

CAUSES AND CONSEQUENCES OF STRESSORS FOR LATINO ADOLESCENTS

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Abstract

This article addresses Latino adolescent stress: 1) the normative stressors that most adolescents encounter, 2) Latino-specific non-normative stressors, 3) consequences of the stressors for Latino adolescents, 4) Protective and coping factors that could be helpful for adolescents, 5) future studies and directions for research. The psychological state of stress depends on cognitive factors such as values, beliefs, goals and commitments along with self-esteem, sense of control, mastery, and environmental variables such as demands, resources and constraints. This review also found a need for research on the consequences of non-normative stressors in Latino adolescent in the following areas: a) intergenerational differences on acculturation levels and its consequences in the family (i.e. stress and conflicts between parents and adolescents), 2) further research that focuses on the difference between acculturated and bicultural Latino adolescents and their relationship to mental and physical health, 3) this review points out that Latina adolescents are in higher jeopardy for mental health and suicide attempts. Nevertheless, there is a gap in the current research that addresses gender differences in Latino adolescents related to stressors, coping skills, resiliency and consequences in physical and mental health

Introduction

Latinos¹ will reach one quarter (25%) of the U.S. population (about 97 million) by the year 2050 and one third of them will be youth under the age of nineteen (U.S. Department of Health and Human Services, 2001). The Mexican origin population is the largest of all Latino groups (66.9%) followed by Puerto Ricans (8.6%), Cubans (3.7%) Central and South Americans (14.3%) and others (6.5%) (Ramirez & De la Cruz, 2003). These subgroups of Latinos are disproportionately affected by stressful living conditions that are jeopardizing their present health and future. Such conditions include

poverty (Ramirez & De la Cruz, 2003; Salgado de Snyder, Cervantes & Padilla, 1990), lack of health insurance (Newacheck & McManus, 1989; Brindis, Driscoll, Biggs, & Valderrama, 2002-1) high school drop-out rates (Mackey, Fingerhut, & Duran, 2000), high rates of teenage pregnancies (Mackey et al., 2000; COSSMHO, 1999), and increasing health problems (e.g. obesity) (Freid, Prager, MacKay, & Xia, 2003), STDs (Buzi, Weinman, & Smith, 1998), increasing rates of HIV infections (Brindis et al., 2002-2; CDC 2002; Berger & Rivera, 1993), substance abuse (e.g.: alcohol and cocaine) (De la Rosa, 2002; Kandel, 1995) and violence (Amaro, Messinger & Cervantes, 1996; Rice & Dolgin, 2002). Considering the developmen-

¹The terms Latino and Hispanic will be used interchangeably through this chapter

tal changes and cultural changes in both the community and the family, segments of the Latino adolescent population experience a complex set of issues, increasing their levels of stress. In some Latino adolescents, stress is manifested in mental health problems such as generalized anxiety, depression, and even suicide. In particular, young female Latinas have the highest (15.9%) rate of suicide attempts (Freid et al., 2003). Researchers and mental health professionals should concede special attention to Latino youth, as they may be both at high risk yet the most amenable to prevention and intervention of all populations (U.S. DHHS, 2001).

This article will address the following issues related to Latino adolescent stress: 1) the normative stressors that most adolescents encounter, 2) Latino-specific non-normative stressors, 3) consequences of the stressors for Latino adolescents, 4) Protective and coping factors that could be helpful for adolescents, 5) future studies and directions for research.

Normative Stressors in Adolescents

Models of Stress in Adolescence

According to one major psychological theory of stress offered by Lazarus (1966; 1990) and Lazarus and Folkman (1984), stress is defined by a relation between person and environment that demands, taxes or exceeds the psychological resources in

