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Miami, Florida

HISPANIC ADOLESCENTS WITH SEVERE SUBSTANCE ABUSE PROBLEMS:  
PARENTAL INVOLVEMENT, ACCULTURATION-RELATED FACTORS, AND  
ATTACHMENT

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Conchita Smith Lundblad

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To: Dean Ray Thomlison  
College of Social Work, Justice and Public Affairs

This dissertation, written by Conchita Smith Lundblad, and entitled Hispanic Adolescents with Severe Substance Abuse Problems: Parental Involvement, Acculturation-Related Factors, and Attachment, having been approved in respect to style and intellectual content, is referred to you for judgment.

We have read this dissertation and recommend that it be approved.

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Christopher Rice

---

Mark Macgowan

---

Frederick Newman

---

Daniel Santisteban

---

Mario De La Rosa, Major Professor

Date of Defense: April 17, 2008

The dissertation of Conchita Smith Lundblad is approved.

---

Dean Ray Thomlison  
College of Social Work, Justice and Public Affairs

---

Dean George Walker  
University Graduate School

Florida International University, 2008

PREVIEW

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ABSTRACT OF THE DISSERTATION

HISPANIC ADOLESCENTS WITH SEVERE SUBSTANCE ABUSE PROBLEMS:  
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by

Conchita Smith Lundblad

Florida International University, 2008

Miami, Florida

Professor Mario de la Rosa, Major Professor

The main objective of the study was to investigate the relationship between parent-related, acculturation-related, and substance use-related variables found within individual, familial/parental, peer and school adolescent ecological domains, in a *clinical sample* (i.e. adolescents who met criteria for a Diagnostic Statistical Manual-IV [DSM-IV] clinical diagnosis of substance abuse/dependence) of Hispanic adolescents from Miami, Florida.

The sample for this study consisted of 94 adolescent-*mother* pairs. The adolescent sample was 65% male, and 35% female, with a mean age of 15 years. More than half of the adolescents were born in the United States (60%) and had resided in the U.S. for an average of 12 years; 80% of the caregivers (primarily mothers) were foreign-born and lived in the U.S. for an average of 21 years.

Correlation and hierarchical regression were used to answer the research questions. The findings indicate that the hypothesized model and corresponding anticipated effect of the relationship between parental school and peer involvement on

adolescents' frequency of alcohol, marijuana and cocaine use was not supported by the data. Parental "acculturation-related" variables did not explain any of the variance in adolescent substance use frequency in this sample. Mediation and moderation models were not supported either. However, some interesting relationships were found:

The larger the acculturation gap, the lower the parental involvement in school tended to be ( $r = -.21, p < .05$ ). Adolescents who experienced a greater acculturation gap with their parents ( $r = -.81, p > .01$ ) had an earlier onset of marijuana ( $r = -.33, p < .01$ ) and cocaine use ( $r = -.24, p < .01$ ). The less acculturated parents experienced more parenting stress ( $r = -.31, p < .01$ ). Attachment was positively associated with parental peer involvement ( $r = .24, p < .05$ ) and inversely associated with parenting acculturative stress ( $r = -.24, p < .05$ ). Attachment was also positively associated with marijuana ( $r = .39, p < .01$ ) and cocaine use ( $r = .33, p < .01$ ). Adolescent males reported being more attached to their mothers when compared to adolescent females ( $r = .22, p > .05$ ), they also reported using marijuana more frequently than females ( $r = .21, p > .05$ ).

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## I. INTRODUCTION

National epidemiological surveys conducted in recent years indicate there has been a slight decline in the prevalence of alcohol and other drug (AOD) use among adolescents in the United States (Johnston, O'Malley, & Bachman, 2001; Johnston, O'Malley, Bachman, & Schulenberg, 2004). However, there are no indications that the prevalence of licit or illicit substance use among Hispanic youths (including alcohol), has been decreasing in any significant way. To the contrary; there is a disproportionate rate of substance use among young people of Hispanic background suggesting significant substance use (SU) problems, particularly when compared to their Non-Hispanic White and African American peers (CDCP, 2006; Johnston, O'Malley, Bachman, & Schulenberg, 2006).

