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Culturally Grounded HIV Prevention for Latino Adolescents in Border Areas: Rationale, Theory, and Research

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Culturally Grounded HIV Prevention for Latino Adolescents in Border Areas: Rationale, Theory, and Research

Rodney A. Ellis Lori K. Holleran-Steiker Samuel A. MacMaster Laura Hopson Debra Nilson

ABSTRACT. This manuscript presents a theoretical, rational, and empirical argument for the development of culturally grounded programs for the prevention of HIV/AIDS. It focuses specifically on adolescents of Mexican descent residing along the southwestern border of the United States. The differential effects of five life dimensions that produce diversity (inherited endowment, learned values and culture, developmental history, specific patterns of problems, and personalized styles of coping) between and within groups are noted, and relevant outcomes of those differential effects are identified. On the basis of

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Journal of Human Behavior in the Social Environment, Vol. 17(3–4) 2008 Available online at http://jhbse.haworthpress.com © 2008 by The Haworth Press. All rights reserved. doi: 10.1080/10911350802068235 these outcomes, a number of specific recommendations for culturally grounded programs are made, then illustrated in the description of a current, empirically tested program. Finally, implications for social work practice and research for the prevention of HIV/AIDS are discussed.

KEYWORDS. Adolescence, HIV prevention, substance use

The face of the HIV/AIDS epidemic has changed over the past decade, as has the face of the U.S. population. Although the disease has remained consistently deadly, it has sought new groups to invade, leaving the once-dominant perception that it is a "gay disease" far behind. During this same period, the nation's ethnic composition has changed, driven by the twin forces of immigration and domestic birth rate. The quantity and distribution of persons of various ethnicities has shifted, and HIV/AIDS has increased disproportionately among some of these groups.

As these processes have persisted, the need for culturally effective prevention and intervention strategies has outstripped the knowledge and skill of many service providers. Further, homelessness has increased, and with it have come changes in the patterns of use of a variety of illicit substances. These conditions present even greater challenges to the social work professional. The challenges are compounded among some groups because of historical and political factors that have lead them to distrust social service providers. The result has been limited contact with service providers and a subsequent exclusion for members of many groups from access to a comprehensive array of services. Further, even when resources have been accessed, cultural dissimilarities between providers and service recipients have limited the effectiveness of interventions. The combined effects of isolation from social services and cultural ineffectiveness of services argue convincingly for the development of culturally-grounded interventions. This article provides a summary of the rationale, theory, and empirical results that support the importance of the development of culturally grounded interventions, particularly for use in HIV prevention programs. A specific example, that of Mexican adolescents residing along the U.S.-Mexican border, is used to underscore these points.

RATIONALE: THE INTERACTIVE EFFECTS OF DIVERSITY, RISK, AND AGE

The number of Latinos residing in the United States has risen, and continues to rise. Data from the 2000 U.S Census indicate that 35.5 million Latinos (12% of the total population) live in the United States. Between 1990 and 2000, the number of Latinos grew from 22.4 million to 35.3 million (a 58% increase), a rate five times greater than for any other ethnicity (Guzman, 2001). Additional estimates indicate that by 2050 Latinos will constitute 24.4% of the population. In contrast, whites are expected to experience a proportional decrease (from 81.0% to 72.1%) and African-Americans are expected to experience a moderate increase, from 12.7% to 14.6% (U.S. Census Bureau, 2004). It is important to note that Latinos have disproportionately low incomes (23% are below the poverty line) and low levels of education (Therrien & Ramirez, 2000).

Latinos in the United States have arrived from a variety of sources. Persons of Mexican descent comprise the largest group. The last decade has seen an influx of immigrants from countries such as Nicaragua, Salvador, Colombia, Venezuela, and the Dominican Republic. This trend is reflected in the 97% increase among such groups reported by 2000 U.S Census. About three-fourths of American Latinos live in four states: Florida, California, New York, and Texas (Guzman, 2001), with a substantial number residing along the U.S.-Mexico border.

Although Latinos are viewed collectively for census purposes, substantial differences often exist between and among subgroups. Factors such as diversity of geographical origin, immigration experience, differential experience of oppression, and area of current residence have a powerful influence on individuals and groups (Ellis, Klepper, and Sowers, 2000a). In fact, Silva (1983) identified five life dimensions that interact within individual experiences to produce diversity. These dimensions are (1) inherited endowment, (2) learned values and culture, (3) developmental histories, (4) specified patterns of problems, and (5) personalized styles of coping. Although certain similarities often exist across Latino subgroups, differential experiences among these life dimensions have produced significant diversity as well. This diversity has important implications for intervention with persons of Latino descent (Atkinson, Morten, & Wing Sue, 1998; Ellis, Klepper, and Sowers, 2000b).

HIV/AIDS Risk Among Latinos

HIV infection is disproportionately high among U.S. Latinos. For instance, although in 2001 Latinos constituted 13% of the total population, they represented 19% of the new HIV cases. The primary means through which the disease is contracted varies from that of the dominant group. AIDS surveillance data indicate that Latino males are more likely to be exposed through injection drug use than non-Hispanic white men. Latina women are more likely to be exposed through sexual encounters than non-Hispanic white women (CDC, 2002).

The literature reports a clear correlation between high rates of HIV infection and high-risk behaviors associated with injection drug use. It is unclear, however, whether this is applicable to all Latinos or to specific subgroups such as Mexican Americans. Frank (2000) found an increase in injection drug use among young Latinos. Increased rates of injection drug use would logically contribute to increased rates of HIV infection, given that injection drug use accounts for more than a third of diagnosed AIDS cases among Latinos (Centers for Disease Control [CDC], 2002). Studies including analysis of Latino subgroups, however, suggest that this may be more reflective of Puerto Ricans than Latinos as a group. Injection drug use has historically played a more central role in HIV infection among Puerto Ricans than among other Latino groups (COSSMHO, 1991).

Several factors have been identified as contributory to Latino representation among those infected with HIV (CDC, 2002). These include poverty, low educational achievement, and limited access to health care. The demographics of Latinos in the Southwest suggest that these factors may play a more central role than does the use of injected substances. As of March, 2002, two in five Latinos in this area aged 25 or older had not graduated from high school (Ramirez and de la Cruz, 2003). In addition, 8.1% of Latino adults were unemployed as compared to 5.1% of non-Hispanic whites, and 21.4% of Latinos lived in poverty as compared to 7.8% of non-Hispanic whites. Latinos also had low rates of heath insurance coverage as compared to non-Hispanic whites, African-Americans, and Asians (Bhandari, 2004).