a way that can be evaluated as harmful (negative) or challenging (positive). The psychological state of stress depends on cognitive factors such as values, beliefs, goals and commitments along with self-esteem, sense of control, mastery, and environmental variables such as demands, resources and constraints. Once the individual performs a cognitive appraisal, he or she will typically engage in a coping process to manage the stress. Results from coping responses will be appraised again in a changing process that depends on both the individual and the environmental characteristics (Lazarus, 1990). This stress-appraisal-coping activity is a dynamic feedback and interaction process (Pearlin, Lieberman, Menaghan & Mullan, 1981). This stress process model has been adapted, modified and further specified for the Hispanic population (Cervantes & Castro, 1985). However, the application of stress theory developed for adults to adolescents requires an additional basic understanding of the influence of human developmental change. The distinction between developmental stress (the "storm and stress" of normal adolescence) and to the non-normative acute or chronic life stressors that adolescents must appraise and cope with is essential in understanding the specifics of adolescent stress (Colten & Gore, 1991).

Petersen, Kennedy and Sullivan (1991) developed a model to explain the developmental transition between

childhood and adolescence. They also identified some "challenges" (to avoid the negative connotation of the concept "stressor") encountered by adolescents. The authors classified the five areas of changes faced by children in early adolescence: 1) biological (adult appearance and size, reproductive capacity, endocrine changes, asynchrony among body parts, etc.), 2) cognitive (abstract thought, etc., peer groups, conformity, pressure to explore new experiences) 3) academic (changes in school structure and format, etc.), 4) parental (parental reactions to physical changes, impeding separation, etc.) and 5) social (hopes and expectations for youth, occupational choices and opportunities). The model explains that simultaneous changes are related to more negative outcomes than to sequential changes. For example, adolescents who are pubertal during the transition from elementary to secondary school have more negative outcomes than those whose pubertal change occurs after the transition.

Some research also suggests that stressful life events in children are reported to be more devastating than for adults (Compas, 1987). The adolescent's inability to cope with stress could lead to severe consequences from academic failure, diminished academic motivation and school dropping, defiance of authority, anti-social behavior and violence, isolation, mental health problems such as anxiety, depression, eating disorders, the use

of alcohol and other drugs, crime participation, suicide, and other serious consequences (De la Rosa, 2002; Guinn & Vincent, 2002; Robson & Cook, 1995).

Developmental Challenges

Adolescents experience normative bio-psychological transitions such as physical, sexual, cognitive and emotional changes together with social transitions (e.g. shift from middle to high school) (Colten & Gore, 1991). In addition, adolescents who have different environmental and socio-cultural roots, also experience distinctive challenges along with specific social expectations and pressures that influence their behavior.

Physical and sexual maturation occurs in adolescents when puberty arrives. Sexual changes are also accompanied by other aspects of physical appearance, some of them embarrassing for adolescents (e.g. changes in voice, facial and body hair, acne, body shape and growth, distribution of fat in the body, etc.).

Cognitively, the fast development of the brain and its functions are evident in adolescence. Jean Piaget (1950, 1963) considered cognitive development to be a qualitative change that results from a combination of environmental influences and the development of the nervous system. Adolescents conquer the formal operational stage when they are able to think in abstract terms, using inductive reasoning and systematic propositional

logic in solving problems. Current research focused on information processing and decision making (see review by Rice & Dolgin, 2002) suggests both qualitative and quantitative changes in multiple areas of human intelligence during adolescence.

Fast cognitive and emotional development enables the adolescent to evaluate what they learn and become more capable of moral reasoning and idealization. Some adolescents develop a strong sense of idealism and justice and have strong desires to change society. This maturation development also helps them to plan their future in the long-term rather than obtaining immediate gratification. In addition, curiosity, daydreaming and the visual imagery increase serving a practical purpose in finding alternative behaviors to solve problems and cope with stress (Gold & Henderson, 1990). Adolescents are also capable of thinking about their own thoughts and becoming acutely aware of themselves. Other consequences of this rapid cognitive change are not as positive (e.g. lack of attention, egocentrism, obsession with their appearance and behavior, and contradiction between their ethics and behavior) (Bus & Thompson, 1989; Elkind, 1978; Gold & Henderson, 1990; Vartanian, 1997; Vartanian & Powlishta, 1996).

