

Ecodevelopmental HIV Prevention Programs for Hispanic Adolescents

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The purpose of this article is to illustrate how an ecodevelopmental perspective on risk and protection can be applied to the study and prevention of unsafe sexual behavior in Hispanic immigrant adolescents. Special attention is given to culturally based ecodevelopmental risk and protective processes that may influence unsafe sexual behavior among Hispanic adolescents. Principles for designing prevention programs to offset these risks are offered on the basis of an ecodevelopmental HIV prevention program that has been developed and is currently being tested.

The purpose of this article is to describe how ecodevelopmental theory (Szapocznik & Coatsworth, 1999) can be applied to the study and prevention of unsafe sexual behavior in Hispanic immigrant adolescents. Ecodevelopmental theory is a conceptual model that describes the interconnections among various sources of risk and protection in adolescents' life. Special attention is given to culturally based ecodevelopmental risk and protective processes that may influence unsafe sexual behavior among Hispanic adolescents. This article is organized into three primary sections. First, we describe the epidemiology of HIV in the U.S. population and among U.S. Hispanics in particular. Second, we introduce ecodevelopmental theory, a social-ecological framework for organizing risk and protective factors in adolescents' environments, with special emphasis on HIV risk in Hispanic immigrant adolescents. Last, we discuss the implications of ecodevelopmental theory for HIV prevention interventions with Hispanic early adolescents by presenting aspects of *Familias Unidas*, our ecodevelopmentally based prevention program.

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Epidemiology of HIV

The HIV epidemic has been, and will continue to be, a major public health concern. As of 2001, HIV had been implicated in more than 450,000 deaths in the United States alone (Centers for Disease Control and Prevention [CDC-P], 2002a). Although HIV has affected persons of all ages, 13- to 19-year-old youth are the fastest growing group of new HIV cases (CDC-P, 2002a). The HIV incidence for this population increased threefold between 1990 and 2000 (CDC-P, 2000) and is expected to continue to increase (Office of National AIDS Policy, 2000).

The prevalence of unprotected sexual intercourse among adolescents is one of the factors responsible for the high incidence of new HIV cases. In 1999, the last year for which official statistics are available, 50% of high school seniors reported having had sexual intercourse, and 20% reported four or more lifetime sexual partners (CDC-P, 2002b). Moreover, of those adolescents who reported having sex within the 3 months prior to completing the survey, only 58% reported using a condom at last intercourse. Clearly, youth represent a population at high, and likely increasing, risk for HIV infection (Office of National AIDS Policy, 2000).

Although these national statistics are alarming, what may be even more disconcerting is that Hispanics, the largest minority group in the United States, appear to be at heightened risk for contracting HIV. As of the 2000 census, 32.8 million Hispanics resided legally in the United States (Therrien & Ramirez, 2000), along with several million undocumented Hispanic immigrants (Bean, Corona, Tuiran, Woodrow-Lafield, & van Hook, 2001). This represents approximately 13% of the total U.S. population (Guzmán, 2001). However, in 2000, the most recent year for which official health statistics are available, Hispan-

ics accounted for 19% of new HIV cases reported (CDC-P, 2002c). That same year, the HIV contraction rate per 100,000 individuals was 22.5 among Hispanics, more than three times the rate for non-Hispanic Whites (i.e., 6.1; CDC-P, 2002c). Given (a) the increasing HIV prevalence rates among adolescents (CDC-P, 2000), (b) the youthful nature of the U.S. Hispanic population (approximately one third of all Hispanics are under the age of 18; Guzmán, 2001), and (c) the Hispanic population's rate of expansion (Hispanics are projected to comprise 16% of the U.S. population in 2020; Day, 1996), preventing HIV in Hispanic youth is an important issue on which to focus prevention efforts.

Because of the growing numbers of youth contracting HIV, HIV prevention programs for adolescents have begun to emerge (e.g., DiIorio et al., 2001; Jemmott et al., 2000; Krauss et al., 2000). Many of these prevention programs focus on targeting factors in the social environment, particularly family-related processes, that increase or reduce adolescents' risks for HIV exposure (Perrino, Gonzalez-Soldevilla, Pantin, & Szapocznik, 2000).

Ecocodevelopmental Theory

Research suggests that unsafe sexual activity in adolescence is at least partly determined by a multiplicity of conditions in the youth's social ecology (e.g., Kotchick, Shaffer, & Forehand, 2001; K. Miller, Forehand, & Kotchick, 2000). Risk factors for unsafe sexual activity are situated at varying "distances" from the adolescent. Some, such as parent-adolescent communication about sex (Whitaker & Miller, 2000), are quite proximal to the youth, whereas others, such as social support for parents (Grolnick, Benjet, Kurowski, & Apostoleris, 1997), are somewhat more distal. Research has shown that risk factors do not operate in isolation; rather, they interact with one another and compound one another's effects (Small & Luster, 1994). For example, whereas exposure to sexually active peers (Bachanas et al., 2002) and lack of parental monitoring of adolescent activities (Luster & Small, 1994) are both risk factors for unsafe sexual behavior in adolescence, when these risk factors are both present, the total risk for engaging in unsafe sexual behavior may be compounded (Ary, Duncan, Duncan, & Hops, 1999; K. Miller et al., 2000).

Because of the presence of risks at multiple levels of the social environment and the potential for these risks to compound one another's effects, there is a need for multidimensional understandings of risk and protection vis-à-vis adolescent unsafe sexual activity

(e.g., Kotchick et al., 2001). Such models must be comprehensive enough to address the multiplicity of risk and protective processes, at many important levels of the social context (i.e., those operating within the family as well as those operating at other levels of the social ecology, e.g., in the peer network), that predispose youth to unsafe sexual behaviors. Such a comprehensive framework, guided by empirical research, could then serve as the basis for the development of preventive and treatment interventions that target risks at various levels of the social ecology (e.g., Mitrani, Szapocznik, & Robinson Batista, 2000; Pantin, Schwartz, et al., 2003). Similar ecosystemic perspectives have been proposed to map ecological influences in other areas, such as children's transition to kindergarten (Rimm-Kaufman & Pianta, 2000).

We have titled our framework *ecodevelopmental theory* (Szapocznik & Coatsworth, 1999). In our construction of ecodevelopmental theory, we have incorporated three primary, integrated elements: (a) social-ecological theory, (b) developmental theory, and (c) an emphasis on social interactions. The first element of ecodevelopmental theory is drawn from Bronfenbrenner's (1979, 1986) work on the social ecology of human development. Bronfenbrenner has organized the multiple influences on adolescent development according to important social contexts: *macrosystems* (the broad social and philosophical ideals that define a particular culture, e.g., cultural and societal values), *exosystems* (contexts in which the adolescent does not participate directly but that impact important members of the adolescent's life, e.g., parents' social support), *mesosystems* (interactions between important members of the different contexts in which the adolescent participates directly, e.g., parental monitoring of peers), and *microsystems* (contexts in which the adolescent participates directly, e.g., the family, school, and peers).

The second element of ecodevelopmental theory is a developmental perspective that emphasizes the changing nature of youth across time as a function not only of the adolescent's current social context but also of changing conditions in the social context throughout the child's life. Hence, a developmental perspective is applied to the youth and his or her social context, in which both person and context are viewed as evolving and changing across the life span. For example, adolescent substance abuse, a predictor of unsafe sexual behavior (Bailey, Pollock, Martin, & Lynch, 1999), is influenced not only by the youth's current social context, as manifested in family cohesion and parental monitoring (Bogenschneider, Wu, Raffaelli, & Tsay, 1998) during adolescence, but also

possibly by previous levels of family support (Barnes, Farrell, & Banerjee, 1995) and of parent-child conflict (Duncan, Duncan, Biglan, & Ary, 1998).