Specific sexual behaviors may also contribute to the disparities in HIV rates. Latinas have been found to be at higher risk for exposure to a sexually transmitted disease (STD) through sexual contact than other women (Finer, Darroch, & Singh, 1999). This may be related to cultural norms around condom use. Studies comparing African-

Americans, whites, and Latinos have found Latinas to be less likely to report consistent use of condoms (Sly, Quadagno, Harrisson, Everstein, & Richman, 1997; O'Donnell, O'Donnell, & Stueve, 2001). The latter study also found a younger age for initial sexual contact and less frequent use of birth control. Additionally, Mexican-Americans have been found to be more likely to associate alcohol with risky sexual behaviors (Neff, Crawford, & MacMaster, 2002).

Substantial evidence demonstrates that important differences exist between Latino youth on the U.S.-Mexican border and other Latinos. The differential culture, context, and experiences of these youth suggest a need for alternative approaches to HIV prevention. Yet both program development and research into effective prevention for this group are characterized by their paucity.

The 1,200-mile Texas-Mexico border is one of the poorest and fastest-growing regions of the country. It has more than 2 million residents, 85% Hispanic. Counties on the border have a lower percentage of residents with a high-school diploma and higher poverty rates than the rest of Texas. Residents of these communities also possess unique assets, however. A high percentage of families include two parents, and families often place a high priority on their children's education (U.S. Census Bureau, 2002). Hispanic youth living on the border also demonstrate greater adherence to cultural values and beliefs than those living in other parts of the state. These assets can be used to promote resiliency and to reduce risk for problems such as school failure and drug use (McQueen, Getz, & Bray, 2003).

Summarizing the Rationale for Culturally Grounded Programming

The rationale for culturally grounded programming includes evidence from census data, HIV-infection data, cross-cultural research, and diversity research. In summary, the growing proportion of persons of Latino descent in the United States and the rate of HIV infection among them suggests the importance of effective prevention programs for that group. The demographic and cultural characteristics that have lead to the development of culturally-relevant treatment for specific groups also offer evidence of its importance for prevention. Further, the differential experiences of individuals within groups that are often considered collectively (such as Latinos) may require more individualized consideration when prevention programs are developed.

Theory, Practice, and Outcome: Evidence from Human Behavior and Program Evaluation

The argument for the importance of culturally grounded intervention is informed by, but not restricted to, current theory and knowledge of the behavior of adolescents generally, as well as that of specific ethnic groups. Evidence can also be found in the literature presenting the results of outcome research into past and current prevention programs.

Adolescent HIV Risk. Recent declines in the overall incidence of HIV/AIDS in the general population are not evident among juveniles (CDC, 2002). The number of cases has increased among those between 13 and 24 years old. The number of heterosexual adolescents with HIV/AIDS has also increased (CDC, 2003c). The prevalence of risk behaviors among American teens raises concern about continued vulnerability to the disease. In the United States, youth are more likely to have intercourse by age 16 than those in other Western industrialized countries. They also report having multiple sexual partners, putting them at greater risk (Alan Guttmacher Institute, 2002). Almost half of American high-school students report that they have had sex (more than 7% before the age of 13), and more than a third say they are currently sexually active. Among sexually active students, more than 14% report having had at least four sexual partners, and only 63% percent said they used condoms when they last had intercourse. Because substance use increases the likelihood of risky behavior, it is disturbing that more than 25% used drugs or alcohol before their last sexual intercourse (CDC, 2003c).

Although those infected with HIV during adolescence are often undiagnosed until adulthood, the high rates of other STDs among adolescents raises concern. Women between 15 and 19 years of age represent the largest proportion of women diagnosed with gonorrhea at a rate of about 635 cases per every 100,000. The infection rate for gonorrhea among male adolescents is about 466 per every 100,000 males between ages 15 and 19. The Adolescent Women Reproductive Health Monitoring Project estimates that more than 11% of adolescent women are infected with Chlamydia (CDC, 2003a). The high rate of prevalence of these STDs may suggest the rate of HIV infection is also very high.

Adolescent Substance Use. Substance abuse and HIV risk are closely related because risky sexual behavior is often correlated with drug use. It has become a de facto norm for adolescents to experiment with substances (Kaplow, Curran, & Dodge, 2002). The majority

of adolescents in the United States will have used mood-altering substances sometime during their teen years. The Monitoring the Future survey reported that 78.4% of high-school seniors had tried alcohol and 53% had tried an illicit drug (Johnston, O'Malley, & Bachman, 2003a). Almost a third (29%) had tried some drug other than marijuana. These figures have been reasonably consistent since the survey's inception in 1975 (Johnston, O'Malley, & Bachman, 2003b). The Youth Risk Behavior Survey provides similar results, finding that 78% of high-school youths had experimented with alcohol and that (47%) had a drink within the prior month (CDC, 2003b).

Although the rate of substance use among adolescents can be disturbing, it is important to understand that it does not have negative consequences for many. Many limit their experience to a few incidents of experimentation (Kaplow, Curran, & Dodge, 2002). Longitudinal studies suggest that many who use more often during their youth "mature out" of substance use as they assume adult roles and responsibilities (Bachman, Wadsworth, O'Malley, Johnston, & Schulenberg, 1997; Labouvie, 1996). Further, Shedler and Block (1990) found that adolescents who experimented with drugs (did not abstain or adopt abusive patterns) experienced higher levels of good psychological health and were better adjusted than their peers. Clearly, the use of illicit substances is an accepted part of many subcultures of adolescents. This is not to say that experimentation or moderate use is desirable or that it should be supported by social work professionals. Yet it is critical to prevention planning to understand that many youth are a part of a subculture in which their peers regard substance abuse as acceptable. Some are also a part of families in which parents and siblings regard it as acceptable. It is important to remember, however, that most adolescents emerge from their period of experimentation without substantial negative consequences.

Still, despite positive outcomes for some, substance abuse constitutes a substantial risk for a myriad of other difficulties for many adolescents. A convincing number of studies have clearly documented both causal and correlational relationships with a multitude of other problem behaviors, including delinquent and subsequent criminal behavior, school dropout or failure, and severe psychological and emotional issues. Adolescent substance abuse has been documented as a gateway to social and economic underachievement as an adult and as an initiatory process into behavioral patterns that, in many cases, will persist for a lifetime (Jessor & Jessor, 1977; Kandel, 1982; Lerner & Vicary, 1984; Robins, 1980; Shedler & Block, 1990). Most relevant to this article, the use of illicit substances also increases the

probability that the user may become infected with the HIV virus. Little, unfortunately, is currently known about the specific manner in which substance use impacts adolescents of Mexican descent residing in border areas.