According to epidemiological data obtained through nationally representative surveys such as Monitoring the Future<sup>1</sup> (Johnston, et al., 2006) and the Youth Risk Behavior Surveillance Survey<sup>2</sup> (2006), Hispanic 12<sup>th</sup> graders have the highest past-year drug use rates for such dangerous drugs as powder cocaine, crack, heroin (with and without a needle), methamphetamine and ice. The data collected in these surveys also indicate that Hispanic eighth grade students tend to have the highest rates of past-year drug use for all licit or illicit drugs, with the exception of amphetamines (Johnston, O'Malley, Bachman, & Schulenberg, 2006; Strada & Donahue, 2006). The data also

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<sup>1</sup> Monitoring the Future is national survey that tracks illicit-drug use trends and attitudes by 8th, 10th and 12th grade students. One concern about statistics generated through the MTF surveys is that they fails to capture data that involves those who drop out of school, whom a large percentage is comprised of Latino youths)

<sup>2</sup> Youth Risk Behavior Survey is a school survey that collects data from students in grades 9-12. The survey includes questions on a wide variety of health-related risk behaviors, not simply drug abuse

indicated, that the prevalence of lifetime alcohol use for Hispanic students (79.4%), and the prevalence of lifetime marijuana use (42.6%) was higher than that for White (75.3% and 38.0% respectively) and Black students (69% and 40.7% respectively). In addition, current alcohol use for Hispanic students (46.8%) was comparable to that of White students (46.4%) and much higher than that of Black students (31.2%) (CDCP, 2006). What is truly alarming, is that Hispanic adolescents are more likely to start using licit and/or illicit substances before the age of thirteen than are White and Black adolescents (Guerra, Romano, Samuels, & Kass, 2000), a factor that increases the risk of developing substance use and abuse disorders during adulthood (Kaplow, Curran, & Dodge, 2002; Gil, Wagner & Tubman, 2004).

Although not every adolescent who uses substances develops a substance abuse problem, early substance use onset may signal the beginning of a detrimental trajectory that leads from experimental use to future serious substance abuse problems requiring treatment (Ellickson, Tucker, & Klein, 2003; Durant, Smith, Kreiter, & Krowochuck, 1999). Moreover, among Hispanics, even experimental use during early adolescence has been found to increase the risks for developing substance use disorders during adulthood (Kaplow, et al., 2002; Gil, et al, 2004). Furthermore, Hispanic youths whose substance use goes beyond normative experimentation are also more likely to meet DSM-IV diagnostic criteria for abuse or dependence, and are also more likely to have co-morbid mental health diagnoses, which significantly increase the risk of poorer treatment outcomes as well (Tims, Dennis, Hamilton, Buchan, Diamond, Funk & Brantley, 2002; Weiner, Abraham, & Lyons, 2001).

What accounts for the increasing risks of AOD use, and such early AOD use onset among Hispanic youth is not known with certainty. Research suggests that there are risk and protective factors associated with the development of substance use and abuse problems that cut across race and ethnic groups (see Table 1, below). Indeed, it has been suggested that parents, peers and school may be “the critical socializing forces for adolescent substance use and delinquency in Western culture” (Pilgrim, Schulenberg, O’Malley, & Johnston, 2006, p. 76), regardless of race and ethnicity. However, although there may be similar characteristics associated with all adolescents, regardless of race, and/or culture or ethnicity, there are also important cultural differences associated with Hispanic adolescents that differentiate them from their peers, exemplified in such values as “familism”, “collectivism”, “personalism”, “respeto” and “simpatia” (Ruiz, 1981; Santisteban, Muir, Mitrani, & Szapocznik, 2002) that should not be ignored. Research suggests that when it comes to Hispanic adolescents and substance use, acculturation-related factors may need to be considered, as they appear to play a role (Vega & Gil, 1999).