The third element of ecodevelopmental theory is social interactions. We postulate that risk and protection are expressed in the patterns of relationships and direct transactions between individuals within and across the different contextual levels of the social ecology (Garbarino & Abramowitz, 1992; Szapocznik & Coatsworth, 1999). For example, the amount of social support experienced by parents is directly predictive of the harshness or supportiveness of their parenting (Swick & Broadway, 1997), which in turn may affect the likelihood of adolescent HIV risk behaviors (K. Miller, Levin, Whitaker, & Xu, 1998; Perkins, Luster, Villarruel, & Small, 1998).

Figure 1 illustrates the nested and concentric nature of ecodevelopmental theory. The following sections explore each of the systemic levels in more detail, with an emphasis on specific processes that may operate uniquely in the life of Hispanic immigrant families.

Macrosystem

The *macrosystem* refers to the broad social and philosophical ideals that define a particular culture or subculture (Schwartz, Coatsworth, Pantin, & Szapocznik, 2003). American culture places great emphasis on individualism, competition, and entrepreneurship, and these ideals are built into American social institutions. Individuals adhering to these macrosystemic

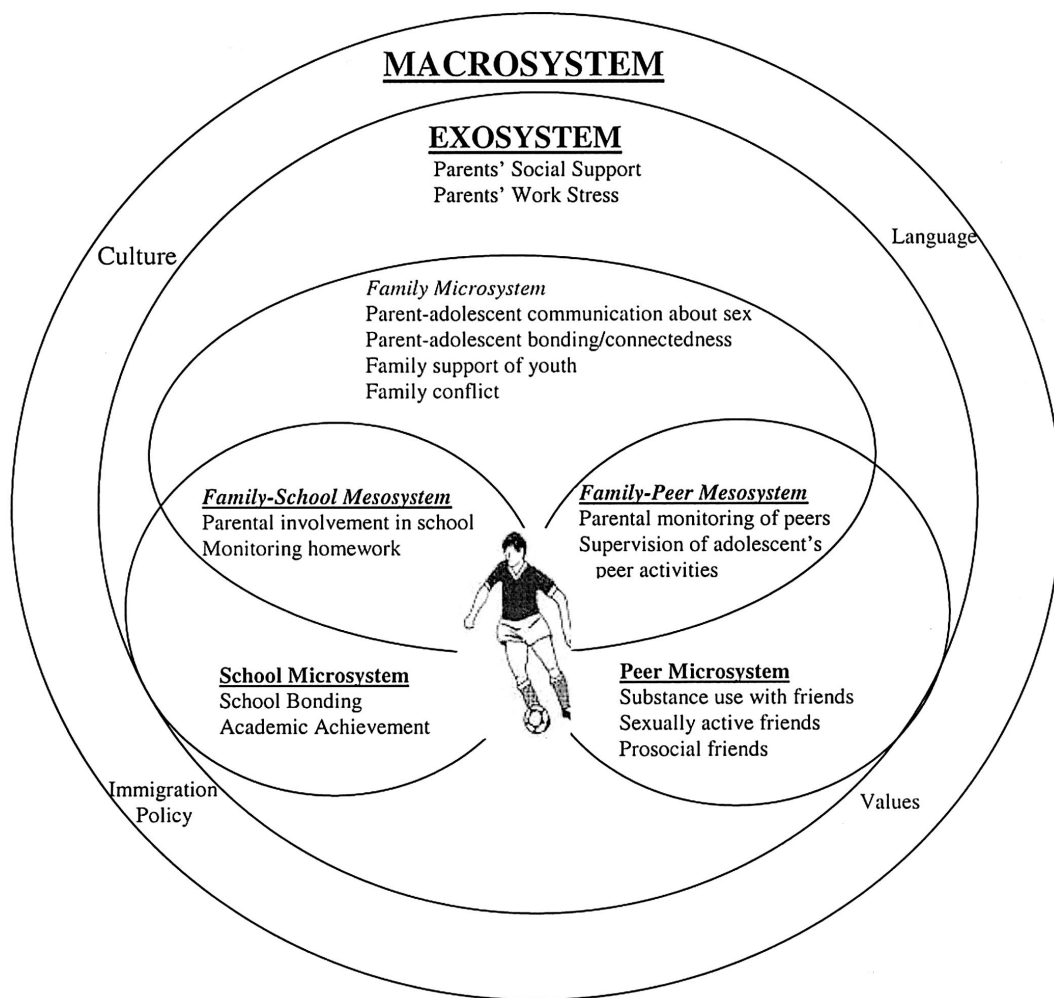


Figure 1. Ecodevelopmental risk/protective factors for unsafe sexual behaviors in adolescence.

cultural ideals are more likely to receive support at the other systemic levels than are those whose lifestyle, beliefs, or social status isolates them from the dominant macrosystem (cf. Côté, 1993).

For Hispanic immigrant families, the primary macrosystem-level difficulty involves incompatibilities between Hispanic and American culture (Coatsworth, Pantin, & Szapocznik, 2002). For example, in Hispanic culture, obligations to family take precedence over an individual's own wants and desires (Santisteban, Muir-Malcolm, Mitrani, & Szapocznik, 2002). American culture, however, encourages individualism over familism. From an ecodevelopmental perspective, we argue that it is precisely this clash of cultures that trickles down into the exosystemic, mesosystemic, and microsystemic levels and predisposes Hispanic adolescents toward unsafe sexual behavior (Schwartz, Pantin, & Szapocznik, 2003).

Ecodevelopmental theory suggests that macrosystemic phenomena produce a "trickle-down" effect by contributing to exosystemic problems such as parental isolation, which in turn may cut parents off from their adolescents' peer networks and school life (i.e., mesosystemic problems; Pantin, Schwartz, Coatsworth, Sullivan, & Szapocznik, 2003). The clinical literature suggests that when immigrant parents are unfamiliar with the culture of their new homeland, they may remain isolated and not reach out for social support (Breton, 1999; Leon & Dziegielewska, 2000). Lack of social support, in turn, may inhibit supportive and involved parenting (Simons, Lorenz, Wu, & Conger, 1993). Lack of proactive parental involvement in the adolescent's school and peer worlds then increases the likelihood of microsystemic problems, such as academic difficulties (Horacek, Ramey, Campbell, Hoffman, & Fletcher, 1987) and association with deviant peers (Ary et al., 1999). Low parental monitoring of adolescents also increases the likelihood of substance use (Pettit, Bates, Dodge, & Meece, 1999). Academic difficulties, association with deviant peers, and substance use are each then predictive of adolescent unsafe sexual behavior (Boyer, Tschann, & Schafer, 1999; Luster & Small, 1994; Smith, 1997).

These ecodevelopmental effects may be particularly important in the life of Hispanic immigrant adolescents and families, given that for Hispanics, experiences related to immigration and acculturation are predictive of problem behavior generally (Gil, Wagner, & Vega, 2000) and of unsafe sexual behavior in particular (Ford & Norris, 1993).

Exosystem

Exosystemic factors, such as stressful working environment and lack of social support, may prevent parents from being actively involved in their children's life (Dumas & Wahler, 1983) and may therefore increase their adolescents' risks for unsafe sexual behavior (Luster & Small, 1994). In the case of Hispanic immigrant families, lack of social support, along with stressful working environments with long hours and low wages, may be especially salient, given the economic problems and social marginalization with which Hispanic immigrants often are confronted (cf. Suárez-Orozco & Suárez-Orozco, 2001).

First, financial difficulties represent a primary stressor for many Hispanic immigrants. As of the 2000 census, 21.2% of Hispanic legal residents were below the poverty level, compared with 7.5% of non-Hispanic Whites (Dalaker, 2001). The exclusion of undocumented immigrants, who often cannot hold legitimate jobs, from these census statistics may result in a significant underestimation of the true poverty rate among the U.S. Hispanic population. Many Hispanic immigrants, particularly Central Americans, have low levels of education and possess few marketable job skills (Zea, Diehl, & Porterfield, 1996), which thereby increases their likelihood of financial difficulties. Even those Hispanic immigrants with advanced degrees and appreciable job skills often encounter downward economic mobility on entering the United States (Suárez-Orozco & Suárez-Orozco, 2001). Because Hispanic immigrants' earning potential may be severely compromised, parents may need to find second and third jobs to provide for the family's financial needs. Such workplace stressors can trickle down into the mesosystem and microsystem levels, distracting parents from childrearing efforts (Galambos, Sears, Almeida, & Kolaric, 1995) and decreasing the degree to which they are able to be involved with, bond with, monitor, and communicate with their adolescent (Conger et al., 1992; Simons et al., 1993).