Substance Use and HIV Risk within the Context of Adolescent Development. An additional factor that must be considered to understand adolescent substance abuse is its relationship to developmental processes. One of the more important of these is the development of the self concept. Adolescent development involves biology, culture, and psychology. Archambault (1992) observes that adolescents are thrust into this period of change by culture and biology. Often, regardless of how well they have been prepared, their sense of self and worth is unsure at best (Lawson & Lawson, 1992: 11). Logically, then, it is reasonable to assume that differences in culture and inherited traits, influenced by environment and the other life dimensions identified by Silva (1983) would produce important difference in both processes and outcomes among and between different groups. For example, a youth whose parents immigrated to this country as Kurdish refugees from Iraq is likely to differ in many important ways from Latino youths whose families have migrated across the U.S.-Mexican border within the past few generations. Similarly, third-generation Cuban youths who are descended from members of the first wave of Cuban youths into Florida are likely to have key characteristics that diverge from those of these border youth.

One of the developmental tasks of adolescence is the progression toward separation and individuation through a shift from primary closeness with parents. This shift is accompanied by increasing intimacy with peers (Savin-Williams & Berndt, 1990). This alteration in importance and intensity of peer relations affects the level of influence peers have on each other regarding substance use. Researchers have identified peer influence as one of the strongest risk factors for substance abuse among majority and minority youth (Beauvais, 1992, 1998).

Adolescents create themselves by trying on new selves and by associating with groups of peers that reflect who they are and want to be. Eccles and Barber (1999) have investigated the types of activities in which youth engage in order to assume the persona of the person they want to be. This persona, or self-schema, influences the meaning of engaging in risky behaviors. The Eccles and Barber study found that a group of high-school students active in student activities and organized school athletics tended to have high alcohol use, yet they were doing well in school and had a high likelihood of

going to college. In comparison, a second group that consumed similar amounts of alcohol was engaged in other high-risk behaviors and were doing poorly in school. A third group reported high levels of anxiety beginning around the sixth grade. This group became increasingly anxious as they proceeded through school and increased their drinking, presumably to calm the anxiety. The meaning of alcohol use and the relevant consequences are different for each of these groups. Eccles and Barber (1999) pointed out that telling the first group of young people that alcohol use would have dire consequences for them might be ineffective because their experiences contradict this message. For them, encouraging designated drivers and other tactics to avoid negative consequences might be more effective than abstinence. Clearly, the self-identities and substance use patterns of the other two groups place many of their members at greater risk for poor short and long-term outcomes.

Researchers have identified three reasons adolescents use substances as a part of their identity formation. One reason is that the substances provide a sense that they will understand themselves and their environment better. A second possibility is that they hope to increase their breadth of experience and level of activity. Third, for some it produces a "high" or sense of social ease (Segal, Cromer, Hobfoll, & Wasserman, 1982). Understanding a juvenile's motivation for substance use can be important to effective prevention. Yet the degree to which these or other motivations exist for specific population subgroups such as border-residing Mexican-Americans is currently unknown.

Traditional Substance Abuse Prevention Models

Empirical research into the outcomes of various prevention programs provides both evidence for the importance of culturally grounded intervention and suggestions as to what the components of such intervention might be. The close relationship between substance abuse and HIV infection suggests that a review of the outcome literature for both could be instructive.

Historically, substance abuse prevention has most commonly consisted of information education. This assumes once adolescents are aware of the health hazards of substances they will develop anti-drug attitudes and subsequently choose not to use. Research examining the effectiveness of "information only" prevention programs (Botvin, Baker, & Dusenbury, 1995; Bukoski, 1985; Tobler, 1986, 1989) has

found that they fail to produce a reduction in use. In fact, some programs were associated with an increased use (Falck & Craig, 1988). For example, Drug Abuse Resistance Education (DARE), the most widespread drug prevention program in the United States ("Project DARE," 1990), has sometimes not only failed to reduce use but has preceded an increase in substance use (Clayton, 1991; Harmon, 1993).

Social theorists, such as Bandura (1977), Jessor and Jessor (1975, 1977), and McGuire (1974), offer some insight into such failures. Their models consider the complex interplay of individual, social, and environmental factors on adolescent behavior. The ecological model, for instance, stresses the concept of multiple levels of influence on child development and the complex interaction of juvenile and environment (Lorion, 1987; Tolan, Guerra, & Kendall, 1995). Certainly, the risks associated with substance abuse might serve as a deterrent to some juveniles. Yet many are confronted with multiple messages from a variety of social and environmental sources. Parents or friends may use drugs and inform youths that the warnings are overblown and may provide positive reinforcement by demonstrating that the use of illicit substances provides pleasure. Teens who may find messages from their peers that they must use drugs in order to fit in may find those messages more compelling than a prevention program's warning. For some groups, the use of drugs may serve as a statement of manhood or machismo. The importance of a demonstration of one's virility may be a very powerful motivator within some ethnic groups.

Other program components have proven useful in prevention programming. The Substance Abuse and Mental Health Services Administration (SAMHSA) has identified the core components of a number of empirically tested programs. These elements include (SAMHSA, 2002):

- (1) Program content addressing life skills or knowledge and skills related to substances (noting that substance-related content alone is inadequate)
- (2) Opportunities to practice/use new knowledge
- (3) Community building beyond individual-level change
- (4) Structured curricula with clear and easy directions
- (5) Consistent messages sent through multiple channels
- (6) Emphasis on relationship building as a precursor to the delivery of program content
- (7) Utilization of naturally occurring social networks and parental or social system involvement wherever possible
- (8) Emphasis on integrating programs into clients real lives

- (9) Strengths focus and asset rather than deficit modeling
- (10) Continuity through high fidelity to the program, dosage adequacy, and consistency

Programs that include these components include LifeSkills Training (Botvin et al., 1990, 1995, 1997), Project ALERT (Ellikson, 1998; Ellikson, Bell, & McGuigan, 1993), and Project Northland (Pentz, Trebow, & Hansen, 1990).

A review of a few of these components can clearly demonstrate the need for cultural grounding. Component 1, for example, asks participants to incorporate life skills related to substance use into their behavioral repertoires. Geographical and cultural differences may make an understanding of certain substances more important or may render some skills more difficult to master. Refusal skills, for example, may be more difficult for a juvenile female of Korean descent where the importance of collectivity is strongly emphasized. Component 3 emphasizes community-building, a very different process depending on teens' cultural background. For instance, competent community building depends, to some extent, on the knowledge the practitioner has of how a particular ethnic community may work. Some groups are best approached through the elders or leaders of the community. Others might require that community building occur only the direction of a parent or an elder family member.