Adolescents are considered to experience significant difficulties in comparison to other children and adults that are generally transitory or sporadic. Arnett (1999) reviewed the available

literature concluding that authors who support the adolescent storm and stress theory usually refer to three problematic behaviors: 1) interpersonal conflicts generally with parents and other authority figures, 2) emotional swings, and 3) risky behaviors. Problematic behavior could be only to satisfy the curiosity in experiences considered of adulthood. Adolescents simply imitate adult behavior in issues such as cigarette smoking, alcohol use, sexual behavior, etc.

Latino Adolescent Non-Normative Stressors

Normative stress refers to those developmental changes that all youth experience. However, there are many groups of youth that face extremely adverse conditions and risk factors that shape their development and mental health (Colten & Gore, 1991). Latino and other minority adolescents in the United States share many risks. In addition to normative stress that most non-minority adolescents face, they also have to confront additional stressors related to prejudice and hostility, marginalization, racism and xenophobia, poverty, environmental risks (i.e. old homes with lead paint, malnutrition, unsanitary conditions, etc.) cultural and language barriers and immigration challenges (Amaro et al., 1996; Rice & Dolgin, 2002; Suárez-Orozco & Suárez-Orozco, 2001). Zambrana and Silva-Palacios (1989) conducted a study with 244 immigrant Latino adolescents in Los Angeles. Findings

reflected several sources of stress in this population. The most important factors were related to family issues such as parents getting sick and going to a hospital, having family members arrested, parents drinking, and leaving relatives and friends when moving, being pressured by family members to speak only Spanish or English at home and cultural and religious obligations. In addition, there were other factors associated to economic problems in the family; for instance, crowded homes, living in neighborhoods with crime and caring for siblings.

Another group of stressors were related to discrimination and marginalization, language barriers and academic stressors, especially at school. Finally, another cause of stress was related to peers, such as pressure to get into fights and not having enough Latino friends. Hispanic families that migrated also had encountered stressors related to the immigration process, such as migratory status (documented vs. undocumented), migratory journey risks, cultural shock, communication problems, ignorance of how the system works, and separation from their homeland, nuclear and extended family and friends.

Immigration and Broken Families: "Con Un Pie Aquí y Otro Allá"

According to the U.S. Census (U.S. DHHS, 2000) two in five Hispanics are foreign born. Latino families migrate

to escape poverty, lack of professional opportunities and education, political and religious prosecution, torture and death (Apoyo, 1997). Families migrate to improve their lives and to provide a better future for their children and economical support to other relatives living in their country of origin (Abalos, 1998).

Hope is in the heart of every immigrant (Suárez-Orozco & Suárez-Orozco, 2001).

However, immigrants pay a high price in costs and risks that go along with the process of immigration and adjustment to their new environment. Migration procedure implies losing family and friends, community ties, social roles, customs, jobs, money, hobbies, their home/house and many other important personal irreplaceable possessions. Hispanics traditionally use both nuclear and extended family as vital support systems to deal with stress. Therefore, separation from family and close friends (*compadres, comadres, padrinos*) place Latinos at high risk for mental health problems (Canino & Canino, 1982).

Families coming to the U.S. with no legal status face even more stress and risks when crossing the border. Crossing the border includes exposure to heat exhaustion and dehydration (Adler, 2004), starvation, swimming across polluted waters, crossing deserts, traveling in unreliable transportation (Cuellar, 2002) vandalism,

violence and even death from the *coyotes*, the U.S. INS officers (Suárez Orozco & Suárez Orozco (2001) and criminal gangs (i.e. La Salva Mara Trucha). In addition, women and girls face additional risks of being physically and sexually abused, raped, robbed or even murdered on their journey (Amnesty International, 1998). Cuellar (2002) explains how Latinos, once in the other side of the frontier, face other stressors: discrimination, fear of deportation, dangerous working conditions, lack of health insurance and access to social security even as they contribute to the system with their taxes. Immigrant Latinos begin developing mental health problems (depression and other affective and psychiatric disorders) and substance abuse, as they become more acculturated (Cuellar, 2002; Hovey, 2001; Vega, Kology, Aguilar-Gaxiola, Alderete, Catalano & Caraveo-Anduaga, 1998). The Transactional Mental Health Stress Model for Migrants (Ensel & Lin, 1991) also describes how individual characteristics (self-esteem, intelligence, coping style, social skills, etc.), social resources and cognitions (expectations, hope, optimism, dreams, etc.) play an important role as mediating factors.