Second, Hispanic immigrants may be marginalized and isolated from sources of support in their new homeland (Breton, 1999). In their native country, Hispanics tend to rely on extended family and community for support, and they may be surprised to find that this support is often not available in the United States (Leon & Dziegielewska, 2000). Cultural mismatches and language barriers between Hispanic immigrants and their more acculturated neighbors may be partially responsible for this marginalization. Lack of social support may prevent parents from becoming

adequately involved in their adolescents' life (Grolnick et al., 1997).

Mesosystem

The degree to which parents are connected to adolescents' school and peer contexts is directly predictive of the risks that adolescents face in those contexts (Coatsworth, Pantin, McBride, et al., 2002). For example, when parents monitor their adolescents' peer activities, the adolescents are less likely to associate with deviant peers (Ary et al., 1999; Barrera, Biglan, Ary, & Li, 2001) and to engage in risky sexual behavior (Rodgers, 1999; Romer et al., 1994). When parents are involved in their adolescents' school, their children are more likely to be bonded to school and to have higher academic achievement (Bierman & Furman, 1984), both of which are protective against adolescent unsafe sexual behavior (Kirby, 2002). Generally speaking, the stronger the mesosystemic connections are between parents and other important microsystems (e.g., school and peers), the greater the protective effect is (Garbarino & Abramowitz, 1992). Moreover, some mesosystemic processes, such as parental monitoring of adolescent social activities, are directly protective against adolescent unsafe sexual behavior (B. Miller, McCoy, Olson, & Wallace, 1986).

Additional mesosystemic risks may operate in Hispanic immigrant families. Perhaps most important, Hispanic immigrant parents are likely to lack knowledge about the systems and workings of American society (Leon & Dziegielewski, 2000). This lack of familiarity and knowledge may inadvertently result in parental disconnection from adolescents' peer and school microsystems (K. Miller et al., 2000). For example, in the cultures from which these parents have emigrated, supervisory activities such as monitoring adolescents' social life and contacting teachers were generally unnecessary, because teachers and peers' parents were often neighbors who could be found at the local grocery store, post office, or church (Coatsworth, Pantin, & Szapocznik, 2002). In contrast, American culture requires individual parents to supervise their adolescents; parents who are unaware of this may not attempt to learn about and intervene in the contexts in which their adolescents participate (cf. Szapocznik & Kurtines, 1993).

Microsystem

Within each microsystem (family, peers, and school), the teen interacts with a network of people who affect his or her development toward either

health or dysfunction (Szapocznik & Coatsworth, 1999). Each domain possesses potential risk and protective processes that have been shown to influence the likelihood of adolescent unsafe sexual behavior. In the *family* domain, family support for the adolescent (Crosby et al., 2001; Rodgers, 1999), parent-adolescent communication (O'Sullivan, Jaramillo, Moreau, & Meyer-Bahlburg, 1999), parent-adolescent communication about sex (Whitaker & Miller, 2000), and parent-adolescent connectedness (B. Miller, 2002) are powerful protective factors against unsafe sexual contact. In the *peer* domain, association with sexually active peers (K. Miller et al., 2000) and peers with sex-sponsoring attitudes (Marin, Coyle, Gomez, Carvajal, & Kirby, 2000) is associated with unsafe sexual behavior. In the *school* domain, investment in academics and a high grade point average may be protective against adolescent unsafe sexual activity (Luster & Small, 1994).

For Hispanic adolescents from immigrant families, additional microsystem-level risk factors may impact adolescent unsafe sexual behavior as well. Traditional Hispanic values, such as the insistence that adolescents respect and obey parents, are directly opposed to the individualistic and self-directed orientation offered and modeled by acculturated peers (Santisteban et al., 2002). Through differential levels of exposure to Hispanic and American culture, incompatibilities between American culture and the family's culture of origin come to impact relationships within the family system. Whereas parents may associate mainly with other Hispanic immigrants, adolescents are quickly introduced to American customs in school and through their peers (Szapocznik & Kurtines, 1993). Through contact with acculturated peers, immigrant adolescents may begin to internalize individualistic "American" behaviors, attitudes, values, and habits soon after arriving in the United States, whereas parents tend to hold on to their culture-of-origin beliefs (cf. De la Rosa, Vega, & Radsich, 2000). This phenomenon is known as *differential acculturation* (Szapocznik & Kurtines, 1980). Parental authority, which is generally considered to be beyond question in Hispanic cultures, is undermined by the adolescent's individualistic and self-directed "Americanized" orientation (Santisteban et al., 2002). Therefore, normative parent-adolescent disagreements (e.g., about completing household chores) are compounded by cultural incompatibilities between parents and adolescents (e.g., why parents should be the ultimate authority), such that parents and teens argue about macrosystem-level societal and cultural values along with typical topics in families of adolescents. Furthermore, the more stressful the pro-

cess of acculturation to the host culture is for parents and adolescents, the more likely and frequently acculturation-related conflicts are to occur between parents and adolescents (Gil & Vega, 1996) and the less family oriented the adolescents are likely to be (Gil et al., 2000). For example, if parents experience greater than average difficulty adjusting to American culture and finding sources of social support in the United States, then the likelihood of conflictual parent-adolescent interactions (generally related to cultural differences) may increase.

As a consequence of differential acculturation, traditionally oriented parents may perceive their adolescent's individualistic value system (which he or she has adopted from acculturated peers) as indicative of behavior problems and/or a rejection of the family, whereas, in turn, the acculturated adolescent may perceive his or her parents as overly demanding and controlling. In many cases, Hispanic immigrant parents may not know how to handle acculturated, Americanized adolescents, and, following multiple unsuccessful attempts to reestablish their authority, these parents may become frustrated and reduce their attempts to support, communicate with, and monitor their teens (Kurtines & Szapocznik, 1996). Once parents have withdrawn from their adolescents, the effect of the Hispanic adolescent's acculturation (Ford & Norris, 1993) may render the adolescent more susceptible to peer influences and unsafe sexual behavior.

In the United States, adolescents are regularly exposed to sexual situations and opportunities, and thus they need to be educated about how to respond to sexual encounters and risks. However, Hispanic immigrant adolescents may be less likely than adolescents from other ethnic groups to receive such guidance (O'Sullivan, Meyer-Bahlburg, & Watkins, 2001). In contrast to the typical American parent-adolescent conversation about sex and sexuality, often referred to as the "birds and bees," parents in Hispanic countries do not commonly talk to their adolescents about sex, sexually transmitted diseases, or condoms because discussion of such topics (especially by mothers, who tend to be mostly responsible for childrearing in Hispanic cultures; Gomez & Marin, 1991) is regarded as disrespectful, distasteful, or indicative of the parent's own promiscuity (Ramirez, Gossett, Ginsburg, Taylor, & Slap, 2000). Together with the effects of parental isolation and lack of knowledge, these cultural differences are likely to leave adolescents lacking knowledge about HIV risks and ways to protect against them. When adolescents do not acquire important information about sexuality from their parents, they are more

likely to seek it from their peers (Whitaker & Miller, 2000), who in turn may expose the adolescent to unsafe sexual situations that he or she lacks the skills to resist.

