

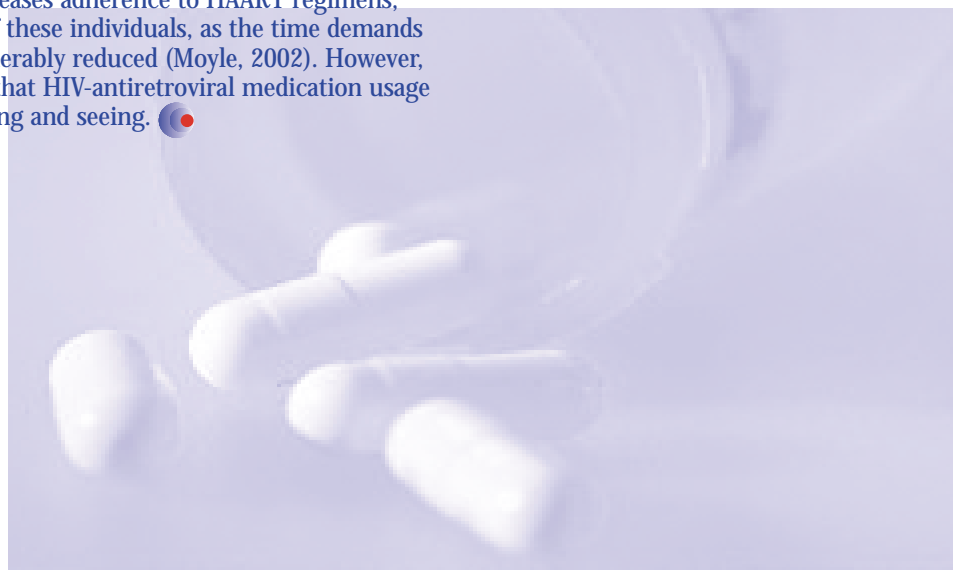
recommended for individuals who have contracted HIV but are presenting as asymptomatic. Those individuals who have a CD4+ T-cell count less than 500, a plasma viral load greater than 10,000 (bDNA) or 20,000 (RT-PCR), and are presenting with symptoms such as wasting and thrush should be placed on a HAART regimen as soon as possible to treat the virus.

A more conservative approach to initiating treatment is recommended for asymptomatic individuals. Because these individuals have a CD4+ T-cell count greater than 500 and a plasma viral load less than 10,000 (bDNA) or 20,000 (RT-PCR), the Guidelines recommends that treatment is not immediately necessary. The theory is that one might as well wait as long as possible before prescribing to a patient a regimen that can (a) build up resistance to other HIV medications, (b) cause harmful/toxic side effects, and (c) put time constraints on dosage times that in many cases are difficult to adhere to. Instead, periodic monitoring of the asymptomatic individual's CD4+ T-cell counts and plasma viral load measurements is strongly recommended before placing such individuals on HAART regimens.

It should be noted that the federal government's current recommendation for prescribing antiretroviral treatments to HIV+ individuals is even more liberal than that of the *Guidelines*, as the federal government recommends that antiretroviral treatments be delayed until an individual's T-cell count drops below 350 cells per milliliter.

However, two studies presented at this year's XIV International AIDS Conference held in Barcelona, Spain, found that antiretroviral therapy can be safely delayed in patients with CD4+ T cell-counts as long as their T-cell counts are higher than 200 cells per milliliter (Brown, 2002). Separate studies conducted by Alvaro Munoz at Johns Hopkins University and Genevieve Chene of Bordeaux, France, examined HIV+ individuals who started antiretroviral therapy when their CD4+ T-cell counts were either below 200, between 201-350, or between 351-500 cells per milliliter (Brown, 2002). Results indicated that while it was "detrimental" to delay treatment once CD4+ T-cell counts dropped below 200 cell per milliliter, there was "almost no difference" between people who started treatment with counts between 201-350 and between 351-500.

It would seem that recent studies into the efficacy of once-daily dosing therapy suggest that the field of antiretroviral medication usage to treat HIV is ready to evolve once again. Early results of studies such as those conducted by Claxton, Cramer, and Pierce (2001) and Dybul, Yoder, Belson, et al. (2000) suggest that a once-daily dosing regimen not only increases adherence to HAART regimens, but may well improve the quality of life of these individuals, as the time demands imposed by these regimens may be considerably reduced (Moyle, 2002). However, to actually know the shape and direction that HIV-antiretroviral medication usage will take will once again be a case of waiting and seeing.



References

- Bartlett, M. D., & Finkbeiner, A. K. (2001). *The guide to living with HIV infection (5th ed.)*. Baltimore: The Johns Hopkins University Press.
- Brown, D. (2002). Drug regimen for HIV could be safely delayed, two studies show. *Washington Post*, July 10, 2002, Page A2.
- Claxton, A. J., Cramer, J., & Pierce, C. (2001). A systematic review of the associations between dose regimens and medication compliance. *Clinical Therapy*, 23, 1296-1310.
- Department of Health and Human Services (1999). *Guidelines for the use of antiretroviral agents in HIV-infected adults and adolescents*. Bethesda, MD: Author.
- Dybul, M., Yoder, C., Belson, M., et al. (2000). Short cycle intermittent HAART: A pilot study. In *Program and abstracts of the XIII International AIDS Conference*, July 9-14. Durban, South Africa. Abstract LbOr12.
- Moyle, G. (2002). The once-a-day era is upon us. *AIDS Read*, 12(2), 56-58.
- Shernoff, M., & Smith, R. A. (2000). HIV treatments: A history of scientific advance. In *HIV treatment—Mental health aspects of antiviral therapy* (pp. 7-15). San Francisco: AIDS Health Project, University of San Francisco.

