please indicate whether the following statements describe you. 1 being "extremely uncharacteristic of me" and 10 being "extremely characteristic of me."

	1 Extremely uncharacteristic of me					10 Extremely characteristic of me				
	1	2	3	4	5	6	7	8	9	10
1. Given enough provocation, I may hit another person.	1	2	3	4	5	6	7	8	9	10
2. If I have to resort to violence to protect my rights, I will.	1	2	3	4	5	6	7	8	9	10
3. There are people who pushed me so far, we came to blows.	1	2	3	4	5	6	7	8	9	10
4. I tell my friends openly when I disagree with them.	1	2	3	4	5	6	7	8	9	10
5. When people annoy me, I may tell them what I think of them.	1	2	3	4	5	6	7	8	9	10
6. My friends say that I am somewhat argumentative.	1	2	3	4	5	6	7	8	9	10
7. I am an even-tempered person.	1	2	3	4	5	6	7	8	9	10
8. Sometimes I fly off the handle for no reason.	1	2	3	4	5	6	7	8	9	10
9. I have trouble controlling my temper.	1	2	3	4	5	6	7	8	9	10
10. Other people always seem to get the breaks.	1	2	3	4	5	6	7	8	9	10
11. I sometimes feel that people are laughing at me behind my back.	1	2	3	4	5	6	7	8	9	10
12. When people are especially nice, I wonder what they want.	1	2	3	4	5	6	7	8	9	10

Appendix D

Informed Consent Form

Participant Informed Consent

You are being asked to participate in a study that will investigate parental practices, acculturation, and their relation to aggression among Mexican-Americans. The purpose of this research is to understand how perceived parenting methods and levels of acculturation are associated with aggression. Please read this document carefully prior to consenting to take part in this study.

If you agree to take part in this research you will be asked to answer a series of online questionnaires. These questionnaires will include questions about your views on parenting methods, your culture, and other behaviors. This estimated total time you will spend on these questionnaires is 30 minutes.

There are no foreseeable risks or discomforts to you as a participant in this study, beyond those encountered in ordinary daily activities. There are also no direct benefits to you. However, the knowledge acquired from this study is expected to contribute to the area of Social Psychology and future research questions in the field of Psychology.

You may receive extra credit as compensation for your participation in this research study, depending on your instructor's class policy. Please make sure to print the proof of participation at the end of the survey. This page includes information on the study and can be submitted to your instructor as proof of participation.

Participation is absolutely voluntary and confidential. Any information that you provide will be kept private and in a locked file, only available to the researchers. Finally, you may terminate the survey at any time without penalty by simply clicking on the button labeled 'Exit Survey Now.'

If you have any questions regarding this study you may contact graduate student Maria Medrano at maria.medrano@tamiu.edu or (956)898-1501. You can also reach Monica Muñoz, Ph.D. at mmunoz@tamiu.edu or (956)326-2620. If you have any questions regarding your rights as a participant in this study you may contact the Institutional Review Board (IRB) at irb@tamiu.edu or (956)326-2673.

***Please print the proof of participation page at the end of this survey. Extra credit may be rewarded depending on your instructor's class policy.

- I have read the information above and consent to participate in this study.
- I have read the information above and DO NOT consent to participate in this study

Appendix E

Recruitment Electronic Message

Hello faculty or staff,

I am a graduate student at Texas A & M International University requesting your assistance in recruiting participants for a research study that will investigate the parenting practices, acculturation, and aggression. Anyone interested in participating can access the survey online by clicking the following link: <https://www.surveymonkey.com/s/FVJB5YW>. Please instruct participants to work individually to protect their own privacy.

Any compensation for student participants depends on the instructor's class policy.

This research study has been reviewed and approved by the Institutional Review Board (IRB) at Texas A & M International University.

If you have any questions or concerns you may contact me at maria.medrano@tamiu.edu or (956) 898-1501, or my faculty advisor Monica Muñoz at mmunoz@tamiu.edu or (956)326-2620.

Thank you, your help is greatly appreciated.

Maria Medrano.

VITA

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