Component 9 involves helping the juvenile focus on strengths rather than deficits. Strengths and deficits may vary broadly depending on the experiences of particular communities or ethnic groups. As noted earlier, adolescents of Mexican descent living near the border often hold the traditions and customs of their ancestors more strongly than do others. This characteristic can be developed as a preventative strength, as it has been for Native-American youth in tribal prevention programming.

It is important to note that the SAMSHA model programs are abstinence-based. This has been a historical characteristic of prevention programs. As culturally grounded programs are developed, it may be important to reconsider this characteristic as well. Differential outcomes among juveniles who experiment with or use substances suggest that abstinence may be a useful approach for some while "harm-reduction" may be more effective for others. Differential characteristics of adolescents from other cultures may suggest this as well. One more obvious example is the Native-American youth involved with the Native-American Church who is faced with the choice of whether to use peyote as a part of the ceremonies.

Traditional HIV Prevention Models

Many promising HIV prevention programs have been developed for school settings. School-based prevention programs allow those who are actively involved in school to readily access services. They typically include a range of components such as education about HIV and risk behaviors, use of video and other media, demonstration of correct use of condoms, skill building through role plays, and discussion (Collins et. al., 2002). Participants have demonstrated significant increases in condom use (Blake et. al., 2003; Fisher, Fisher, Bryan, and Misovich, 1998; Kelly et al., 1991; St. Lawrence et al., 1995), decreases in the number of sexual partners (Jemmott, Jemmott, & Fong, 1992), and decreased sexual intercourse (Jemmott, Jemmott, & Fong; St. Lawrence et al.). Some have improved attitudes toward high-risk behavior (Fisher et al., 1998).

Community-based programs, offered at locations such as health clinics, churches, substance abuse treatment centers, and other community organizations (Amaro et al., 2001), attempt to reach youths who are irregular in their school attendance or do not attend school. Many emphasize HIV testing, condom use, safer sex negotiation skills, and self-efficacy for risk avoidance (Johnston et al., 2003). Community-based interventions have increased HIV knowledge and condom use among ethnic youth, homeless teens (Rotheram-Borus, Kooperman, Haignere, & Davies, 1991; Rotheram-Borus et al., 1997), gay and bisexual youth (Kelly et al. 1991; Rotherham-Borus, Reid, & Rosario, 1994), and youth in drug treatment (Joshi, Hser, Grella, & Houlton, 2001).

Effective prevention programs focus on reducing specific risk behaviors and are grounded in effective theoretical approaches. Effective strategies clearly communicate information about risks and stress avoidance of unsafe sexual behavior while consistently reinforcing healthy behavior. Many such programs also address peer pressure. Effective components include modeling new behaviors, practicing behavioral goal setting, and providing opportunities to practice negotiation and refusal. Participants also benefit from the use of diverse teaching methods that involve participants and allow them to personalize the curriculum. Programs are most effective when appropriate for participants' age, sexual experience, and culture. It is also critical that those leading the curriculum believe that it is valuable for participants (Kirby, 1999).

Identification of the components of successful and promising HIV prevention programs underscores the importance of cultural grounding

in such programs. Being aware of the specific sexual behaviors that lead to infection within a given group allows practitioners to attend more thoroughly to those behaviors. Similarly, knowing whether specific techniques to protect against transmission (such as the use of condoms) are culturally encouraged or discouraged allows preventionists to tailor interventions to optimize the probability of use of the technique.

Culturally Grounded Substance Abuse and HIV Prevention

Little has been done to develop and evaluate programs for specific groups of adolescents such as those from ethnic minorities or in highrisk environments (Forgey, Schinke, & Cole, 1997). Most programs are created by and for European-Americans. Some have suggested that many program failures can be traced to their lack of cultural sensitivity (Hansen, Miller, & Leukefeld, 1995). The evidence offered in the current article supports this contention. Conversely, others have found that tailoring an intervention to a target population can increase its effectiveness (Marsiglia, Holleran, & Jackson, 2000). Such findings have led to a shift to culturally grounded programs (Botvin et al., 1995).

Although this shift is certainly desirable, it is also, almost certainly, inadequate. Referring again to the work of Silva (1983), differential conditions in the five life dimensions suggest that important differences exist where differential experiences have occurred. For example, in the dimension of life experience, the culture of students in traditional education programs varies dramatically from youth in general equivalency diploma (GED) programs, low-income community programs, and homeless shelters (Rew, Taylor, & Fitzgerald, 2001). Contextual factors including low socioeconomic status (SES), lack of school attendance, and lack of family stability have substantial influence on substance use (Freeman, 2001). Risk for school dropouts and homeless youth are compounded. Research shows that the rates of alcohol and other drug use are disproportionately high among both homeless and street youth (Greene, Ennett, & Ringwalt, 1997) as well as among delinquent youth generally (Barnes, Welte, & Hoffman, 2002).

Examining the overlap of ethnicity and alternative environmental cultures, Koopman and colleagues (1994) report that Hispanic homeless youth are more likely than are white or African-American juveniles to continue use of substances after leaving their home en-

vironments. However, a recent study conducted in an urban Texas community did not support this finding (Rew, Taylor-Seehafer, & Fitzgerald, 2001). These differential outcomes demonstrate the need for additional research into their implications for prevention interventions with high-risk youth. In addition, it is clear that culturally grounded research must consider not only cultural background but the diverse conditions that may exist in a juvenile's environmental context.

Some researchers consider the cultural adaptation of prevention programs unwise, citing the negative effect on intervention integrity. Castro, Barerra, and Martinez (2004) have responded, "While adaptation of prevention curricula is commonplace in agencies, prevention scientists still argue that fidelity outweighs the need for adaptation. However, awareness is growing that culturally adapted models are not only necessary, but the way of the future." Indeed, one must question the ethics of a decision to administer a "culturally neutral" intervention to groups for whom its effectiveness is likely to be diminished. The culturally neutral messages of universal substance abuse prevention programs ignore the unique strengths and needs of Mexican-American juveniles as well as other groups. Such programs are, in fact, based upon dominant culture and values: the behaviors and beliefs of Anglo, middle-class, male adults. As such, "neutral" messages enforce the dominant narrative, reflecting a view of the world that neither recognizes nor celebrates the minority child or the attendant minority cultural heritage. Culturally grounded prevention messages, on the other hand, aim to acknowledge and value community-based narratives as natural, indigenous prevention messages (Holleran, Reeves, Dustman, Marsiglia, 2002).