Immigrant children and adolescents generally suffer separation from one or both parents since adults usually migrate first, mostly under the support of family networks living already in the U.S. (Suárez-Orozco & Suárez-Orozco, 2001). In some cases, the

separation can last years, decades and even a lifetime. Some children arrive to the U.S. not remembering their parents at all, especially in the cases of undocumented immigrants. Adler (2004) describes how *coyotes* in Yucatan often separate children from their parents to cross the border. This separation and the dependence on strangers can be truly terrifying and one of the most stressful experiences suffered by Hispanic adolescents (Zambrana & Silva-Palacios, 1989).

Language Barriers

In addition to immigration and other acculturation strains, Latino adolescents who are not born in the U.S., experience language barriers that constitute powerful stressors in the school setting. Many behavioral problems in Latino adolescents are related to socialization issues caused by language barriers. In addition, different rates of language acquisitions along with different preferences of the use of a language between parents and children, can facilitate intergenerational conflicts and communication problems in the family (Vega, Zimmerman, Warheit, Khoury & Gil, 1995). Parents may discourage children to speak in English or vice versa, to communicate only in Spanish, in an attempt to avoid marginalization and school failure (Rice & Dolgin, 2001).

Suárez-Orozco and Suárez-Orozco (2001) stated that immigrant Latino adolescents tend to stop using their first language. Spanish language

competence is likely to atrophy over time since English is the first language at school where children spend most of their active time. After a while, they become more comfortable using English in any context, including home.

In addition, children of first and second generation immigrants who speak English with parents who only speak Spanish do not have the opportunity to practice their skills in writing, reading and conversational English at home or obtain help with home-work. This situation may contribute to school failure increasing the risk of school drop-out.

Economic Disadvantage

Minority adolescents are more likely to be poor than White youths (Brindis, Driscoll, Biggs & Valderrama, 2002-1). Therefore, they encounter additional stressors, since socioeconomic status is associated to multiple problems. Latino adolescents are mostly concentrated in urban communities or barrios. Certain segments of Latino populations live in neighborhoods where there is violence, drug and alcohol use, gangs, academic failure, delinquency and unsafe sexual promiscuity among adolescents (Rice & Dolgin, 2002). These are consequences of poverty, marginalization, segregation and distress. They are also the cause of other future problems such as broken families, school failure and drop-out, teenage pregnancies, HIV/AIDS and other sexually transmitted diseases, victimization, incarceration,

death and other serious consequences.

Latino adults are much more likely to live in poverty and have significant lower income than non-Hispanic Whites (Ramirez & De La Cruz, 2003). This economic disadvantage forces both parents of a regular Latino family to work outside the home (Suárez-Orozco & Suárez-Orozco, 2001). Adolescents may also be encouraged to contribute to the family income by working (Rice & Dolgin, 2002). Some children and adolescents are often left without supervision and sometimes with the responsibility of raising their younger siblings since daycare is very expensive for these families. Latino adolescents may spend most of their unsupervised time on the streets increasing their risk of becoming involved in gangs, drug use, crime, unprotected sex and other serious problems.

Consequences of Stressors For Latino Adolescents

Consequences on Physical Health

Adolescence is a period of life that involves extensive change and challenges (Compas & Wagner, 1991; Petersen et al., 1991). The research consensus is that most of the variance in negative outcomes in adolescence related to stress is explained by psychosocial influences (Buchanan, Eccles & Becker, 1992; Brooks-Gunn, Graber & Paikoff, 1994; Steinberg & Morris, 2001). Some ad-

olescents could perceive the stressful conditions stimulating and respond in a positive way. However, others may find their situation overwhelming and be unable to cope. Distress could lead some adolescents to develop physical and mental health problems. Psychological stress has been linked to "associated immune modulation and risk for infectious diseases" (Glaser, Rabin, Chesney, Cohen, & Natelson, 1999) like infections, asthma, etc. According to a report from *The NIH Word on Health*, some stress is good for the body when trying to motivate someone to perform (e.g. present a speech, etc.) however studies show that high levels of short term or chronic stress can depress the immune system placing the individual at higher risk of viral infections and prolonging the healing period (Harrison, 2000).