However, not all studies agree on the exact role played by acculturation, or on its effect. A significant number of studies that have examined the relationship between acculturation level and substance use have found a *positive* relationship between acculturation to the American culture and substance use (Ebin, Sneed, Morisky, Rotheram-Borus, Magnusson, & Malotte, 2001; Epstein, Botvin, & Diaz, 2001; Epstein, Margaret & Botvin, 2000; Cabrera Strait, 1999; Dihn, Roosa, Tein, & Lopez, 2002; Gil, Wagner & Vega, 2000). Yet others have found an *inverse* relationship between acculturation and adolescents substance use (Garcia, 1999; Ramirez, Crano,

Quist, Burgoon, Alvaro, & Grandpre, 2004). Therefore the role of acculturation needs to be better understood. Establishing a valid definition and reliable measurement tools that can be used consistently across research studies would be very helpful.

The purpose of this study was to investigate the relationship between parent-related/acculturation-related variables, and alcohol and other drug (AOD) use-related variables, in a *clinical sample* (i.e. adolescents who met criteria for a DSM- IV clinical diagnosis of substance abuse/dependence) of Hispanic adolescents from Miami, Florida (APA, 2000). The study, guided by the Ecodevelopmental model (Szapocznik & Coatworth, 1999) examined some of the variables found within familial/parental, peer and school adolescent ecological domains, associated with adolescents' substance use and abuse.

Table 1: Adolescent Substance Use/Abuse Risk/Protective Factors

Risk/Protective Factors	Hispanics (Any race)	Non-Hispanic Whites	Non-Hispanic Blacks
Acculturation	X	Not applicable	Not applicable
Parenting Acculturation stress	X	Not applicable	Not applicable
Parent-Youth Acculturation Gap	X	Not applicable	Not applicable
Peers who use	X	X	X
Alcohol and Other Drug use Onset	earlier than non-Hispanic Whites & Blacks	not as early as Hispanics	not as early as Hispanics
Alcohol and Other Drug use	highest prevalence rates for most substances	(slightly less high prevalence rates for most substances)	X (lesser of the three groups)
Parental Attachment	X	X	X
Parental Involvement	X	X	X

The following represent a few of the sources of the information found in this table (Szapocznik, et al, 1980; Lau, Yeh, Wood, McCabe, Garland, & Hough, 2005; Oetting & Beauvais 1987; Martinez, 2004; Guerra, Romano, Samuels, & Kass, 2000; MTF, 2006; Schmidt, Liddle, & Dakof, 1996).

### Research Question and Sub-questions

The overarching research question to be answered in this study is: Is parental involvement explained by parental acculturation-related factors alongside the influence of the adolescent's reported attachment to his or her parents?; and, does an increase in the level of parental involvement in school and peer adolescent domains affect the substance use of clinically diagnosed substance abusing Hispanic youths, when taking into account age and gender? In other words, is there an explanatory relationship between *parent-related variables* (e.g. parental involvement in school, parental involvement in peer domains, parent-adolescent attachment), parental *acculturation-related variables* (parental acculturation, parenting acculturative stress, parent-adolescent acculturation discrepancies or “gap”), and *substance use-related variables* (age of substance use onset, followed by frequency of substance use – of substances such as alcohol, marijuana and cocaine) among clinically diagnosed Hispanic adolescents, when the effect of age and gender are taken into account or controlled for?

The literature suggests that there is a relationship between such parental acculturation-related, parent involvement, parent-adolescent attachment and substance use-related described above. Therefore, it is hypothesized that as Hispanic parents become more acculturated to the American culture the acculturative parenting stress would be less, as would be the acculturation gap with their children. Further, it is hypothesized that these acculturation-related factors, along with strong emotional adolescent-parent attachment will lead to an increase in parental involvement in school

and peer adolescent ecological domains, leading in turn to a decrease in the frequency of adolescent substance use. In addition, parental involvement is also hypothesized to behave as a mediator in the relationship between these independent and dependent variables. Finally, it is also hypothesized that the adolescents' substance use onset will moderate the relationship between these factors, so that compared with a later onset age, earlier substance use onset will increase the level of parental involvement in both peer and school domains and decrease substance use frequency. The following research sub-questions and hypotheses are intended to answer different parts of the main overarching research question:

1a) Do “parental acculturation”, “parenting acculturative stress”, “parent-adolescent acculturation gap” and “adolescent-parent attachment” (Group A) explain “parental school involvement” (Group B) in a clinical sample of substance abusing Hispanic adolescents? It is hypothesized that the variables in Group A will explain the variables in Group B in this sample.