HIV Treatment in the 21st Century: The Reality of Adherence

Perry N. Halkitis, PhD, New York University

What Is Adherence?
Since the widespread implementation of HIV antiretroviral therapy in the mid-1990s, both physical and mental health professionals have been concerned with the issue of medication adherence. Put simply, adherence, also known as compliance, refers to the extent to which a person's behavior (in terms of medications, following diets, or executing lifestyle changes) coincides with medical or health advice (Sackett, Haynes, & Taylor, 1979).

Since standard HIV treatments, known collectively as highly active antiretroviral therapy (HAART), often consist of two, three, or four different medications taken in combination, each with different dosing requirements, adherence to these treatments often represents a complex and demanding set of challenges. And while newer formulations of antiretrovirals often require both fewer pills and fewer dosing times, the behavior can still be a demanding one in light of the other medical, psychological, sociological, and economic burdens an HIV-seropositive individual faces. Given the fact that HIV/AIDS has come to be viewed as a chronic and perhaps controllable disease that, in most cases, will most certainly require treatment for the course of one's life, adherence to these treatments needs to be fully understood and based on good sound science.

Adherence rates to HIV antiretroviral medications among diverse populations of HIV+ persons have been found to be highly variable (Chesney et al., 2000; Geletko et al., 1996; Ickovics & Meisler, 1996; Kalichman, Catz, & Ramachandran, 1999a; Melbourne et al., 1999; Weidle et al., 1999). Rates of adherence have been shown to differ substantially based on measurement period (e.g., missed doses in past month, past week, past day) and measurement format (e.g., interview, anonymous self-report, pill counts,

electronic measurement) (Chesney et al., 2000). Recent studies have identified rates of adherence to HIV medications ranging from 56% to 77% (Arnsten et al., 2000; Chesney et al., 2000; Demas et al., 1998; Eldred, Wu, Chaisson, & Moore, 1998; Weidle et al., 1999).

Why Is Adherence So Important?

Adherence to HAART is extremely demanding—in fact more demanding than adherence to any other treatment for any other chronic disease, such as diabetes or hypertension. For those on HAART, aviremia, or the reduction of virus, is achieved, in part, by an effective regimen that is provided continuously, offering the virus little, if any, chance to grow in the presence of the combination of drugs. Recent work has shown adherence rates of 95% or greater are necessary for HAART to be most effective (Low-Beer et al., 2000; Montaner et al., 1998; Paterson et al., 2000) and that a 10% decline in adherence results in a 16% increase in AIDS-related mortality (Hogg et al., 2000) and a doubling of HIV-1 RNA blood levels (Bangsberg et al., 2000). Patients who miss even a few doses of their medications demonstrate increases of 100,000 copies or more of the virus per milliliter of blood (Ho et al., 1995; Kastrissios et al., 1998). In a recent study of HIV-seropositive individuals, 61% of those with undetectable viral load reported 80% or better adherence, whereas only 36% of those with less than 80% adherence were found to have undetectable viral loads (Hecht, Colfax, Swanson, & Chesney, 1998a).

The failure to maintain strict adherence to HAART can result in the proliferation of virus that is drug resistant (Flexner, 1998; Hecht et al., 1998a; Vanhove, Schapiro, Winters, Merigan, & Blaschke, 1996). Resistance to antiretrovirals and a reversal of viral suppression have been identified among HIV+ persons reporting even slight disruptions to their medication regimen

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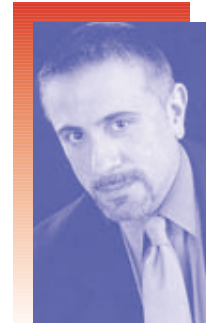
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OFFICE ON AIDS UPDATE DIRECTOR'S Letter



John Anderson, PhD

A client whom I have seen off and on over the past 10 years recently returned to therapy and announced that he just tested positive for HIV. His HIV+ partner of 10 years had left him, and he had responded to the loss by engaging in a series of anonymous unsafe encounters. My client was angry with himself for these encounters, and he blamed them for his seroconversion. He kept saying, "I should have known better."

He expressed this sentiment, "I should have known better," again several months later when he began to struggle with adherence to his regimen of HIV medications. He clearly understood the importance of adherence. In fact, he had been the one who had kept his partner on track with medications. Given his knowledge and longstanding experience with adherence issues, my client simply could not understand why he kept missing doses.

I asked him if he had discussed adherence with his health care providers. He said that his providers had never asked about adherence. I encouraged him to inform his physician about his lapses, and when he did, his physician simply responded by saying, "you should know better." Unfortunately, knowing is not enough. Adherence, like risk behavior, has many social and emotional components, and the challenge of managing these components is routinely underestimated by patients as well as health care providers.