Growing evidence indicates that health problems of young Latinos have been on the rise. Such physical health problems include growing rates of eating disorders and obesity that can lead to diabetes and cardiovascular disease. A study by Dallman, Pecoraro, Akana et al. (2003) revealed that "human's chronic stress induces either comfort food [high fat and carbohydrates] intake and body weight gain or decreased intake and body weight loss." According to this study, some of the long term consequences of chronic stress can lead to "deleterious weight gain, abdominal obesity, type II diabetes, increased cardiovascular morbidity, and mortality." Obesi-

ty in adolescents is a serious problem that is growing in the United States. Based on medical examinations of a Mexican sample (Freid et al., 2003), Latino adolescents between the ages of 12-19 revealed high rates of obesity. Overall, young Latino males had the highest rate (27.5%) of obesity both by gender and by race/ethnicity. The rate for Latino females (19.4%) was also high, but less than African-American females. One study linked overweight Latino adolescents with parents having a high school education or less and who live in poverty. It also revealed that the lack of health insurance or having a public health insurance program put Latino adolescents at greater risk for obesity (Haas et al., 2003). A recent study shows that regardless of gender, ethnicity, or socio-economic status, adolescents who experienced greater levels of stress eat more fatty foods and snacks and less vegetables (Cartwright et al., 2003). The implications of this study are that long-term stress can lead to a greater risk of developing diseases (Cartwright et al., 2003).

Another stress induced/intensified health condition that has been on the rise amongst minority youth (inclusive Latinos) is Asthma. Teenagers express more psychological stress than children when trying to cope with the "social stigma of asthma" (A.D.A.M., 2004). The A.D.A.M. publication on Asthma also identified both stress and depression to be associated with "more severe symptoms and even an

increased risk of fatal asthma attacks". It is recommended that stress-reducing and relaxation techniques be used to alleviate symptoms and manage asthma. Although more non-Hispanic Whites and Blacks have reported a current prevalence of asthma, Blacks and Hispanics are at greater risk for death related asthma. Like Blacks, Hispanics have high rates (26%) of emergency room visits, the higher rate (36.9%) of urgent care visits, asthma attacks, sleeping difficulty (64.7%), limited activity (40.4%), and like Whites, Latinos too display high rates (72.3%) of asthma symptoms. Such disparities in asthma rates have been attributed to poverty, low education, lack/under-insurance, and environmental factors (CDC, 2004).

Stress Exposure and Consequences on Behavioral Health

According to the U.S. Department of Health and Human Services (Freid et al., 2003), the rate of Latino adolescents who seriously considered suicide in the year 2001 was 12.2% for males, second after white males. However, the highest rates of suicide consideration (26.5%) were for female Latinas. Latino youth from 9th to 12th grade overall had higher rates of attempted suicide than any other group; the male students were at 8% while again, the female Latina rates (15.9%) were much higher. In an older survey, injurious suicide attempt rates were higher for Latina females 4.2%, followed by Latino males (2.5%) and then

African Americans (U.S. DHHS, 1990). Also, Latinas have alarmingly higher rates of depression (27%). Latinas were the second highest ethnic group to report depressive symptoms. Acculturation stress due to conflictive gender roles in adolescent Latinas is believed to be the driving force of their higher rates of stress, depression and suicidability (National Coalition of Hispanic Health and Human Services Organization, 1999).

