

9-2019

# Does Ethnic Identity, In-group Preference, and Acculturation Protect Latinas with a History of Interpersonal Trauma From Developing Symptoms of PTSD?

Evelyn M. Ramirez

## [How does access to this work benefit you? Let us know!](#)

Follow this and additional works at: [https://academicworks.cuny.edu/gc\\_etds](https://academicworks.cuny.edu/gc_etds)

 Part of the [Caribbean Languages and Societies Commons](#), [Chicana/o Studies Commons](#), [Clinical and Medical Social Work Commons](#), [Clinical Psychology Commons](#), [Community-Based Research Commons](#), [Counseling Psychology Commons](#), [Domestic and Intimate Partner Violence Commons](#), [Family, Life Course, and Society Commons](#), [Gender and Sexuality Commons](#), [Latina/o Studies Commons](#), [Maternal and Child Health Commons](#), [Mental Disorders Commons](#), [Multicultural Psychology Commons](#), [Other Mental and Social Health Commons](#), [Other Psychiatry and Psychology Commons](#), [Other Psychology Commons](#), [Other Public Health Commons](#), [Other Sociology Commons](#), [Psychiatric and Mental Health Commons](#), [Psychological Phenomena and Processes Commons](#), [Race and Ethnicity Commons](#), [Social Psychology Commons](#), [Social Psychology and Interaction Commons](#), [Social Work Commons](#), [Sociology of Culture Commons](#), and the [Women's Health Commons](#)

---

### Recommended Citation

Ramirez, Evelyn M., "Does Ethnic Identity, In-group Preference, and Acculturation Protect Latinas with a History of Interpersonal Trauma From Developing Symptoms of PTSD?" (2019). *CUNY Academic Works*.  
[https://academicworks.cuny.edu/gc\\_etds/3328](https://academicworks.cuny.edu/gc_etds/3328)

This Dissertation is brought to you by CUNY Academic Works. It has been accepted for inclusion in All Dissertations, Theses, and Capstone Projects by an authorized administrator of CUNY Academic Works. For more information, please contact [deposit@gc.cuny.edu](mailto:deposit@gc.cuny.edu).

DOES ETHNIC IDENTITY, IN-GROUP PREFERENCE, AND ACCULTURATION  
PROTECT LATINAS WITH A HISTORY OF INTERPERSONAL TRAUMA FROM  
DEVELOPING SYMPTOMS OF PTSD?

by

EVELYN M. RAMIREZ

A dissertation submitted to the Graduate Faculty in Psychology in partial fulfillment of the  
requirements for the degree of Doctor of Philosophy,  
The City University of New York.

2019

© 2019

EVELYN M. RAMIREZ

All Rights Reserved

Does Ethnic Identity, In-group Preference, and Acculturation Protect Latinas with a History of Interpersonal Trauma From Developing Symptoms of PTSD?

by

Evelyn M. Ramirez

This manuscript has been read and accepted for the Graduate Faculty in Psychology in satisfaction of the degree requirement for the degree of Doctor of Philosophy.

---

Date

---

Valentina Nikulina  
Chair of Examining Committee

---

Date

---

Richard Bodnar  
Executive Officer

Supervisory Committee:

Yvette Caro, Ph.D.

Joel Sneed, Ph.D.

Readers:

Markus P. Bidell, Ph.D.

Desiree Byrd, Ph.D.

THE CITY UNIVERSITY OF NEW YORK

## Abstract

Does Ethnic Identity, In-group Preference, and Acculturation Protect Latinas with a History of Interpersonal Trauma From Developing Symptoms of PTSD?

by

Evelyn M. Ramirez

Advisor: Valentina Nikulina

Previous research suggests ethnic identity, a sense of belongingness to a particular cultural group, may be protective against symptoms of post-traumatic stress disorder (PTSD). However, the role of ethnic identity, in-group preference (i.e., an individual's preference for interactions with members of their own ethnic group) and acculturation (i.e., the level of comfort with the mainstream culture) have not been investigated as protective factors for Latinas with a history of interpersonal and sexual trauma. In this study, ethnic identity, in-group preference and acculturation were assessed via self-report on the Scale of Ethnic Experience in two samples of undergraduate Latina and non-Latina women with a history of interpersonal trauma ( $N = 272$ ), and sexual trauma ( $N = 222$ ). PTSD was assessed using the PTSD Symptom Scale.

In the first sample, a moderated mediation examined whether these factors of interest mediated the relationship between interpersonal trauma and PTSD and whether ethnicity (Latina versus non-Latina) moderated this relationship. In study 2, ethnicity was assessed as a moderator of the relationships between ethnic identity, in-group preference, and acculturation with PTSD in women who have been sexually victimized. In study 1, data were analyzed with Hayes Macro bootstrapping moderated mediation analyses. In study 2, data were analyzed using a hierarchical

linear ordinary least squares regression, with controls for age, race, city of origin, socioeconomic status (SES), and immigration status.

In study 1, greater ethnic identity was significantly associated with lower rates of PTSD; further, ethnic identity mediated the relationship between interpersonal trauma and PTSD in all women, with no observed differences between Latina and non-Latina ethnic groups. In study 2, a significant interaction was found between in-group preference and ethnicity, such that non-Latinas with greater in-group preference had lower PTSD symptoms. In comparison, this protective relationship was absent in Latinas within this sample.

These findings shed light on the protective role of ethnic identity for all women who have experienced interpersonal trauma. Further, relationships within one's ethnic group seem to exacerbate PTSD symptoms in Latinas with sexual trauma. Clinical implications of the findings are discussed.

*Keywords:* ethnic identity, interpersonal trauma, acculturation, sexual trauma, PTSD, Latinas

## **Dedication**

I dedicate this work to my mother, Magalli, who has been an infinite source of inspiration, strength, power, femininity, faithfulness, undying support and unconditional love. You are the first person to show me what a woman can do...anything.

Gracias Madre.

This work is also dedicated to all women, who are survivors, fierce warriors, teachers, and leaders, may we continue the fight for justice, as well as economic and socio-political equality.

## **Acknowledgements**

I would like to acknowledge my dissertation advisor, Dr. Valentina Nikulina, who is an incredibly gifted, innovative, skilled and dedicated clinician, researcher and advisor. I am eternally grateful for your years of supervision, training, mentorship and your endless feedback on this project. You have been an integral part of my development as a young therapist and research scientist. I am honored to have been able to watch and learn from you, and am grateful for the opportunity to do such meaningful and exciting work, thank you.

I would also like to thank Dr. Yvette Caro, who was my first clinical training supervisor at the Queens College Psychological Center (QCPC). Thank you for teachings, infinite wisdom and years of mentorship. Most of all, thank you for the very important and selfless work you continue to do, to offer free to low cost mental health services for those in the community who need it the most, not all heroes wear capes.

Finally, I would like to acknowledge my amazing dissertation committee for lending their time and expertise to this project, as well as providing invaluable insight and direction. I could not have done it without you, thank you.



## Table of Contents

Abstract.....	iv
Dedication.....	vi
Acknowledgements.....	vii
Table of Contents.....	viii
Does Ethnic Identity, In-group Preference, and Acculturation Protect Latinas with a History of Interpersonal Trauma From Developing Symptoms of PTSD?.....	1
Trauma and Post-Traumatic Stress Disorder (PTSD).....	2
Trauma Types.....	3
PTSD in Women.....	4
PTSD in Latinos.....	6
Identity Formation.....	9
Latino Ethnic Identity Development.....	13
Ethnic Identity and Trauma.....	18
In-group preference.....	19
Acculturation to the Mainstream Culture.....	20
Summary and Current Study.....	21
Study 1: Aims.....	23
Study 2: Aims.....	24
Methods.....	25
Study 1: Assessing the Role of Ethnic Identity, In-Group Preference and Acculturation in PTSD Symptomology in Latinas with a History of Trauma.....	25
Procedure and Participants.....	25
Measures.....	26
Data Analysis.....	28
Study 1 Results.....	30
Study 2: Assessing Ethnic Identity, In-group preference in Latina Women with a History of Sexual Trauma.....	33
Procedure and Participants.....	33
Measures.....	34
Data Analysis.....	36
Study 2 Results.....	37
Discussion.....	38

Conclusions.....	44
Limitations of the Study.....	45
Future Studies .....	46
Clinical Implications.....	47
Appendix.....	48
Figure 1 .....	48
Figure 2 .....	49
Figure 3 .....	50
Figure 4 .....	51
Figure 5 .....	52
Figure 6 .....	53
Figure 7 .....	54
Figure 8 .....	55
Figure 9 .....	56
Table 1 .....	57
Table 2 .....	58
Table 3 .....	59
Table 4 .....	60
Figure 10 .....	61
Figure 11 .....	62
Figure 12 .....	63
Figure 13 .....	64
Figure 14 .....	65
Figure 15 .....	66
Table 5 .....	67
Table 6 .....	68
Table 7 .....	69
Figure 16.....	70
References.....	71

## **Does Ethnic Identity, In-group Preference, and Acculturation Protect Latinas with a History of Interpersonal Trauma From Developing Symptoms of PTSD?**

Latinos are the largest growing minority group in the United States, and are projected to constitute 29% of the U.S. population by 2050 (Caballero, 2011; Passel & Cohn, 2008; US Census Bureau, 2010). With this growing population comes increasing mental health concerns. Research indicates that Latinos are more likely to experience trauma and are more likely to develop post-traumatic stress disorder (PTSD), when compared to their Caucasian counterparts (Ramos, 2017). These high rates of mental health issues lead to increased cost and utilization of medical services and lower overall quality of life (Hays et al., 1995; Hollman, 2000; Spitzer, et al., 1994). Further, Latina women are more likely to experience interpersonal trauma, sexual assault, and go on to develop PTSD (U.S. Census Bureau, 2008). Projected measures based on the U.S. Census predict that rates of sexual victimization will more than double for Latina women by 2050, with one in six Latina women (approximately 10.8 million Latinas) being survivors of sexual violence (Bureau of Justice Statistics, 2008).

Research has well defined several risk factors of poor mental health in Latinos, including perceived discrimination (Ornelas & Perreira, 2011), trauma (Hollman, 2000), immigration (Torres, 2010) and depleted social networks (Suarez-Orozco et al., 2022). However, little is known about protective factors for this population. Previous studies have pointed to acculturative factors such as ethnic identity, preference for relationships within one's ethnic group, and acculturation as being associated with greater self-esteem (Romero & Roberts, 2003; Umaña-Taylor & Shin, 2007; Umaña-Taylor et al., 2004), positive psychological well-being (Smith & Silva, 2011; Phinney & Kohatsu, 1997), reduced depression and greater resiliency (Resnick et al., 1997; Jones and Galliher, 2007; Brown, 2008; Rivas-Drake, 2012). These acculturative

factors have also been associated with positive psychological outcomes, and are protective against mental illness (Yoon et al., 2013). However, the protective role of these factors have not been investigated in the context of trauma and PTSD, nor have they been examined in this especially vulnerable group (Latina women). The following two studies will examine the role of ethnic identity, in-group preference and acculturation in Latinas who have experienced interpersonal trauma and sexual assault.

### **Trauma and Post-Traumatic Stress Disorder (PTSD)**

The DSM-5 defines a traumatic event as either directly experiencing, witnessing, learning of or extreme exposure to aversive details of an actual or threatened death; serious injury, or sexual violence (American Psychiatric Association, 2013). A traumatic event can also occur in the form of physical violence, emotional and psychological abuse, war-related crimes and atrocities, automobile accidents or natural disasters (Holman, Silver, & Waitzkin, 2000). Exposure to these negative life events sometimes lead to intrusive, involuntary symptoms associated with the event, such as recurrent distressing memories or dreams of the event, flashbacks, prolonged psychological distress and heightened physiological reactivity to cues (hypervigilance, exaggerated startle response), which remind the individual of the incident (American Psychiatric Association, 2013). These unpleasant, involuntary experiences may also lead to avoidance of memories, thoughts, feelings, physical cues and reminders of the event, as well as negative mood and cognitions, sleep disturbance, and difficulty with concentration. Together, this constellation of symptoms, lasting for at least a month, render a diagnosis of post-traumatic stress disorder (PTSD; American Psychiatric Association, 2013).

A large body of work supports the direct relationship between experiencing a traumatic event and the development of PTSD in adults (Alegria et al., 2008; Blanco et al., 2013; Holman

et al., 2000). According to the National Center for PTSD, while 50% of adults in the United States experience at least one traumatic event in their lifetime, most do not develop PTSD (U.S. Department of Veteran Affairs, 2018). However, about 7-8% of individuals who experienced a traumatic event meet criteria for PTSD at least once in their lives (U.S. Department of Veteran Affairs, 2018). Studies from community primary care clinics found about 65% of patients reported exposure to severe or potentially traumatic events and 12% went on to develop PTSD (Koenen et al., 2017; Sareen, 2018; Stein, McQuaid, Pedrelli, Lenox, & McCahill, 2000). One nationwide study on the prevalence of PTSD in the United States indicated 3.6% of U.S. adults experienced PTSD within the past year, and 8.3% went on to a diagnosis of lifelong PTSD (Goldstein et al., 2016; Harvard Medical School, 2007; Kessler, Berglund, et al., 2005; Kessler, Chiu, Demler, Merikangas, & Walters, 2005; Koenen et al., 2017; National Institute of Mental Health, 2017; Van Ameringen, Mancini, Patterson, & Boyle, 2008).

### **Trauma Types**

Traumatic events can be classified into two categories, interpersonal and non-interpersonal trauma (Kessler & Ustun, 2004). Interpersonal trauma refers to the range of maltreatment, interpersonal violence, abuse, assault and neglect experienced by an individual (D'Andrea, 2012). The DSM-5 indicates symptoms of PTSD can be more severe and long-lasting when the trauma experienced is interpersonal and intentional in nature (American Psychiatric Association, 2013), as interpersonal victimization has unique elements of malevolence, injustice, betrayal and immorality, which are more predictive of negative psychological outcomes, as opposed to natural disaster, accidents or diseases (D'Andrea, 2012).

An abundance of research studies indicate interpersonal trauma is associated with higher rates of PTSD as opposed to non-interpersonal or “other” types of trauma (Breslau, 2001;

Kessler et al., 2014; Kessler, Sonnega, Bromet, Hughes, & Nelson, 1995; Luthra et al., 2009; Resnick, Kilpatrick, Dansky, Saunders, & Best, 1993), and is linked to more severe PTSD symptoms, and higher rates of suicide (Forbes et al., 2012; Forbes et al., 2014; Yoo et al., 2018). More specifically, survivors of sexual trauma, whether it be sexual abuse, violence or assault have the highest rates of PTSD (Ozer, Best, Lipsey, & Weiss, 2003; Roberts, Gilman, Breslau, Breslau, & Koenen, 2011). In a similar vein, a large-scale study analyzing survey information from community-based samples in 24 countries estimated the conditional probability for 29 types of traumatic events, and found that sexual relationship violence predicted the highest rates of PTSD at 33% (Kessler et al., 2014). Next, traumatic experiences involving one's interpersonal network (e.g. life-threatening illness of a child, unexpected death of a loved one or other traumatic event of a loved one) predicted the second highest rates of PTSD at 30%. Further, 12% of individuals who experienced interpersonal violence (e.g. physical assault, being threatened by violence, or childhood physical abuse); 3% of those who survived organized violence (e.g. kidnapping, refugee, civilian in a war zone); 11% of those who participated in organized violence (e.g. witnessing death/injury or dead bodies, combat exposure, accidentally or purposefully caused death/injury) and 12% experienced other life-threatening traumatic events (e.g. natural disaster, life-threatening motor vehicle accident, toxic chemical exposure) developed PTSD (Kessler et al., 2014).

### **PTSD in Women**

Research also indicated the frequency of PTSD is associated with gender, (Yehuda, 2002). Women are four times more likely to experience symptoms of PTSD (Vieweg et al., 2006). Of the eight million U.S. adults who experience a traumatic event in a given year, 10% of women will go on to develop PTSD, compared to 4% of men (U.S. Department of Veteran

Affairs, 2018). Point prevalence rates of PTSD are greater for women (5.2%), when compared to their male counterparts (1.8%; Kessler, Chiu, et al., 2005). Further, women have a 12.3% lifetime prevalence of PTSD (Resnick et al., 1993). These rates may differ in part because of the types of trauma experienced by men and women.

According to the National Center for PTSD, 60% of men and 50% of women will experience at least one traumatic event in their lives (U.S. Department of Veteran Affairs, 2018). Despite the higher rates of trauma in men, women tend to experience interpersonal trauma such as childhood sexual abuse or sexual assault at higher rates. For example, women are 10 times more likely to experience sexual assault (Vieweg et al., 2006). Whereas, men are more likely to experience combat, accidents, physical assault, natural disasters, or witness injury or death.

In fact, the most common traumatic event experienced by women is interpersonal in the form of child sexual abuse and sexual assault, with one out of every three women experiencing sexual assault in their lifetime (Chivers-Wilson, 2006; National Sexual Violence Resource Center, 2018; Resnick et al., 1993; Smith, 2017) and 91% of rape survivors being female (Rennison, 2002). Statistical data from the *Crimes Against Children Research Center* find that about one in five girls and one in twenty boys are victims of sexual abuse, and 20% of adult females and 5 to 10% of adult males recall a sexual abuse incident during their childhood (Crimes Against Children Research Center, 2019; The National Center for Victims of Crime, 2012). Women who have experienced sexual assault have a 50% lifetime prevalence of PTSD (Creamer, Burgess, & McFarlane, 2001), and 94% of women experience PTSD symptoms 2 weeks after a sexual assault (National Center for Post-Traumatic Stress Disorder, 2005). Furthermore, of women with PTSD, 32% have been raped and 31% have experienced sexual assault other than rape (Resnick et al., 1993). Women are also more likely to experience neglect

or abuse during childhood, domestic violence and have a loved one suddenly die, making females particularly vulnerable to victimization, trauma and PTSD (U.S. Department of Veteran Affairs, 2018).

### **PTSD in Latinos**

Research indicates the relationship between trauma and development of PTSD is even more pronounced within the largest growing ethnic group within the United States, the Latino community (Caballero, 2011; US Census Bureau, 2010; Hollman, 2000). According to the 2010 United States census, Latinos/Hispanics are now the largest minority group in the U.S., representing approximately 16% of the population (Caballero, 2011; US Census Bureau, 2010), and are projected to comprise 29% of the U.S. population by 2050 (Passel & Cohn, 2008). In general, Latinos or Latinx (a term used in reference to individuals from countries whose language evolved from Latin; Caballero, 2005) and Hispanics (individuals from countries that were conquered by Spaniards, and where Spanish is the dominant language; Flores, 2000) can trace their heritage from three main racial backgrounds (white, black and Native Indian), with differing combinations and proportions of each contributing race among Latino sub-groups (Hanis, et al; 1991). Currently, the largest Hispanic subgroups in the US (according to 2006 Census bureau data) are comprised of individuals of Mexican descent (65.5%), followed by Puerto Rican (8.6%), Central American (8.2%), South American (6.0%), Cuban (3.7%) and other Hispanic (8.0%) descent (Caballero, 2011; US Census Bureau, 2010).

One major concern for this growing population is worsening mental health, which is positively correlated with length of stay and generational permanence within the United States. Recent findings indicate U.S.-born and immigrant Latinos are more likely to experience high rates of trauma than non-Latino whites; they are also more likely to go on to develop symptoms



of PTSD, depression, anxiety, alcohol and substance use disorders (Ramos, 2017). Accordingly, rates of PTSD in Latino immigrants are significantly higher than non-immigrant populations (Stein et al., 2000), leading to the increased cost and utilization of medical services, as well as a diminished overall quality of life for the Latino individual (Hollman, 2000; Spitzer, et al., 1994; Hays et al., 1995).

Specifically, research indicates high rates of sexual trauma in the Latino community, particularly in Latina women (U.S. Census Bureau, 2008). Data from the Bureau of Justice Statistics (2004), indicate high rates of sexual trauma for women in general, with one out of every six females ages 13 and over being victims of rape, attempted rape, or sexual assault. Projective measures based on the U.S. Census estimate these numbers will more than double for Latina women by 2050, with one in six Latina women (totaling 10.8 million Latinas) being survivors of sexual violence (Bureau of Justice Statistics, 2008). Several variables have been hypothesized to explain the startling increase of sexual trauma within this subgroup.