1b) Do “parental acculturation”, “parenting acculturative stress”, “parent-adolescent acculturation gap” and “adolescent-parent attachment” (Group A) explain “parental peer involvement” (Group B) in a clinical sample of substance abusing Hispanic adolescents? Equally to the above, it is hypothesized that the variables in Group A will explain the variables in Group B, in this sample.

2a) Does “parental school involvement” (Group B) explain “substance use frequency” for alcohol, marijuana, and cocaine (Group C) in a clinical sample of substance abusing Hispanic adolescents? It is hypothesized that the variables in Group B will explain the variance in the Group C variables.

2b) Does “parental peer involvement” (Group B) explain “substance use frequency” for alcohol, marijuana and cocaine (Group C) in a clinical sample of substance abusing Hispanic adolescents? Similar to the above, it is hypothesized that the variance in Group C variables is explained by the variables in Group B.

3a) Is there an explanatory relationship between parent related variables (adolescent-parent attachment), parent acculturation variables (parent acculturation, acculturative parenting stress, parent-adolescent acculturation gap) (Group A) and “substance use frequency” (alcohol, marijuana and cocaine, Group C) which is *mediated* by “parental school involvement” (Group B) when taking age and gender into account, in a clinical sample of substance abusing Hispanic adolescents? It is hypothesized that the relationship between variables in Group A and Group B (parental *school* involvement) is partially mediated by those in Group B.

3b) is there an explanatory relationship between parent-related variables (adolescent-parent attachment), acculturation-related variables (parent acculturation, acculturative parenting stress, parent-adolescent acculturation gap) (Group A) and “substance use frequency” for alcohol, marijuana and cocaine (Group C) which is *mediated* by “parental peer involvement” (Group B) when taking age and gender into account, in a clinical sample of substance abusing Hispanic adolescents? It is hypothesized that the relationship between variables in Group A and Group B (parental *peer* involvement) is partially mediated by those in Group B.

4a) does the “age/school grade” of substance use onset” *moderate* the relationship between “parental school involvement” (Group B) and “substance use frequency” (alcohol, marijuana, and cocaine, Group C)? It is hypothesized that “onset”

moderates the relationship between Group A and Group B as it affects the dependent outcome variables in Group C.

4b) does the “age/school grade” of substance use onset” *moderate* the relationship between “parental peer involvement” (Group B) and “substance use frequency” (alcohol, marijuana, and cocaine, Group C)? It is hypothesized that “onset” moderates the relationship between Group A and Group B as it affects the dependent outcome variables in Group C.

#### Significance of the Study

This study is important for several reasons: First, although research has examined the relationship between acculturation/ethnicity and substance use/abuse in Hispanic adolescents, fewer studies have explored this among clinical populations. Moreover, while we may know some things about Hispanic adolescents from a clinical population, not as much is known about their parents. This study examines the *parent side* of the adolescent-parent relationship, examining the parent’s acculturation, and the stress associated with parenting when there are differences in degrees of acculturation between parents and adolescents.

Second, although parental influence may diminish during adolescence as peers take on a stronger presence (Woods, Read, Mitchell, & Brand, 2004), research indicates that parents do still matter, particularly in the Hispanic culture where family is often at the center of the individual’s life (Romero, Robinson, Galbraith, Feigelman, Black, & Li., 2004; Guilamo-Ramos, et al., 2007). One cannot simply assume that all serious substance abusing youths have disengaged or uninvolved parents. Nor should it be assumed that, if youths have already become serious substance abusers it is too late to

engage or involve those parents who were uninvolved earlier. There is also the possibility that a co-dependent style of parental involvement inadvertently enables the problem when youths are overprotected by parents and spared appropriate consequences (McDermott, 1984; Secades-Villa, Fernandez-Hermida, & Vallejo-Seco, 2005), in which case it is the *kind* or type of parental involvement what may need to be modified.