Latino youth, in particular of Mexican descent, reported using more alcohol than any other substance. Data based on household interviews also indicated more alcohol use than any other substance. Findings showed that 19% of Hispanic adolescents between the ages of 12-17, reported using alcohol in 1998; non-Hispanic whites had a slightly higher (21%) rate. Similarly, 6% of Latino adolescents (followed by whites, 9%) reported binge drinking. The second substance most used among Hispanics is cigarette smoking (US. DHHS, 2000; CDC, 2004). The rise in cigarette smoking among Hispanic youth is of great concern, particularly for Latina female adolescents who have the highest rates of teenage pregnancy. This presents a potential rise in health related childbearing problems if preventive measures are not taken (Baezconde-Garbanati). The third substance most (8%) used by Hispanic youth is marijuana, which has similar percentage rates across other cultural/ethnic adolescents (Kulis et al., 2003). How-

ever, cocaine use among Latino youth was at an all time high of 1.4% greater than any other race/ethnicity in 1998 (US. DHHS, 2000). Latina adolescents reported using alcohol and drugs to relieve stress and depressive symptoms (COSSMHO, 1999). Issues of stress, in particular acculturative stress, have been linked to higher rates of substance abuse among Latino adolescents (De La Rosa 2002; Schinke, Moncher, Palleja, Zayas & Chilling, 1988).

Unprotected Sex

Adolescent acculturative stress can also lead to risky sexual behaviors among Hispanic teenagers such as unprotected sexual practices, increasing the rates of teenage unwanted pregnancies, STD's and HIV/AIDS infections (Ford & Norris, 1993). According to the Department of Health and Human Services (Freid et al., 2003), Latina teenagers under the age of 18, had the second highest rate (5.8%) of teenage childbearing in 2001. Teenage pregnancy increases the rates of low birth weight as well as infant mortality rates more than any other child bearing age group (U.S. DHHS, 2000). A study on Latino adolescent females shows that Mexican-American girls had the highest rates of teenage pregnancy (Pensa & Mathews, 2000).

Sexually active youth are at greater risk of contracting sexually transmitted infections or diseases (STDs). The wide spread of STDs among teens

is due to having multiple sexual partners and engaging in unprotected sexual intercourse. Although African-American teenagers contract more STDs than any other group, Hispanics are also at high risk (Buzi, Weinman, & Smith, 1998; Brindis, Driscoll, Biggs, & Valderrama, 2002). Likewise, HIV/AIDS in Latino/a adolescents is on the rise. Like African-Americans, Hispanics also have disproportionately higher rates of AIDS, and the highest rate of heterosexually acquired AIDS (with the exception of Puerto Ricans who have higher rates of inter-venous drug related HIV infections) (Berger & Rivera, 1993; CDC, 2002). Some of the reported barriers that have been linked to the higher rates of STD's and HIV infections among Hispanics include: the lack of contraception knowledge, cultural and religious beliefs about contraception (in particular among Mexican-Americans), lower rates of condom use, and lack of medical insurance which inhibits many teens from seeking healthcare with issues related to sex, diseases, and contraception options (Buzi et al., 1998; Rosenthal, Biro, Succo, Bernstein & Stanberry, 1997).

Protective Factors and Coping Skills

Understanding how healthy adolescents cope with stress and the types of strategies they use to deal with stress is important in order to help other adolescents manage stress. In particular, adolescents with greater life

difficulties or pressures, like the stressors many Latino/a teens face everyday. Strategies such as relaxation techniques, good sense of humor, peer support, family cohesion, strong self-esteem, physical and mental activity, problem solving skills, etc. are strategies identified in the literature to help stressed people in general and adolescents in particular (Copeland & Hess, 1995; Frydenberg & Lewis, 1993; Mates & Allison, 1992). There is also literature on gender differences in coping styles that describe boys as more likely to cope through playing and direct action while girls benefit more through social support (Frydenber & Lewis, 1993). However, research with Latino adolescents and gender differences regarding coping with acculturation stress is limited, although increasing.