The advent of Highly Active Antiretroviral Therapy (HAART) for HIV disease has clearly resulted in significant reductions in morbidity and mortality, and yet, few regimens are as difficult to follow. Unfortunately, the consequences of nonadherence to HAART are severe with even a few missed doses creating the possibility of increased viral loads and the development of drug-resistant strains of the virus. Given the importance of medication adherence to the overall management of HIV disease, it is not surprising that there has been an explosion of research in this area during the past 5 years. The pace of knowledge development has been so great that it is often very difficult for the HIV/AIDS mental health practitioner to keep up. Thus, I am especially pleased that this edition of the *Psychology and AIDS Exchange* provides readers with a succinct and practical summary of lessons learned.

A special acknowledgement and hearty thank you are due Perry Halkitis, PhD, of the Center for HIV/AIDS Educational Studies and Training (CHEST), which is a collaborative behavioral research center affiliated with New York University and Hunter College of the City University of New York. Perry not only organized this integrated series of articles on adherence, he edited them and made sure they were completed in record time. It is important to note that Perry's outstanding work in the area of adherence was formally recognized this year by members of the APA Ad Hoc Committee on Psychology and AIDS (COPA), who selected him as the recipient of the 2002 Emerging Leader in HIV/AIDS Award. Congratulations, Perry!

Those who wish to keep up with research on adherence to HIV medications should access the comprehensive Web-based document recently developed by the American Public Health Association in collaboration with the Health Resources Services Administration (HRSA) (see <http://www.apha.org/ppp/hiv/>). This "living document" with embedded hyperlinks, entitled, "Adherence to HIV Treatment Regimens: Recommendations for Best Practices," was developed to provide continuous updates from conferences and published research.

Thank you for reading the *Psychology and AIDS Exchange*, and please send me your ideas for future theme-based editions.

ADHERING TO MY TREATMENTS: ONE MAN'S TESTIMONIAL

Michael Marino

I tested positive in February 1998. At that time the mantra that the medical field was touting was "hit hard, hit early." My initial blood test results included a viral load of 5,356 and 496 T-cells. Looking back



Michael Marino

on these levels, I now realize they were pretty healthy, but just 4 years ago, many doctors considered them grounds for immediate treatment—including mine. I put my trust in my doctor. After all, I had been seeing him for many years and had had some difficulty in finding a doctor that I felt comfortable with. So when he told me that he wanted to take a "very direct and forceful approach" to treating my HIV, that he didn't believe in "half-assed treatment," and that my treatment from him would be "all or nothing," I went along.

I was immediately prescribed a new drug at the time called Combivir, a combination of two other HIV drugs—AZT and 3TC. Thankfully, I had medical insurance, as a 1-month supply would have cost me more than \$400 without it. My initial research on the drug surprisingly did not turn up that much information, not even my local AIDS service organization or pharmacist knew that much about it. From what I did discover though, it seemed like a pretty tolerable drug. I just had to take one pill twice a day, the side effects did not seem too major, and I did not have to change any of my eating habits. However, there was one piece of conflicting information related to the

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The Role of Partner Social Support in Adherence

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Robert H. Remien, PhD

Many factors have been shown to be associated with adherence (see p.1, "HIV Treatment"), and it is important that the multifaceted and dynamic nature of this behavior be considered when attempting to address adherence concerns in all patient populations. One important domain that should always be considered is the role of social support. In particular, the amount of received support, satisfaction with support, and the extent of a person's social network have been found to be related to health status and clinical outcome in patients with chronic illness (Berkman, 1985; DiMatteo & Hays, 1981). Further, social support can be a significant factor in enhancing adherence both to health care directives and HIV antiretroviral therapies, especially if the support is from spouses or primary partners (Maiman, Becker, & Katlic, 1986; Shelton, Marconi, Pounds, & Scopetta, 1993; Somer, & Tucker, 1988).

The specific forms and functions of support that enhance adherence to medication regimens have not been adequately examined; however, emotional support and acceptance from family and friends as well as tangible assistance in the form of time and money appear to be helpful. For example, spouses, primary partners, and family members may facilitate a patient's behavioral change by communicating beliefs and motivations concerning treatment to the patient (Levy, 1983). Additionally, significant people in the patient's life can improve a patient's adherence to regimens by reminding, prompting, aiding, and supporting; further, they may help the patient express feelings and find meaning and a sense of belonging, offer feedback and encouragement, and provide reinforcement for success (Meichenbaum & Turk, 1987). Tangible social support helps the patient overcome potential barriers to adherence, such as lack of resources, need for a babysitter, lack of transportation to the clinic, and concurrent illness in the family (DiMatteo & Hays, 1981).

Additionally, DiMatteo and Hays (1981) contend that the mere presence or involvement of a significant other does not necessarily translate into social support and may result in negative influences toward adherence. More studies are needed to further clarify relationships among partner interactions, health behaviors, and health outcomes.