Studies found that an increasing number of Latin women have been raped throughout their migration journey when crossing the Mexican-U.S. border; rape during this migration has become so prevalent that some women have begun taking birth control before traveling as a precautionary measure to avoid pregnancy (Watson, 2006). Once arriving to the U.S., joining the workforce also seems to present problems for Latina women. According to the Southern Poverty Law Center (2009), 77% of Latinas reported sexual harassment as a major issue within the workplace. Latinas who work as domestic workers are especially vulnerable to sexual exploitation, as they often rely on their employer for livelihood, and are vulnerable to the employer's demands; they also tend to live in persistent fear of deportation and are thus, socially isolated (Vellos, 1997). In addition, Latina farmworkers, or *campesinas*, are reportedly 10 times

more likely to be sexually assaulted and harassed in the workplace (Lopez-Trevino, 1995).

These unwanted sexual affronts seem to occur irrespective of age for Latinas, as young Latina girls reported avoiding school activities and sports in fear of sexual harassment (American Association of University Women, 2001). Cultural differences may also play a role in discouraging Latina women from reporting incidents of rape or leaving a relationship where sexual violence occurs; for example, research finds married Latina women are less likely to define “forced sex” from their spouses as rape, with some viewing these encounters as a “marital obligation,” and are less likely to end the relationship as well (Bergen, 1996).

In order to better treat this large sector of the U.S. population who demonstrate overwhelmingly high rates of sexual trauma, it is important to further understand the unique experiences of Latinas and Latina immigrants, as well as the ramifications of these painful life-events on mental health. While considerable effort has been applied to identifying the many risk factors for mental health issues in the Latino community, including perceived discrimination (Ornelas & Perreira, 2011), trauma (Hollman, 2000), immigration (Torres, 2010), depleted social networks (Suarez-Orozco et al., 2022), diminished ethnic and family identity and acculturation (Alegria et al., 2007), little is known about factors that may buffer the effects of trauma and prevent individuals from going on to develop PTSD, these factors are often referred to as protective factors. Further, little is known about protective factors in Latinas with a history of interpersonal trauma and sexual assault.

Investigating protective factors for this vulnerable group is imperative for the development of preventative interventions and for adapting treatment to effectively meet the specific needs of this affected and underserved population. Some studies suggest strongly identifying with one’s own ethnic group (ethnic identity; Umaña-Taylor & Shin, 2007; Umaña-

Taylor et al., 2004), socializing with members of one's ethnic group (in-group preference; Brown, 2008; Rivas-Drake, 2012), and finding comfort within the mainstream culture (U.S.; Sabina, Cuevas, & Schally, 2012) can help buffer against the many aversive life-experiences Latinos may encounter in this country. The following is a review of the existing literature on these hypothesized protective constructs, beginning with identity formation and ethnic identity.

### **Identity Formation**

Identity formation is an important stage of development which occurs during the adolescent period, a time of vast and rapid changes in an individual's biological maturation, social interactions and personality formation (Casey, Jones, & Hare, 2008; Erikson, 1950, 1968; Scott et al., 2014). According to Erikson (1950, 1968), a cornerstone of this developmental stage is the resolution of the internal struggle to develop a sense of personal identity. To date, research indicates that trauma exposure can negatively influence identity development (Scott et al., 2014) by interfering with the resolution of the identity task, which is important for promoting healthy adult development, personal adjustment, and adaptive psychological functioning (Erikson, 1968). For example, exposure to a traumatic event (e.g. natural disaster) can cause significant identity distress in a young person, by disrupting their psychosocial system (e.g. individual, family, society) and introduce trauma-related psychological distress (Dugan, 2007; Eth & Pynoos, 1985; Pérez-Sales, 2010; Weems & Overstreet, 2008). Unlike typically developing identity formation, identity distress involves prolonged upset or worry about one or more personal identity issues (e.g. such as relationships, values, beliefs, group loyalties), including ethnic identity. Many scholars theorize trauma exposure may cause a premature ending to identity formation, therefore precipitating more identity concerns than would be expected (Dugan, 2007; Eth & Pynoos, 1985; Pérez-Sales, 2010). This notion was supported by evidence suggesting adolescents exposed to

violence and sexual abuse had greater identity problems than peers with no history of trauma (Bailey, Moran, & Pederson, 2007; Idemudia & Makhubela; 2011).

In contrast, other studies did not find direct associations between exposure to a hurricane (Wiley, et al., 2011), or military trauma (Brewin, Barnett & Andrews, 2011) and identity formation in adults samples. For example, a previous study of 401 adult survivors of Hurricane Katrina (ages 18-65) did not find a relationship between exposure to the natural disaster and identity distress, rather, a unique association between identity distress and PTSD symptoms (Wiley, 2011). One explanation of these findings was that post-disaster symptomology associated with PTSD was driving the identity distress, as opposed to experiencing the hurricane itself. Other studies found that PTSD symptoms interfere with identity formation, and may raise concerns for adults who have not resolved their identity confusion in earlier stages of development (Erikson 1950; 1968).

Although not directly assessed in the previous literature, it is possible that the findings of the above studies could be explained by a reverse association where a stronger sense of identity is protective against symptoms of PTSD. While some studies indicate interpersonal trauma, particularly, sexual trauma can negatively impact identity and identity development in young adults (Bailey, Moran, & Pederson, 2007; Idemudia & Makhubela, 2011), another study found that a having a strong sense of ethnic identity can be protective against developing PTSD in women who have been sexually victimized (Nikulina, Bautista, & Brown, 2016). This line of research suggests that while trauma can negatively impact identity development, having a strong ethnic identity can lead to resilience against PTSD in women.

### **Phinney's Three-Stage Model of Ethnic Identity Formation**

Erikson (1968) believed individuals from an “oppressed and exploited minority” have the

unique burden of developing an internal sense of self in a society that may propagate negative attributions and stereotypes regarding the minority group. Erikson believed that adolescents of minority backgrounds may internalize societal views and develop a negative identity. Theorists have built upon Erikson's theory by exploring the impact of ethnic group membership on one's identity (Arce, 1981; Baldwin, 1979). Most researchers and theorists have largely agreed that ethnic identity development is a central component of identity development in members of minority groups (Phinney, 1989; Phinney, 1993; Sneed, Schwartz & Cross, 2006).

While ethnic identity research on children focuses on their ability to label their own group and attributions for that label (Aboud, 1987), adolescence signifies a shift from resolving one's ethnic label to understanding the significance of one's group membership (Phinney, 1989). Adolescents experience a number of changes, such as higher cognitive abilities, greater concern over appearance and social belongingness. These factors contribute to increased awareness of social issues such as legal challenges to affirmative action, immigration, and changing demographics, which are likely to make ethnicity salient for the developing minority youth (Gay, 1978). This is particularly important during a time when identity formation is the central developmental task (Erikson, 1968).

Erikson's (1968) theory of ego identity development, which was later operationalized by Marcia (1966, 1980) describes four identity statuses based on the presence or absence of exploration and commitment, and serves as a good starting point for studying ethnic identity in adolescence. This paradigm does not suggest a necessary developmental progression between stages and is described as follows:

“1. *Diffuse*: Little or no exploration of one's ethnicity and no clear understanding of the issues.

2. *Foreclosed*: Little or no exploration of ethnicity, but apparent clarity about one's own ethnicity. Feelings about one's ethnicity may be either positive or negative, depending on one's socialization experiences.
3. *Moratorium*: Evidence of exploration, accompanied by some confusion about the meaning of one's own ethnicity.
4. *Achieved*: Evidence of exploration, accompanied by a clear, secure understanding and acceptance of one's own ethnicity."

However, Phinney (1993) posited a three-stage developmental model for ethnic identity formation in adolescents across ethnic groups:

- "1. *Unexamined Ethnic Identity*: Lack of exploration of ethnicity; the person's world view is dominated by Euro-American determinants.
2. *Ethnic Identity Search/Moratorium*: A precipitating event leads the person to dislodge from old world views and be receptive to new interpretation of their identity.
3. *Ethnic Identity Achievement*: The resolution of the identity struggle; characterized by clear, confident sense of one's own ethnic identity."

Current research groups have recognized that identity status theory and research largely focuses on identity development in White-Europeans and is not inclusive of non-White individuals (Sneed, Schwartz & Cross, 2006). While Phinney's ethnic identity model is found to be broadly applicable to multiple ethnic groups (Roberts et al., 1999), and a useful tool for modern research (Sneed, Schwartz & Cross, 2006), Latino identity development includes more processes related to migration, socio-political stressors, prejudice, family roles, gender roles and struggles of a bi-cultural identity. These finite differences are worth exploring, for as Phinney (1989) stated, understanding one's ethnic identity is important because it is implicated in the

overall adjustment of minority group adolescents.

### **Latino Ethnic Identity Development**

Racial identity, was a term posited by Helms (1990), which described a “sense of group or collective identity based on one’s perception that he or she shares a common racial heritage with a particular racial group” (Chavez, & Guido-DiBrito, 1999). The topic of race can be difficult and non-applicable for Latinos, as Latino people are often racially diverse (e.g. Black, White, Indigenous, Multiracial, etc.) and do not belong to a single race group (Ferdman & Gallegos (2001). Racial constructs that predominate American culture do not easily apply to Latinos and forcing Latinos to identify into one racial category can distort Latino realities (Ferdman & Gallegos). For this same reason, the U.S. Census has recognized that Latinos “can be of any race” and often vary in their response to the race question on the U.S. Census. Given that Latinos are a diverse multiracial group, ethnicity is a more appropriate category used to conceptualize separate identities. While race refers to major divisions in humankind based on physical features, such as color, and creed (Oxford University Press, 1992, p.528), ethnicity is associated with culture and defines large groups of people based on customs, religion, origin, traditions, language, etc. (Livescience, 2017).

Based on Phinney’s (1993) ethnic identity model, Dr. Vasti Torres developed the Bicultural Orientation Model (BOM; Torres, 1999), which was based on Hispanic College students. This model included 4 cultural orientations that distinguished Latino students:

1. Bicultural Orientation – a preference to function competently in both the Hispanic and White Dominant cultures.
2. Anglo Orientation – preference to function in the Majority, White, Anglo-Saxon culture.

3. Hispanic Orientation – preference to function within the Hispanic culture.
4. Marginal Orientation – unable to function properly within either the Hispanic or Anglo cultures.

While this model brings forth the struggle of existing between two cultures, it does not explain the process involved in choosing a cultural orientation. As a result, Torres expanded the BOM model and Phinney's 1993 Model of Ethnic Identity Development by developing the Hispanic Identity Development Theory in 2003, which was based on research on Latino/a college students during their first 2 years of college. According to Torres (2003), personal and environmental factors influence formation of Latino ethnic identity, such as, *the environment where an individual grows up*. According to Torres, this factor should be seen as a continuum, such that, an individual who has high exposure to diversity, has a strong sense of ethnicity and is open to individuals from other cultures. On the other end, an individual may have been raised surrounded by the majority white culture, and while they do not ignore or discount their ethnic identity, they relate more to mainstream culture.

Torres' second factor is *family and generational influences*. Young adults were more likely to self-identify their ethnic background by using the same labels and descriptions their parents used. Further, based on their parent's level of acculturation, individuals are often categorized as a first generation/second generation immigrant and so on. First generation students tend to have less acculturated parents, which led to more conflicts between both cultures. In turn, second generation immigrants tended to have more acculturated parents, and thus, experienced less cultural conflict.

The third factor is *self-perception of status in society*, which focuses on the level of privilege an individual may have felt growing up, this may be closely tied to financial status.



Individuals who had a perceived sense of privilege were more likely to believe negative stereotypes about Latinos, but did not feel these stereotypes applied to them. Individuals who did not perceive a sense of privilege demonstrated more openness to others and were more likely to recognize racism in society.

Further, Torres (2003) posited that an individual's identity can be influenced by an additional two factors (1) experiencing conflict with culture (cultural dissonance) or by (2) experiencing a change in relationships within the environment. In regards to cultural dissonance, an individual may resolve cultural conflicts caused by parental pressure and mainstream societal expectations by investigating one's own culture. In terms of change in relationships within the environment, when young Latinos seek and establish new relationships with peers in their environment, they are challenged with finding balance and agreement between old learned beliefs and new beliefs. This change in relationships can lead to positive Latino identity development if internal congruence of beliefs is found, or negative if this internal conflict is not resolved. This suggests that negative interpersonal encounters, such as experiencing interpersonal trauma can disrupt the development of a Latina's ethnic identity.

In consideration of Latina women's development of ethnic identity, it is important to appreciate the unique experiences and cultural expectations Latinas frequently encounter in everyday life, that are often circumscribed by their sex. Latina women are often bound by specific cultural values and tenets, which prescribe women's behavior, attitudes and aspirations. For example, the popular archetype of the ideal Latina woman is embodied in the construct of *marianismo*, which is a term originally derived from the devotion of the Virgin Mary (*Maria*; Falicov, 2014). *Marianismo* describes a submissive, self-sacrificing, and modest woman, who has an intense commitment to her family, community, ethnic group, and seeks respect for

caretaking and homemaking, which is traditionally performed by women (Falicov, 2014).

Marianas are expected to maintain their virginity until marriage, and submit to their husbands in obedience and intimacy, with sexual pursuit and prowess only being acceptable in men, who fulfill the role of *machismo*. Marianismo contains five pillars, *Familismo*, Chastity, *Respeto*, Self-silencing and Spirituality, which entail behaviors and beliefs that “good women” adhere to. *Familismo*, refers to an individual’s strong identification and attachment to their nuclear and extended family (Castillo, 2010). Latina women are often expected to be the strength of the family, and responsible for maintaining the happiness, unity and health of the family unit (Chavez-Korell, 2013).

The pillar of chastity refers to the value that women should abstain from pre-marital sex to keep shame from coming to them and their families (Castillo, 2010). Latinas are expected to be non-sexual and virginally pure, and should strive for monogamy and should limit their sexual desires and sexual exploration to one partner in an exclusive, long-term, married relationship with a man (Faulkner, 2003). This expectation often leads women to believe they should remain with the same partner for the rest of their lives, even if they are abusive (Kulkarni, 2007). The expectation that a Latina should have had sexual experiences with one exclusive partner, whom she commits to romantically for life, puts Latinas who have experienced sexual assault, violence or abuse in a precarious situation, that likely causes guilt, shame and may discourage them from disclosing their experiences to others. *Respeto* describes the deference, duty and obedience an individual must show to family members who are above them in the family’s hierarchy, such as a child’s deference to their parents. This tenet provides standards for interpersonal interactions, and dictates that individuals should not speak against those who are higher up in the hierarchy (Santiago-Rivera, 2002). Self-silencing refers to a core belief of Marianismo, that women are

expected to withhold their personal opinions in order to avoid disagreement (Noblega, 2012). Self-silencing has been linked to higher rates of anxiety and depression in Latinas (Nunez et al., 2016), and also leads women to remain in violent, abusive interpersonal relationships (Moreno, 2007; Noblega, 2012). Latinas also report perceiving that keeping their thoughts and emotions inside, causes symptoms of depression (Nicolaidis et al., 2011). Finally, the fifth pillar is spirituality, where Latina's are deemed responsible for their family's spiritual growth and religious practice (Noblega, 2012). Guidance of their family's spirituality is an important indicator of a "good mother;" this spiritual responsibility has been linked to anxiety, anger and hostility in women (Nunez et al., 2016).

All in all, "becoming American," takes different forms, with different meanings and has different paths, nonetheless, the children of immigrants must all engage in the process of defining an identity for themselves. While most college students are at the stage of their lives where they are experiencing an identity crisis, also known as "ego identity versus role confusion," (Ethier & Deaux, 1994), and must determine who they are and their role as separate from their family (Bordes & Arredondo, 2005), this process can be particularly stressful, conflictual and complex for minority youth who must also compete with the pressure of a historical framework that pushes to define youths based on their race and immigration history. Based on previous theory (Phinney, 1990; Torres, 2003) and research (Rumbaut, 1994) it seems that the development of ethnic identity seems to be influenced by ethnicity, acculturation and social relationships. However, not much is known about the development of ethnic identity in Latina women, and the role ethnic identity may play in the development of PTSD.

In this study, previous literature is used as a tool to "stimulate thinking about properties and for asking conceptual questions" (Strauss & Corbin, 1998), which is what we endeavor to do

when considering the ethnic identity development of Latinas. Empirical research indicates that trauma, particularly, interpersonal trauma negatively impacts identity formation and women's views and function in relationships. According to Torres' Model of Ethnic Identity Development, change in relationships when internal conflicts in beliefs are unresolved, can disrupt ethnic identity formation in young Latinos. Theoretically, we predict that interpersonal trauma, including sexual assault, is disruptive in ethnic identity formation in Latinas. Further, we believe the gender-associated tenets such as Marianismo, the devotion to the family, and self-silencing can negatively impact Latinas' behavior and way of perceiving the world and their position in it, and further exacerbate the negative effects of trauma. In turn, it is possible that a greater sense of ethnic identity can buffer against the negative effects of trauma in this population. The protective role of ethnic identity will be discussed further in the following section.

### **Ethnic Identity and Trauma**

Evidence suggests having a greater sense of ethnic identity (sense of belongingness to a particular ethnic group), promotes greater self-esteem (Romero & Roberts, 2003; Umaña-Taylor & Shin, 2007; Umaña-Taylor et al., 2004), and positive psychological well-being in Hispanics (Smith & Silva, 2011; Phinney & Kohatsu, 1997). In addition, greater ethnic identity has also shown to protect individuals against PTSD symptoms in response to negative reactions to disclosure of traumatic events (Nikulina, Bautista, & Brown, 2016). These findings suggest ethnic identity may mediate the relationship between trauma and the development of PTSD; however, this has not been directly assessed in Latinas, and research findings on this topic are varied (Ai et al., 2014; Brittan, 2014; Donovan, 2013). In addition, the protective role of ethnic identity may be compromised in individuals with a history of interpersonal trauma, as research has demonstrated sexual trauma may interfere with identity development overall (Bailey, Moran,

& Pederson, 2007; Idemudia & Makhubela; 2011). Furthermore, the protective role of ethnic identity in buffering symptoms of PTSD has not been directly assessed in Latinas with a history of trauma, nor do we fully understand the relationship between trauma and ethnic identity formation within this population.

### **In-group preference**

Similar to ethnic identity, in-group preference (preference for interpersonal relationships within one's own ethnic group) can also promote a sense of ethnic pride, belongingness to a group and greater connectedness to others, greater self-esteem, reduced depression and greater resiliency (Resnick et al., 1997; Jones and Galliher, 2007; Brown, 2008; Rivas-Drake, 2012). Greater in-group preference has also been linked to positive psychological health and well-being by reducing acculturative stress (Gaudet et al., 2005; Schwartz et al., 2007), reducing loneliness (Kim, 1999; Roberts et al., 1999), enhancing self-esteem (Tatum, 1997; Phelps et al., 2001; Mossakowski, 2003; Torres and Ong, 2010; Williams et al., 2012), providing social support (Noh et al., 1999; Noh and Kaspar, 2003), and promoting a sense of community embeddedness (Galliher et al., 2011; Kenyon and Carter, 2011; Rivas-Drake, 2012).

However, depending on the individual and their history of trauma, in-group preference can be a source of both support and burden. For instance, drug abusing women with a history of interpersonal trauma tend to possess social networks comprised of sex partners, drug use partners, and a large number of family members, which can serve as a continuous source of stress, risk and future trauma, (Savage & Russel, 2005; Latkin, et al, 2003; Miller & Neaigus, 2001; Strauss & Falkin, 2001; Fry & Barker, 2002). Further, the experience of acute versus chronic trauma can also render the social support available for the individual as unchanged, depleted, or enhanced. For example, trauma histories of neglect and abuse are known to affect

women's ability to form future relationships (Coden & Cortez-Ison, 1999; Gomberg & Nirenberg, 1993); in particular, histories of childhood sexual abuse and other child/adult traumatic experiences can affect their ability to develop and maintain social relationships. Other sources that can disrupt social networks include residential instability and homelessness, foster care, incarceration, changes in employment, inpatient and residential treatment (Savage & Russell, 2005). Together, these findings suggest trauma may impact the formation and maintenance of social networks, therefore mediating one's propensity to develop PTSD symptoms. Unfortunately, not much work has been devoted to how these trauma experiences in Latinos can alter their level of in-group preference, and its role in the development of PTSD symptoms.