Implications for Intervention

It is well known that literature on risk and protective processes can serve as a useful tool for developing prevention and intervention programs (Hawkins, Catalano, & Miller, 1992; Perrino et al., 2000). Similarly, the literature on cultural risk processes (i.e., risk that occurs when cultural patterns are mismatched to environmental demands) in Hispanic immigrant families may have significant potential to inform the development of culturally specific HIV prevention programs for use with this population. Specifically, prevention programs might benefit from knowledge of the risk processes known to operate in Hispanic immigrant families and in their ecosystems. In this section, we discuss some of the implications of the risk-process literatures for the development of interventions to promote protective processes within the family that, in turn, can help to prevent unsafe sexual behavior and HIV exposure in Hispanic adolescents.

It is important to recognize that risk and protective processes evolve and develop over time (Kazdin, Kraemer, Kessler, Kupfer, & Offer, 1997). Therefore, the nature of risk and protective processes and their effects changes as children develop. For example, a Hispanic immigrant child may be fairly compliant and defer to parental authority despite being exposed to American cultural values through contact with Americanized peers. However, when he or she enters adolescence, the potential for Americanized peers to steer him or her away from Hispanic values and toward risks for unsafe sexual behavior (e.g., drug use, negative attitudes toward school) may increase. Ecodevelopmental theory can inform the design of preventive interventions by anticipating the changing effects of contextual risk factors over time. For example, parents may need to be informed about the influences of acculturated peers *before* these risks begin to take effect, so that they can develop the supervisory networks needed to effectively monitor their youth. Through anticipation of the changing conditions in the youth's social context and development of the parents' skills before they are faced with these challenges, the likelihood of unsafe sexual behavior can be minimized even as the child's developmental context changes.

Although it is often not possible to modify the macrosystemic conditions in which families live, it is

possible to foster protective factors against the deleterious effects of incompatibilities between Hispanic and American cultures, the ensuing parental social isolation, parental marginalization from mainstream social institutions, and differential acculturation between Hispanic parents and their adolescents. In particular, garnering support for parents can help to reduce marginalization, and educating parents about American culture can help to bring them closer to the culture of their youth (Pantin, Schwartz, Coatsworth, Briones, & Szapocznik, in press) and may help to reduce differential acculturation (Szapocznik et al., 1986). Developing parents' skills to promote parent-adolescent communication about sexuality, family support, and parent-adolescent bonding can help to offset the risks associated with adolescents' associations with acculturated, sexually active peers (cf. Basen-Engquist et al., 2001; B. Miller, 2002). The presence of such protective factors in the adolescent's ecosystem helps to prevent macrosystemic risks from trickling down into the exosystemic, mesosystemic, and microsystemic levels.

Not only is it important to intervene ecosystemically to offset macrosystemic risks for unsafe sexual behavior in Hispanic adolescents, it is also important to do so at a young age, before adolescents become sexually active. The fact that minority adolescents tend to initiate sexual activity at earlier ages than do non-Hispanic White adolescents (Kann et al., 2000) underscores the need for early intervention. If implemented early enough, preventive intervention programs can help to delay the onset of sexual activity. Later onset of sexual activity reduces risk for engaging in unprotected sex and for intercourse with multiple partners (Smith, 1997). Accordingly, HIV prevention programs may best be implemented in early adolescence, a time when sexual interest is piqued but before most youth have initiated sexual activity (cf. Madison, McKay, Paikoff, & Bell, 2000) and a time when risks may appear or escalate in the school and peer microsystems—for instance, academic problems, poor school bonding, association with sexually active (and usually older) peers, and substance use in the company of peers (Bernstein, 2002).

Implications of Ecodevelopmental Theory for Designing HIV Prevention Programs for Hispanic Adolescents

The multilevel nature of ecodevelopmental theory suggests that prevention strategies could be designed and implemented at the exosystemic, mesosystemic, and microsystemic levels. The risks operating at each level of the ecosystem indicate the targets for which

prevention strategies might be designed to maximize protection and minimize risk. Below, we reintroduce the risks operating at each level of the Hispanic adolescent's ecosystem (as enumerated above) and some examples of prevention strategies that might be used to address these problems. To provide concrete illustrations of such strategies, we draw on *Familias Unidas* (Pantin et al., in press), a family-based preventive intervention that we have designed to reduce risks for unsafe sexual behaviors and drug use in Hispanic adolescents and that we are currently testing. A detailed summary of specific ecodevelopmental risks, and the prevention strategies developed to address them, is provided in Table 1.

Macrosystem

Because the macrosystem characterizes the beliefs and values of an entire culture or society, it is rarely amenable to direct intervention. However, as mentioned above, protective factors at the exosystemic, mesosystemic, and microsystemic levels have the potential to prevent macrosystemic risks from trickling down into these other levels.

Exosystem

As noted above, lack of social support for parents influences the quality of parenting (Grolnick et al., 1997), which in turn is a primary risk factor for adolescent unsafe sexual behavior (Smith, 1997). Providing social support for Hispanic immigrant parents and educating them about adolescent risks in American society (including how to manage them) may help to mitigate the negative effects of parental isolation and of cultural mismatches on Hispanic adolescents from immigrant families (Mancilla, Newman, Tejada, Zarate, & Szapocznik, 2003). Enhancing social support for parents may increase the likelihood of supportive parenting and of positive parental involvement in adolescents' life (Grolnick et al., 1997; Simons et al., 1993). Invested parents, in turn, are more likely to protect their adolescents against high-risk social situations (e.g., association with sexually active and drug-sponsoring peers; Metzler, Noell, Biglan, & Ary, 1994; Oxford, Harachi, Catalano, & Abbott, 2001). Therefore, to be effective in reducing unsafe sexual behavior in Hispanic adolescents, preventive interventions should work to create a well-functioning support system for the parents.

In *Familias Unidas*, two specific steps are taken to improve exosystemic functioning in Hispanic immigrant families. First, to ease feelings of isolation, we conduct *Familias Unidas* in a parent-group format,

Table 1
Risks and Prevention Strategies at Each Ecodevelopmental Level

Level	Risk factor	Prevention strategy
Macrosystem	Incompatibilities between Hispanic cultural patterns and American environmental demands	None
Exosystem	Lack of social support for parents	Use a parent group format to enhance social support for parents
	Parents isolated from sources of support in the United States	Group facilitators build bridges between parents and members of outside systems (e.g., schools, peer group, peers' parents)
Mesosystem	Parents' lack of knowledge of American society	Educate parents about risks for adolescents in American society, including peer influences, availability of drugs and alcohol, and situations of sexual possibility, and teach parents skills to protect adolescents from these risks
Family-School	Parental disconnection from adolescent's school	Highlight importance of school in adolescents' life Role play interactions between parents and school personnel to develop parents' skills Parents practice skills to collaborate with school personnel during school counselor's visit to group
Family-peer	Parental disconnection from adolescent's peers, lack of monitoring of adolescent and peers, no supervisory network	Highlight importance of peers in adolescents' life Role play interactions between parents, their adolescents, the adolescents' peers, and peers' parents to develop monitoring skills Parents practice monitoring skills by implementing a supervised activity where each parent invites one of the adolescent's peers and the peer's mother or father
Microsystem Family	Differential acculturation, including low levels of parent-adolescent support, communication, and bonding	Role play in group, and enact with the family, interactions that promote parent-adolescent bonding and communication, as well as parent's support of adolescent
	Cultural taboos regarding parent-adolescent discussions about sexuality, and lack of parent-adolescent communication about sex	Role play in group, and enact within the family, parent-adolescent communication about sexuality within the context of supportive parent-adolescent relationships
School	Poor school bonding and poor academic grades	Risks in the school microsystem are addressed within the parent-school mesosystem
Peers	Association with sexually active peers and peers with sex-sponsoring attitudes	Risks in the peer microsystem are addressed within the parent-peer mesosystem

where parents meet together once per week and are encouraged to bond with one another and to help address each other's concerns. For example, parents who have resided in the United States for longer periods of time and "know the ropes" can assist other parents in becoming accustomed to their new surroundings and in learning how to negotiate their way in American society. Each parent group becomes a support network for participating parents, thereby helping to reduce the social isolation that many Hispanic parents experience. Second, in *Familias Unidas*, the facilitator serves in the role of bridge builder between the parents and members of outside systems, such as peers and school personnel, so that the parent receives support and the adolescent is not forced into a developmentally inappropriate role.