Systems Approach to Illness and Care

Incorporating a systems approach to illness and care may improve health outcomes. For example, family oriented interventions are widely practiced with patients who have chronic mental illness, drug addiction, mental retardation, learning disabilities, cancer, deafness, senile dementia of the Alzheimer type, and chronic disabilities as well as long-term care (Cutter & Cutter, 1987; Harvey, 1985; Jacob, Frank, Kupfer, Cornes, & Carpenter, 1987; Mitrowski, 1985; Parker, Hill, & Miller, 1987; Remien & Christopher, 1996; Wilchesky & Reynolds, 1986). Most family based interventions include providing information and support and a structured framework that considers a range of adaptive coping mechanisms to promote the health of the ill patient.

Consideration of Gender

The specific aspects of social support that correlate with positive health outcomes often differ in relation to gender (Ptacek, Pierce, Dodge, & Ptacek, 1997). Gender differences in the context of couples and medical adherence have not been systematically studied. Even in primary prevention, the impact of gender roles on communication regarding sexuality and the negotiation of safer sex has been largely ignored, with few studies grounded in a gender-specific perspective that is based on a careful analysis of women's and men's behavior (Ehrhardt et al., 2002; Exner, Ehrhardt, & Seal, 1997; Exner, Gardos, Seal, & Ehrhardt, 1999). Yet, there is compelling evidence that gender differences influence HIV risk behaviors and barriers to behavior change (Cochran & Mays, 1993; Dolcini et al., 1993). The impact of women's

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(Shafer, Winters, Palmer, & Merigan, 1998). As a consequence, HIV-seropositive persons who are unable to adhere to their regimens may experience greater progression of HIV-related medical complications (Andrade et al., 2000; Hogg, Yip, Chan, O'Shaughnessy, & Montaner, 2000), as well as the potential transmission of drug resistant strains to others (Hecht et al., 1998b; Routy et al., 2000; Wainberg & Friedland, 1998).

While drug resistance may occur for a variety of reasons, the most common reason appears to be nonadherence. Drug resistance as a result of nonadherence to combination therapy has been well documented (Friedland & Williams, 1999; Mayers, 1998; Richman, 1996; Vanhove et al., 1996). Provided the individual is on highly potent HAART and maintains perfect adherence, viral replication is shut off, and resistant mutations do not develop. HIV mutates rapidly in the absence of medications and in the presence of sub-therapeutic treatment. Studies indicate that viral mutations can confer cross-resistance—resistance to one protease inhibitor can cause a person to become resistant to other protease inhibitors (Boucher, 1996; Condra et al., 1995; Markowitz & Ho, 1996; Mellors, 1997; Roland, 1998; Schmidt, Ruiz, & Clotet, 1996; Shafer, Winters, Palmer, & Merigan, 1998; Tisdale et al., 1995).

Understanding the HIV-seropositive individual's adherence to HIV antiretroviral therapy is essential (Dunbar-Jacob, 1997; Halkitis, 1998). This is especially true in light of the complacency around HIV and safer sex practices that have emerged in the last several years, fueled in part by the optimism around HIV treatments (Dilley, Woods, & McFarland, 1997; Halkitis & Parsons, in press; Kalichman, Nachmison, Cherry, & Williams, 1998; Miller et al., 2000; Remien, Halkitis, O'Leary, & Hays, 1998; Venable, Ostrow, McKirnan, Taywaditep, & Hope, 2000).

Thus, feelings of complacency regarding sexual risk behaviors, coupled with nonadherence to HIV medications, could result in a dramatic increase in transmission of drug resistant strains of HIV. Such cases have already been

documented among new seroconversions (Hecht et al., 1998) and in terms of superinfection among those already HIV+ (Angel et al., 2000).

What Affects Adherence to HIV Medications?

Adherence to HIV antiretroviral regimens is affected by a complex array of factors (Crespo-Fiero, 1997; Kalichman et al., 1999a) and occurs in the context of lives already burdened by socioeconomic, psychological, cultural, and health challenges (Halkitis & Kirton, 1999). Research has identified relationships between HIV medication adherence and depression (Halkitis & Kirton, 1999; Holzemer et al., 1999; Spire et al., 2002); drug and alcohol use (Cook et al., 2001; Diaz, Cisek, Nionne, & Tottenham, 1999; Halkitis, Parsons, Wolitski, & Remien, in press; Matthews et al., 2002); self-efficacy for adherence and beliefs in the effectiveness of the treatments (Catz, Kelly, Bogart, Benotsch, & McAuliffe, 2000; Demas et al., 1998; Eldred et al., 1998; Misener & Sowell, 1998); quality of health care (Knobel et al., 1999; Stall et al., 1996); patient-provider relationship (Halkitis et al., in press; Stall et al., 1996); the types of side effects and number of pills associated with the regimen (Roland, 1998); and social support (Chesney, 1997; Eldred, 1997; Friedland & Williams, 1999; Gordillo et al., 1999; Misener & Sowell, 1998; Morse et al., 1991; Singh et al., 1999).

In an evaluation of clients from a community-based organization, two-thirds of the heterosexual men reported depending on their wives to adhere to their HAART regimens (Halkitis & Kirton, 1999). Further, a person's motivation to adhere to HIV medications is another important variable, as Singh and her colleagues (1999) found that loss of motivation was highly correlated with nonadherence. Often, virologic and immunologic responses to HAART can have a motivating effect on HIV+ persons' maintenance of adherence (Stone et al., 1998).