Third, for those adolescents who have serious substance abuse problems and are in need of, or are already receiving treatment, parental involvement is critical, as suggested by empirically validated research. Family-based treatment interventions have been found to be among the most effective approaches in the treatment of substance abusing adolescents, including Hispanic adolescents. Family structure may need to be re-shaped or modified; and parental engagement and involvement in the treatment process is central to its success (Liddle, 2003; Szapocznik, et al., 2006).

Moreover, the type of parental involvement and parenting practices needed once substance use has taken hold may be much more intensive and complex than those needed prior to the emergence of substance abuse (Schmidt, Liddle, & Dakof, 1996; Santisteban, Coatsworth, Perez-Vidal, Kurtines, Schwartz, Laperriere, & Szapocznik, 2003). Indeed, given the importance of having a therapeutic impact on the established deviant peer networks of drug abusing youth, parents' involvement with their children's peers (e.g. knowing who their children's friends are, being positively involved with their children's friends) may be essential in order to have such an impact (Macaulay, Griffin, Gronewold, & Williams, 2005). Furthermore, parents may also need a different parenting strategy and parenting style (e.g. more authoritative; stronger limits

and appropriate consequences combined with restored nurturance) to help adolescents who have successfully completed treatment keep from relapsing once they return to their familiar peer and school environment (Chung, & Maisto, 2001; Macaulay, et al., 2005). A clearer understanding of how culturally-related factors may influence Hispanic parents' involvement, specifically in adolescent school and peer domains may further the development of effective substance abuse treatment interventions for adolescents and their families.

The present study also adds to the existing literature by seeking to identify interacting factors within the familial/parent domain that may be good targets for modification therapeutically, once adolescents have developed serious substance abuse problems and are in treatment. Therefore, a study based on a clinical population such as the present study is more appropriate when the goal is to inform and guide treatment professionals and clinicians who work with Hispanic adolescents who meet DSM-IV criteria for substance abuse or dependence.

#### Definitions

For purposes of the present study, adolescents with a "serious substance abuse related diagnosis" refers to adolescents who have been formally diagnosed by a substance abuse professional, and meet criteria for a substance abuse, dependence, or addiction *clinical diagnosis*, according to the American Psychiatric Association's Diagnostic Statistical Manual IV (DSM-IV) (2000). In order to make it easier for the reader, the term "clinically diagnosed adolescents" will be used in lieu of the more cumbersome "adolescents who meet DSM-IV criteria for..."

Substance “abuse” (SA) is defined as the repeated use of alcohol and/or other drugs leading to problems, but does not include compulsive use, or addiction or “dependence”; and stopping the drug does not lead to significant withdrawal symptoms. (DSM-IV, 2000). SA includes abuse of legal drugs (e.g. alcohol, prescription drugs) as well as illegal drugs (e.g. cocaine, heroin, methamphetamines, and other substances). SA focuses more on the social consequences of problematic substance use, whereas “addiction” or “dependence” refers to the presence of physiological and behavioral symptoms associated with compulsive use, increased tolerance, and withdrawal symptoms (DSM-IV, 2000). Substance “use” was defined as any number of times the adolescent participants used drugs (alcohol, marijuana, cocaine, and other drugs (AOD), licit or illicit, during the past 3 months. Although the use of alcohol is technically prohibited for adolescents (i.e. the legal age for the consumption of alcohol in the United States is 21 years of age), illicit drugs refers to marijuana, cocaine and other drugs that are illegally used by adults.

Researchers have used the terms Hispanic and Latino interchangeably. However, in the current study, the term Hispanic was used to refer to individuals of Cuban, Puerto Rican, Mexican, and Central or South American descent. Hispanics can be of any race (e.g. White, Black). Additionally, the terms African American and Black have been used interchangeably in different studies. However, in the current study, the term Black (i.e. Black Non-Hispanic) was used most frequently.

Acculturation, for purposes of this study, is defined as “the process of change in which individuals from one culture modify their behaviors in order to adapt to another culture” (Masten, Asidao, Jerome, Mosby, Colbert, Medina, Hernandez, 2004, p. 15).

Attachment refers to the emotional bond established between the infant/child/adolescent and his or her parent (usually mother) or preferred caregiver.

Finally, since the present study was based on a secondary analysis of data from a National Institute of Drug Abuse (NIDA) funded project, the original NIDA funded study has been referred to as the *parent study*.