Toward Cultural Grounded Programs: The Drug Resistance Strategies Model

The Drug Resistance Strategies Project (DRS: R01 DA005629-08; 1997–2001) in Phoenix, Arizona, involved approximately 5,000 white, Latino, and African-American high-school youths from large city high schools in the creation of culturally grounded substance abuse prevention videos. The DRS followed previous research suggesting the utility of video-based approaches not only for engaging African-American and Latino youth but as an effective mode of intervention with these groups (Hecht, Corman, & Miller-Rassulo, 1993). The initial DRS project made the important contribution of combining core aspects of

social influence models with the added integral component of cultural groundedness. The DRS study findings confirm the theoretical rationale for involvement of minority adolescents in the development of substance abuse prevention projects (Holleran, et al., 2002). The study utilized an experimental design incorporating videos as tools for depicting resistance strategies. The videos emphasized values and mores of varied cultures. For example, while the video depicting Anglo culture portrays individuality, independence from family, and identification with Anglo peers, the Latino video emphasizes familism, ethnic identifications with Latino peers and family, traditional Latino rituals, and language. Analyses of the DRS project data 14 months after intervention indicated (1) that students in the experimental schools had gained greater confidence in the ability to resist drugs, (2) increased use of the strategies taught by the curriculum to resist substance offers (control schools reported a decrease in the use of these resistance strategies), (3) more conservative norms adopted in both in school and at home, (4) reduction in the use of alcohol (a decrease of nearly 16% in the experimental group and an increase of slightly more than 20% in the control group), and (5) fewer positive attitudes toward drug use. The most striking implication for the proposed study, however, was that the curricula/videos that integrated elements of minority sociocultural norms were more successful with ethnic minority youth than the Anglo curricula/videos with significant effects on drug norms, attitudes, and use, particularly alcohol use. These findings support the importance of culturally grounded information in substance abuse prevention programs. Prevention messages that incorporate cultural elements and are presented within the social context of the participant are more likely to have a positive impact.

IMPLICATIONS FOR RESEARCH AND PRACTICE

The rationale, theory, and empirical results associated with culturally grounded prevention strongly argue in support of its implementation. This support has a number of implications for social work research and practice.

One important implication has to do with the inclusion of key components. The results produced by programs that include the SAMSHA-identified components have been positive for youth of the dominant culture as well as for several nondominant cultures. These components should be included when new programs are developed. Outcomes

should consider the degree to which these programs are effective as well as whether differential outcomes exist when specific components are included or excluded.

It is also clear from rationale, theory, and research that, in order to optimize effectiveness, interventions must be adapted to consider cultural factors. Although the use of the key components is obviously important to intervention success, most can include culturally grounded modifications without threatening the integrity of the component itself. Videos and role-play, for example, can be augmented to include culturally relevant attitudes and perspectives. In such cases, the components themselves remain intact, yet their messages are packaged in a manner that will optimize the probability that they will be effective. Evaluators should consider whether integrity is genuinely affected. Where the components themselves are altered, evaluation techniques and conclusions must reflect this. Where they are not altered, researchers must refrain from allowing personal biases to impact their studies or, in fact, the programs themselves.

Just as cultural factors must be considered, adaptation for contextual factors is critical for intervention success. The examples offered earlier show the differential needs that exist between juveniles living in a more traditional home setting and those who are homeless or who are not attending school. Once again, in many cases these needs can be considered without doing violence to intervention integrity. When they cannot, the probability that intervention effectiveness will be enhanced should be weighed against the importance of integrity. When there is clear evidence from rational, theoretical, and empirical sources that intervention effectiveness is likely to be improved through adaptation for cultural or contextual factors, adaptations should be made. It is important to remember that evaluation exists to serve and inform intervention, not vice versa.

A fourth consideration identified in the earlier sections has to do with whether intervention goals should include abstinence, harm reduction, or some combination thereof. It is clear that what is appropriate for any group or any individuals within a group may not be appropriate for all groups or all members of any group. Acknowledgement of the high number of adolescents who report experimenting and even using substances regularly can lead to more realistic and effective prevention messages. Holleran, Taylor-Seehafer, Pomeroy, & Neff (in press) note that youth are not open to prevention efforts that they perceive are not "reality-based." The failure to acknowledge

the aforementioned reality of youth experimentation and high rates of substance use undoubtedly would prohibit youth engagement with programming. Conversely, if substance use is realistically depicted in program and curriculum development, it is much more likely to resonate with the recipients and to have the desired impact. In fact, many prominent prevention scientists maintain that the key to effective prevention is the targeted audiences sense of ownership of the program (Price & Lorion, 1987; Kelly, 1987). This is not likely if they do not agree with the content and aims of the program.

The other important aspect of social work in the prevention realm are the concepts of "client centeredness" and "meeting the client where he/she is." While it is distasteful to accept that not only are many youth experimenting with substances, or using them sporadically or regularly, one must recognize that most youth who are at risk are not looking to abstain and may tune out vehement abstinence messages. Many adolescents have rejected or minimized prevention interventions, which touted drugs as "dangerous," "deadly," and "bad" in lieu of their own perceptions to the contrary.

One of the important considerations is that while abstinence may be the best intervention for those youth who are chemically predisposed for addiction or dependence, there is actually a continuum of youth between those who need abstinence and those who are considering use and those who are already using in small amounts to those who are in need of intervention. In the substance abuse and mental health field, there is awareness of the continuum of health care including universal, selective, indicated, case identification, standard treatment, long-term treatment, and aftercare (SAMSHA, 2002), Presently, universal prevention interventions focus only on the individuals who are not using in this continuum. There must be more attention paid to the gray areas between prevention and treatment. Harm Reduction Models serve as a bridge between these two erroneously dichotomized arenas.

Prevention programs for adolescents face many challenges because adolescents often do not perceive themselves to be at risk. They may view condom use negatively and often do not have the skills to negotiate safer sex practices. Topics covered in prevention programs, such as condom use and negotiating safer sex, are controversial in many communities. Improving the success of prevention programs will require addressing commonly held beliefs, including the idea that sex education will increase adolescent risk behavior (CDC, 2003a).

CONCLUSION

Traditional abstinence-based approaches to prevention provide an appropriate strategy for many individuals who are experiencing problems associated with substance use. This article provides an alternative perspective for work with those individuals for whom cultural or contextual factors may be critical, as well as those for whom abstinence may not be immediately appropriate.