Final Thoughts

In the end, HIV+ individuals are confronted with an array of complexities in their lives that cut across the physical, psychological, and social realities of their lives. Adherence to their HIV medications is a behavior that involves all of these domains. Psychologists working in this arena have been attempting to understand the complex behavior of adherence as well as developing clinical strategies for assisting their clients in understanding and improving their adherence behaviors. We have made excellent strides on both the psychological and medical fronts in dealing with HIV/AIDS, but must continue to improve our understanding of this ever-changing disease and its accompanying treatments.

References

- Andrade, A., Wu, A., Selnes, O., Hill, C., Letzt, A., Seifert, R., Kaseman, D., Myers, W., Lefkowitz, J., & McArthur, J. C. (2000, February). *Feasibility study of the disease management assistance system: A potential adherence device*. Paper presented at the 7th Conference on Retroviruses and Opportunistic Infections, San Francisco, CA.
- Angel, S., Kravcik, E., Balaskas, P., Yen, A. D., Badley, D., Cameron, W., & Hu, Y. W. (2000, February). *Documentation of HIV-1 superinfection and acceleration of disease progression*. Paper presented at the 7th Conference on Retroviruses and Opportunistic Infections, San Francisco, CA.
- Arnsten, J., Demas, P., Gourevitch, M., Buono, D., Farzadegan, H., & Schoenbaum, E. (2000, February). *Adherence and viral load in HIV-infected drug users: Comparison of self-report and medication event monitors (MEMS)*. Paper presented at the 7th Conference on Retroviruses and Opportunistic Infections, San Francisco, CA.
- Bangsberg, D. R., Hecht, F. M., Charlebois, E. D., Zolopa, A. R., Holodniy, M., Sheiner, L., Bamberger, J. D., Chesney, M. A., & Moss, A. (2000). Adherence to protease inhibitors, HIV-viral load, and development of drug resistance in an indigent population. *AIDS, 14*, 357-366.

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The Impact of Alcohol and Drug Use on HIV Medication Adherence

Elana Rosof, MA
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Drug and Alcohol Use Among HIV+ People

Good adherence to highly active antiretroviral treatment (HAART) means near perfect adherence, and it has been the goal of researchers to understand what affects adherence. Attempts to identify patients at high risk for nonadherence have led medical and psychosocial professionals to HIV+ persons with drug and alcohol problems (Stone et al., 2000). Rates of substance use among HIV+ persons have been shown to exceed rates found in the general population (Petry, 1999). Lifetime prevalence for alcohol use disorders (those meeting dependence or abuse criteria) among HIV+ persons have ranged from 29% to 60% (Brown et al., 1992; Dew et al., 1997; Kelly et al., 1998; Summers et al., 1995). In a representative sample of HIV+ adults in the United States, 53% screened positive for alcohol use in the past month (Bing et al., 2000). Another study of HIV+ gay men found that 82% were current users of alcohol (Lefevre et al., 1995). Among those on HIV medications, 46.8% reported the use of at least one substance other than alcohol in the period of assessment (Halkitis, Parsons et al., in press).

The use of drugs and alcohol is viewed as a particular threat to adherence. It is hypothesized that drug use and abuse both directly and indirectly affect the ability of HIV+ people to maintain their medication regimens. Substance use has been shown to compromise adherence in a number of studies examining HIV antiretroviral adherence (Batki & Ferrando, 1996; Freeman, Rodriguez, & French, 1996; Williams et al., 1998; Stone et al., 1998; Turner et al., 1998; Haubrich, et al., 1998; Hirschhorn, Quinones, Goldin, & Metras, 1998). Alcohol use has been associated with poor adherence (Martim et al., 2000; Halkitis et al., 2001). Even recreational alcohol use has been shown to be associated with nonadherence. In a recent study (Cooke et al., 2001), non-problem drinkers were found to be more likely to have taken their medications on time, whereas those with the most severe drinking problems were most likely to have missed a dose of their medication. Also, studies have found that, compared with other patients, drug and alcohol users refused



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treatment more often and required more time before accepting treatment recommendations.

How Drug Use Affects Adherence

Studies have shown that impaired judgment, short-term memory loss, and a decline in cognitive functioning are heightened when substances are used (Bondi, Drake & Grand, 1998; Rosseli & Ardilla, 1996). These effects facilitate avoidant coping in relation to HIV/AIDS and HIV medications. Furthermore, a growing problem, the use of "club drugs," such as methamphetamine, ketamine, and MDMA, posit further danger for people with HIV/AIDS, as club drugs have been shown to lead to heightened or focused sensations, euphoria and sexual disinhibition, depression, and cognitive dissociation as a means of coping (NIDA, 1999). Dissociation, in particular, is detrimental to HIV medication adherence, as optimal adherence requires consciousness of the daily realities of adherence. Beliefs about interactions between street drugs and antiretroviral medications have been shown to interfere with adherence in a qualitative study of IDU in NYC (Freeman et al., 1996). For example, some drug users believe that taking their HIV medication in combination with recreational drugs may have a toxic effect.