Results from the few studies of protective factors and coping skills in Latinos, a social support system is being identified as a crucial preventive factor to cope with stress, marginalization, racism and other stressors suffered by minorities (De La Rosa, 1988). It is also the most cited resource to cope with stress in the literature (Petersen et al., 1991). *Familismo* and *colectivismo* are Latino cultural characteristics, but are also powerful protective factors (Padilla, Cervantes, Maldonado & Garcia, 1988). There is evidence of the association between the lack of family bonding (especially between mothers and adolescents) and stress (Kenny,

Gallager, Alvarez-Salvat & Silsby, 2002; Zarza & Cervantes, 2004). Acculturation stress, conduct disorders, learning problems, impulsivity, hyperactivity, low grades at school, substance abuse and high-risk sexual behaviors in adolescent Latinas are related to lack of bonding with mothers (Zarza & Cervantes, 2004). Parental involvement is considered critical to prevent mental health problems and other consequences in Latino adolescents (Guinn & Vincent, 2002; Kenny et al., 2002) and adolescents in general (Pearce, Jones, Schwab-stone & Ruchkin, 2003). In addition, other studies show the importance of emotional support from peers to Latino adolescents and youth (Jarama, Belgrave & Zea, 1996).

Another kind of resource that may help to moderate the effects of stressful situations are the internal coping responses, usually described as coping style (Lazarus & Folkman, 1984). Problem-focused coping responses to stress implies taking direct action (thoughts and instrumental behaviors) to fight the stressors, perceived under one's control and even challenging for personal growth (positive reappraisal). On the other hand, emotion-focused coping styles are displayed when stressors appear beyond one's control or external locus of control (e.g. *fatalismo*). Latino adolescents that have high self-esteem are more likely to cope with stress and less likely to perceive external locus of control and therefore less likely to take direct ac-

tion (Folkman & Moskowitz, 2000). Adolescent self-esteem develops from within and through empowerment and acknowledgment from parents, peers, teachers and community. Empowerment is built through social interaction and recognition of achievements at home, school settings, in sports, art or other activities where they feel challenged and respected at the same time (Guinn & Vincent, 2002).

Latino adolescents' ethnic identity plays an important part in self-esteem building. The development of an ethnic identity or the aspect to relate to one's membership in an ethnic group to achieve a secure sense of themselves helps to develop self-esteem and better mental health overall (Greig, 2003).

Recent studies also reveal that religion plays a significant role in the lives of Latinos and other adolescents as a protective factor for mental health and conduct problems (Pearce et al., 2003; Thomson & Gurney, 2003).

Future Studies and Directions for Research

The development of next generation research is necessary to understand the factors related to and causes of stress and health problems in Latino youth. This will help address research design implementation of primary and secondary prevention programs that are sensitive to the changing demands and cultural background of Hispanic adolescents. This section

will call attention to several aspects of social research in Latino adolescents, as follows: 1) methodological improvement of current studies, 2) addressing the lack of assessment tools normed for Hispanic adolescents to measure stress and other mental health problems, as well as the lack of bicultural/bilingual mental health professionals; 3) lack of evidence-based behavioral health strategies for Latino youth, and finally, 4) suggestions for future research in light of the 2010 census and documented health disparities.

Methodologically, there is a need for an objective definition of acculturation in social science research in order to compare studies and generalize the results in Latinos. There is confusion between acculturation (assimilation to other culture but no primary cultural maintenance, according to Berry and Annis (2001) and biculturalism (integration of the new culture and maintenance of primary cultural heritage). Conflicting findings of studies performed with Latino adolescents regarding mental and physical health in Latino adolescents could be related to this problem. The issue in these studies is that it is unknown if these children are acculturated or bicultural. These factors should be controlled when performing studies on acculturation and its consequences on Latino health.

In addition, as Negy and Woods (1992) indicate, acculturation studies are often overlooking socioeconomic

status (SES) as an important positive correlate to acculturation. In other words, more acculturated adolescents generally come from backgrounds with higher standards of living and better educated parents. Negy and Woods study suggests that SES and acculturation are intricately intertwined. Therefore, it is crucial to control the socio-economic status variables to conduct social studies on acculturation stress in Latinos.