Mesosystem

From an ecodevelopmental perspective, preventive interventions might be designed to strengthen positive mesosystemic interactions between the family and the adolescent's school and peer microsystems (Pantin et al., 2003). Educating Hispanic immigrant parents about American culture helps to increase their understanding of American social institutions (e.g., schools), and developing the necessary skills to interact with these social contexts may help to raise the likelihood that these parents will involve themselves in their adolescents' life outside the family (Rodriguez-Brown & Meehan, 1998). By promoting protective mesosystemic connections between parents and the adolescent's school and peer microsys-

tems, intervention strategies have the potential to decrease adolescents' risks for problem behavior (Dishion & Kavanagh, 2000), including unsafe sexual behavior (Stanton et al., 2000). We provide specific examples of risks and interventions to target those risks within the family-school and family-peer mesosystems.

Family-school mesosystem. Hispanic immigrant parents generally come from villages and small towns where schools are part of the community and teachers are friends or neighbors (Coatsworth, Pantin, & Szapocznik, 2002). Therefore, these parents generally lack knowledge about many aspects of the large, impersonal American school system, from how to monitor homework and read report cards to the need to communicate with teachers and school counselors (cf. Rodriguez-Brown & Meehan, 1998). This may, to some extent, explain why Hispanic adolescents in the United States are at an elevated risk for poor academic grades, low school bonding, and school dropout (Kaufman, Alt, & Chapman, 2001), which have been empirically identified as risk factors for unsafe sexual behavior (Manlove, 1998; O'Hara, Parris, Fichtner, & Oster, 1998).

In the parent-school mesosystem, ecodesvelopmental theory suggests that preventive interventions for Hispanic adolescents focus on informing parents about the American school system and on helping them to develop skills for establishing working relationships with teachers and other school personnel (Rodriguez-Brown & Meehan, 1998). In our intervention, work in the parent-school mesosystem is accomplished in three steps. First, the facilitator gives a didactic presentation on the importance of school and parental supervision of homework in adolescents' life, and the parents discuss this topic among themselves in the group format. Second, parents role play an interaction with their adolescent's school counselor, with the facilitator and other group parents offering constructive comments on the role play. Finally, a school counselor visits the parent group and answers questions from parents. In this session, the facilitator both serves as a translator and encourages parents to ask questions reflecting their specific concerns about their adolescents. At the end of this session, the school counselor invites parents to schedule parent-teacher conferences to further discuss issues related to their adolescents' performance. The counselor arranges these conferences and obtains translators for the parents as needed. The purpose of these parent-counselor interactions is to form collaborative relationships between the parent and the school around the adolescent's academic achievement and school bonding.

Family-peer mesosystem. Parental uninvolved and lack of parental monitoring of adolescents' social activities are primary risk factors for associations with sexually active peers and for substance use in the company of peers (Dishion, Capaldi, Spracklin, & Li, 1995; K. Miller et al., 2000). On the other hand, active parental supervision of and involvement in the adolescent's peer network reduces the likelihood of adolescent drug use or unsafe sexual behavior (B. Miller, 2002; Mounts, 2001). Hispanic immigrant parents often lack the knowledge and skills required to supervise their adolescents within American society (cf. Szapocznik & Kurtines, 1993). As a result, they often do not involve themselves in their teens' social life, thus increasing the adolescent's risk for unsafe sexual behavior.

To protect adolescents against risks in the peer domain, then, preventive interventions for Hispanic adolescents might educate parents about the role of peers in the development of adolescent problem behaviors and help parents to develop the skills needed to involve themselves in monitoring the adolescents' peer activities. Empirical research on protective parental involvement with adolescents' peers suggests that parents should not only monitor their teens' whereabouts and activities but should also work with the parents of their teens' peers to construct supervisory networks (cf. Mounts, 2001). Through these networks, parents can be better informed about the activities in which their adolescents are involved. Parents of the adolescents belonging to a peer network can collaboratively intervene if their adolescents become involved in sexual-risk activities or with sexually active peers.

Familias Unidas builds on these recommendations in intervening within the family-peer mesosystem. Similar to the family-school mesosystem, our work within the family-peer mesosystem is composed of three steps. First, facilitators give didactic presentations on the importance of peers and on the role that peers play in the United States in steering adolescents toward healthy or unsafe lifestyles. Second, parents role play interactions with their adolescent, the adolescent's peers, and the peers' parents within the context of the parent group (with other group parents assuming the role of "peer" or "other parent"). Finally, each parent invites his or her adolescent, one of the adolescent's peers, and the peer's mother or father to participate in a supervised leisure activity (e.g., picnic, day at the beach). This activity includes all of the parents in each group and their guests. Moreover, group parents are encouraged to arrange additional supervised activities outside of the group setting, to help solidify the collaborative relation-

ships between parents and the parents of their adolescent's peers.

Microsystem

As mentioned above, microsystems refer to the social-ecological systems that include the adolescent. The relationships within the family, school, and peer microsystems influence adolescent development in either positive or negative ways (cf. Steinberg, Fletcher, & Darling, 1994). As a consequence, ecodevelopmental theory suggests that preventive interventions should facilitate adaptive and health-producing processes in each of the adolescent's primary microsystems (e.g., Pantin et al., in press). In *Familias Unidas*, intervention activities are targeted specifically toward the family microsystem, whereas risks within the school and peer microsystems are targeted through the family-school and family-peer mesosystems, respectively.

Family microsystem. The family microsystem is a strong determinant of unsafe sexual behavior in adolescence (e.g., K. Miller et al., 1998; Perkins et al., 1998). The "side effects" of immigration (e.g., parental isolation and differential acculturation) may predispose Hispanic immigrant families toward lack of connectedness (Tseng & Fuligni, 2000; Gil & Vega, 1996), which in turn poses risks for adolescent unsafe sex (Smith, 1997). Moreover, parent-adolescent communication about sexuality, a powerful protective mechanism against adolescent unsafe sexual behavior (Whitaker & Miller, 2000), may be less likely to occur in Hispanic families than in families from other ethnic backgrounds (O'Sullivan et al., 2001).

Improvements in parent-adolescent communication and in parental involvement may protect adolescents against unsafe sexual behavior (Kotchick, Dorsey, Miller, & Forehand, 1999; O'Sullivan et al., 1999). Moreover, research has shown that the effectiveness of parent-adolescent sexuality discussions is maximized if family cohesion, support, and communication have already been established (Rodgers, 1999). Therefore, to help Hispanic immigrant parents to overcome their cultural discomfort with discussing sexuality, *Familias Unidas* embeds strategies to encourage parent-adolescent communication about unsafe sexual activity within the context of a more generalized effort to promote fundamental aspects of the parent-adolescent relationship, such as communication and support (cf. Krauss et al., 2000). These protective mechanisms within the family microsystem are established before parents are prompted to

discuss sexuality with their adolescents (cf. Kotchick et al., 2001).

To promote protective factors within the family microsystem and to set the stage for parent-adolescent discussions about sexuality, *Familias Unidas* focuses on fostering parenting skills to increase family communication, support, and bonding. Each parenting skill is discussed and role played in parent group sessions and is then enacted with the adolescent in a home visit. During the group sessions and home visits, the facilitator offers support for parents and gently corrects maladaptive interactions between parents and adolescents (during the group session role plays, the role of adolescent is played by another parent). These activities are designed to strengthen the family microsystem and to provide protection against risks at other levels of the social ecology. By bringing parents and adolescents closer together, these activities may have the effect of limiting the intrafamilial consequences of differential acculturation.