Moreover, side effects of HIV medications, one of the greatest predictors of nonadherence (Halkitis, Remien & Wolitski, 1998), may be exacerbated by substance use. In particular, dehydration associated with alcohol and amphetamine use will worsen side effect symptoms such as diarrhea and nausea. Additionally, nonadherence is associated with drug and alcohol use because health-seeking behaviors, such as keeping doctors' appointments, are impeded by drug and alcohol use, as are perceptions of time and maintenance of routines.

Intravenous Drug Users and Substance Use

Intravenous drug users are a population riddled with psychosocial challenges, including substance use, poverty, and feelings of powerlessness among many others. Adherence to HIV antiretroviral regimens is affected by a complex array of factors (Crespo-Fiero, 1997) and occurs in the context of lives already burdened by socioeconomic, psychological, cultural, and health challenges (Halkitis, 1998; Halkitis & Kirton, 1999). In general, people with substance abuse problems are disproportionately affected by poverty and its consequences, including lack of access to adequate health care, homelessness, unstable housing, poor social support, and mistrust of the medical establishment (Andersen et al., 1999; Stein et al., 1999; Lucas et al., 2002). Research (Spire et al., 2002) has shown that the most salient predictors of nonadherence are these very factors, namely living in poor socioeconomic conditions, lack of social support, and overall instability.

Men Who Have Sex With Men and Substance Use

Recreational drug use continues to be a behavior that characterizes gay and bisexual men's lives, as drug use has been the predominant way in which gay and bisexual men socialize (Elovich, 1996). In addition, there appears to be a relatively recent explosion in "club drug" use among gay and bisexual men (Halkitis & Parsons, 2000; Stall, 1999), where club drug use takes place among members of the gay/bisexual community who lead otherwise "normal" lives and who do not

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William A. Bailey AIDS Policy Congressional Fellowship

Program

The American Psychological Association (APA) and the American Psychological Foundation (APF) established the William A. Bailey Congressional Fellowship in 1995 in tribute to Bill Bailey's tireless advocacy on behalf of psychological research, training, and services related to AIDS. Fellows spend 1 year working as a special legislative assistant on the staff of a Member of Congress or congressional committee. Activities may involve conducting legislative or oversight work, assisting in congressional hearings and debates, preparing briefs, and writing speeches.

Fellows also attend an orientation program on congressional and executive branch operations, which includes guidance in the congressional placement process, and a year-long seminar series on science and public policy issues.

These aspects of the program are administered by the American Association for the Advancement of Science for the APA Fellows and those sponsored by more than two dozen other professional societies.

Purpose

To provide psychologists with interests in HIV/AIDS policy, lesbian and gay issues, or related health and behavior issues with an invaluable public policy learning experience, to contribute to the more effective use of psychological knowledge in government, and to broaden awareness about the value of psychology-government interaction among psychologists and within the federal government.

Criteria

A prospective fellow must demonstrate competence in scientific and/or professional psychology and an interest in HIV/AIDS, gay and lesbian concerns, or related health and behavior issues. Fellows must also demonstrate sensitivity toward policy issues and have a strong interest in applying psychological knowledge to solve societal problems.

Fellows must be able to work quickly and communicate effectively on a wide variety of topics and be able to work cooperatively with individuals having diverse viewpoints. An applicant must be a member of APA (or an applicant for membership) and have a doctorate in psychology at the time of application, with a minimum of 2 years' postdoctoral experience preferred.

Award

APA will sponsor one fellow for a 1-year appointment beginning September 2, 2003. The fellowship stipend ranges from \$48,500 to \$64,400, depending upon years of postdoctoral experience. Up to \$3,000 is allocated for relocation to the Washington, DC, area and for travel expenses during the year. An additional monthly stipend of \$350 is provided for health insurance and/or other fellowship-related expenses. Final selection of the fellow will be made in early 2003.

Application

Interested psychologists should submit the following materials by January 1, 2003: (1) a detailed vita providing information about educational background, professional employment and activities, professional publications and presentations, public policy and legislative experience, and committee and advisory group appointments; (2) a statement of approximately 1,000 words addressing the applicant's interests in the fellowship, career goals, contributions the applicant believes he or she can make as a psychologist to the legislative process, and what the applicant wants to learn from the experience; and (3) three letters of reference specifically addressing the applicant's ability to work on Capitol Hill as a special legislative assistant.

Applications should be sent to: William A. Bailey AIDS Policy Congressional Fellowship, Public Policy Office, American Psychological Association, 750 First Street, NE, Washington, DC 20002-4242. For additional information about the application process, please contact the APA Public Policy Office at (202) 336-6062 or ppo@apa.org.

William A. (Bill) Bailey, a dedicated champion of AIDS policy issues for the APA and a staffer in the Public Policy Office, died April 23, 1994, after finally losing his long personal battle with AIDS; he was 34. Among his many accomplishments, Bailey oversaw the development of a major report on behavioral and social sciences and the HIV/AIDS epidemic for the National Commission on AIDS; participated in the planning of an APA training program for psychologists who serve HIV-infected clients; facilitated the development of the AIDS community prevention programs supported by the Centers for Disease Control and Prevention; and forged collaboration between several government agencies to support the HIV/AIDS mental health services demonstration program.

Adhering to...continued from page 3

dosing of the drug. Everything I read said it didn't matter what time(s) the drug was taken, but my doctor insisted that it must be taken every 12 hours on the dot.