For youths whose cultural background or contextual environment differs from that of the dominant culture, adaptation in curriculum to accommodate those differences can enhance intervention effectiveness. When used in conjunction with the this understanding of cultural and contextual influences, as well as the Stages of Change model, harm reduction and abstinence-based interventions can be seen as informing separate portions of the same continuum. An important skill in social work practice is determining the best fit when matching client needs with interventions. In some instances, harm reduction-based services potentially provide a better fit with clients' needs than the traditional abstinence-based interventions. In other instances, abstinence-based programming may be the appropriate choice.

Importantly, there does not appear to be an ethical dilemma created by the use of this perspective. In fact, it could be suggested that harm reduction actually provides a better fit than an abstinence-only perspective to social workers' mandates to maintain a commitment to clients' needs and to facilitate self-determination. As social workers become more familiar with perspective, it is hoped that other innovative interventions will be developed, both in work with individuals experiencing problems related to their substance use and in work with many other social problems.

REFERENCES

Alan Guttmacher Institute. (2002). Teenagers' sexual and reproductive health. In *Facts in Brief, January*, 2002. New York: Alan Guttmacher Institute. Retrieved November 1, 2003 from http://www.agi-usa.org

Amaro, H., Raj, A., Vega, R. R., Mangione, T. W., & Perez, L. N. (2001). Racial/ethnic disparities in the HIV and substance abuse epidemics: Communities responding to the need. *Public Health Reports*, 116, 434–448.

Archambault, D. L. (1992). Adolescence: A physiological, cultural, and psychological no man's land. In G. W. Lawson & A. W. Lawson (Eds.), *Adolescent substance abuse: Etiology, treatment & prevention*. Gaithersburg, MD: Aspen Publishers.

- Atkinson, M., & Wing, S. (1998). *Counseling American minorities*. New York: McGraw Hill Publishers.
- Bachman, J. G., Wadsworth, K. N., O'Malley, P. M., Johnston, L. D., & Schulenberg, J. E. (1997). Smoking, drinking, and drug use in young adulthood: The impacts of new freedoms and new responsibilities. Mahwah, NJ: Lawrence Erlbaum Associates.
- Bandura, A. (1977). Social learning theory. Englewood Cliffs, NJ: Prentice Hall.
- Barnes, G. M., Welte, J. W., & Hoffman, J. H. (2002). Relationship of alcohol use to delinquency and illicit drug use in adolescents: Gender, age, and racial/ethnic differences. *Journal of Drug Issues*, 32(1), 153–178.
- Beauvais, F. (1992). An integrated model for prevention and treatment of drug abuse among American Indian youth. *Journal of Addictive Diseases*, 11, 63–80.
- Beauvais, F. (1998). Cultural identification and substance use in North America: An annotated bibliography. *Substance Use and Misuse*, *33*, 1315–1336.
- Bhandari, S. (2004). The survey of income and program participation: People with health insurance: A comparison of estimates from two surveys (p. 243). Washington, DC: U.S. Department of Commerce, U.S. Census Bureau.
- Blake, S. M., Ledsky, R., Goodenow, C., Sawyer, R., Lohrman, D., and Windsor, R. (2003). Condom availability programs in Massachusetts high schools: Relationships with condom use and sexual behavior. *American Journal of Public Health*, 93(6), 955–962.
- Botvin, G. J., Baker, E., & Dusenbury, L. (1995). Long-term followup results of a randomized drug abuse prevention trial in a white middle class population. *Journal of the American Medical Association*, 273(14), 1106–1112.
- Botvin, G. J., Baker, E., Dusenbury, L., Tortu, S., & Botvin, E. M. (1990). Preventing adolescent drug abuse through a multimodal cognitive-behavioral approach: Results of a 3-year study. *Journal of Consulting and Clinical Psychology*, 58(4), 437–446.
- Botvin, G. J. (1997). Preventing adolescent cigarette smoking. *Journal of Developmental and Experimental Pediatrics* 18(1), 47–48.
- Bukoski, W. J. (1985). School-based substance abuse prevention: A review of program research. In S. Ezekoye, K. H. Kumpfer, & W. J. Bukoski (Eds.), *Childhood and chemical abuse: Prevention and intervention*. NY: Hayworth Press.
- Castro, F. G., Barrera, M., & Martinez, C. R. (2004). The cultural adaptation of prevention interventions: Resolving tensions between fidelity and fit. *Journal of Prevention Science* 5(1), 41–45.
- Centers for Disease Control and Prevention. (2002). Young people at risk: HIV/AIDS among America's youth. Atlanta: U.S. Department of Health and Human Services, Centers for Disease Control and Prevention. Retrieved December 18, 2004, from http://www.cdc.gov/hiv
- Centers for Disease Control and Prevention. (2003a). HIV/AIDS surveillance report: Cases of HIV infection and AIDS in the United States, 2003 (pp. 1–9). Atlanta, GA: U.S. Department of Health and Human Services, Centers for Disease Control and Prevention. Retrieved December 18, 2004, from http://www.cdc.gov/hiv/stats/hasrlink.htm.
- Centers for Disease Control and Prevention. (2003b). *National youth risk behavior survey: Trends in the prevalence of alcohol use.* Washington, DC: Author.