### **Acculturation to the Mainstream Culture**

As aforementioned, the literature suggests greater identification and in-group preference with one's ethnic group is a protective factor for Latinos, however, others suggest acculturation to the mainstream culture is beneficial. For example, a recent meta-analysis found acculturation to the mainstream culture is associated with overall well-being, positive psychological outcomes, and is protective of mental illness across diverse groups (Yoon et al., 2013). In a similar vein, acculturation to the mainstream Anglo-American culture was found to promote help-seeking behaviors in a sample of sexually victimized Latin American women (Sabina, Cuevas, & Schally, 2012). In addition, other studies found Latinos who reported low acculturation to the US culture had more severe PTSD symptoms (Escobar et al., 1983; Marshall & Orlando, 2002; Perilla et al., 2002). Furthermore, while it seems trauma can be a risk factor for immigrants, studies on Latinos with a history of childhood versus adult trauma, found that acculturation was a moderating factor between childhood trauma and PTSD symptoms, where Latinos with a history

of childhood trauma and lower levels of acculturation reported a higher number of PTSD symptoms (DiGangi, et al., 2016); suggesting Latinos with a history of adult trauma, had higher levels of acculturation (comfort with the mainstream culture), and lower symptoms of PTSD. In contrast, other studies found higher levels of acculturation to serve as a risk factor for PTSD. For example, US-born Latinos reportedly had increased odds of developing PTSD when compared to foreign-born Latinos, after experiencing musculoskeletal injuries (Williams et al., 2008), while another study found no significant effect of acculturation and PTSD among Latinos at all (Ortega & Rosenheck, 2001).

However, when taking a step back, studies suggest a traumatic experience can alter the psychobiological functioning of an individual (disturbing the hypothalamic-pituitary-adrenal axis), particularly in refugees, thus undermining their ability to cope with the acculturation challenges altogether (Matheson, Jorden & Anisman, 2008). Specifically, pre- and post-migration trauma experiences can diminish Somali refugees' ability to cope with acculturation stresses, rendering them vulnerable to stress-related disorders (Matheson, Jorden & Anisman, 2008). These studies demonstrate the acculturative process may play an important role in shaping how Latinos respond to traumatic events, with trauma weakening their ability to acculturate to the mainstream U.S. culture, therefore leading to the increased likelihood of developing PTSD symptoms. However, further research is necessary to understand the various underlying mechanisms in this complex relationship.

### **Summary and Current Study**

In summary, population studies indicate that Latinos are the largest growing ethnic group in the United States and are projected to encompass 29% of the U.S. population by 2050 (Caballero, 2011; US Census Bureau, 2010). Research also indicates mental health problems are a

growing medical concern in this vulnerable population. In particular, Latinos are more likely to experience trauma than their white counterparts, and have higher rates of PTSD (Ramos, 2017), with sexual trauma being the largest predictor of PTSD in Latina women (Bureau of Justice Statistics, 2004; U.S. Census Bureau, 2008). While risk factors, such as perceived discrimination (Ornelas & Perreira, 2011), immigration (Torres, 2010) and depleted social networks (Suarez-Orozco et al., 2022) have been largely studied as predictors of poor mental health for Latinos, the literature is scarce on resiliency and protective factors within this population, especially Latina women. Ethnic identity (Umaña-Taylor & Shin, 2007; Umaña-Taylor et al., 2004), in-group preference (Brown, 2008; Rivas-Drake, 2012), and acculturation (Sabina, Cuevas, & Schally, 2012), have been positively associated with psychological well-being in previous findings (Smith & Silva, 2011; Phinney & Kohatsu, 1997), however, little is known about the beneficial role of these factors in Latina women, and individuals with PTSD. There remain unanswered questions including, can ethnic identity, in-group preference and acculturation mediate the relationship between trauma and PTSD? And if so, are these relationships unique for women who identify as Latina?

Building on past research, we examine the associations between interpersonal and sexual trauma, ethnic identity, preference for in-group relationships, acculturation and PTSD among Latinas and non-Latinas. We predict that ethnic identity, in-group preference and acculturation will mediate the association between interpersonal trauma and PTSD. We also predict that among survivors of sexual trauma, ethnicity will moderate the association between ethnic identity, in-group preference, acculturation and PTSD. Please see Figures 1-3, for graphical representations of the models to be tested using secondary data from two existing datasets.



The first dataset is comprised of ( $n = 394$ ) undergraduate female Latina (21%) and non-Latina (79%) students. Approximately 50% of the sample reported having a varied history of trauma, such as intimate partner violence (51%), emotional abuse (25.7%), physical abuse (35.2%), sexual abuse (17.3), or witnessing domestic violence (16.5%) in childhood. The second dataset is of ( $n = 221$ ) undergraduate women with a history of sexual victimization; 68% of the sample identified as Latina. Inclusion of both Latinos and non-Latinos in these studies allows us to compare whether the protective mechanisms of ethnic identity, in-group preference and acculturation are unique for Latinos or are consistent across a diverse group of undergraduates. We will also examine whether interpersonal trauma is uniquely associated with ethnic identity, in-group preference and acculturation and PTSD relative to other traumatic experiences. The current study will aim to:

### **Study 1: Aims**

**Aim 1:** We will determine if ethnic identity, in-group preference and acculturation mediate the relationship between interpersonal trauma (versus other types of trauma) and PTSD symptomology in female survivors of trauma.

**Hypotheses.** We hypothesize:

- (1) Compared to other types of trauma, interpersonal trauma will be associated with greater symptoms of PTSD.

*Ethnic Identity* (Figure 1)

- (2) Compared to other types of trauma, interpersonal trauma will be associated with a lower sense of ethnic identity.
- (3) A lower sense of ethnic identity will be associated with greater symptoms of PTSD.

- (4) Ethnic identity will mediate the association between interpersonal trauma and PTSD.

*In-group Preference* (Figure 2)

- (5) Compared to other types of trauma, interpersonal trauma will be associated with higher in-group preference.
- (6) A higher in-group preference will be associated with lower symptoms of PTSD.
- (7) In-group preference will mediate the relationship between interpersonal trauma and PTSD.

*Acculturation* (Figure 3)

- (8) This will be an exploratory analysis to investigate the direction of the association between interpersonal trauma and acculturation.
- (9) Acculturation will mediate the association between interpersonal trauma and PTSD.

**Aim 2:** We will assess the moderating effect of Latin ethnicity on the relationship between ethnic identity, in-group preference, acculturation and PTSD symptoms.

**Hypothesis** (10): We hypothesize the association between ethnic identity, in-group preference, acculturation and PTSD will be stronger for Latina women than Non-Latina women, (Figures 4-6).

**Study 2: Aims**

**Aim 3:** Determine if ethnic identity, in-group preference, and acculturation are protective against developing PTSD symptomology in Latinas who have been sexually assaulted.

**Hypotheses:** We hypothesize:

*Ethnic Identity* (Figure 7)

(11) Greater ethnic identity will be associated with lower symptoms of PTSD.

*In-group Preference* (Figure 8)

(12) Greater in-group preference will be associated with lower symptoms of PTSD.

*Acculturation* (Figure 9)

(13) We will explore the role of acculturation in its relation to symptoms of PTSD. Based on the conflicting findings in the prior literature, no directional hypothesis is predicted.

**Aim 4:** We will assess the moderating effect of Latin ethnicity on the relationship between ethnic identity, in-group preference, acculturation and PTSD symptoms.

**Hypothesis** (14): We hypothesize the association between ethnic identity, in-group preference, acculturation and PTSD will be stronger for Latina women than Non-Latina women, (Figures 8-9).

## Methods

### **Study 1: Assessing the Role of Ethnic Identity, In-Group Preference and Acculturation in PTSD Symptomology in Latinas with a History of Trauma**

#### **Procedure and Participants**

Undergraduate female students ( $n = 391$ ) participated in an online study as part of a larger research investigation on adverse childhood experiences and intimate partner violence. Participants were undergraduate students who were recruited from an introductory psychology

course in 2015 and 2019 at a public University in the New York City area. Participants were directed to complete an online survey via *Instantly*, a web-based platform for data collection and research. The survey consisted of a demographic questionnaire, followed by objective measures of the constructs of interest. The session lasted about 89 minutes, with one optional break in the middle of the session. All participants were required to 18 years or older to participate, and all research procedures were approved by the Institutional Review Board (IRB). All participants earned 2 hours of research credits toward their class requirement after completing the online study.

The sample was comprised of approximately 37% Caucasian, 33% Asian, 9% Black, the rest of Other racial backgrounds; 22.5% Hispanic/Latina. Women within the sample reported experiencing physical abuse (11.1%), emotional abuse (25.5%), sexual abuse (18.6%), emotional neglect (13.5%), physical neglect (9%) and domestic violence (18.1%). Participants reported the highest level of their parents' education to be, high school or less (29%), some college/associate degree (25%), BA/BS and higher (25%), post graduate (21%); as well childhood family income to be less than \$35,000 (37%), between \$35,000 and \$74,999 (30%), and \$75,000 or greater (32%).

## **Measures**

**Demographics:** A *Demographics Questionnaire* asked participants to report their age, race, ethnicity, and birthplace. Participants identified their racial background from a list of available categories (African American or Black, American Indian or Alaskan Native, Asian or Asian American, Caucasian or White, Native Hawaiian or other Pacific Islander, and Other).

Participants were able to select more than one category. All categories were collapsed into three groups (White, African American/Black, and Other), which parsimoniously represented the data.

Participants identified as ethnically Hispanic or not and reported their place of birth, which is coded as immigrant or U.S. born.

**Ethnic Identity, In-group Preference and Acculturation:** *The Scale of Ethnic Experience* (SEE; (Malcarne, Chavira, Fernandez, & Liu, 2006). The SEE is a 32-item self-report questionnaire, which measures multiple ethnicity-related cognitive constructs, such as: Ethnic Identity, Perceived Discrimination, Acculturation (dubbed “mainstream comfort” in the scale), and In-group preference (dubbed “social affiliation” in the scale). Participants rated the degree to which they agreed with a statement on a Likert scale (0 = “strongly agree” to 5 = “strongly disagree”). These factors were cross-validated in a sample of African American, Caucasian, Filipino and Mexican American undergraduate students, and demonstrated high test-retest reliability (Malcarne et al., 2006); as well as strong concurrent validity with other measures of ethnic identity, such as the Multigroup Ethnic Identity Measure (MEIM; .72). The ethnic identity and in-group preference subscales also demonstrated divergent validity with other measures of acculturation, such as the Acculturation Rating Scale for Mexican Americans (ARSMA and ARSMA-II; Cuellar, Arnold, Maldonado, 1995; Cuellar, Harris & Jasso, 1980), the Suinn-Lew Asian Self-Identity Acculturation scale (SL-ASIA; Suinn, Risckard-Figueroa, Lew & Vigil, 1987), and the African American Acculturation Scale (AAAS-R; Klonoff & Landrine, 2000; Landrine & Klonoff, 1994), demonstrating construct validity.

**Posttraumatic Stress Disorder:** *The PTSD Symptoms Scale* (PSS; Foa, Riggs, Duncan, & Rothbaum, 1993) is a 17-item, self-report measure utilized to assess participants’ symptoms of PTSD based on the DSM-IV (American Psychiatric Association, 2000) over the past 2 weeks.

Sample items include “In the past 2 weeks, have you had upsetting thoughts or images about the assault that came into your head when you didn’t want them to?” and “In the past 2-weeks, have you felt distant or cut-off from others around you?” The responses are on a Likert-type scale ranging from 0 (*not at all*) to 3 (*5 or more times per week/very much/almost always*). Total PTSD severity score will be used in this study. The total score indicates the severity of PTSD symptoms, but does not indicate a clinical diagnosis of PTSD. This measure also includes a trauma screen where participants reported whether they have experienced a traumatic event over the lifetime before they endorsed any PTSD symptoms. The PTSD symptoms scale has demonstrated having satisfactory internal consistency, high test-retest reliability, and good concurrent validity (Foa, Riggs, Dancu & Rothbaum, 1993). Interpersonal trauma was defined as any incident of maltreatment, interpersonal violence, abuse, assault and neglect experienced by an individual (D’Andrea, 2012), which on the PSS were categorized as emotional abuse, emotional neglect, physical abuse, physical neglect, sexual abuse, domestic violence, torture and imprisonment (Foa, Riggs, Duncan, & Rothbaum, 1993). Other types of trauma were defined as incidents such as natural disasters, accidents or diseases (D’Andrea, 2012; Kessler & Ustun, 2004), which were categorized as serious accident, natural disaster, military combat, life threatening illness, and other traumatic event on the PSS (Foa, Riggs, Duncan, & Rothbaum, 1993).

### **Data Analysis**

All data was analyzed with SPSS v. 24, with the Hayes macros add on. Statistically, the bootstrapping method was methodologically superior to the traditional tests of mediation (e.g. Sobel test) and allowed for an assessment of moderated mediation models (Preacher, Rucker & Hayes, 2007). It was the best approach for our study design, as it did not rely on assumptions of

normality and was flexible in allowing to test a variety of models and conditional effects for the moderated mediation. For this analysis, participants were organized into two groups, where one group consisted of women who reported experiencing only interpersonal trauma, and women who endorsed experiencing interpersonal trauma *and* other types of trauma; whereas, the other (reference) group consisted of women who reported experiencing only other types of trauma (e.g. natural disaster, accident). The dependent variable was the total score on the PSS, which indicated the severity of PTSD symptoms the individual was experiencing (not a PTSD diagnosis). Total PTSD scores were positively skewed in the current sample. Bootstrap confidence intervals respect this non-normality because they are based on an empirically generated representation of the sampling distribution, rather than a (typically) inaccurate assumption of its shape. The endpoints of a confidence interval for  $T \omega$  are then calculated using the percentiles of the distribution of  $\omega$  over this repeated bootstrap sampling and estimation, with the addition of bias correction to the percentile estimates (95% in this case) for the indirect effect (Preacher, Rucker & Hayes, 2007). To address aim 2, the model was a moderated mediation model, where the moderator ( $W$ , ethnicity) was predicted to moderate the relationship between the mediator ( $M$ , ethnic identity, in-group preference, acculturation) and the dependent variable ( $Y$ , PTSD); in sum,  $W$  affects the  $B_I$  path. Bootstrap confidence intervals for inference about condition indirect effects were used via the Hayes Bootstrapping Method macro on SPSS.

In the bootstrapping macro (Hayes, 2009; MacKinnon, Lockwood, & Williams, 2004), each variable was entered as follows: independent variable ( $X$ , trauma), dependent variable ( $Y$ , PTSD symptoms), mediator ( $M$ , ethnic identity; in-group preference; acculturation), and the moderating factor ( $W$ , ethnicity). If no options were specified, the macro defaulted to printing the estimates of the model and the conditional indirect effects and hypothesis tests conditioned on

the moderators being set to the sample mean and 1 SD as well as conditional indirect effects at values of the moderator in various increments within the range of the data. If they existed, the macro also produced the conditional indirect effect at the value of the moderator(s) for which the effect is statistically significant (at  $p < .05$ ) using the Johnson-Neyman procedure (used when the assumption of homogeneity of regression slopes is violated). Hypothesis tests used the second-order standard errors by default. An option allowed the user to specify first-order standard errors if desired. Another option allowed the user to specify precise values of the moderator(s) for which conditional indirect effects and hypothesis tests are produced in the output. The macro is free and available at the following link: <http://www.quantpsy.org/>.

## Study 1 Results

### *Descriptive Statistics*

Table 1 reflects the descriptive statistics for all the variables in Study 1, including age, yearly income, race, history of trauma, symptoms of PTSD, and ratings of ethnic identity, in-group preference and acculturation. A t-test indicated there was a statistically significant difference between group endorsements of PTSD symptoms,  $t(258.30) = 5.62, p < .01$ , where the interpersonal trauma group reported higher PTSD symptoms ( $M_{IPT} = 29.04, SD = 11.00$ ), when compared to the other trauma type only ( $M_{Other} = 22.90, SD = 6.94$ ), with a medium size *Cohen's d* of .63.

Table 2 presents bivariate correlations among total PTSD symptoms, ethnic identity, in-group preference, acculturation, ethnicity (Latina or non-Latina), and control variables, such as age, and income. PTSD was positively associated with in-group preference and negatively associated with ethnic identity and income. In-group preference was negatively related to ethnic



identity and income. Ethnic identity was correlated with greater acculturation. Acculturation was linked with being Latina and age was negatively linked with income.

### *Mediation Models*

Data were checked for normality, homoscedasticity, multicollinearity and all assumptions for multiple regression were met. To assess the mediating role of ethnic identity, in-group preference and acculturation in the relationship between interpersonal trauma and PTSD symptoms, 3 mediation models were conducted (Aim 1). Table 2 presents the results of the separate mediation analyses for each potential mediator of the relationship between trauma and PTSD. The association between interpersonal trauma as compared to other trauma (the independent variable) on reported symptoms of PTSD (the dependent variable) is described first (path C). Experiencing interpersonal trauma reliably predicted increased symptoms of PTSD across all models ( $p < .05$ ) and supported hypothesis 1.

### *Ethnic Identity*

Figure 10 depicts the mediating role of ethnic identity in the relationship between interpersonal/both trauma types and PTSD symptoms. As previously mentioned, experiencing interpersonal trauma was related to higher symptoms of PTSD (path C),  $F(4, 267) = 10.95, p < .01, R^2 = .14, b = 5.13, t(267) = 4.08, p < .01$ . Similarly, experiencing interpersonal trauma was related to a lower ethnic identity (path A),  $F(3, 268) = 2.21, p < .01, R^2 = .02, b = -1.57, t(268) = -2.52, p < .01$ . Further, lower ethnic identity predicted higher rates of PTSD symptoms (path B),  $F(4, 267) = 10.95, p < .01, R^2 = .14, b = -.46, t(267) = -3.80, p < .01$ , supporting hypothesis 2. There was also a significant indirect effect between experiencing trauma and developing PTSD (path C'), where the rate of PTSD symptoms following trauma ( $b = 5.13$ ), lessened when ethnic identity is accounted for in the model ( $b = .73$ ), supporting hypothesis 3. In sum, these findings

indicated that the relationship between experiencing interpersonal trauma and PTSD is mediated by ethnic identity, such that, increased ethnic identity leads to lower rates of PTSD.

#### *In-group Preference*

As observed in Table 3, while a direct relationship between interpersonal trauma and PTSD persisted in the in-group preference mediation model (Figure 11),  $F(4, 267) = 7.54, p < .01, R^2 = .10, b = 5.65, t(267) = 4.41, p < .01$ , there were no direct effects between interpersonal/trauma and in-group preference (path A;  $p = .07$ ), or in-group preference and PTSD (path B;  $p = .15$ ), rejecting hypotheses 4. Similarly, there was no indirect effect of in-group preference on this relationship (path C'), rejecting hypothesis 5.

#### *Acculturation*

Figure 12 depicts the persistent positive relationship between interpersonal trauma and PTSD symptoms in the acculturation mediation model,  $F(4, 267) = 8.03, p < .01, R^2 = .11, b = 5.93, t(267) = 4.67, p < .01$ . There was no direct effect between interpersonal trauma and acculturation (path A;  $p = .65$ ). However, there was a significant negative relationship between acculturation and PTSD (path B;  $b = -.39, p < .05$ ), suggesting greater acculturation is associated with lower PTSD symptoms. However, there was no indirect effect of acculturation on the relationship between trauma and PTSD (path C'), therefore we must reject hypothesis 7.

#### *Mediation Models Moderated by Ethnicity*

To investigate the influence of ethnicity (Aim 2) on the mediation models, conditional indirect-effect models were tested. The moderating effect of ethnicity on each mediation model is presented in Table 3. As previously found, there was a significant indirect effect of ethnic identity on the relationship between interpersonal trauma and PTSD (Figure 13), where greater ethnic identity lead to lower rates of PTSD after experiencing interpersonal trauma. However,

ethnicity (being Latina or non-Latina), was not found to moderate the relationship between ethnic identity and PTSD ( $p = .32$ ). Similarly, there were no observed indirect effects in the other mediation models, and ethnicity was not found to moderate the relationship between in-group preference, or acculturation and PTSD (Figure 14, Figure 15), therefore we must reject hypothesis 8.