Two weeks later my doctor added a protease inhibitor to my regimen. I knew this was coming and was prepared to argue if he wanted to put me on Crixivan. I had seen the horrible side effects of Crixivan on too many of my friends and heard their horror stories of how hard it was to adhere to. I knew that I did not want to be put on it. Luckily my doctor had chosen to put me on Viracept instead. Seems funny to use the words "lucky" and "Viracept" in the same sentence.

Adhering to Viracept was much harder than adhering to Combivir. It required me to take three pills, three times a day and I had to have food in my stomach when I took them. This meant I had to force myself to eat at times that I did not want to and when I wasn't even hungry. The hardest thing to get used to was the taste of Viracept. Originally Viracept pills were not coated, so they instantly started dissolving when they touched your tongue—it was like eating chalk.

Two years into my treatment, in January 2000, during a routine 3-month check-up at my doctor's office, he informed me that he wanted to "do something controversial" with my treatment. You see it was a new year and the medical mantra had changed from "hit hard, hit early" to "attack with a double protease regimen." My doctor felt that if he took this more forceful approach that he would get quicker results in my treatment. He wanted to take me off of my current regimen and

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APA's Wide-Ranging Public Policy Initiatives Concerning HIV/AIDS: An Overview

APA's Public Policy Office (PPO) is advocating for increased funding for HIV/AIDS and increased attention to behavioral aspects of prevention, adherence, and research for the fiscal year (FY) 2003 appropriations for the U.S. Department of Health and Human Services (DHHS). Both the House of Representatives and the Senate are expected to act on appropriations later this Fall. However, the DHHS appropriations bill is usually the last bill to be enacted because of controversial provisions (e.g., family planning, abstinence programs). The following are some of the HIV/AIDS appropriations issues PPO is focusing on.

National Institutes of Health (NIH). PPO recommended an appropriation of \$27.3 billion for the NIH overall, which would complete the effort to double the NIH budget. Specifically, PPO recommended a 16% increase for the Office of Behavioral and Social Sciences Research (OBSSR). Such an increase would allow OBSSR to implement the recommendations in the National Research Council's recent report, *New Horizons in Health: An Integrative Approach*. The report identifies research priorities that cut across Institute domains, underscoring the broad significance of social and behavioral science research for multiple disease outcomes, as well as health promotion. The NRC report recommends 10 priority areas for research investment: predisease pathways, positive health, gene expression, personal ties, health communities, inequality, population health, interventions, methodology, and infrastructure.

Substance Abuse and Mental Health Services Administration (SAMHSA). PPO recommended \$3 million for the Center for Mental Health Services (CMHS) to train mental health professionals to provide integrated mental health and substance abuse services for persons suffering from HIV/AIDS and co-occurring disorders. In FY2001, Congress appropriated \$7 million to CMHS for grants to community-based providers in traditional and nontraditional settings who provide direct mental health services to racial and ethnic minorities with HIV/AIDS and associated mental health and related problems (e.g., dementia, depression, and chronic, progressive neurological disabilities). Recent reports indicate that 36% of new AIDS cases are directly related to injection drug use. Individuals suffering from HIV/AIDS and co-occurring mental health and substance abuse disorders present unique and unmet treatment needs necessitating specialized provider training.

In addition, PPO recommended \$3 million for CMHS to establish a demonstration program to address the needs of at-risk adolescents. In the 1980s, the number of babies born with HIV increased at a soaring rate. However, by the early 1990s, HIV births began to drop nationwide, and by the mid-1990s, the numbers decreased sharply because of new antiviral medications that prevented transmission of the virus from mother to child. A recent *American Public Health Association Journal* article points to a high percentage of children who were born with HIV, and now adolescents are suffering from severe behavioral and mental health problems and rejection by their adopted parents due to these problems.

Centers for Disease Control and Prevention. PPO recommended \$10 million for the Division of Adolescent and School Health. At least half of all new HIV infections in the United States are among people under age 25, with the majority being infected through unprotected sex. In addition, there are excessively high rates of HIV infection and other serious public health problems among gay, lesbian, bisexual, and transgendered youth, especially youth of color. School health programs are one of the most efficient means of preventing HIV infections among young people because of the size and accessibility of this population. Scientific evaluations of school-based HIV prevention programs have shown that these programs are cost-effective and decrease sexual risk behaviors without increasing sexual activity among high school students. CDC recently completed its 5-year HIV Prevention Strategic Plan, which establishes school-based strategies as a priority for HIV prevention. This increase in

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Boucher, C. (1996). Rational approaches to resistance: Using Saquinavir. *AIDS, 10* (Suppl.1), S15-19.

Catz, S. L., Kelly, J. A., Bogart, L. M., Benotsch, E. G., & McAuliffe, T. L. (2000). Patterns, correlates, and barriers to medication adherence among persons prescribed new treatments for HIV disease. *Health Psychology, 19*(2), 124-33.

Chesney, M. A. (1997). Adherence to HIV/AIDS treatment. In *Program of adherence to new HIV therapies: A research conference* (p. 7). Washington, DC: Office of AIDS Research, National Institutes of Health.