- Centers for Disease Control and Prevention. (2003c). Youth risk behavior surveillance 2003. Atlanta: U.S. Department of Health and Human Services, Centers for Disease Control and Prevention. Retrieved December 17, 2004, from www.cdc.gov
- Clayton, S. (1991). Gender differences in psychosocial determinants of adolescent smoking. *Journal of School Health*, 61, 115–120.
- Collins, J., Robin, L., Wooley, S., Fenley, D., Hunt, P., Taylor, J., et al. (2002). Programs-that-work: CDC's guide to effective programs that reduce health-risk behavior of youth. *Journal of School Health*, 72(3), 93–99.
- COSSMHO (National Coalition of Hispanic Health and Human Service Organizations). (1991). HIV/AIDS—The impact on Hispanics in selected states. Washington, D.C.: COSSMHO.
- Eccles, J. S., & Barber, B. L. (1999). Student council, volunteering, basketball, or marching band: What kind of extracurricular involvement matters? *Journal of Adolescent Research* 14, 10–43.
- Ellickson, P. L. (1998). Preventing adolescent substance abuse: Lessons from the Project ALERT program. In J. Crane (Ed.), *Social programs that work*. New York: Russell Sage Foundation.
- Ellickson, P. L., Bell, R. M., & McGuigan, K. (1993). Preventing adolescent drug use: Long-term results of a junior high program. *American Journal of Public Health*, 83(6), 856–861.
- Ellis, R. A., Klepper, T. D., & Sowers, K. M. (2000a). Similarity, diversity, and cultural sensitivity: Considerations for treating juveniles of African descent. *Journal for Juvenile Justice and Detention Services*, 15(1), 29–44.
- Ellis, R. A., Klepper, T. D., & Sowers, K. M. (2000b). Building a foundation for effective intervention: Understanding Hispanic juveniles and their families. *Journal for Juvenile Justice and Detention Services*, 15(2), 26–39.
- Falck, R., & Craig, R. (1988). Classroom-oriented, primary prevention programming for drug abuse. *Journal of Psychoactive Drugs*, 20(4), 403–408.
- Finer, L. B., Darroch, J. E., & Singh, S. (1999). Sexual partnership patterns as a behavioral risk factor for sexually transmitted diseases. *Family Planning Perspectives*, *31*(5), 228–236.
- Fisher, J. D., Fisher, W. A., Bryan, A. D., & Misovich, S. J. (1998). Information-motivation-behavioral skills model based HIV risk behavior change intervention for inner city youth. *Health Psychology*, 21(2), 177–186.
- Forgey, M. A., Schinke, S., & Cole, K. (1997). School-based interventions to prevent substance use among inner-city minority adolescents. In D. K. Willson, J. R. Rodrigue, & W. C. Taylor (Eds.), *Health-promoting and health-compromising* behaviors among minority adolescents. Washington, DC: American Psychological Association.
- Freeman, E. M. (2001). Substance abuse intervention, prevention, rehabilitation, and systems change strategies: helping individuals, families and groups to empower themselves. New York: Columbia University Press.
- Greene, J. M., Ennett, S. T., & Ringwalt, C. L. (1997). Substance use among runaway and homeless youth in three sample. *American Journal of Public Health*, 87, 229– 235.

- Guzman, B. (2001). The Hispanic population. Washington, DC: U.S. Census Bureau. Hansen, W. B., Miller, T. W., & Leukefeld, C. G. (1995). Prevention research recommendations: Scientific integration for the 90's. *Drugs & Society*, 8, (3–4), 161–167.
- Harmon, M. A. (1993). Reducing the risk of drug involvement among early adolescents: An evaluation of drug abuse resistance education (DARE). *Evaluation Review*, 17, 221–239.
- Hecht, M. L., Corman, S., & Miller-Rassulo, M. (1993). An evaluation of the drug resistance project: A comparison of film versus live performance. *Health Communication*, 5, 75–88.
- Holleran, L., Reeves, L., Marsiglia, F. F., & Dustman, P. (2002). Creating culturally-grounded videos for substance abuse prevention: A dual perspective on process. Journal of Social Work Practice in the Addictions, 2(1), 55–78.
- Holleran, L. K., Taylor-Seehafer, M. A., Pomeroy, E. C., & Neff, J. A. (in press). Substance abuse prevention for high risk youth: Exploring culture and alcohol and drug use. In M. Delgado (Ed.), Alcoholism Quarterly, special edition on Latinos and substance abuse.
- Jemmott, J., Jemmott, L., and Fong, G. (1992). Reductions in HIV risk associated sexual behaviors among black male adolescents: Effects of an AIDS prevention program. American Journal of Public Health, 82(3), 372–377.
- Jessor, R. & Jessor, S. L. (1975). Adolescent development and the onset of drinking. Journal of Studies on Alcohol, 36, 27–51.
- Jessor, R., & Jessor. S. L. (1977). Problem behavior and psychosocial development. A longitudinal study of youth. New York: Academic Press.
- Johnston, L. D., O'Malley, P. M., & Bachman, J. G. (2003a). Monitoring the Future national survey results on adolescent drug use: Overview of key findings, 2002 (NIH Publication No. 03-5374). Bethesda, MD: National Institute on Drug Abuse.
- Johnston, L. D., O'Malley, P. M., & Bachman, J. G. (2003b). Monitoring the Future national survey results on drug use, 1975–2002. Volume I: Secondary school students (NIH Publication No. 03-5375). Bethesda, MD: National Institute on Drug Abuse.
- Joshi, V., Hser, Y., Grella, C. E., and Houlton, R. (2001). Sex-related HIV risk reduction among adolescents in DATOS-A. *Journal of Adolescent Research*, 16(6), 642–660.
- Kandel, D. B. (1982). Epidemiological and psychosocial perspectives on adolescent drug use. *Journal of American Academic Clinical Psychiatry*, 21, 328–347.
- Kaplow, J. B., Curran, P. J., & Dodge, K. A. (2002). Child, parent, and peer predictors of early-onset substance use: A multisite longitudinal study. *Journal of Abnormal Child Psychology*, 30(3), 199–216.
- Kelly, J. G. (1987). Seven criteria when conducting community-based prevention research: A research agenda and commentary. In J. A. Steinberg & M. M. Silverman (Eds.), *Preventing Mental Disorders: A Research Perspective* (DHHS Publication No. ADM 87-1492). Washington DC: U.S. Government Printing Office.
- Kelly, J. A., St. Lawrence, J. S., Diaz, Y. E., Stevenson, L. Y., Hauth, A. C., Kalichman, S. C., et al. (1991). HIV risk behavior reduction following intervention with