## **Study 2: Assessing Ethnic Identity, In-group preference in Latina Women with a History of Sexual Trauma**

### **Procedure and Participants**

Undergraduate women from two urban universities (in New York City and Miami) participated in an online study in 2008 and 2009 to fulfill research requirements for their Introduction to Psychology course. Participants selected to participate in the current study among other available studies. Women had to be at least 18 years of age to be eligible for participation. All study procedures were approved by the university and the IRB. Women who elected to participate in the survey first completed a demographics questionnaire, followed by the Sexual Experiences Survey (SES; Malcarne, Chavira, Fernandez & Liu, 2006). Women who endorsed an experience of sexual victimization completed the rest of the measures. The session lasted less than an hour. At the completion of the survey, participants were debriefed, thanked, and given referral information for mental health resources in their communities.

From a sample of 604 students who participated in the study, 37% ( $n = 221$ ) endorsed a history of sexual assault. Sexual assault is defined as any sexual act performed by one person on another without consent. It may result from the use of force, the threat of force, or from the

victim's inability or refusal to give consent. Of the initial sample, 81% ( $n = 489$ ) were from Miami, their average age was 21 years ( $SD = 4$ ), 66% ( $n = 399$ ) identified as Hispanic, and racial backgrounds were as follows: 51% ( $n = 308$ ) White, 10% ( $n = 60$ ) African American/Black, and 39% ( $n = 233$ ) Other (representing mostly Hispanic women). From the 221 participants who endorsed a history of sexual victimization, 82% ( $n = 184$ ) were from Miami. Their average age was 21 years ( $SD = 4$ ), 68% ( $n = 149$ ) identified as Hispanic, and racial background ranged as follows: 60% ( $n = 130$ ) White, 10% ( $n = 22$ ) African American/Black, and 32% ( $n = 73$ ) identified as other various back- grounds (representing mostly Hispanic women).

### **Measures**

**Demographics:** A *Demographics Questionnaire* asked participants to report their age, race, ethnicity, and birthplace. Participants identified their racial background from a list of available categories (African American or Black, American Indian or Alaskan Native, Asian or Asian American, Caucasian or White, Native Hawaiian or other Pacific Islander, and Other).

Participants were able to select more than one category. All categories were collapsed into three groups (White, African American/Black, and Other), which parsimoniously represented the data. Participants identified as ethnically Hispanic or not and reported their place of birth, which is coded as immigrant or U.S. born.

**Sexual victimization experiences:** *Sexual Experiences Survey (SES)* (Koss & Oros, 1982) is a self-report assessment of unwanted sexual experiences. Participants reported whether they had experienced a variety of unwanted sexual experiences ranging from “sex play (fondling, kissing, or petting)” to “sex (anal or oral intercourse)” for a variety of reasons, ranging from “because you were overwhelmed by a man’s continual arguments and pressure” to “because a man threatened or used some degree of physical force.” This survey has been tested with a large

number of university students (Koss, Gidycz, & Wisniewski, 1987; Koss & Oros, 1982) and in assessment of responses to sexual assault disclosure (Ullman & Filipas, 2001). Test– retest reliability was assessed in past research, and a mean of 93% agreement was reported for the two administrations 1 week apart (Koss & Oros, 1982).

**Ethnic Identity, In-group Preference and Acculturation:** *The Scale of Ethnic Experience*

(SEE; (Malcarne et al., 2006). The SEE is a 32-item self-report questionnaire, which measures multiple ethnicity-related cognitive constructs, such as: Ethnic Identity, Perceived Discrimination, Acculturation, and In-group preference. Participants rated the degree to which they agreed with a statement on a Likert scale (0 = “strongly agree” to 5 = “strongly disagree). These factors were cross-validated in a sample of African American, Caucasian, Filipino and Mexican American undergraduate students, and demonstrated high test-retest reliability. The subscales used in this study were ethnic identity (Ethnic Identity, Cronbach’s alpha = .87), comfort with the majority culture (Acculturation, Cronbach’s alpha = .87) and in-group preference (In-group preference, Cronbach’s alpha = .83; Malcarne, Chavira, Fernandez, & Liu, 2006). The SEE also demonstrated strong concurrent validity with other measures of ethnic identity, such as the Multigroup Ethnic Identity Measure (MEIM; .72), and divergent validity with measures of acculturation, such as the Acculturation Rating Scale for Mexican Americans (ARSMA and ARSMA-II; Cuellar, Arnold \* Maldonado, 1995; Cuellar, Harris & Jasso, 1980), the Suinn-Lew Asian Self-Identity Acculturation scale (SL-ASIA; Suinn, Rischard-Figueroa, Lew & Vigil, 1987), and the African American Acculturation Scale (AAAS-R; Klonoff & Landrine, 2000; Landrine & Klonoff, 1994), demonstrating construct validity.

**Posttraumatic Stress Disorder:** *The PTSD Symptoms Scale* (PSS; Foa, Riggs, Duncan, &

Rothbaum, 1993) is a 17-item, self-report measure utilized to assess participants’ symptoms of

PTSD over the past 2 weeks. Sample items include “In the past 2 weeks, have you had upsetting thoughts or images about the assault that came into your head when you didn’t want them to?” and “In the past 2-weeks, have you felt distant or cut-off from others around you?” The responses are on a Likert-type scale ranging from 0 (*not at all*) to 3 (*5 or more times per week/very much/almost always*). The total score on the PSS indicates the severity of PTSD symptoms, but does not indicate a clinical diagnosis of PTSD. Total PTSD severity score will be used in this study. The PTSD symptoms scale has demonstrated having satisfactory internal consistency, high test-retest reliability, and good concurrent validity (Foa, Riggs, Dancu & Rothbaum, 1993).

### **Data Analysis**

All data was analyzed with SPSS v. 24. First bivariate associations were assessed between ethnic identity scales, symptoms of PTSD, and demographics, using Pearson correlations. The rest of the analyses were carried out with hierarchical ordinary least squares regressions. Interaction terms were created by centering and multiplying interacting predictors. To test aims 3 (assessing the moderating role of ethnicity on the relationship between ethnic identity, in-group preference and acculturation and symptoms of PTSD in sexually assaulted women), a regression was run for the outcome variable of PTSD symptoms. During step 1 of the moderation model, the total score on the PSS was input as the dependent variable (outcome), and ethnic identity, in-group preference and acculturation were loaded as the predictors (main effects), with control for age and school (New York versus Miami). Covariates were selected based on past literature indicating race and developmental differences in the experience of trauma, and trauma-related symptomology (Breslau et al., 1998; Kessler et al., 1995). Step 2 of the regression included three interaction terms: between ethnic group and ethnic identity, ethnic

group and in-group preference and between ethnic group and acculturation. All assumptions for regression were met.

## Study 2 Results

### *Descriptive Statistics*

Table 5 presents all descriptive statistics regarding the sample in study 2. Within the sample of 221 females who indicated a history of sexual assault, 138 identified themselves as Latinas ( $n = 138$ ), and 68 identified as non-Latina ( $n = 68$ ). The majority of the women in the sample were born in the United States (74.3%), including 71.4% of Latinas and 80% of non-Latinas. Similarly, Latinas and non-Latinas indicated similar levels of PTSD symptoms ( $M_{Latinas} = 8.10$ ,  $SD = 8.55$ ;  $M_{non-Latinas} = 8.16$ ,  $SD = 8.60$ ;  $t(214) = .05$ ,  $p = .97$ ), sense of ethnic identity ( $M_{Latinas} = 26.82$ ,  $SD = 9.06$ ;  $M_{non-Latinas} = 28.87$ ,  $SD = 11.13$ ;  $t(114.03) = 1.4$ ,  $p = .18$ ), in-group preference for relationships ( $M_{Latinas} = 16.97$ ,  $SD = 4.40$ ;  $M_{non-Latinas} = 17.24$ ,  $SD = 4.88$ ;  $t(204) = .39$ ,  $p = .70$ ), and acculturation ( $M_{Latinas} = 14.23$ ,  $SD = 4.96$ ;  $M_{non-Latinas} = 13.84$ ,  $SD = 5.54$ ;  $t(204) = -.52$ ,  $p = .61$ ), respectively.

Table 6 presents bivariate correlations among total PTSD symptoms, ethnic identity, in-group preference, acculturation, ethnicity (Latina or non-Latina), and control variables, such as age, immigration status and city of origin. Ethnic identity was negatively correlated with acculturation, in-group preference was negatively related to being born in the US, and acculturation was positively related to age, and being an immigrant to the US. Age was positively correlated with being an immigrant to the US, and city of origin (Miami or New York City), was positively related to PTSD and negatively associated with ethnicity.

### *Moderation Analysis*

Data were checked for normality, homoscedasticity, multicollinearity and all assumptions

for multiple regression were met. A hierarchical linear regression analysis was conducted to examine the moderating effect of ethnicity (Latina versus non-Latina) on the relationship between ethnic identity and PTSD, in-group preference and PTSD and acculturation and PTSD (Aim 3).

On step 1, the results of the moderation analysis indicated a significant main effect for city ( $B = 5.50, p < .01$ ; see Table 7); however, there were no main effects for ethnic identity, in-group preference or acculturation, or any other covariates, and the overall regression was not predictive of PTSD symptoms,  $F(6, 192) = 1.84, p = .09, R^2 = .05, \text{adjusted } R^2 = .03$ . However, on step 2, findings revealed a significant interaction effect,  $F(9, 189) = 2.62, p < .01, R^2 = .11, \text{adjusted } R^2 = .07$ , with a significant change in  $R^2$  from step 1 to step 2 ( $\Delta R^2 = .06, \Delta F = 4.01, p < .01$ ), indicating the relationship between in-group preference and PTSD was moderated by ethnicity (Aim 3;  $\beta = .37, p < .01$ ), and supported hypothesis 11. Specifically, a significant negative relationship was found in the non-Latina group, where greater in-group preference was associated with lower rates of PTSD ( $r = -.26, p = .02$ ). In contrast, the Latina group, demonstrated a marginally positive relationship, where greater in-group preference was related to higher rates of PTSD ( $r = .13, p = .06$ ).

### Discussion

The current study investigated the role of ethnic identity and associated factors such as preference for relationships with individuals within one's own ethnic group and acculturation to the mainstream U.S. culture. Two independent studies were conducted, first investigating the mediating role of these factors in the relationship between interpersonal trauma and development of PTSD symptoms, and whether this effect differed for different ethnic groups, Latinas and non-Latinas. The second study focused on women who had experienced sexual assault, and



investigated if these acculturative factors in women who experienced sexual assault was related to lower or greater PTSD symptoms, and if this relationship was moderated by ethnicity, Latinas versus non-Latinas.

In study 1, our findings indicated that, as predicted, interpersonal trauma was associated with more severe symptoms of PTSD than other types of trauma, replicating findings from a large body of research (Breslau, 2001; Forbes et al., 2012; Forbes et al., 2014; Kessler et al., 2014; Kessler, Sonnega, Bromet, Hughes, & Nelson, 1995; Luthra et al., 2009; Resnick, Kilpatrick, Dansky, Saunders, & Best, 1993; Yoo et al., 2018). This is consistent with the notion that interpersonal trauma can lead to more severe and long-lasting symptoms of PTSD (American Psychiatric Association, 2013), as interpersonal trauma has unique elements of injustice, betrayal, malevolence and is associated with negative psychological outcomes when compared to other types of trauma (D'Andrea, 2012). Further, it is well documented that interpersonal trauma leads to higher rates of PTSD (Breslau, 2001; Kessler et al., 2014; Kessler, Sonnega, Bromet, Hughes, & Nelson, 1995; Luthra et al., 2009; Resnick, Kilpatrick, Dansky, Saunders, & Best, 1993) in comparison to non-interpersonal trauma. Our study also advances the field by providing novel insight into this persistent phenomenon in Latinas and young adult women in the United States, which is a largely understudied group.

Further, our findings indicated that women with histories of interpersonal trauma reported lower ethnic identity than women who have experienced other types of trauma. These findings support Torres (2003) Model of Ethnic Identity Development, which stated that exposure to negative relationships within the environment (which is often the case in women who have experienced interpersonal trauma) can be disruptive to Latino ethnic identity development.

Furthermore, in the current study ethnic identity mediated the relationship between trauma and PTSD symptoms, and accounted for 12.5% of the variance between these two variables. These results support hypothesis 1-4, and compliments previous findings that ethnic identity, or having a strong sense of belongingness to a particular ethnic group is associated with better mental health (Smith & Silva, 2011; Phinney & Kohatsu, 1997), increased well-being after chronic experiences of discrimination (Branscombe, 1999), buffer against negative traumatic life events, and protect against the development of PTSD in women (Nikulina, Bautista, & Brown, 2016).

While this study does not provide insight into the mechanism underlying the protectiveness of ethnic identity, it seems that a sense of belongingness to a group and ethnic pride may lead to greater self-esteem (Romero & Roberts, 2003; Umaña-Taylor & Shin, 2007; Umaña-Taylor et al., 2004), a feeling of connectedness and empowerment within an oppressive environment (Phinney, 1989), and lend to a stronger sense of identity and clarity about one's place in the world (Arce, 1981; Baldwin, 1979). This sense of cultural identity, may, in turn, reinforce individual identity, which can be centering and provide purpose and direction (Phinney, 1993), particularly in women who have experienced interpersonal trauma.

Consistently, our findings showed that a higher sense of acculturation was associated with fewer PTSD symptoms. Our finding supports previous literature on acculturation, which found that comfort with the mainstream U.S. culture is associated with better overall adjustment, positive psychological outcomes and better mental health (Yoon et al., 2013), as well as positive help-seeking behaviors in Latinas who survived sexual assault (Sabina, Cuevas, & Schally, 2012). Accordingly, Latinas who reported less acculturation to the U.S. mainstream culture,

experienced elevated PTSD symptoms (Escobar et al., 1983; Marshall & Orlando, 2002; Perilla et al., 2002).

Although acculturation did not mediate the association between type of trauma and PTSD symptoms, it further points to the potential role of a sense of belonging in protecting interpersonally traumatized women against PTSD. Studies in different populations, such as firefighters, found that perceptions of belongingness attenuates symptoms of PTSD (Stanley et al., 2018) and that belongingness mediates the relationship between stress and PTSD in firefighters (Armstrong, Shakespeare-Finch & Shochet, 2016). Similar to ethnic identity (i.e. sense of belongingness to an ethnic group), acculturation may establish a larger sense of belongingness within a society, which can buffer against the deleterious effects of trauma.

This study also examined the role of ethnicity as a possible moderator on the relationship between ethnic identity and PTSD. This interaction was non-significant, and we did not find that being Latina or non-Latina altered the relationship between one's sense of ethnic identity and PTSD symptoms. It appears that having a greater sense of belongingness to a group whether it is Latin-American or other, may be adaptive and protective against developing PTSD symptoms after experiencing an interpersonal trauma. This finding also suggests that Latina women are more similar to sexually victimized women from other ethnic/racial groups, in regards to the protectiveness of ethnic identity. This is consistent with past literature, which found that ethnic identity was associated with psychological well-being in multiple ethnic groups, including Latinos, African Americans, and Native Americans (Smith & Silva, 2011) and Asian Americans (Lee, 2003). Despite not finding group differences in the model based on ethnicity, the overall sample in the current study was quite diverse, and was composed of 39.3% Caucasian women, 31.3% Asian women, 10.3% Black women, 2.9% multiracial women, 1.5% Native American

women, 1.5% Native Hawaiian women, and 19.5% who identified as other. Similarly, race was quite diverse within the groups as well (refer to Table 1), and suggests our findings are generalizable to college-age women of multiple racial backgrounds.

In comparison, while study 1 found that ethnic identity mediated the association between interpersonal trauma and PTSD symptoms, study 2 found that in-group preference and acculturation was predictive of PTSD symptomology in sexually assaulted women. There are a number of likely reasons for these differences: 1) it is possible that sexual trauma and its protective factors are unique in association with PTSD relative to other interpersonal trauma, 2) it is possible that the location of the two samples and the women who participated represent different groups of individuals, and 3) finally, there may be cohort effects because study 2 was conducted in 2009 and study 1, six to seven years later. Although we are not able to disentangle these differences in the current study, future research replicating this work may be able to shed light on the reason for these distinct findings. In particular, it would be important to consider whether sexual trauma has a unique pathway towards PTSD symptomatology that is different from other types of trauma (Kessler et al., 2014; Nishith, Mechanic, & Resick, 2000; Ullman & Peter-Hagene, 2014).

Finally, interaction analyses in study 2 found that in-group preference was protective against PTSD for non-Latinas but detrimental for Latina women. The protective effects of social support have been observed in prior research where greater social support significantly attenuated the development of PTSD symptoms in survivors of childhood sexual abuse (Hyman, Gold, & Cott, 2003); however this earlier study did not examine ethnic differences nor did it examine a preference for relationships with individuals of one's background specifically. Our findings suggest, U.S.-born non-Latina women, European-American, Canadian-American and

English/French-speaking, Caribbean-American women largely benefit from having relationships with those of their own ethnic group, compared to Latina women, whose PTSD symptoms seem to be exacerbated by relationships within their own ethnic group. These findings are similar to Ai and colleagues (2014), which also found that social support did not mitigate the negative effects of sexual trauma for Latina women.

Though some Latinas were able to maintain relationships within their own ethnic group, the quality of these relationships are not known, and it is possible that the pressures of gender-role expectations such as *marianismo*, *familismo*, chastity and self-silencing, particularly post-sexual assault, may have been reinforced by in-group relationships with other Latinos and exacerbated symptoms of PTSD. For example, according to the values circumscribed in the tenet of *familismo*, Latinas are expected to maintain their family's reputation and are discouraged to share family issues with outsiders (Noblega, 2012). For this reason, Latinas are also less likely to report instances of intimate partner violence to law enforcement, and may chose to share their experience of abuse with close family in friends instead (Weidmer, 2007). However, the literature demonstrates that disclosure of domestic violence to family and friends is linked to higher risk for future assault in Latina women (Cheng & Lo, 2016), and may in part explain the negative consequences of socially affiliating with other Latinas after experiencing sexual abuse or assault. Also, associating with other Latinas may also reinforce the ideals behind chastity, which discourage leaving one's husband or long-term sexual partner, even if they are abusive (Kulkarni, 2007), therefore increasing women's risk of being re-victimized and develop PTSD (Moreno, 2007; Noblega, 2012).

It is also possible that socioeconomic status (SES) and access to resources may also be driving the negative effects of in-group preference for Latinas. Research indicates individuals

with higher SES, have greater personal resources such as money, social capital, power, knowledge and educational attainment (Peng, 2009). In turn, individuals in high SES levels, have greater access to high quality medical care and new treatments, which leads to better outcomes (Chang & Lauderdale, 2009). It is possible, that Latinas, who have historically lived under lower SES levels in the United States (Morales & Lara, 2007), who socialize with other Latinas (also low SES), will have a limited knowledge of, information about and access to medical, legal and mental health services after experiencing sexual assault; therefore, prolonging untreated PTSD symptoms. However, this was not directly assessed in our analysis.

### **Conclusions**

Latinos are currently the largest growing minority group in the United States and are projected to encompass 29% of the population by 2050. This group is more likely to experience trauma and develop PTSD when compared to their Caucasian peers. In particular, Latina women comprise an especially vulnerable sub-group, and are more likely to experience interpersonal and sexual trauma and develop PTSD. Despite composing an overwhelming presence in the U.S. population, and deteriorating mental health, little research has been conducted to understand the development of PTSD within this vulnerable group. While the literature suggests acculturative factors such as ethnic identity, in-group relationships and comfort with the mainstream U.S. culture have been associated with overall well-being and better psychological outcomes in Latinos, their role in PTSD, and PTSD in Latina women with a history of interpersonal trauma has not been examined.

This study has addressed this gap in the literature by elucidating the mediating role of ethnic identity in the relationship between interpersonal trauma and PTSD symptomology in women. Further, ethnic identity had the same protective role against PTSD symptoms for

college-age women from multiple backgrounds, including Black, Native American, Asian, Caucasian, Native Hawaiian and multi-racial women. While this study did not reveal the underlying mechanism for the protective role of ethnic identity, our mediation model suggests that interpersonal trauma impacts ethnic identity formation, and makes women vulnerable to post-traumatic stress. In comparison, sexual trauma was more closely linked to relationships, such that Latinas who socialized more frequently with other Latinos had more severe PTSD symptoms, in comparison to their non-Latina counterparts. It is hypothesized that increased socialization within this group reinforces cultural and gender-based norms such as machismo, marianismo, familismo, chastity and self-silencing, which lead to negative stigma to sexual victimization, discourage help-seeking behaviors and encourage Latina women to remain in dangerous and abusive relationships, therefore exacerbating PTSD symptoms. In sum, this study provides insight into the impact of trauma on identity formation, ethnic identity formation in Latinos, and suggests differential pathways for PTSD in women based on trauma type (interpersonal versus sexual trauma). Future directions for research and clinical implications for these findings are listed below.