To promote parent-adolescent discussion about sexuality, group sessions are devoted specifically to fostering such discussions. These sessions occur toward the end of the intervention, after the family support, communication, and bonding activities and after the interventions into the peer and school mesosystems have been conducted. Information regarding Hispanic adolescents' risk for HIV in the United States is presented in ways that are culturally syn- tonic (e.g., respecting Hispanic family hierarchy by placing parents in the role of authority and HIV risk educator) and that maximize the chances of engaging parents as collaborators in protecting their youth from these risks. Along with didactic presentations, these group sessions feature role plays of parent-adolescent discussions, with group parents adopting the role of adolescent. During individual parent-adolescent meetings, facilitators encourage parents to carry out discussions about unsafe sexual behavior in an empathetic and nonjudgmental way.

Conclusion

Our ecodevelopmentally based prevention program, *Familias Unidas*, provides an example of a prevention program designed to target the unique cultural and ecodevelopmental risk factors predisposing Hispanic adolescents to unsafe sexual behaviors and to HIV exposure. Given that Hispanics represent more than half of all current immigrants to the United States, are now the largest minority group in the country, and are disproportionately affected by the

HIV epidemic, addressing these risks is of significant, and increasing, public health importance.

Increasing social support for parents and restoring family protective processes, such as parent-adolescent connectedness, communication, and support, to offset the potentially deleterious side effects of immigration appear to be crucial steps in preventing unsafe sexual behavior in Hispanic adolescents. Once these family strengths have been reestablished, intervention strategies can be delivered to connect the family with the adolescent's peer and school microsystems, potentially further reducing the adolescent's risk for HIV. The family strengths can also be used to support parent-adolescent discussions about sexuality. For all of these reasons, a family-based, ecodevelopmental approach may have significant potential for designing effective HIV prevention programs for Hispanic adolescents. These programs may help to address the elevated HIV contraction rates in Hispanic adolescents and therefore to reduce what has become a major public health concern.

References

- Ary, D., Duncan, T., Duncan, S., & Hops, H. (1999). Adolescent problem behavior: The influence of parents and peers. *Behaviour Research and Therapy, 37*, 217-230.
- Bachanas, P., Morris, M., Lewis-Gess, J., Saret-Cuasay, E., Flores, A., Sirl, K., & Sawyer, M. (2002). Psychological adjustment, substance use, HIV knowledge, and risky sexual behavior in at-risk minority females: Developmental differences during adolescence. *Journal of Pediatric Psychology, 27*, 373-384.
- Bailey, S. L., Pollock, N. K., Martin, C. S., & Lynch, K. G. (1999). Risky sexual behaviors among adolescents with alcohol use disorders. *Journal of Adolescent Health, 25*, 179-181.
- Barnes, G., Farrell, M., & Banerjee, S. (1995). *Alcohol problems among adolescents: Current directions in prevention research*. Hillsdale, NJ: Erlbaum.
- Barrera, M., Jr., Biglan, A., Ary, D., & Li, F. (2001). Replication of a problem behavior model with American Indian, Hispanic, and Caucasian youth. *Journal of Early Adolescence, 21*, 133-157.
- Basen-Engquist, K., Coyle, K. K., Parcel, G. S., Kirby, D., Banspach, S. W., Carjaval, S. C., & Baumler, E. (2001). Schoolwide effects of a multicomponent HIV, STD, and pregnancy prevention program for high school students. *Health Education and Behavior, 28*, 166-185.
- Bean, F. D., Corona, R., Tuiran, R., Woodrow-Lafield, K. A., & van Hook, J. (2001). Circular, invisible, and ambiguous migrants: Components of difference in estimates of the number of unauthorized Mexican migrants in the United States. *Demography, 38*, 411-422.
- Bernstein, E. (2002). *Middle school and the age of adjustment: A guide for parents*. Westport, CT: Bergin and Garvey.
- Bierman, K., & Furman, W. (1984). The effects of social skills training and peer involvement on the social adjustment of preadolescents. *Child Development, 55*, 151-162.
- Bogenschneider, K., Wu, M., Raffaelli, M., & Tsay, J. (1998). "Other teens drink, but not my kid": Does parental awareness of adolescent alcohol use protect adolescents from risky consequences? *Journal of Marriage and the Family, 60*, 356-373.
- Boyer, C., Tschann, J., & Shafer, M. (1999). Predictors of risk for sexually transmitted diseases in ninth grade urban high school students. *Journal of Adolescent Research, 14*, 448-465.
- Breton, M. (1999). The relevance of the structural approach to group work with immigrant and refugee women. *Social Work With Groups, 22*(2-3), 11-29.
- Brofenbrenner, U. (1979). *The ecology of human development: Experiments by nature and design*. Cambridge, MA: Harvard University Press.
- Bronfenbrenner, U. (1986). Ecology of the family as a context for human development. *American Psychologist, 32*, 513-531.
- Centers for Disease Control and Prevention. (2000). *HIV/AIDS surveillance report* (Vol. 12, No. 2). Atlanta, GA: Division of HIV/AIDS Prevention, Centers for Disease Control and Prevention.
- Centers for Disease Control and Prevention. (2002a). *Young people at risk: HIV/AIDS among America's youth*. Retrieved October 15, 2002, from <http://www.cdc.gov/hiv/pubs/facts/youth.htm>
- Centers for Disease Control and Prevention. (2002b). *Youth risk behavior surveillance system: National survey results*. Retrieved October 15, 2002, from <http://apps.nccd.cdc.gov/YRBSS/ListV.asp?site1=XX&Cat=4>
- Centers for Disease Control and Prevention. (2002c). *HIV/AIDS among Hispanics in the United States*. Retrieved October 15, 2002, from <http://www.cdc.gov/hiv/pubs/facts/hispanic.htm>
- Coatsworth, J. D., Pantin, H., McBride, C., Briones, E., Kurtines, W., & Szapocznik, J. (2002). Ecodevelopmental correlates of behavior problems in young Hispanic females. *Applied Development Science, 6*(3), 126-143.
- Coatsworth, J. D., Pantin, H., & Szapocznik, J. (2002). Familias Unidas: A family-centered ecodevelopmental intervention to reduce risk for problem behavior among Hispanic adolescents. *Clinical Child and Family Psychology Review, 5*(2), 113-132.
- Conger, R. D., Conger, K., Elder, G. H., Lorenz, F. O., Simons, R. L., & Whitbeck, L. B. (1992). A family process model of economic hardship and adjustment of early adolescent boys. *Child Development, 63*, 526-541.
- Côté, J. E. (1993). Foundations of a psychoanalytic social psychology: Neo-Eriksonian propositions regarding the relationship between psychic structure and social institutions. *Developmental Review, 13*, 31-53.