- key opinion leaders of population: An experimental analysis. *American Journal of Public Health*, 81(2), 186–171.
- Kirby, D. (1999). Reflections on two decades of research on teen sexual behavior and pregnancy. *Journal of School Health*, 69(3), 89–94.
- Koopman, C., Rosario, M., Rotheram-Borus, M. J. (1994). Alcohol and drug use and sexual behaviors placing runaways at risk for HIV infection. *Addictive Behavior*, 19(1), 95–103.
- Labouvie, E. (1996). Maturing out of substance use: Selection and self-correction. *Journal of Drug Issues*, 26, 457–476.
- Lawson, G. W., & Lawson, A. W. (1992). Adolescent substance abuse: Etiology treatment, and prevention. Gaithersburg, MD: Aspen Publishers.
- Lerner, J. V., & Vicary, J. R. (1984). Difficult temperament and drug use: Analysis from the New York longitudinal studies. *Journal of Drug Education*, 14, 1–8.
- Lorion, R. (1987). Methodological challenges in prevention research. In D. Shaffer,
 I. Philips, & N. B. Enzer (Eds.), Prevention of mental health disorders, alcohol and other drug use in children and adolescents. OSAP Prevention Monograph-2. (DHHS Pub. No. ADM 90-1646). Washington, DC: U.S. Government Printing Office.
- MacMaster, S. A., & Womack, B. G. (2002). Preventing HIV transmission among injection drug users: A brief history of syringe exchange programs *Journal of HIV/AIDS and Social Services*, 1, 95–112.
- McQueen, A., Getz, J. G., & Bray, J. H. (2003). acculturation, substance use, and deviant behavior: Examining separation and family conflict as mediators. *Child Development* 74(6), 1737.
- Marsiglia, F. F., Holleran, L., & Jackson, K. M. (2000). Assessing the effect of external resources on school-based substance abuse prevention programs. *Social Work in Education*, 22(3), 145–161.
- McBride, N., Farringdon, F., & Midford, R. (2000). What harms do young Australians experience in alcohol-use situation? *Australian and New Zealand Journal of Public Health*, 24(1), 54–59.
- McGuire, W. J. (1974). Communication-persuasion models for drug education: Experimental findings. In M. S. Goodstadt (Ed.), *Research on methods and programs of drug education*. Toronto: Addictions Research Foundation.
- Neff, J. A., Crawford, S. L., and MacMaster, S. A. (2002). Ethnicity and multiple sex partners: An application of the health belief model. *Journal of HIV/AIDS & Social Services* 3, 41–65.
- O'Donnell, L., O'Donnell, C. R., & Stueve, A. (2001). Early sexual initiation and subsequent sex-related risks among urban minority youth: The reach for health study, *Family Planning Perspectives*, 33(6), 268–275.
- Pentz, M. A., Trebow, E. A., & Hansen, W. B. (1990). Effects of program implementation on adolescent drug use behavior: The Midwestern Prevention Program (MPP). *Evaluation Review*, 14(3), 264–289.
- Price, R. H., & Lorion, R. P. (1987). Prevention programming as organizational reinvention: From research to implementation. In D. Shaffer, I. Philips, & N. B. Enzer (Eds.), *Prevention of mental health disorders, alcohol and other drug use*

- in children and adolescents. OSAP Prevention Monograph-2. (DHHS Pub. No. ADM 90-1646). Washington, DC: U.S. Government Printing Office.
- Project DARE: How's it doing? (1990). Prevention File, 16-18. As cited in Harmon, M. A. (1993). Reducing the risk of drug involvement among early adolescents. *Evaluation Review*, 17, 221–239.
- Ramirez, R. R., & de la Cruz, G. P. (2003). The Hispanic Population in the United States: March 2002, Current Population Reports, P20-545. Washington. DC: U.S. Census Bureau.
- Rew, L., Taylor-Seehafer, M., & Fitzgerald, M. L. (2001). Sexual abuse, alcohol and other drug use, and suicidal behaviors in homeless adolescents. *Issues in Comprehensive Pediatric Nursing*, 24(4), 225–240.
- Robins, L. N. (1980). The natural history of drug abuse. *Acta Psychiatrica Scandanavia*, 62(Suppl 284), 7–20.
- Rotheram-Borus, M. J., Kooperman, C., Haignere, C., & Davies, M. (1991). Reducing HIV sexual risk behaviors among runaway adolescents. *JAMA: Journal of the American Medical Association*, 266, 1237–1241.
- Rotheram-Borus, M. J., Reid, H., & Rosario, M. (1994). Factors mediating changes in sexual HIV risk behaviors among gay and bisexual adolescents. *American Journal of Public Health*, 84(12), 1938–1946.
- Rotheram-Borus, M., Van Rossem, R., Gwadz, M., Koopman, C., & Lee, M. (1997).
 Street Smart. Retrieved December 18, 2004, from http://chipts.ucla.edu/interventions/manuals/intervstreetsmart.html
- Savin-Williams, R. C., & Berndt, T. J. (1990). Friendship and peer relations. In S. S. Feldman & G. R. Elliott (Eds.), At the threshold: The developing adolescent. Cambridge, MA: Harvard University Press.
- Scafidi, F. A., Field, T., & Prodromidis, M. (1997). Psychosocial stressors of drugabusing disadvantaged adolescent mothers. Adolescence, 32, 93–100.
- Segal, B., Cromer, F., Hobfoll, S., & Wasserman, P. Z. (1982). Reasons for alcohol use by detained and adjudicated juveniles. *Journal of Alcohol & Drug Education*, 28, 53–58.
- Shedler, J., & Block, J. (1990). Adolescent drug use and psychological health: A longitudinal inquiry. American Psychologist, 45, 612–630.
- Silva, J. S. (1983). Cross-cultural and cross-ethnic assessment. In C. Gibson (Ed.), Our kingdom stands on brittle glass (pp. 59–66). Silver Springs, MD: National Association of Social Workers.
- Sly, D. F., Quadagno, D., Harrisson, D. F., Eberstein, I., & Riehman, K. (1997). The association between substance use, condom use and sexual risk among low-income women. *Family Planning Perspectives*, 29(3), 132–136.
- St. Lawrence, J., Brasfield, T., Jefferson, K., Alleyne, E., O'Brannon, R., & Shirley, A. (1995). A cognitive-behavioral intervention to reduce African-American adolescents' risk for HIV infection. *Journal of Consulting and Clinical Psychology*, 63(2), 221–237.
- Substance Abuse and Mental Health Services Administration (SAMHSA). (2002). Science-based prevention programs and principles: Effective substance abuse and mental health programs for every community (USDHHS publication number SMA 03-3764). Washington, DC: U.S. Government Printing Office.

- Therrien, M., & Ramirez, R. R. (2000). *The Hispanic population of the United States*. Washington DC: U.S. Census Bureau.
- Tobler, N. S. (1986). Meta-analysis of 143 adolescent drug prevention programs: Quantitative outcome results of program participants compared to a control comparison group. *Journal of Drug Issues*, *4*, 537–567.
- Tobler, N. S. (1989, October). Drug prevention programs can work: Research findings. Paper presented at the meeting of What Works: An International Perspective on Drug Abuse Treatment and Prevention Research, New York.
- Tolan, P. H., Guerra, N. G., & Kendall, P. C. (1995). A developmental-ecological perspective on antisocial behavior in children and adolescents: Toward a unified risk and intervention framework. *Journal of Consulting and Clinical Psychology*, 63, 579–584.
- U.S. Census Bureau, (2004). U.S. Interim Projections by Age, Sex, Race, and Hispanic Origin. Retrieved from the World Wide Web at http://www.census.gov/ipc/www.usinterimproj/>
- U.S. Census Bureau (2002). Facts on the Hispanic or Latino Population. Retrieved from the World Wide Web at http://www.census.gov/pubinfo/www/NEWhispML1. html