Further explanations of these definitions and other variables can be found in Chapter 4.

#### Overview of the Theoretical Framework

The experimental use of AOD among adolescents is considered normative behavior in most of the Western world (Windle, 1999; Gil & Vega, 1998). However, when adolescent recreational substance use becomes abuse or dependence, rarely does a simple explanation account for it. Simply experimenting and using drugs and alcohol does not always lead to abuse and/or dependence (Windle, 1999; Getz & Bray, 2005). Rather, substance abuse among adolescents is a multi-determined problem with a variety of mechanisms that account for its development, its maintenance and its ending as well. In general, conceptual frameworks that have been concerned with personal variables and their interaction with the environment (psycho-social theoretical perspectives) have looked at adolescent substance abuse as a “complex network of interactive social, biologic, and genetic [risk and/or protective] factors” found in the individual adolescent’s ecology (Merikangas, Dierker & Fenton, 1998, p.12).

From a social work “person-in-the environment” perspective (Richmond, 1922), emphasizing the importance of taking into account the person and his/her social situation as well as the interaction between them, Hispanic adolescents’ substance

abuse problems may be understood as the product of multidirectional interactions between social, cultural and developmental variables (which constitute risk and protective factors) that are found within smaller ecological or environmental domains (micro-systems)(Szapocznik & Coatsworth,1999). These smaller “micro-systems” are nested within larger communities that interface (meso-system) within a larger societal context (macro-system), where culture is both context and environment. For the adolescent the micro-systems’ level is composed of several primary domains: family (parents), peers, and schools (Pantin, Coatsworth, Feaster, Newman, Briones, Prado, Schwartz, & Szapocznik, 2003; Szapocznik, & Coatsworth, 1999).

Ecodevelopmental Theory (Szapocznik & Coatsworth, 1999) provides a useful conceptual framework to examine the relationships and interactions between adolescent-related variables (e.g. substance use) and family/parent-related variables (e.g. parental involvement, acculturative-parenting stress), as they interface in the larger ecological context with other important domains such as peers and school, and as affected by acculturation-related processes (see Figure 1 below). Although primarily applied to community samples, Ecodevelopmental Theory has also been effectively applied to race/ethnic minority groups such as Hispanics and African Americans (Brook, Whiteman, Balka, & Gersen, 1997).

Ecodevelopmental Theory (Szapocznik & Coatsworth, 1999) builds upon the earlier social work perspectives of Mary Richmond (1922), Gordon Hamilton, (1940) and Florence Hollis (1964) among others, as well as Bronfenbrenner’s later ecological framework perspective (1979) and Bogenschneider’s ecological risk/protective factors conceptual framework (1996). All of these perspectives have stressed the importance of

examining the contexts in which individuals function. Bronfenbrenner proposed that to understand behavior, researchers must account for a) the environmental cultural factors or the “Macrosystems”; b) the “Exosystems”, which refers to the conditions that affect parents and hence indirectly influence their ability to parent their children effectively; c) the “Mesosystems”, or relationships between the adolescent’s worlds, as for example, parental involvement in school activities and supervision of the adolescent’s peers; d) the more proximal situational factors or “Microsystems”, such as for example, the actual peer, family, and school contexts; e) the “individual person factors”, that is, the characteristics of the person engaging in the behavior; and last but not least, f) an ongoing interaction among and between all these factors. While “community” or neighborhood also constitutes an important ecological domain in the life of an adolescent, the present study is only focused on these three primary ecological domains: family, peer and school, and their interrelation or interface.

#### *Adolescent Ecological Domains*

A brief discussion of the rationale and importance of each of these ecological domains involved in the present study may be helpful.

*Family.* The family constitutes the foundation of the adolescent’s development and has a great degree of influence over the adolescent. According to proponents of Ecodevelopmental Theory “the way an adolescent functions within the peer and school worlds, is largely determined by the nature of his interactions within the family” (Pantin, Schwartz, Sullivan, Coatsworth, & Szapocznik, 2003, p. 476; Bogenschneider, 1996). Despite the general accepted belief that peers tend to have a primary role during adolescence, family is still believed to exert an important influence (Wood, Read,