### **Limitations of the Study**

The current studies had some limitations including lack of knowledge about the number of traumatic experiences each woman had, which may lend to the severity of PTSD symptoms. Further, our data analysis did not account for response to disclosure of sexual abuse, or history of intervention, be it psychotherapy or medication, which may have influenced PTSD symptomology. Further, this is a retrospective report study which asked victims to identify as having experienced sexual victimization and may be subject to recall bias. Additionally, cross-sectional studies measure variables concurrently and cannot measure mediators in a correct

temporal fashion. When considering our factors of interest, ethnic identity and in-group preference could mean different concepts for distinct subgroups of Latinas when answering items on the Scale of Ethnic Experience. Furthermore, Latinas belong to different ethnic subgroups within the Hispanic community, which may influence the process of in-group preference, as well as foster their own set of beliefs on sexuality and victim blame. Our dataset did not enable comparison of ethnic identity and in-group preference ratings for different countries of origin (e.g. Cuba or Mexico), due to small sample sizes within each group. In addition, we did not directly assess constructs that are closely linked to ethnic identity, such as self-esteem (Romero & Roberts, 2003; Umaña-Taylor & Shin, 2007; Umaña-Taylor et al., 2004), and therefore is not accounted for in our modeling. In addition, this study used samples of college-aged women, and findings may not generalize to other samples outside of this population. Finally, sexual orientation and gender identity were not assessed in this study; therefore, our findings do not account for the intersectionality of sexual identity and mental health (Gattamorta, Salerno & Castro, 2019).

### **Future Studies**

Future studies should investigate the reasons why in-group relationships in the Hispanic culture can be harmful to Latinas who have been sexually victimized. Is it the response to disclosure? Is it because they are less likely to go to the police, and will instead seek support in family in friends? Is it the cultural and gender-role expectations of marianismo, familismo and self-silencing, which bind women to dysfunctional relationships and make them less likely to share and seek treatment after experiencing an interpersonal trauma? In regard to ethnic identity, it is unclear what the underlying mechanism is that allows for greater ethnic pride and ethnic identity to protect women from experiencing post-traumatic stress. Longitudinal data is needed



to explore its underlying mechanism and long-term impact. Future studies should also try to investigate differences in ethnic identity between different Hispanic countries of origins, such as Central Americans, Mexicans, Caribbean peoples and Latinos in South America, and analyze group differences in ethnic identity and acculturation in the United States.

### **Clinical Implications**

The strong role of ethnic identity, ethnicity, in-group preference and acculturation in the development of PTSD symptoms in women with a history of interpersonal and sexual trauma requires further attention be brought to acculturative factors when treating Latina women with a history of trauma. Clinicians practicing trauma-focused interventions such as prolonged exposure therapy (PE; Foa, Hembree & Rothbaum, 2007 ), cognitive behavioral therapy (CBT; Kar, 2011) and trauma-focused cognitive behavioral therapy (TF-CBT; de Arellano et al., 2014), and those who work with clinical populations including women who have been sexually assaulted, should include building ethnic identity into their treatment modality and fostering positive social relationships within their ethnic group for non-Latinas. Latina women may also benefit from explicitly learning about the negative effects of *marianismo* in abusive relationships.

Interventions such as *Si, Yo Puedo*, have been created for immigrant Latina women who have experienced domestic violence. These group sessions provide psychoeducation on cultural phenomena such as *machismo* and *familismo*, which promotes male dominance, superiority and discourages women from leaving unhealthy relationships. Segments of the treatment also focus on empowering women and further connecting them to their community. Follow-up studies found that women who completed these sessions had improved self-esteem, a greater knowledge of healthy relationship dynamics and reported feeling more empowered (Marrs Fuchsel, 2013).

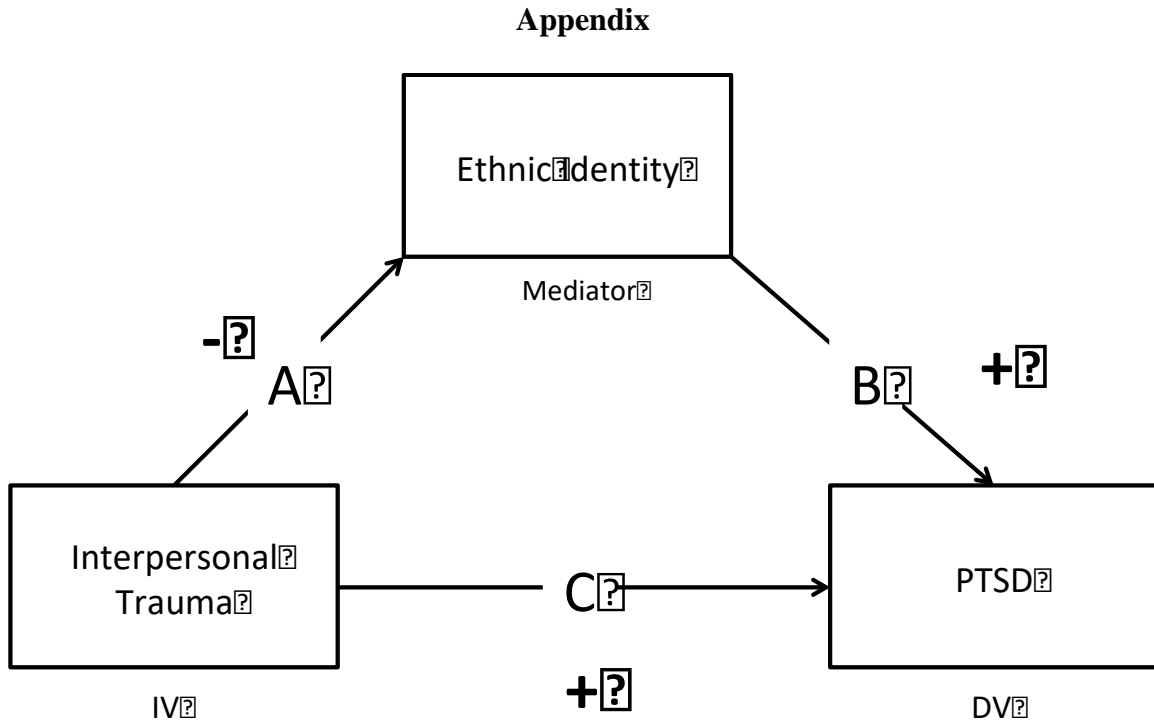


Figure 1. Schematic depicting ethnic identity as a mediator between trauma and PTSD.

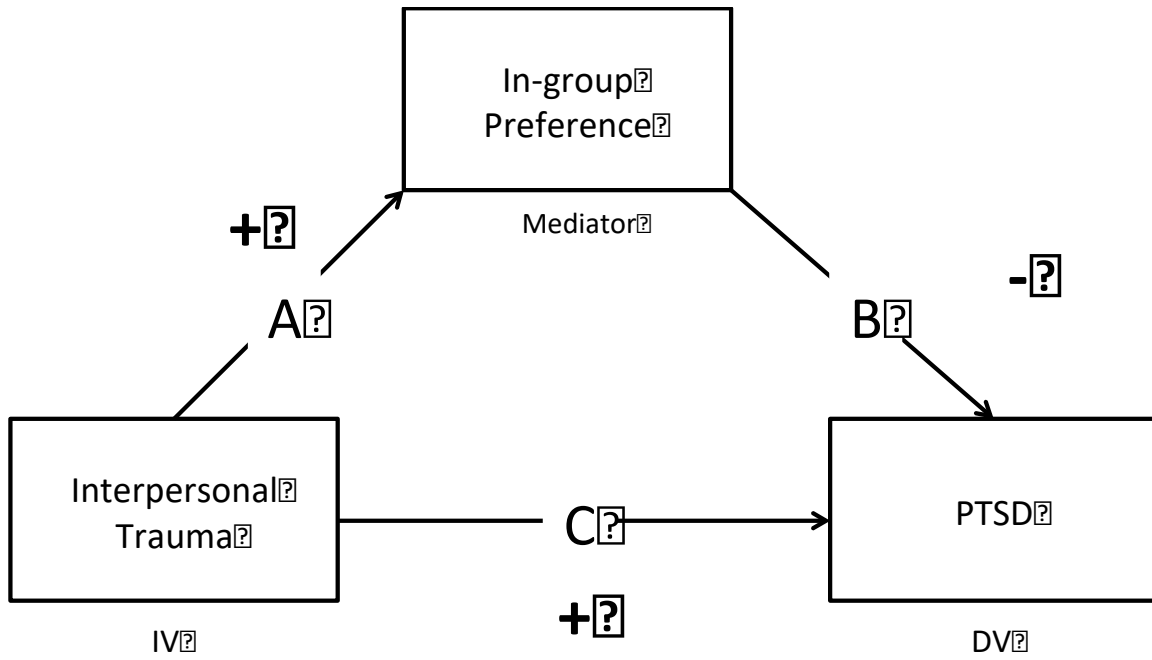


Figure 2. Schematic depicting in-group preference as a mediator between trauma and PTSD.

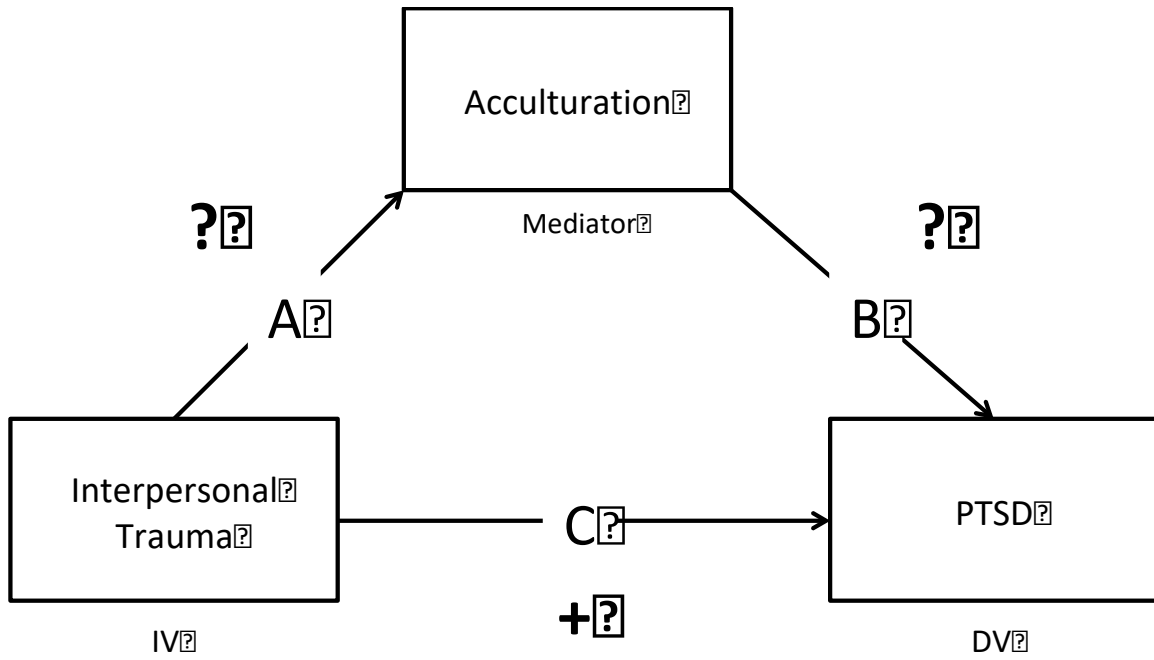


Figure 3. Schematic depicting in-group preference as a mediator between trauma and PTSD.

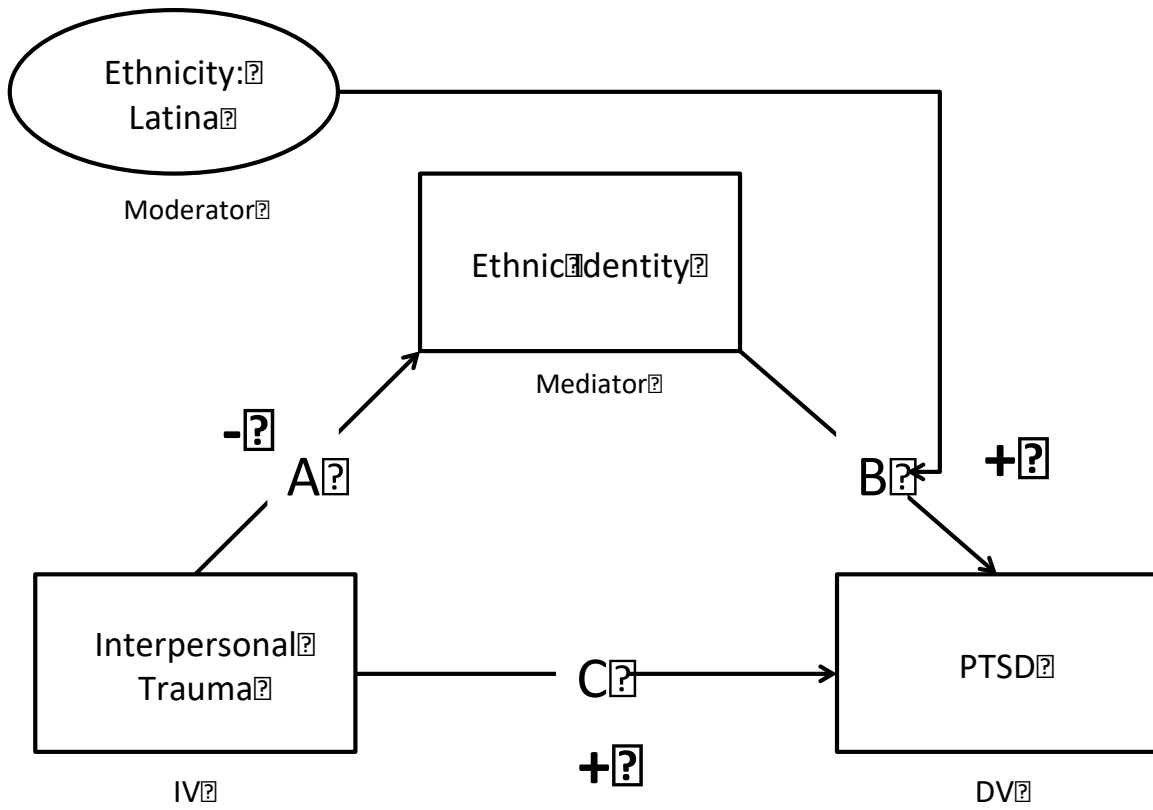


Figure 4. Schematic depicting ethnicity as a moderator in the ethnic identity medication model.

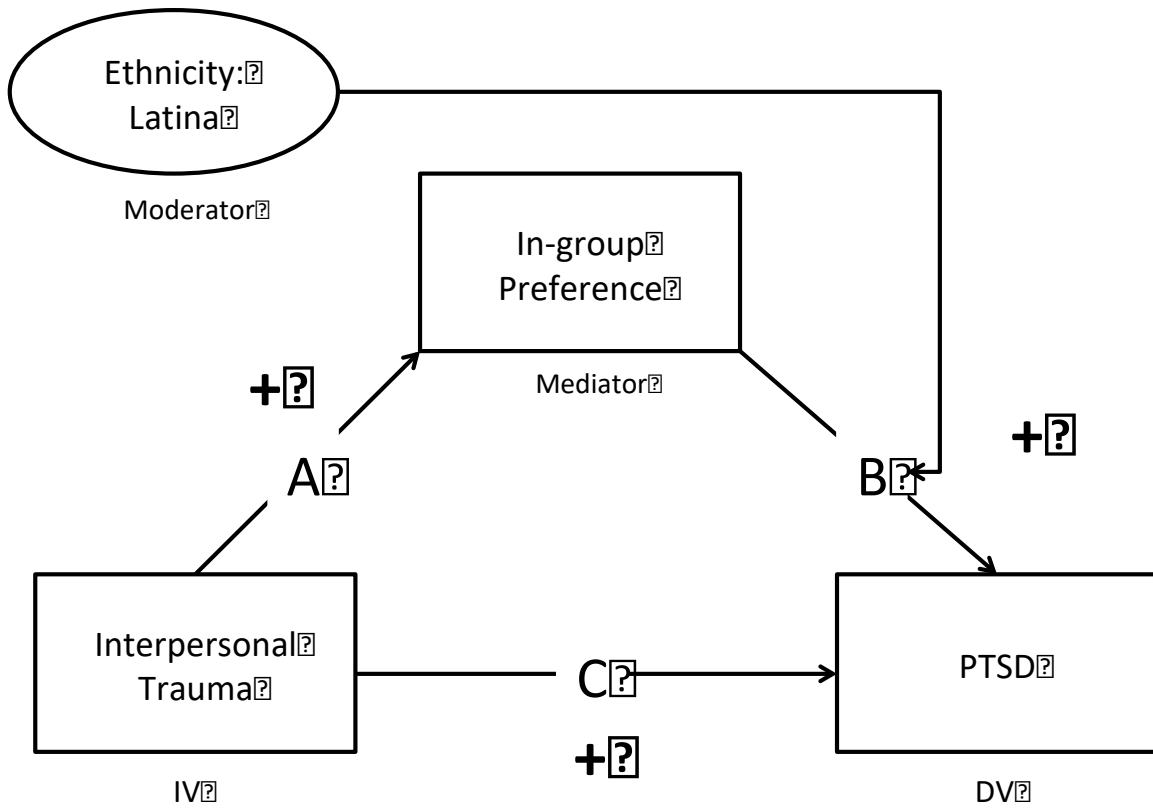


Figure 5. Schematic depicting ethnicity as a moderator in the in-group preference medication model.

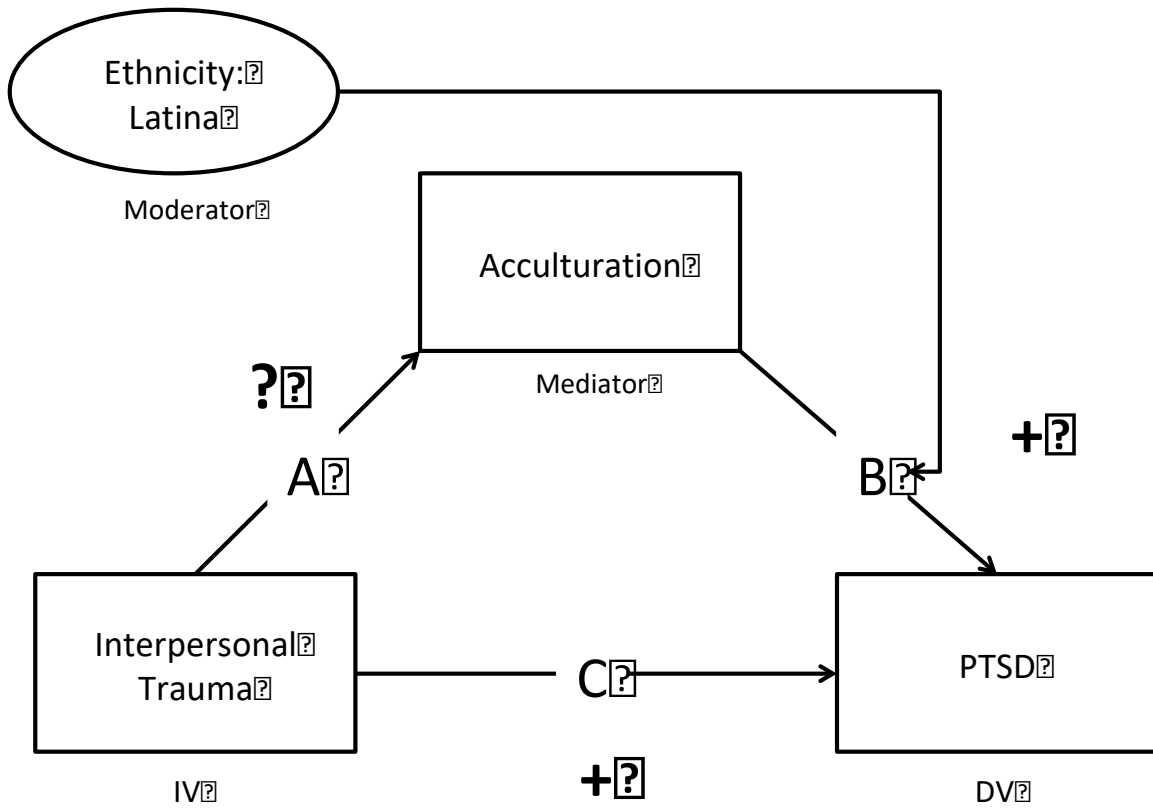


Figure 6. Schematic depicting ethnicity as a moderator in the acculturation medication model.