The lack of reliable and valid testing research and evaluation instruments normed on contemporary samples of both Spanish-speaking and English-speaking Hispanics has been and continues to be a major barrier to the conduct of valid studies and culturally relevant clinical assessment for this population (U.S. D.H.H.S., 2001). Hispanic researchers and clinicians in the 1970s began a critical process of challenging the existing personality assessment methodologies and interpretation schemata for psychological tests that continues on today (Miranda, 1976). Measurement development should start with the uniqueness of the Hispanic subject's experience and the family-environment context and then adapt or reject existing instruments. Many concepts that are important in a culture may be missed if tests and procedures are not developed from within the culture by its own psychologists (Lonner, 1990).

Recently, the theoretically based Bicultural Stressors Scale has been developed for application to Hispanic

adolescents (Romero & Roberts, 2003). The scale demonstrates that specifically designed instruments for Hispanic adolescents can yield useful assessments regarding the effect of bicultural stress on subsequent depressive symptomatology. However, the major limitation of the scale is that it has been developed with Hispanic adolescent—middle school students of Mexican descent in a rural bicultural environment. There is an immediate need for scales that address Latino acculturation stress in adolescents both for immigrant and second generation immigrant Latinos. In addition, there is a need for assessment tools that are gender specific and over the life course.

In addition to methodological improvements and psychometric research, there is also a need for studies that cover the gaps that current research has left on normative and non-normative stressors in Latino adolescents. For instance, there is a lack of research on normative stressors related to the physical/sexual and mental developmental changes of Latinos in comparison to other ethnic groups. For example, the perceptions of physical differences in young Latinas when compared to the dominant group (Whites) and the mental and physical health (i.e. anorexia, bulimia, obesity, stress, depression, etc.) consequences of such perceptions. Additionally, there is a need of further studies on the effects of the mass media modeling the predominant cul-

tural values and customs (i.e. White models) on Latino adolescents' perception of their bodies, self-esteem, cultural background and behavior.

This review also found a need for research on the consequences of non-normative stressors in Latino adolescent in the following areas:

1) Intergenerational differences on acculturation levels and its consequences in the family (i.e. stress and conflicts between parents and adolescents).

2) Further research that focuses on the difference between acculturated (assimilation but no maintenance of cultural background) and bicultural Latino adolescents (maintaining the culture) and their relationship to mental and physical health.

3) This review points out that Latina adolescents are in higher jeopardy for mental health and suicide attempts. In addition, there is evidence of significant gender differences between Latino male and female adult stressors and the related mental health consequences (Salgado de Snyder et al., 1990). Nevertheless, there is a gap in the current research that addresses gender differences in Latino adolescents related to stressors, coping skills, resiliency and consequences in physical and mental health.

4) Also, there is considerable research on coping skills for adolescents and even some studies on Latino adults coping responses (see Padilla et al., 1988). However, there are few studies on coping skills (cognitive and be-

havioral process to manage stress), mediating and protective factors in Latino adolescents (family, friends, self-esteem, etc.). These studies are essential to develop prevention and intervention programs.

5) In addition, the Immigrant Paradigm of Acculturation (Cuéllar 2000, 2002) or discrepancy between immigrant and non-immigrant health (both mental and physical) related to acculturation stress and other mental health disorders as well as substance abuse should be further examined in adolescents. In spite of the fact that immigrants, especially those undocumented, have a higher number of stressors and barriers for acculturation (language barriers, separation from family members, economic constraints, lack of education and work skills, discrimination, etc.) (Padilla et al., 1988) than non-immigrant Latinos, Latino immigrants overall display better physical and mental health (Cuellar, 2000, 2002; Ford & Norris, 1993; Ho, 1992; Hovey, 2001; Jane et al., 1999; Vega et al., 1998).

This discrepancy deserves more scientific attention focusing on possible explaining factors such as cognitive mediating variables (i.e. expectations, stress appraisal, locus of control, etc.) and other factors (i.e. reducing the number of stressors when migrating to the U.S.) that might elucidate these results in Latino adolescents.

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