- Crosby, R., DiClemente, R., Wingood, G., Cobb, B., Harrington, K., Davies, S., et al. (2001). HIV/STD-protective benefits of living with mothers in perceived supportive families: A study of high-risk African American female teens. *Preventive Medicine: An International Journal Devoted to Practice and Theory*, 33(3), 175–178.
- Dalaker, J. (2001). *Poverty in the United States: 2000* (Current Population Report P60–214). Washington, DC: U. S. Census Bureau.
- Day, J. C. (1996). *Population projections of the United States by age, sex, race, and Hispanic origin: 1995 to 2050* (Current Population Report P25–1130). Washington, DC: U. S. Bureau of the Census.
- De la Rosa, M., Vega, R., & Radisch, M. (2000). The role of acculturation in the substance abuse behavior of African-American and Latino adolescents: Advances, issues, and recommendations. *Journal of Psychoactive Drugs*, 32(1), 33–42.
- DiIorio, C., Dudley, W., Kelly, M., Soet, J., Mbwar, J., & Potter, J. (2001). Social cognitive correlates of sexual experience and condom use among 13 through 15 year old adolescents. *Journal of Adolescent Health*, 29, 208–216.
- Dishion, T. J., Capaldi, D. M., Spracklin, K. M., & Li, F. (1995). Peer ecology of male adolescent drug use. *Development and Psychopathology*, 7, 803–824.
- Dishion, T. J., & Kavanagh, K. (2000). A multilevel approach to family-centered prevention in schools: Process and outcome. *Addictive Behaviors*, 25, 899–911.
- Dumas, J. E., & Wahler, R. G. (1983). Predictors of treatment outcome in parent training: Mother insularity and socioeconomic disadvantage. *Behavioral Assessment*, 5, 301–313.
- Duncan, S., Duncan, T., Biglan, A., & Ary, D. (1998). Contributions of the social context to the development of adolescent substance use: A multivariate latent growth modeling approach. *Drug and Alcohol Dependence*, 50, 57–71.
- Ford, K., & Norris, A. (1993). Urban Hispanic adolescents and young adults: Relationship of acculturation to sexual behavior. *Journal of Sex Research*, 30, 316–323.
- Galambos, N., Sears, H., Almeida, D., & Kolaric, G. (1995). Parents' work overload and problem behavior in young adolescents. *Journal of Research on Adolescence*, 5(2), 201–223.
- Garbarino, J., & Abramowitz, R. H. (1992). The ecology of human development. In J. Garbarino (Ed.), *Children and families in the social environment* (pp. 11–33). New York: Aldine de Gruyter.
- Gil, A., & Vega, W. (1996). Two different worlds: Acculturation stress and adaptation among Cuban and Nicaraguan families. *Journal of Social and Personal Relationships*, 13, 435–456.
- Gil, A., Wagner, E., & Vega, W. (2000). Acculturation, familism and alcohol use among Latino adolescent males: Longitudinal relations. *Journal of Community Psychology*, 28, 443–458.
- Gomez, C. A., & Marin, B. V. (1991). Gender, culture, and power: Barriers to HIV prevention strategies for women. *Journal of Sex Research*, 33, 355–362.
- Grolnick, W., Benjet, C., Kurowski, C., & Apostoleris, N. (1997). Predictors of parent involvement in children's schooling. *Journal of Educational Psychology*, 89, 538–548.
- Guzmán, B. (2001). *The Hispanic population* (Census brief). Washington, DC: U. S. Census Bureau.
- Hawkins, J., Catalano, R., & Miller, J. (1992). Risk and protective factors for alcohol and other drug problems in adolescence and early adulthood: Implications for substance abuse prevention. *Psychological Bulletin*, 112, 64–105.
- Horacek, H., Ramey, C., Campbell, F., Hoffman, K., & Fletcher, R. (1987). Predicting school failure and assessing early intervention with high-risk children. *Journal of the American Academy of Child and Adolescent Psychiatry*, 26, 758–763.
- Jemmott, L. S., Outlaw, F. H., Jemmott, J. B., III, Brown, E. J., Howard, M., & Hopkins, B. H. (2000). Strengthening the bond: The Mother-Son Health Promotion Project. In W. Pequegnat & J. Szapocznik (Eds.), *Working with families in the era of HIV/AIDS* (pp. 133–153). Thousand Oaks, CA: Sage.
- Kann, L., Kinchen, S. A., Williams, B. I., Ross, J. G., Lowry, R., Grunbaum, J., & Kolbe, L. J. (2000). Special report: Youth risk behavior surveillance, United States, 1999. *Journal of School Health*, 70, 271–285.
- Kaufman, P., Alt, M., & Chapman, C. (2001). Dropout rates in the United States: 2000. *National Center for Education Statistics, Statistical analysis report 2001*. Washington, DC: National Center for Education Statistics.
- Kazdin, A., Kraemer, H., Kessler, R., Kupfer, D., & Offer, D. (1997). Contributions of risk factor to research developmental psychopathology. *Clinical Psychology Review*, 17, 375–406.
- Kirby, D. (2002). Effective approaches to reducing adolescent unprotected sex, pregnancy, and childbearing. *Journal of Sex Research*, 39, 51–57.
- Kotchick, B., Dorsey, S., Miller, K., & Forehand, R. (1999). Adolescent sexual risk-taking behavior in single-parent ethnic minority families. *Journal of Family Psychology*, 13, 93–102.
- Kotchick, B. A., Shaffer, A., & Forehand, R. (2001). Adolescent sexual risk behavior: A multi-system perspective. *Clinical Psychology Review*, 21, 493–519.
- Krauss, B. J., Godfrey, C., Yee, D., Goldsamt, L., Tiffany, J., Almeyda, L., et al. (2000). Saving our children from a silent epidemic: The PATH program for children and adolescents. In W. Pequegnat & J. Szapocznik (Eds.), *Working with families in the era of HIV/AIDS* (pp. 89–112). Thousand Oaks, CA: Sage.
- Kurtines, W. M., & Szapocznik, J. (1996). Structural family therapy in contexts of cultural diversity. In E. Hibbs & R. Jensen (Eds.), *Psychosocial treatment research with children and adolescents* (pp. 671–697). Washington, DC: American Psychological Association.