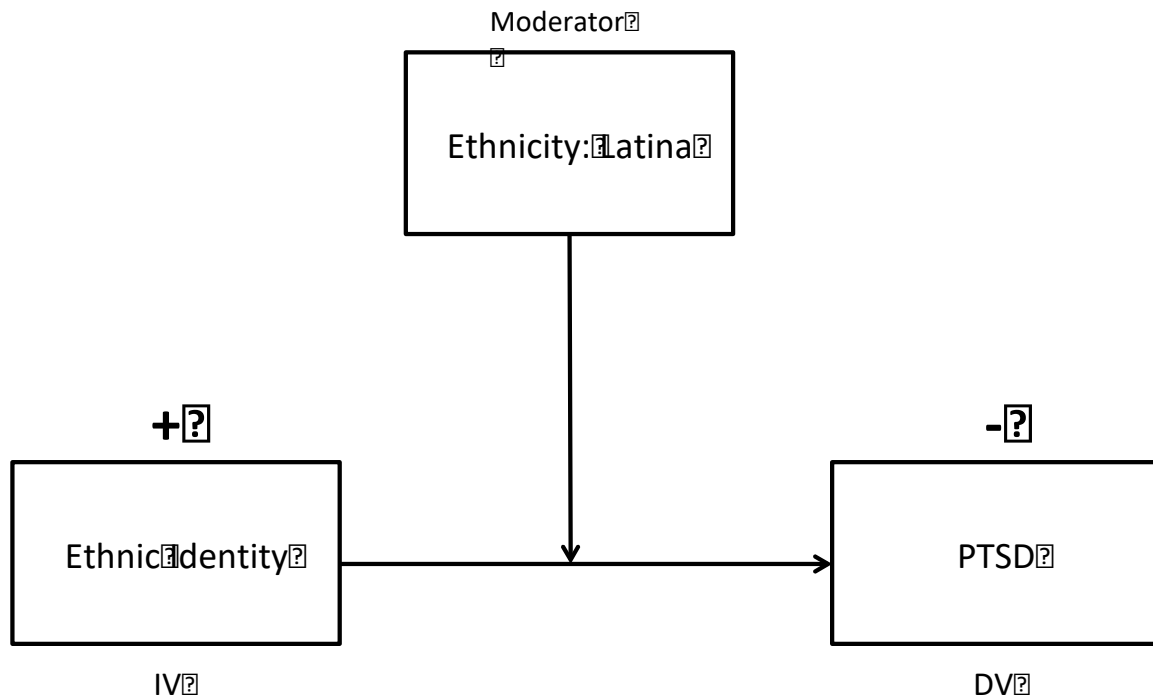


Figure 7. Schematic depicting ethnicity as a moderator between ethnic identity and PTSD in sexually assaulted women.



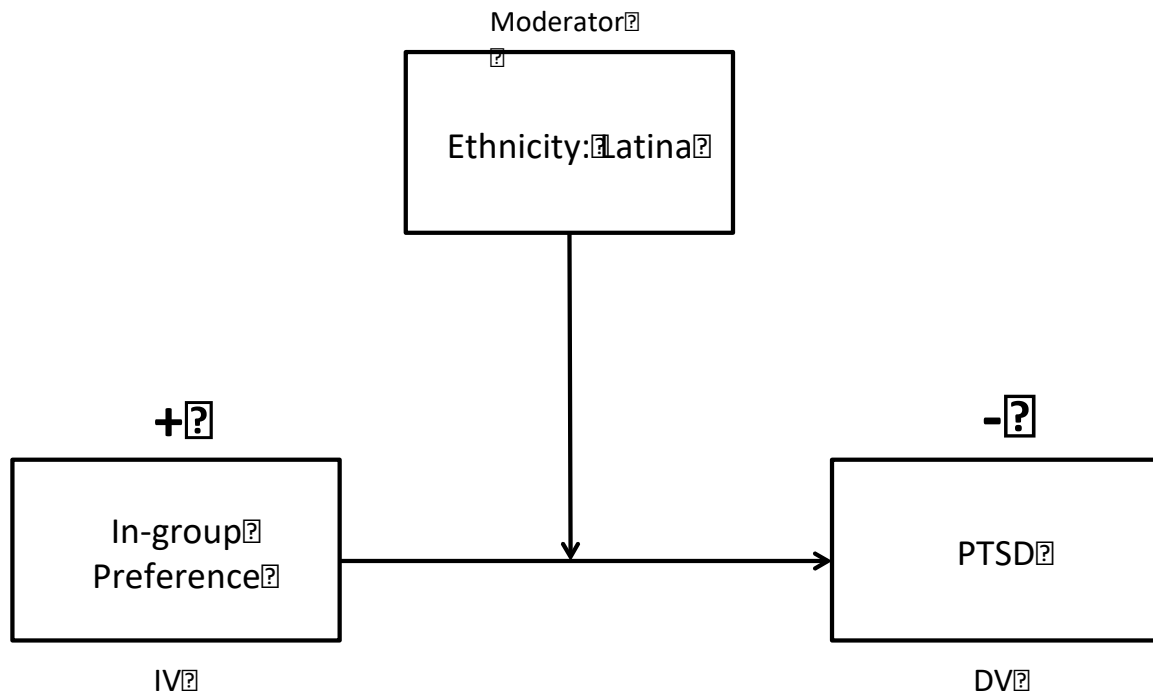


Figure 8. Schematic depicting ethnicity as a moderator between in-group preference and PTSD in sexually assaulted women.

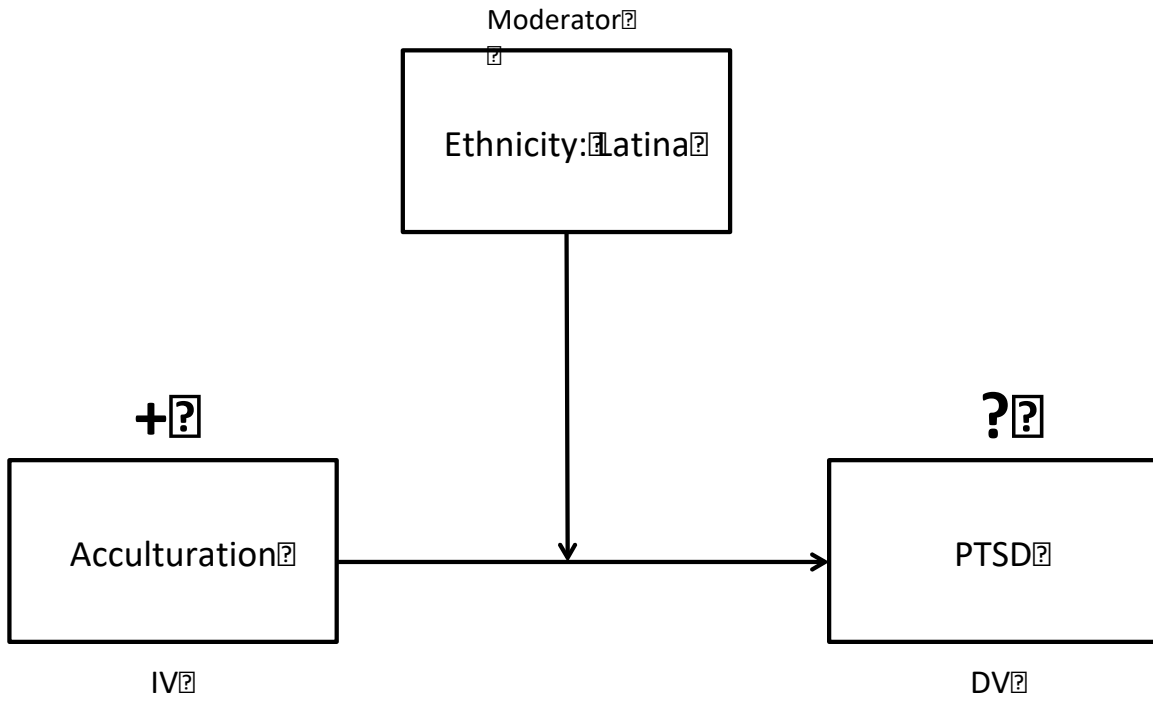


Figure 9. Schematic depicting ethnicity as a moderator between acculturation and PTSD in sexually assaulted women.

Table 1  
*Descriptive Statistics for Overall Sample, Latina and Non-Latina Women With a History of Interpersonal and Both Types of Trauma in Study 1.*

	<u>Total Sample</u> M (SD)/%	<u>Latinas</u> M (SD)/%	<u>Non-Latinas</u> M (SD)/%
Sample Size	N = 272	n = 63	n = 209
Age	21.28 (5.69)	22.17 (7.30)	21.02 (5.09)
Yearly Income			
< \$35,000	36.8%	46%	34.0%
\$35,000 - \$74,999	30.9%	34.9%	29.7%
≥ \$75,000	31.6%	19%	35.4%
Race			
Black	10.3%	4.8%	12%
Native American	1.5%	4.8%	.5%
Asian	31.3%	6.3%	38.8%
Caucasian	39.3%	30.2%	42.1%
Native Hawaiian	1.5%	4.8%	.5%
Multiracial	2.9%	7.9%	1.4%
Other	19.5%	58.7%	7.7%
History of Interpersonal Trauma			
Overall Interpersonal Trauma	66.2%	76.2%	63.2%
Emotional Abuse	31.3%	41.3%	28.2%
Emotional Neglect	16.5%	27%	13.4%
Physical Abuse	34.6%	49.2%	30.1%
Physical Neglect	11.0%	19%	8.6%
Sexual Abuse	22.8%	36.5%	18.7%
Domestic Violence	22.1%	30.2%	19.6%
Torture	3.7%	6.3%	2.9%
Imprisonment	3.3%	7.9%	1.9%
History of Other Trauma			
Overall Other Trauma	76.1%	74.6%	76.6%
Serious Accident	28.7%	42.9%	24.4%
Natural Disaster	58.1%	49.2%	60.8%
Military Combat	1.8%	1.6%	1.9%
Life Threatening Illness	16.9%	19.0%	16.3%
Other Traumatic Event	14.3%	23.8%	11.5%
Both Trauma Types	42.3%	50.8%	39.7%
Total PTSD	26.97 (10.23)	28.59 (10.62)	26.48 (10.08)
Total Ethnic Identity	18.11 (4.81)	17.22 (3.87)	18.38 (5.04)
Total In-group Preference	13.79 (3.51)	14.22 (3.32)	13.66 (3.57)
Total Acculturation	12.81 (3.09)	13.54 (2.87)	12.60 (3.14)

Note: M = mean; SD = standard deviation; % = percent.

Table 2  
*Bivariate Correlations Among PTSD, Mediators, Ethnicity and Control Variables  
 in Women with a History of Interpersonal Trauma, Study 1.*

	1	2	3	4	5	6	7
1. Total PTSD	-						
2. Total In-group Preference	.14*	-					
3. Total Ethnic Identity	-.25*	-.32**	-				
4. Total Acculturation	-.11	.06	.19**	-			
5. Ethnicity	.09	.07	-.10	.13*	-		
6. Age	.05	.05	.012	.06	.09	-	
7. Income	-.13*	-.22**	.02	-.09	-.15*	-.04	-

Note: \* $p < .05$ . \*\* $p < .01$ .

Table 3  
*Mediation Models: Comparing interpersonal trauma to other trauma (Independent Variable) in the prediction of PTSD symptoms (Dependent Variable) via the Potential Mediating Variables: Ethnic Identity, In-group Preference and Acculturation in Women with a History of Interpersonal Trauma, Study 1.*

Mediating Variable (MV)	Effect of IV on MV (SE), Path A	Effect of MV on DV (SE), Path B	Direct Effect (SE), Path C	Indirect Effect (SE)	% Effect of MV	95% CI of the indirect effect
Ethnic Identity ( <i>n</i> = 272)	-1.56** (.62)	-.46** (.12)	5.13** (1.26)	.73 (.36)	12.50%	[-.10, 1.55]
In-group preference ( <i>n</i> = 272)	.83 (.45)	.25 (.17)	5.65** (1.28)	.21 (.20)	3.59%	[-.09, .69]
Acculturation ( <i>n</i> = 272)	.18 (.39)	-.39* (.20)	5.93** (1.27)	-.07 (.18)	1.20%	[-.48, .27]

*Note.* IV = independent variable; MV = mediating variable; DV = dependent variable; SE = standard error; CI = confidence interval. Analyses controls for age and SES; PROCESS Model 4.

\**p* < .05. \*\**p* < .01.

Table 4  
*Conditional of Interpersonal/Both Trauma Types on PTSD Symptoms Through Potential Mediators by Moderator: Ethnicity*

	Indirect effect	Boot SE	95% CI on the conditional indirect effect
Ethnic identity ( <i>n</i> = 272)			
Latinas	1.18	.73	[.05, 2.87]
Non-Latinas	.64	.73	[.07, 1.41]
In-group Preference ( <i>n</i> = 272)			
Latinas	.15	.31	[-.34, .93]
Non-Latinas	.22	.22	[-.15, .74]
Acculturation ( <i>n</i> = 272)			
Latinas	-.15	.40	[-1.02, .64]
Non-Latinas	-.06	.16	[-.42, .23]

*Note.* Boot = bootstrap analysis (5,000 samples); SE = standard error; CI = confidence interval. Controlling for age and SES; PROCESS Model 14. \* $p < .05$ .

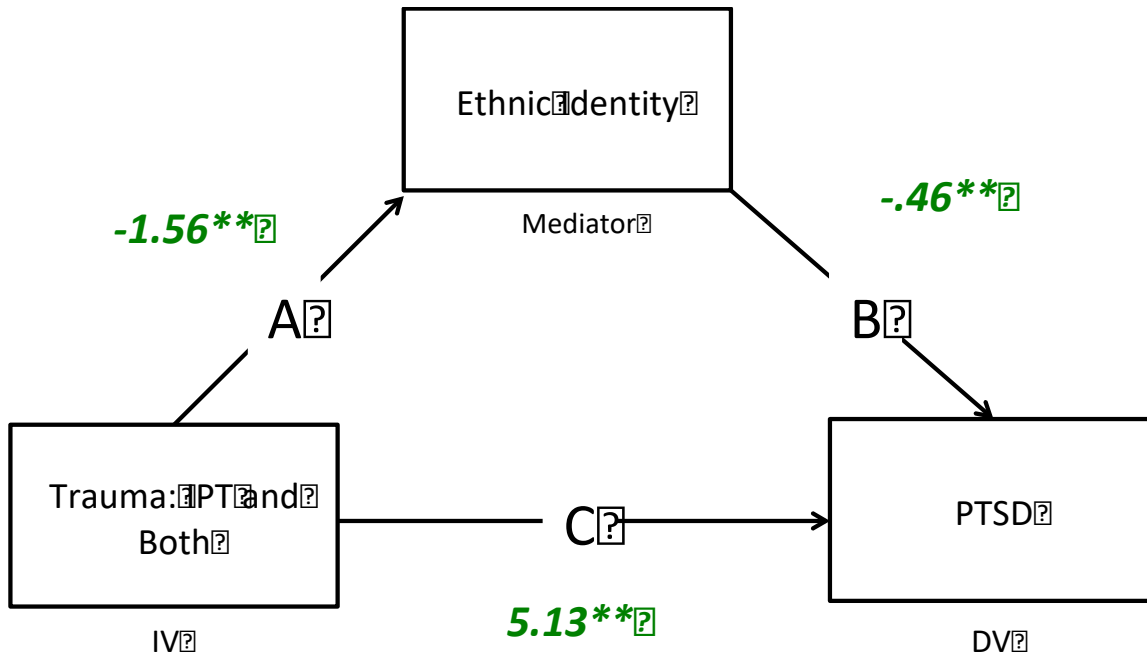


Figure 10. Schematic depicting ethnic identity as a mediator between trauma and PTSD.

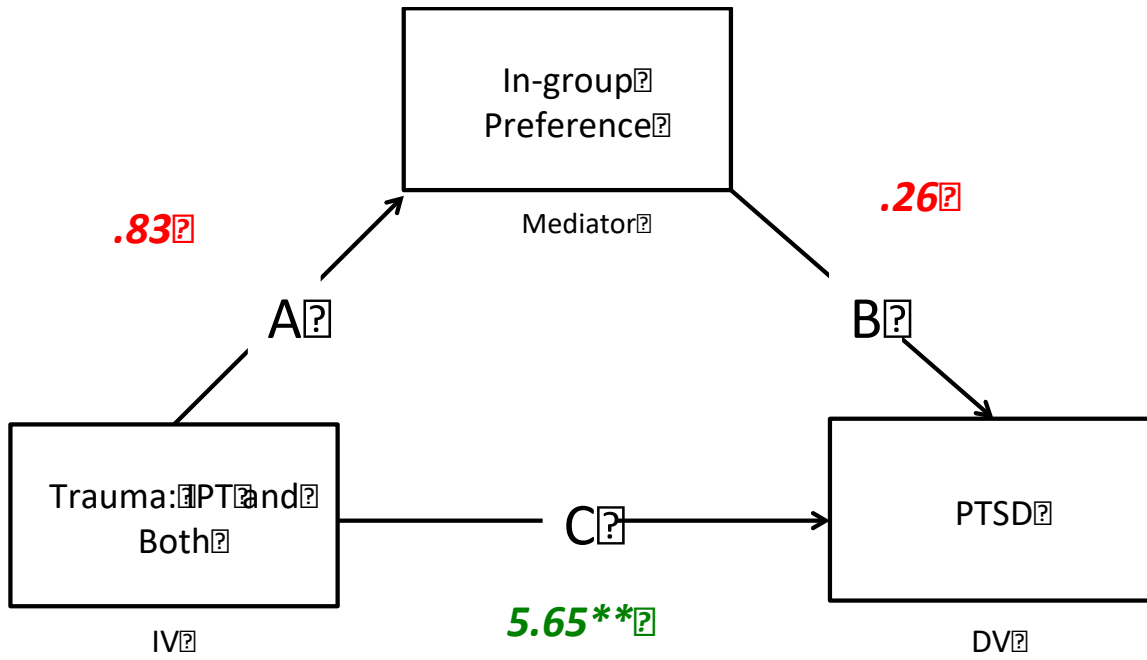


Figure 11. Schematic depicting in-group Preference as a mediator between trauma and PTSD.



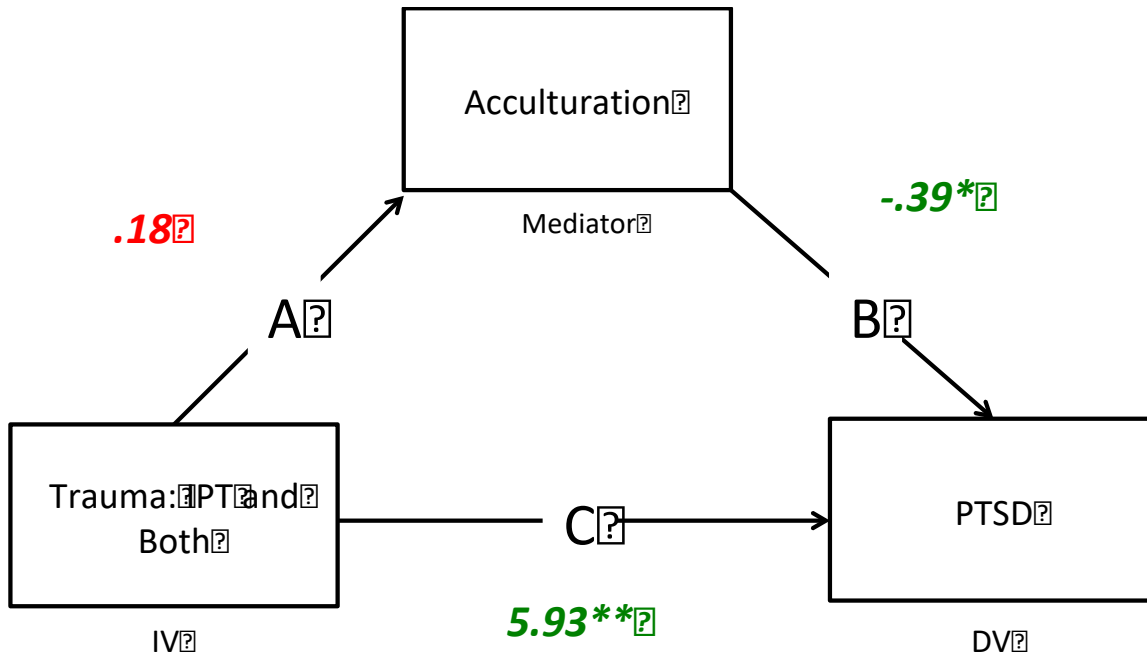


Figure 12. Schematic depicting acculturation as a mediator between trauma and PTSD.

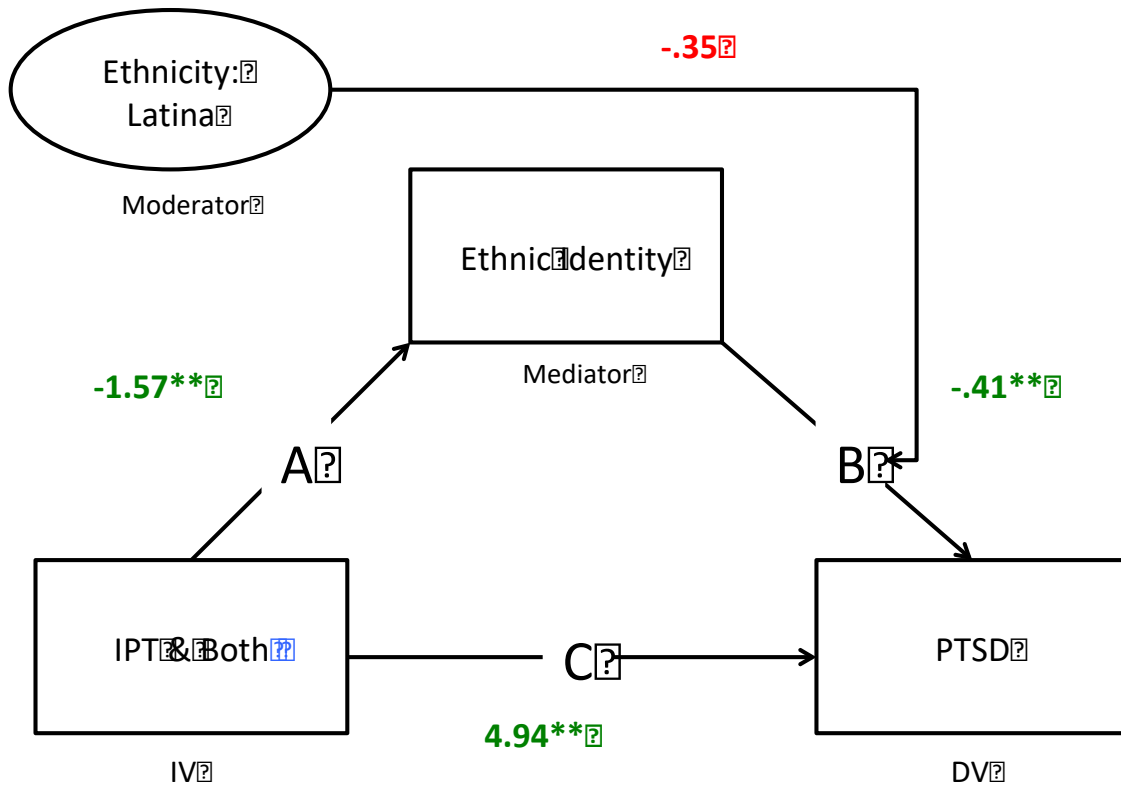


Figure 13. Schematic depicting moderated mediation model with ethnicity as a moderator of the relationship between ethnic identity and PTSD.

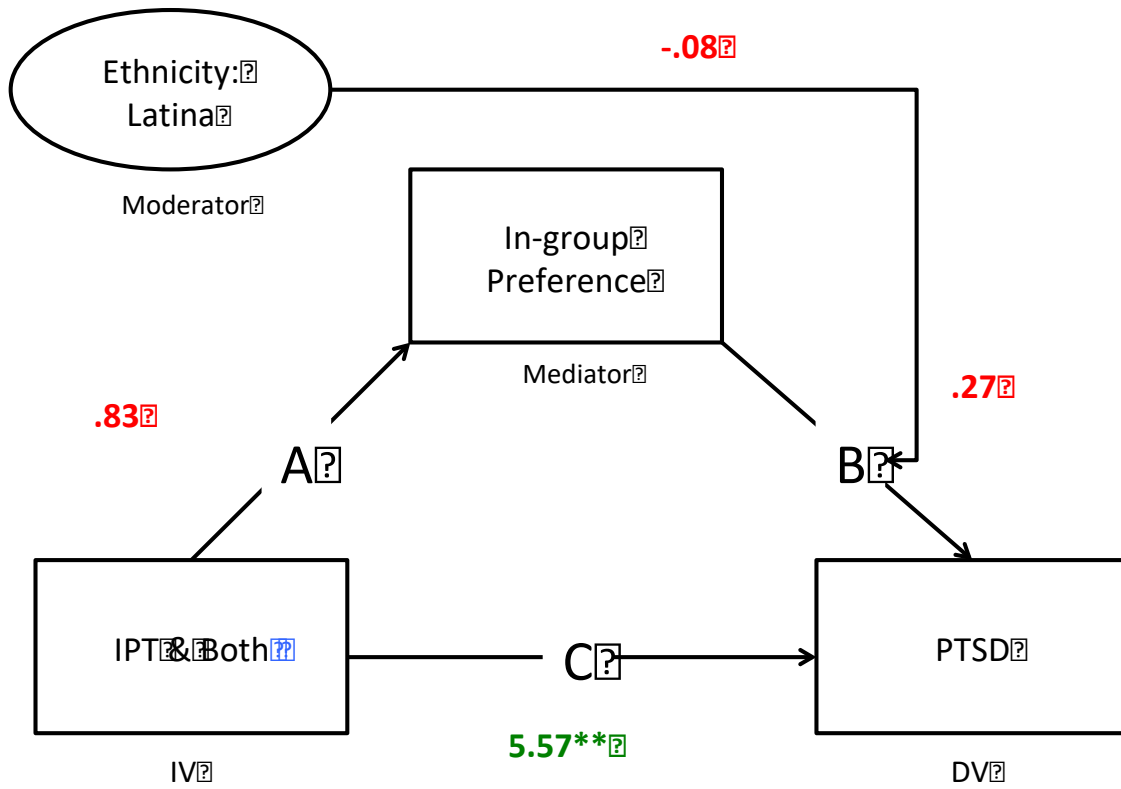


Figure 14. Schematic depicting moderated mediation model with ethnicity as a moderator of the relationship between In-group and PTSD.

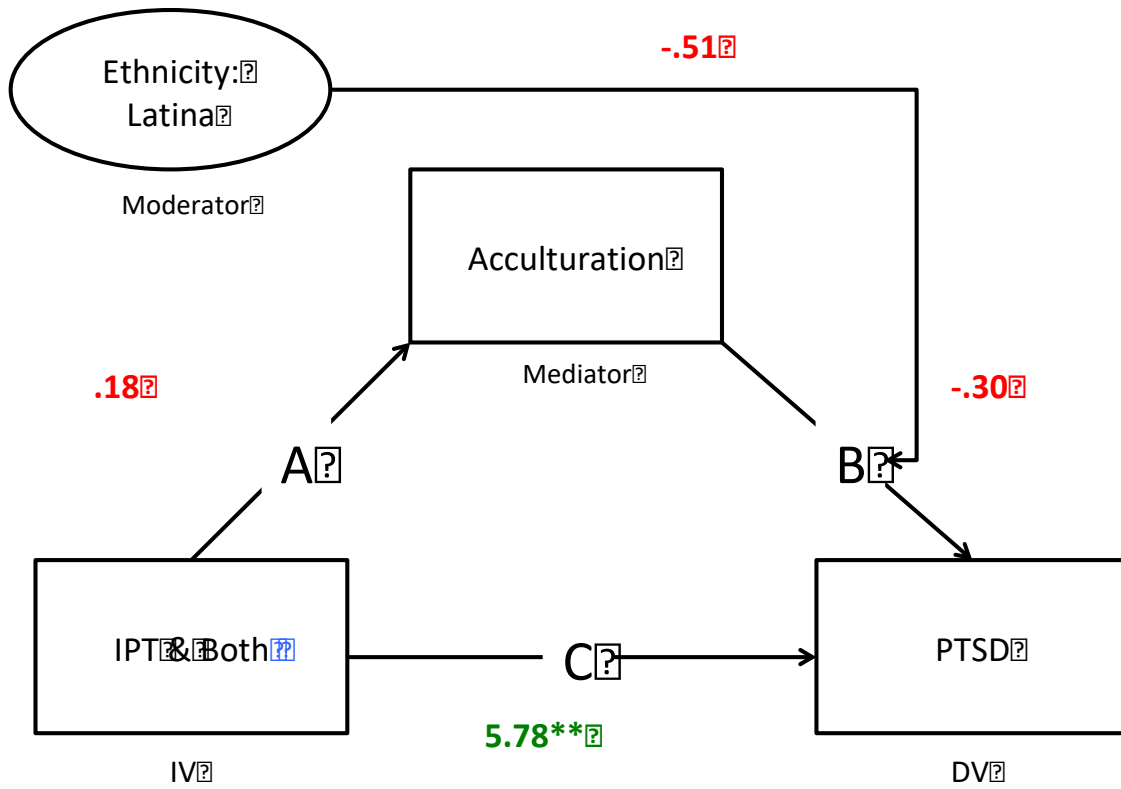


Figure 15. Schematic depicting moderated mediation model with ethnicity as a moderator of the relationship between acculturation and PTSD.

Table 5  
*Descriptive Statistics for Overall Sample, and Latina and Non-Latina Sexually Assaulted Women in study 2.*

	<u>Total Sample</u> M (SD)/%	<u>Latinas</u> M (SD)/%	<u>Non-Latinas</u> M (SD)/%
Sample Size	<i>N</i> = 222	<i>n</i> = 147	<i>n</i> = 70
Age	21.32 (4.22)	21.39 (3.99)	21.12 (4.79)
History of Sexual Assault	100%	100%	100%
School			
FDU	82%	91.8%	62.9%
SJU	18%	8.2%	37.1%
Immigration Status			
US Born	74.3%	71.4%	80.0%
Immigrant	25.7%	28.6%	20.0%
Years in the US	18.16 (6.03)	18.35 (4.87)	17.88 (8.06)
Place of Birth			
US	74.3%	71.4%	80%
Europe	2.3%	-	7.1%
Canada	.5%	-	1.4%
Puerto Rico	.9%	1.4%	-
Dominican Republic	.9%	1.4%	-
Other Spanish Speaking Caribbean	5.9%	8.8%	-
English Speaking Caribbean	2.3	-	7.1%
French Speaking Caribbean	.5	-	1.4%
Central or South America	11.3%	17.0%	-
Other	1.4%	-	2.9%
Total PTSD	8.15 (8.53)	8.10 (8.55)	8.16 (8.60)
Total Ethnic Identity	27.51 (9.72)	26.82 (9.06)	28.87 (11.13)
Total In-group Preference	16.99 (4.57)	16.97 (4.40)	17.24 (4.88)
Total Acculturation	14.06 (5.16)	14.23 (4.96)	13.84 (5.54)

*Note:* *M* = mean; *SD* = standard deviation; % = percent.

Table 6  
*Bivariate Correlations Among PTSD, Moderators, Ethnicity and Control Variables in Sexually Assaulted Women, Study 2.*

	1	2	3	4	5	6	7	8
1. Total PTSD	-							
2. Total In-group Preference	-.00	-						
3. Total Ethnic Identity	-.05	.28	-					
4. Total Acculturation	.07	-.08	-.15*	-				
5. Ethnicity	-.02	-.02	-.10	.03	-			
6. Age	-.04	.09	.06	.17**	.03	-		
7. Immigration Status	.04	-.14*	-.08	.34**	.09	.19**	-	
8. City of Origin	.20**	.03	.10	-.10	-.38**	-2.8**	.04	-

Note: \* $p < .05$ . \*\* $p < .01$ .

Table 7  
*Predictors of PTSD in Sexually Assaulted Women, Study 2*

	PTSD Scores		
	$\beta$	95% CI	
		Lower Bound	Upper Bound
<b>Step 1</b>			
In-group Preference	.01	-.25	.29
Ethnic Identity	-.06	-.18	.08
Acculturation	.08	-.11	.36
Ethnicity	.06	-1.57	3.93
Age	.02	-.26	.33
City of Origin	.24**	1.95	9.04
<b>Step 2</b>			
In-group Preference	-.31**	-1.02	-.12
Ethnic Identity	.11	-.12	.31
Acculturation	.28*	.07	.86
Ethnicity	.06	-1.52	3.87
Age	.03	-.22	.35
City of Origin	.23**	1.81	8.76
Ethnicity by In-group Preference	.36**	.29	1.41
Ethnicity by Ethnic Identity	-.16	-.45	.09
Ethnicity by Acculturation	-.22+	-.94	.02
<b>Model Summary Statistics</b>			
F	2.62**		
Adjusted R <sup>2</sup>	.07		
Second Step R <sup>2</sup> Change	.06		

*Note.* PTSD = post-traumatic stress disorder; PTSD Scores = PTSD Symptoms Scale; CI = confidence interval.

\* $p < .05$ . \*\* $p < .01$ . \*\*\* $p < .001$ . + $p = .06$

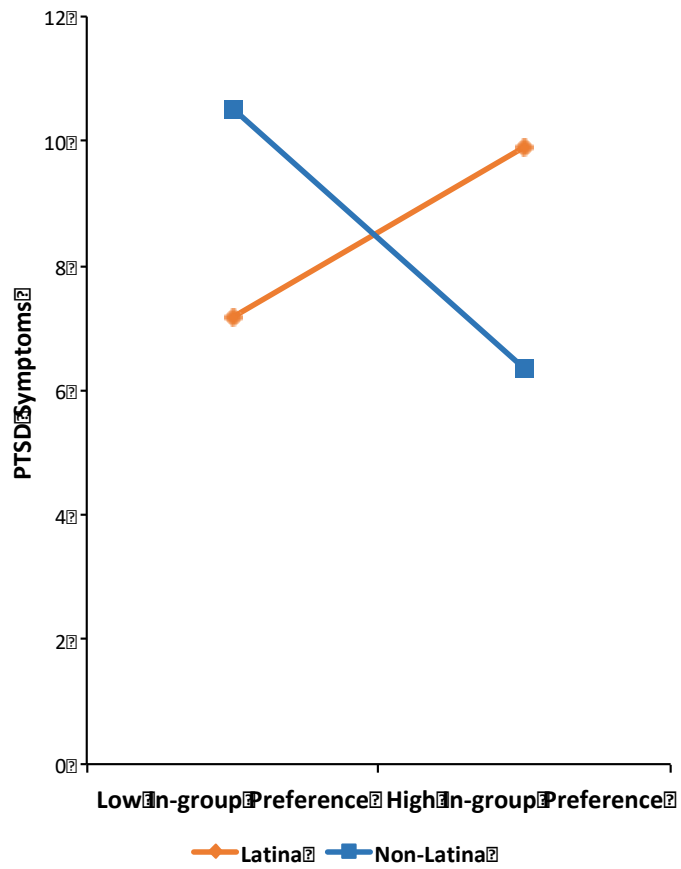


Figure 16. Interaction Between In-group Preference and Ethnicity. Line graph depicting interaction between In-group Preference and Ethnic Identity in Latinas and Non-Latinas.



### References

- Alegria, M., Canino, G., Shrout, P. E., Woo, M., Duan, N., Vila, D., . . . Meng, X. L. (2008). Prevalence of mental illness in immigrant and non-immigrant U.S. Latino groups. *Am J Psychiatry*, *165*(3), 359-369. doi:10.1176/appi.ajp.2007.07040704
- American Psychiatric Association. (2013). *Diagnostic and Statistical Manual of Mental Disorders* (5 ed.). Washington DC.
- American Association of University Women Educational Foundation. 2001. *Hostile Hallways: Bullying, Teasing, and Sexual Harassment in Schools*. New York, NY: American Association of University Women Educational Foundation.
- Arredondo, P., & Bordes, V. (2005). Mentoring and 1<sup>st</sup> year Latina/o college students. *Journal of Hispanic Higher Education*, *4*(2), 114-133.
- Armstrong, D., Shakespeare-Finch, J., & Shochet, I. (2016). Organizational belongingness mediates the relationship between sources of stress and posttrauma outcomes in firefighters. *Psychological Trauma: Theory, Research, Practice, and Policy*, *8*(3), 343-347. <http://dx.doi.org/10.1037/tra0000083>
- Arnett, J. J., & Tanner, J. L. (2006). *Emerging adults in America: Coming of age in the 21st century*. Washington, DC: American Psychological Association.
- Ashmore, R. D., Deaux, K., & McLaughlin-Volpe, T. (2004). An organizing framework for collective identity: articulation and significance of multidimensionality. *Psychol Bull*, *130*(1), 80-114. doi:10.1037/0033-2909.130.1.80
- Bergen, R.K. 1996. *Wife Rape: Understanding the Response of Survivors and Service Providers*. Thousand Oaks, CA: Sage Publications.
- Blanco, C., Xu, Y., Brady, K., Perez-Fuentes, G., Okuda, M., & Wang, S. (2013). Comorbidity

- of posttraumatic stress disorder with alcohol dependence among US adults: results from National Epidemiological Survey on Alcohol and Related Conditions. *Drug Alcohol Depend*, 132(3), 630-638. doi:10.1016/j.drugalcdep.2013.04.016
- Branscombe, N. R., Schmitt, M. T., & Harvey, R. (1999). Perceiving pervasive discrimination among African Americans: Implications for group identification and well-being. *Journal of Personality and Social Psychology*, 77, 135–149.
- Breslau, N. (2001). The epidemiology of posttraumatic stress disorder: what is the extent of the problem? *J Clin Psychiatry*, 62 Suppl 17, 16-22.
- Bureau of Justice Statistics. 2004. National Crime Victimization Survey. Washington, DC: U.S. Department of Justice, Bureau of Justice Statistics.
- Casey, B. J., Jones, R. M., & Hare, T. A. (2008). The adolescent brain. *Ann N Y Acad Sci*, 1124, 111-126. doi:10.1196/annals.1440.010
- Castillo, L. G., Perez, F., V, Castillo, R. & Ghosheh, M., R. (2010). Construction and initial validation of the Marianismo Beliefs Scale. *Counselling Psychology Quarterly*, 23(2).
- Census Bureau. 2008. An Older and More Diverse Nation by Midcentury. Washington, DC: U.S. Census Bureau. Available at [www.census.gov/newsroom/releases/archives/population/cb08-123.html](http://www.census.gov/newsroom/releases/archives/population/cb08-123.html).
- Chang, V., & Lauderdale, D. (2009). Fundamental Cause Theory, technological innovation, and health disparities: The case of cholesterol in the era of statins. *Journal of Health and Social Behavior*, 50, 245–260.
- Chavez, A. & Guido-DiBrito, F. (1999). Racial and ethnic identity and development. *New Directions for Adult and Continuing Education*, 84.
- Chavez-Korell, S., Benson-Florez, G, Delgado Rendon, A. (2013). Examining the relationships

- between physical functioning, ethnic identity, acculturation, familismo, and depressive symptoms for Latino older adults. . *The Counseling Psychologist*, 42(2), 255-277.
- Cheng, T. C., & Lo, C. C. (2016). Racial Disparities in Children's Health: A Longitudinal Analysis of Mothers Based on the Multiple Disadvantage Model. *J Community Health*, 41(4), 753-760. doi:10.1007/s10900-016-0149-y
- Chivers-Wilson, K. A. (2006). Sexual assault and posttraumatic stress disorder: a review of the biological, psychological and sociological factors and treatments. *Mcgill J Med*, 9(2), 111-118.
- Cokley, K. (2007). Critical issues in the measurement of ethnic and racial identity: A referendum on the state of the field. . *Journal of Counseling Psychology*, 54, 224-234.
- Creamer, M., Burgess, P., & McFarlane, A. C. (2001). Post-traumatic stress disorder: findings from the Australian National Survey of Mental Health and Well-being. *Psychol Med*, 31(7), 1237-1247.
- Crimes Against Children Research Center. (2019). Retrieved from <http://www.unh.edu/ccrc/index.html>
- D'Andrea, W., Ford, J., Stolbach, B., Spinazzola, J. & van der Kolk, B. (2012). Understanding interpersonal trauma in children: why we need a developmentally appropriate trauma diagnosis. *American Orthopsychiatric Association*, 82(2), 187-200.
- de Arellano, M. A., Lyman, D. R., Jobe-Shields, L., George, P., Dougherty, R. H., Daniels, A. S., ... Delphin-Rittmon, M. E. (2014). Trauma-focused cognitive-behavioral therapy for children and adolescents: assessing the evidence. *Psychiatric services (Washington, D.C.)*, 65(5), 591–602. doi:10.1176/appi.ps.201300255
- Erikson, E. H. (1950). *Childhood and society*. New York, NY: Norton.