- Leon, A. M., & Dziegielewska, S. F. (2000). Engaging Hispanic immigrant mothers: Revisiting the time-limited psycho-educational group model. *Crisis Intervention, 6*, 13–27.
- Luster, T., & Small, S. A. (1994). Factors associated with sexual risk taking behaviors among adolescents. *Journal of Marriage and the Family, 56*, 622–632.
- Madison, S., McKay, M., Paikoff, R., & Bell, C. (2000). Basic research and community collaboration: Necessary ingredients for the development of a family-based HIV prevention program. *AIDS Education and Prevention, 12*, 281–298.
- Mancilla, Y. E., Newman, F. L., Tejada, M. J., Zarate, M., & Szapocznik, J. (2003). *Padres Lideres: Efficacy of an intervention to promote parent leadership in Hispanic immigrant families*. Manuscript submitted for publication.
- Manlove, J. (1998). The influence of high school dropout and school disengagement on the risk of school-age pregnancy. *Journal of Research on Adolescence, 8*(2), 187–220.
- Marin, B., Coyle, K., Gomez, C., Carvajal, S., & Kirby, D. (2000). Older boyfriends and girlfriends increase risk of sexual initiation in young adolescents. *Journal of Adolescent Health, 27*, 409–418.
- Metzler, C., Noell, J., Biglan, A., & Ary, D. (1994). The social context for risky sexual behavior among adolescents. *Journal of Behavioral Medicine, 17*, 419–438.
- Miller, B. (2002). Family influences on adolescent sexual and contraceptive behavior. *Journal of Sex Research, 39*, 22–26.
- Miller, B., McCoy, J., Olson, T., & Wallace, C. (1986). Parental discipline and control attempts in relation to adolescent sexual attitudes and behavior. *Journal of Marriage and the Family, 48*, 503–512.
- Miller, K., Forehand, R., & Kotchick, B. (2000). Adolescent sexual behavior in two ethnic minority groups: A multi-system perspective. *Adolescence, 35*, 313–333.
- Miller, K., Levin, M. L., Whitaker, D. J., & Xu, X. (1998). Patterns of condom use among adolescents: The impact of maternal-adolescent communication. *American Journal of Public Health, 88*, 1542–1544.
- Mitrani, V. B., Szapocznik, J., & Robinson Batista, C. (2000). Structural ecosystems therapy with HIV+ African American women. In W. Pequegnat & J. Szapocznik (Eds.), *Working with families in the era of HIV/AIDS* (pp. 3–26). Thousand Oaks, CA: Sage.
- Mounds, N. S. (2001). Young adolescents' perceptions of parental management of peer relationships. *Journal of Early Adolescence, 21*, 92–122.
- Office of National AIDS Policy. (2000). *Youth and HIV/AIDS 2000: A new American agenda*. Washington, DC: Author.
- O'Hara, P., Parris, D., Fichtner, R., & Oster, R. (1998). Influence of alcohol and drug use on AIDS risk behavior among youth in dropout prevention. *Journal of Drug Education, 28*(2), 159–168.
- O'Sullivan, L., Jaramillo, B., Moreau, D., & Meyer-Bahlburg, H. (1999). Mother-daughter communication about sexuality in a clinical sample of Hispanic adolescent girls. *Hispanic Journal of Behavioral Sciences, 21*, 447–469.
- O'Sullivan, L., Meyer-Bahlburg, H., & Watkins, B. (2001). Mother-daughter communication about sex among urban African American and Latino families. *Journal of Adolescent Research, 16*, 269–292.
- Oxford, M., Harachi, T., Catalano, R., & Abbott, R. (2001). Preadolescent predictors of substance initiation: A test of both the direct and mediated effect of family social control factors on deviant peer associations and substance initiation. *American Journal of Drug and Alcohol Abuse, 27*, 599–616.
- Pantín, H., Coatsworth, J. D., Feaster, D. J., Newman, F. L., Briones, E., Prado, G., et al. (2003). Familias Unidas: The efficacy of an intervention to increase parental investment in Hispanic immigrant families. *Prevention Science, 4*, 189–201.
- Pantín, H., Schwartz, S. J., Coatsworth, J. D., Briones, E., & Szapocznik, J. (in press). Familias Unidas: A systemic, parent-centered approach to preventing problem behavior in Hispanic adolescents. In P. H. Tolan, J. Szapocznik, & S. Sambrano (Eds.), *Preventing substance abuse*. Washington, DC: American Psychological Association.
- Pantín, H., Schwartz, S. J., Coatsworth, J. D., Sullivan, S., & Szapocznik, J. (2003). Preventing substance abuse in Hispanic immigrant adolescents: An ecodevelopmental, parent-centered approach. *Hispanic Journal of Behavioral Sciences, 25*, 469–500.
- Perkins, D. F., Luster, T., Villarruel, F. A., & Small, S. (1998). An ecological, risk factor examination of adolescent's sexual activity in three ethnic groups. *Journal of Marriage and the Family, 60*, 660–673.
- Perrino, T., Gonzalez-Soldevilla, A., Pantín, H., & Szapocznik, J. (2000). The role of families in adolescent HIV prevention: A review. *Clinical Child and Family Psychology Review, 3*(2), 81–96.
- Pettit, G. S., Bates, J. E., Dodge, K. A., & Meece, D. W. (1999). The impact of after-school peer contact on early adolescent externalizing problems is moderated by parental monitoring, perceived neighborhood safety, and prior adjustment. *Child Development, 70*, 768–778.
- Ramirez, J. I., Gossett, D. R., Ginsburg, K. R., Taylor, S. L., & Slap, G. B. (2000). Preventing HIV transmission: The perspective of inner-city Puerto Rican adolescents. *Journal of Adolescent Health, 26*, 258–267.
- Rimm-Kaufman, S. E., & Pianta, R. C. (2000). An ecological perspective on the transition to kindergarten: A theoretical framework to guide empirical research. *Journal of Applied Developmental Psychology, 21*, 491–511.
- Rodgers, K. B. (1999). Parenting processes related to sexual risk taking among adolescent males and females. *Journal of Marriage and the Family, 61*, 99–110.
- Rodriguez-Brown, F. V., & Meehan, M. A. (1998). Family literacy and adult education: Project FLAME. In M. C. Smith (Ed.), *Literacy for the twenty-first century: Research, policy, practices, and the National Adult Literacy Survey* (pp. 175–193). Westport, CT: Praeger.

- Romer, D., Black, M., Ricardo, J., Feigleman, S., Kaljee, L., Galbraith, J., et al. (1994). Social influences on the sexual behavior of youth at risk for HIV exposure. *American Journal of Public Health, 84*, 977–985.
- Santisteban, D. A., Muir-Malcolm, J. A., Mitrani, V. B., & Szapocznik, J. (2002). Integrating the study of ethnic culture and family psychology intervention science. In H. Liddle, R. Levant, D. A. Santisteban, & J. Bray (Eds.), *Family psychology: Science-based interventions* (pp. 331–352). Washington, DC: American Psychological Association.
- Schwartz, S. J., Coatsworth, J. D., Pantin, H., & Szapocznik, J. (2003). Ecodevelopmental theory. In J. R. Miller, R. M. Lerner, L. B. Schiamberg, & P. M. Anderson (Eds.), *Human ecology: An encyclopedia of children, families, communities, and environments* (pp. 198–201). Santa Barbara, CA: ABC-CLIO.
- Schwartz, S. J., Pantin, H., & Szapocznik, J. (2003). The Hispanic immigrant experience. In J. R. Miller, R. M. Lerner, L. B. Schiamberg, & P. M. Anderson (Eds.), *Human ecology: An encyclopedia of children, families, communities, and environments* (pp. 360–363). Santa Barbara, CA: ABC-CLIO.
- Simons, R., Lorenz, F., Wu., C., & Conger, R. (1993). Social network and marital support as mediators and moderators of the impact of stress and depression on parental behavior. *Developmental Psychology, 29*, 368–381.
- Small, S., & Luster, T. (1994). Adolescent sexual activity: An ecological, risk-factor approach. *Journal of Marriage and the Family, 56*, 181–192.
- Smith, C. (1997). Factors associated with early sexual activity among urban adolescents. *Social Work, 42*, 334–346.
- Stanton, B., Li, X., Galbraith, J., Cornick, G., Feigelman, S., Kaljee, L., & Zhou, Y. (2000). Parental underestimates of adolescent risk behavior: A randomized, controlled trial of a parental monitoring intervention. *Journal of Adolescent Health, 26*, 18–26.
- Steinberg, L., Fletcher, A., & Darling, N. (1994). Parental monitoring and peer influences on adolescent substance use. *Pediatrics, 93*, 1060–1064.
- Suárez-Orozco, C., & Suárez-Orozco, M. (2001). *Children of immigration*. Cambridge, MA: Harvard University Press.
- Swick, K., & Broadway, F. (1997). Parental efficacy and successful parent involvement. *Journal of Instructional Psychology, 24*, 69–75.
- Szapocznik, J., & Coatsworth, J. D. (1999). An ecodevelopmental framework for organizing the influences on drug abuse: A developmental model of risk and protection. In M. Glantz & C. Hartel (Eds.), *Drug abuse: Origins & interventions* (pp. 331–366). Washington, DC: American Psychological Association.
- Szapocznik, J., & Kurtines, W. (1980). Acculturation, biculturalism and adjustment among Cuban Americans. In A. M. Padilla (Ed.), *Psychological dimensions on the acculturation process: Theory, models, and some new findings* (pp. 139–159). Boulder, CO: Westview.
- Szapocznik, J., & Kurtines, W. M. (1993). Family psychology and cultural diversity: Opportunities for theory, research and application. *American Psychologist, 48*, 400–407.
- Szapocznik, J., Santisteban, D., Rio, A., Perez-Vidal, A., Kurtines, W. M., & Hervis, O. E. (1986). Bicultural effectiveness training (BET): An intervention modality for families experiencing intergenerational/intercultural conflict. *Hispanic Journal of Behavioral Sciences, 6*, 303–330.
- Therrien, M., & Ramirez, R. R. (2000). *The Hispanic population in the United States, March 2000* (Current Population Report P20–535). Washington, DC: U. S. Census Bureau.
- Tseng, V., & Fuligni, A. (2000). Parent-adolescent language use and relationships among immigrant families with East Asian, Filipino, and Latin American backgrounds. *Journal of Marriage and the Family, 62*, 465–476.
- Whitaker, D., & Miller, K. (2000). Parent-adolescent discussions about sex and condoms: Impact on peer influences of sexual risk behavior. *Journal of Adolescent Research, 15*, 251–273.
- Zea, M. C., Diehl, V. A., & Porterfield, K. S. (1996). Central American youth exposed to war violence. In J. G. Garcia & M. C. Zea (Eds.), *Psychological interventions and research with Latino populations* (pp. 39–55). Needham Heights, MA: Allyn & Bacon.

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