Erikson, E. H. (1968). *Identity: Youth and crisis*. New York, NY: Norton.

Ethier, K.A., & Deaux, K. (1994). Negotiating social identity when contexts change:

Maintaining identification and responding to threat. *Journal of Personality and Social Psychology*, 67(2), 243- 251.

Ethnicity [Def. 2a].(n.d.). Merriam-Webster Online. In Merriam-Webster. Retrieved May 16, 2019 from <http://merriam-webster.com/dictionary/ethnicity>.

Falicov, C. (2014). *Latino Families in Therapy* (Second Edition ed.): Guilford Publications, Inc.

Faulkner, S., L. (2003). Good girl or flirt girl: Latinas' definitions of sex and sexual relationships.

*Hispanic Journal of Behavioral Sciences*, 25(2), 174-200.

Fitzgerald, N. (2010). Acculturation, socioeconomic status, and health among Hispanics.

*Annals of Anthropological Practice*, 34 (1), 28-46.

Foa, E. B., Hembree, E. A., & Rothbaum, B. O. (2007). *Treatments that work. Prolonged*

*exposure therapy for PTSD: Emotional processing of traumatic experiences: Therapist guide*. New York, NY, US: Oxford University Press.

<http://dx.doi.org/10.1093/med:psych/9780195308501.001.0001>

Forbes, D., Fletcher, S., Parslow, R., Phelps, A., O'Donnell, M., Bryant, R. A., . . . Creamer, M.

(2012). Trauma at the hands of another: longitudinal study of differences in the posttraumatic stress disorder symptom profile following interpersonal compared with noninterpersonal trauma. *J Clin Psychiatry*, 73(3), 372-376. doi:10.4088/JCP.10m06640

Forbes, D., Lockwood, E., Phelps, A., Wade, D., Creamer, M., Bryant, R. A., . . . O'Donnell, M.

(2014). Trauma at the hands of another: distinguishing PTSD patterns following intimate and nonintimate interpersonal and noninterpersonal trauma in a nationally representative sample. *J Clin Psychiatry*, 75(2), 147-153. doi:10.4088/JCP.13m08374

- Gattamorta, K., A., Salerno, J., P., & Castro, A., J. (2019). Intersectionality and Health Behaviors Among US High School Students: Examining Race/Ethnicity, Sexual Identity, and Sex. *The Journal of School Health, (Epub ahead of print)*. doi: 10.1111/josh.12817
- Goldstein, R. B., Smith, S. M., Chou, S. P., Saha, T. D., Jung, J., Zhang, H., . . . Grant, B. F. (2016). The epidemiology of DSM-5 posttraumatic stress disorder in the United States: results from the National Epidemiologic Survey on Alcohol and Related Conditions-III. *Soc Psychiatry Psychiatr Epidemiol, 51*(8), 1137-1148. doi:10.1007/s00127-016-1208-5
- Harvard Medical School. (2007). *National Comorbidity Survey*. Retrieved from <https://www.hcp.med.harvard.edu/ncs/index.php>
- Helms, J., E. (1990). *Black and white racial identity: theory, research and practice*. Westport, CT: Greenwood Publishing Group Inc.
- Holman, E. A., Silver, R. C., & Waitzkin, H. (2000). Traumatic life events in primary care patients: a study in an ethnically diverse sample. *Arch Fam Med, 9*(9), 802-810. Retrieved from <http://www.ncbi.nlm.nih.gov/pubmed/11031385>
- Hopwood, C. J., Wright, A. G., Ansell, E. B., & Pincus, A. L. (2013). The interpersonal core of personality pathology. *J Pers Disord, 27*(3), 270-295. doi:10.1521/pedi.2013.27.3.270
- Hyman, S. M., Gold, S. N., & Cott, M. A. (2003). Forms of social support that moderate PTSD in childhood sexual abuse survivors. *Journal of Family Violence, 18*(5), 295-300.
- Joiner, T. E. (2018). Perceptions of belongingness and social support attenuate PTSD symptom severity among firefighters: A multistudy investigation. *Psychological Services*. Advance online publication. <http://dx.doi.org/10.1037/ser0000240>
- Kar N. (2011). Cognitive behavioral therapy for the treatment of post-traumatic stress

disorder: a review. *Neuropsychiatric disease and treatment*, 7, 167–181.

doi:10.2147/NDT.S10389

Kessler, R. C., Sonnega, A., Bromet, E., Hughes, M., & Nelson, C. B. (1995).

Posttraumatic stress disorder in the National Comorbidity Survey. *Arch Gen Psychiatry*, 52(12), 1048-1060. Retrieved from <http://www.ncbi.nlm.nih.gov/pubmed/7492257>

Kessler, R. C., Berglund, P., Demler, O., Jin, R., Merikangas, K. R., & Walters, E. E. (2005).

Lifetime prevalence and age-of-onset distributions of DSM-IV disorders in the National Comorbidity Survey Replication. *Arch Gen Psychiatry*, 62(6), 593-602.

doi:10.1001/archpsyc.62.6.593

Kessler, R. C., Chiu, W. T., Demler, O., Merikangas, K. R., & Walters, E. E. (2005). Prevalence,

severity, and comorbidity of 12-month DSM-IV disorders in the National Comorbidity Survey Replication. *Arch Gen Psychiatry*, 62(6), 617-627. doi:10.1001/archpsyc.62.6.617

Kessler, R. C., Rose, S., Koenen, K. C., Karam, E. G., Stang, P. E., Stein, D. J., . . . Carmen

Viana, M. (2014). How well can post-traumatic stress disorder be predicted from pre-trauma risk factors? An exploratory study in the WHO World Mental Health Surveys.

*World Psychiatry*, 13(3), 265-274. doi:10.1002/wps.20150

Kessler, R. C., Sonnega, A., Bromet, E., Hughes, M., & Nelson, C. B. (1995). Posttraumatic

stress disorder in the National Comorbidity Survey. *Arch Gen Psychiatry*, 52(12), 1048-1060.

Kessler, R. C., & Ustun, T. B. (2004). The World Mental Health (WMH) Survey Initiative

Version of the World Health Organization (WHO) Composite International Diagnostic Interview (CIDI). *Int J Methods Psychiatr Res*, 13(2), 93-121.

Koenen, K. C., Ratanatharathorn, A., Ng, L., McLaughlin, K. A., Bromet, E. J., Stein, D. J., . . .

- Kessler, R. C. (2017). Posttraumatic stress disorder in the World Mental Health Surveys. *Psychol Med*, 47(13), 2260-2274. doi:10.1017/S0033291717000708
- Kulkarni, S. (2007). Romance narrative, feminine ideals, and developmental detours for young mothers. . *Affilia*, 22, 9-22.
- Lopez-Treviño, Maria Elena. 1995. "The Needs and Problems Confronting Mexican American and Latin Women Farmworkers: A Socioeconomic and Human's Right Issue." (Unpublished on le with author.) Cited by Maria Onti- veros. 2003. "Lessons from the Fields: Female Farmworkers and the Law," *Maine Law Review* 55: 157, 168.
- Luthra, R., Abramovitz, R., Greenberg, R., Schoor, A., Newcorn, J., Schmeidler, J., . . . Chemtob, C. M. (2009). Relationship between type of trauma exposure and posttraumatic stress disorder among urban children and adolescents. *J Interpers Violence*, 24(11), 1919-1927. doi:10.1177/0886260508325494
- Malcarne, V. L., Chavira, D. A., Fernandez, S., & Liu, P. J. (2006). The scale of ethnic experience: development and psychometric properties. *J Pers Assess*, 86(2), 150-161. doi:10.1207/s15327752jpa8602\_04
- Marrs Fuchsel, C. L. (2013). Exploratory evaluation of si, yo puedo: A culturally competent empowerment program for immigrant Latina women in group settings. . *Social Work with Groups*, 37(4), 276-296.
- Min, M. O., Tracy, E. M., & Park, H. (2014). Impact of trauma symptomatology on personal networks among substance using women. *Drug Alcohol Depend*, 142, 277-282. doi:10.1016/j.drugalcdep.2014.06.032
- Moreno, C. L. (2007). The relationship between culture, gender, structural factors, abuse, trauma, and HIV/AIDS for Latinas. *Qual Health Res*, 17(3), 340-352.

doi:10.1177/1049732306297387

Morales, L., S. & Lara, M. (2007). Socioeconomic, cultural, and behavioral factors affecting Hispanic health outcomes. *J Health Care Poor Underserved, 13*(4), 477-503.

National Center for Post-Traumatic Stress Disorder. (2005). Epidemiological facts about PTSD- A national center for PTSD Fact Sheet. Retrieved from [http://www.ncptsd.va.gov/facts/general/fs\\_epidemiological.htm](http://www.ncptsd.va.gov/facts/general/fs_epidemiological.htm)

National Institute of Mental Health. (2017). Post-Traumatic stress disorder (PTSD). Retrieved from <https://www.nimh.nih.gov/health/statistics/post-traumatic-stress-disorder-ptsd.shtml>

National Sexual Violence Resource Center. (2018). Statistics: Sexual Assault in the United States. Retrieved from <https://www.nsvrc.org/statistics>

Nicolaidis, C., Perez, M., Mejia, A., Alvarado, A., Celaya-Alston, R., Galian, H., & Hilde, A. (2011). "Guardarse las cosas adentro" (keeping things inside): Latina violence survivors' perceptions of depression. *J Gen Intern Med, 26*(10), 1131-1137. doi:10.1007/s11606-011-1747-0

Nikulina, V., Bautista, A., & Brown, E. J. (2016). Negative Responses to Disclosure of Sexual Victimization and Victims' Symptoms of PTSD and Depression: The Protective Role of Ethnic Identity. *J Interpers Violence*. doi:10.1177/0886260516676475

Nishith, P., Mechanic, M. B., & Resick, P. A. (2000). Prior interpersonal trauma: the contribution to current PTSD symptoms in female rape victims. *J Abnorm Psychol, 109*(1), 20-25.

Nobleaga, M. (2012). Risk and protective factors for physical and emotional intimate partner violence against women in a community of Lima, Peru. *Journal of Interpersonal Violence, 27*(18), 3644-3659.



- Nunez, A., Gonzalez, P., Talavera, G. A., Sanchez-Johnsen, L., Roesch, S. C., Davis, S. M., Gallo, L. C. (2016). Machismo, Marianismo, and Negative Cognitive-Emotional Factors: Findings From the Hispanic Community Health Study/Study of Latinos Sociocultural Ancillary Study. *J Lat Psychol*, 4(4), 202-217. doi:10.1037/lat0000050
- Ozer, E. J., Best, S. R., Lipsey, T. L., & Weiss, D. S. (2003). Predictors of posttraumatic stress disorder and symptoms in adults: a meta-analysis. *Psychol Bull*, 129(1), 52-73.
- Peng, C. (2009). Sociological theories relating to mental disabilities in racial and ethnic minority populations. *Journal of Human Behavior in the Social Environment*, 19, 85–98
- Perreira, K. M., Gotman, N., Isasi, C. R., Arguelles, W., Castaneda, S. F., Daviglius, M. L., . . . Wassertheil-Smoller, S. (2015). Mental Health and Exposure to the United States: Key Correlates from the Hispanic Community Health Study of Latinos. *J Nerv Ment Dis*, 203(9), 670-678. doi:10.1097/NMD.0000000000000350
- Phinney, J. S. (1990). Ethnic identity in adolescents and adults: review of research. *Psychol Bull*, 108(3), 499-514.
- Race [Def. 2a].(n.d.). *Oxford Dictionary Online*. In Merriam-Webster. Retrieved May 16, 2019 from <http://www.oxforddictionaries.com/us/citation>.
- Romero, A. J., & Roberts, R. E. (2003). The impact of multiple dimensions of ethnic identity on discrimination and adolescents' self-esteem. *Journal of Applied Social Psychology*, 33, 2288-2305.
- Rennison, C. M. (2002). Rape and sexual assault: Reporting to police and medical attention, 1992-2000 [NCJ 194530]. Retrieved from U.S. Department of Justice, Office of Justice Programs, Bureau of Justice website: <https://www.bjs.gov/content/pub/pdf/rsarp00.pdf>
- Resnick, H. S., Kilpatrick, D. G., Dansky, B. S., Saunders, B. E., & Best, C. L. (1993). Prevalence of civilian trauma and posttraumatic stress disorder in a representative

- national sample of women. *J Consult Clin Psychol*, 61(6), 984-991.
- Roberts, A. L., Gilman, S. E., Breslau, J., Breslau, N., & Koenen, K. C. (2011). Race/ethnic differences in exposure to traumatic events, development of post-traumatic stress disorder, and treatment-seeking for post-traumatic stress disorder in the United States. *Psychol Med*, 41(1), 71-83. doi:10.1017/S0033291710000401
- Rumbaut, R. G. (1994). The crucible within: Ethnic identity, self-esteem, and segmented assimilation among children of immigrants. . *International Migration Review*, 28, 748-794.
- Santiago-Rivera, A., Arredonde, P., Gallardo-Cooper, M. (2002). *Counseling Latinos and La Familia: A Practical Guide*. Thousands Oaks, California.
- Sareen, J. (2018). Posttraumatic stress disorder in adults: Epidemiology, pathophysiology, clinical manifestations, course, assessment, and diagnosis. Retrieved from UpToDate website: [https://www.uptodate.com/contents/posttraumatic-stress-disorder-in-adults-epidemiology-pathophysiology-clinical-manifestations-course-assessment-and-diagnosis?search=PTSD&source=search\\_result&selectedTitle=2~150&usage\\_type=default&display\\_rank=2](https://www.uptodate.com/contents/posttraumatic-stress-disorder-in-adults-epidemiology-pathophysiology-clinical-manifestations-course-assessment-and-diagnosis?search=PTSD&source=search_result&selectedTitle=2~150&usage_type=default&display_rank=2)
- Scott, B. G., Sanders, A. F., Graham, R. A., Banks, D. M., Russell, J. D., Berman, S. L., & Weems, C. F. (2014). Identity Distress among Youth Exposed to Natural Disasters: Associations with Level of Exposure, Posttraumatic Stress, and Internalizing Problems. *Identity (Mahwah, N J)*, 14(4), 255-267. doi:10.1080/15283488.2014.944697
- Smith, T. B., & Silva, L. (2011). Ethnic identity and personal well-being of people of color: a meta-analysis. *J Couns Psychol*, 58(1), 42-60. doi:10.1037/a0021528
- Smith, S. G., Chen, J., Basile, K. C., Gilbert, L. K., Merrick, M. T., Patel, N., Jain, A. (2017).

The National Intimate Partner and Sexual Violence Survey (NISVS): 2010-2012 state report. . Retrieved from Centers for Disease Control and Prevention, National Center for Injury Prevention and Control website:

<https://www.cdc.gov/violenceprevention/pdf/NISVS-StateReportBook.pdf>

Stein, M. B., McQuaid, J. R., Pedrelli, P., Lenox, R., & McCahill, M. E. (2000). Posttraumatic stress disorder in the primary care medical setting. *Gen Hosp Psychiatry, 22*(4), 261-269.

Strauss, A. L., & Corbin, J. (1998). *Basics of qualitative research: Techniques and procedures for developing grounded theory* (2nd ed.). Thousand Oaks, CA: Sage. The National

Center for Victims of Crime. (2012). Child Abuse Statistics. Retrieved from

<http://victimsofcrime.org/media/reporting-on-child-sexual-abuse/child-sexual-abuse-statistics>

*The Oxford Dictionary*. Oxford University Press, 1992.

Toomey, R. B., Umana-Taylor, A. J., Updegraff, K. A., & Jahromi, L. B. (2013). Ethnic identity development and ethnic discrimination: examining longitudinal associations with adjustment for Mexican-origin adolescent mothers. *J Adolesc, 36*(5), 825-833.

doi:10.1016/j.adolescence.2013.06.004

Torres, L., & Ong, A. D. (2010). A daily diary investigation of Latino ethnic identity, discrimination, and depression. *Cultur Divers Ethnic Minor Psychol, 16*(4), 561-568.

doi:10.1037/a0020652

Torres, V. (1999). Validation of the bicultural orientation model for Hispanic college students. *Journal of College Student Development, 40*, 285-298.

Torres, V., & Baxter Magolda, M. B. (2002). The evolving role of the researcher in constructivist longitudinal studies. *Journal of College Student Development, 43*, 474-489.

- Torres, V. (2003). Influences on ethnic identity development of Latino college students in the first two years of college. *Journal of College Student Development, 44*, 532-547.
- Umana-Taylor, A. J. (2004). Ethnic identity and self-esteem: examining the role of social context. *J Adolesc, 27*(2), 139-146. doi:10.1016/j.adolescence.2003.11.006
- U.S. Department of Veteran Affairs. (2018). How Common is PTSD in Adults? . *PTSD: National Center for PTSD*. Retrieved from [https://www.ptsd.va.gov/understand/common/common\\_adults.asp](https://www.ptsd.va.gov/understand/common/common_adults.asp)
- Van Ameringen, M., Mancini, C., Patterson, B., & Boyle, M. H. (2008). Post-traumatic stress disorder in Canada. *CNS Neurosci Ther, 14*(3), 171-181. doi:10.1111/j.1755-5949.2008.00049.x
- Vellos, Diana (1997). Immigrant Latina Domestic Workers and Sexual Harassment. *American University Journal of Gender and the Law 5*(2): 409, 413, 419–428. Available at [www.wcl.american.edu/journal/genderlaw/05/vellos.pdf?rd=1](http://www.wcl.american.edu/journal/genderlaw/05/vellos.pdf?rd=1).
- Vieweg, W. V., Julius, D. A., Fernandez, A., Beatty-Brooks, M., Hettema, J. M., & Pandurangi, A. K. (2006). Posttraumatic stress disorder: clinical features, pathophysiology, and treatment. *Am J Med, 119*(5), 383-390. doi:10.1016/j.amjmed.2005.09.027
- Weidmer, B., Shelley, G., Jaycoux, L. (2007). Latino teens talk about help seeking and help giving in relation to dating violence. . *Violence Against Women, 13*(2), 172-189.
- Wiley, R. E., Berman, S. L., Marsee, M. A., Taylor, L. K., Cannon, M. F., Weems, C. F. (2011). Age differences and similarities in identity distress following the Katrina disaster: Theoretical and applied implications of Erikson's theory. *Journal of Adult Development, 18*, 184-191.
- Yehuda, R. (2002). Post-traumatic stress disorder. *N Engl J Med, 346*(2), 108-114.

doi:10.1056/NEJMra012941

Yoo, Y., Park, H. J., Park, S., Cho, M. J., Cho, S. J., Lee, J. Y., . . . Lee, J. Y. (2018).

Interpersonal trauma moderates the relationship between personality factors and suicidality of individuals with posttraumatic stress disorder. *Plos One*, *13*(1), e0191198.

doi:10.1371/journal.pone.0191198