Chesney, M. A., Ickovics, J. R., Chambers, D. B., Gifford, A. L., Neidig, J., Zwickl, B., & Wu, A. W. (2000). Self-reported adherence to antiretroviral medications among participants in HIV clinical trials: the AACTG Adherence Instruments. *AIDS Care, 12*(3), 255-266.

Chesney, M. A., Morin, M., & Sherr, L. (2000). Adherence to HIV combination therapy. *Social Science & Medicine, 50*(11), 1599-1605.

Condra, J. H., Schleif, W. A., Blahy, O. M., Gabryelski, L. J., Graham, D. J., Quintero, J. C., Rhodes, A., Robbins, H. L., Roth, E., & Shivaprakash, M. (1995). In vivo emergence of HIV-1 variants resistant to multiple protease inhibitors. *Nature, 374*, 569-571.

Cook, R. L., Sereika, S. M., Hunt, S. C., Woodward, W. C., Erlen, J. A., & Conigliaro, J. (2001). Problem drinking and medication adherence among persons with HIV infection. *Journal of General Internal Medicine, 16*, 83-88.

Crespo-Fiero, M. (1997). Compliance/adherence and care management in HIV disease. *Journal of the Association of Nurses in AIDS Care, 8*(4), 43-54.

Demas, P., Schoenbaum, E. E., Hirky, A. E., Wills, T. A., Doll, L. S., Hartel, D. M., & Klein, R. S. (1998). The relationship of HIV treatment acceptance and adherence to psychosocial factors among injecting drug users. *AIDS and Behavior, 2*, 283-292.

Diaz, M. J., Cisek, T. J., Nionne, B., & Tottenham, N. (1999). Behavior practices regarding combination therapies for HIV/AIDS. *Journal of Sex Education & Therapy, 24*, 81-88.

Dilley, J. W., Woods, W. J., & McFarland, W. (1997). Are advances in treatment changing views about high-risk sex? *New England Journal of Medicine, 337*(7), 501-502.

Dunbar-Jacob, J. (1997). Overview of adherence to medical treatment. In *Program summary of the adherence to new HIV treatments: A research conference* (pp. 5-7). Washington, DC: The Forum for Collaborative HIV Research (FCHR), the National Minority AIDS Council (NMAC), and the National Institutes of Health Office of AIDS Research (OAR).

Eldred, L. (1997). *Adherence in the era of protease inhibitors* (The Hopkins HIV Report, July 1997). Baltimore: The John Hopkins University AIDS Service.

Eldred, L. J., Wu, A. W., Chaisson, R. E., & Moore, R. D. (1998). Adherence to antiretroviral and pneumocystis prophylaxis in HIV disease. *Journal of Acquired Immune Deficiency Syndromes and Human Retrovirology, 18*, 117-125.

Flexner, C. W. (1998). HIV-protease inhibitors. *New England Journal of Medicine, 338*, 1281-1292.

Friedland, G. H., & Williams, A. (1999). Attaining higher goals in HIV treatment: The central importance of adherence. *AIDS, 13*, 61-72.

Geletko, S. M., Segarra, M., Mayer, K. H., Fiore, T. C., Bettancourt, F. A., Flanigan, T. P., & Dudley, M. N. (1996). Electronic compliance assessment of antifungal prophylaxis for human immunodeficiency virus-infected women. *Antimicrobial Agents & Chemotherapy, 40*(6), 1338-1341.

Gordillo, V., Del Amo, J., Soriano, V., & Gonzalez-Lahoz, J. (1999). Sociodemographic and psychological variables influencing adherence to antiretroviral therapy. *AIDS, 13*, 1763-1769.

Halkitis, P. N. (1998). Advances in treatment of HIV disease: Complexities of adherence and complications for prevention. *The Health Psychologist, 20*(1), 6-7, 14.

Halkitis, P. N., & Kirton, C. (1999). Self-Strategies as means of enhancing adherence to HIV antiretroviral therapies: A Rogerian approach. *Journal of the New York State Nurses Association, 30*(2), 22-27.

Halkitis, P. N. & Parsons, J. T. (in press). Intentional unsafe sex (barebacking) among men who meet sexual partners on the Internet. *AIDS Care*.

Halkitis, P. N., Parsons, J. T., & Wolitski, R., & Remien, R. H. (in press). Adherence to HIV antiviral treatments in a community based sample of men who have sex with men. *AIDS Care*.

Hecht, F. M., Colfax, G., Swanson, M., & Chesney, M. A. (1998a). *Adherence and effectiveness of protease inhibitors in clinical practice*. Paper presented at the 5th Conference on Retrovirus and Opportunistic Infections, Chicago.

Hecht, F. M., Grant, R., Petropoulos, C. J., Dillon, B., Chesney, M. A., Tian, H., Hellmann, N. S., Bandrapalli, N. I., Digilio, L., Branson, B., & Kahn, J. O. (1998b). Sexual transmission of HIV-1 variant resistant to multiple reverse-transcriptase and protease inhibitors. *New England Journal of Medicine, 339*, 307-343.

Ho, D. D., Neuman, A. U., Perelson, A. S., Chen, W., Leonard, J. M., & Markowitz, M. (1995). Rapid turnover of plasma virions and CD4 lymphocytes in HIV-1 infection. *Nature, 373*, 123-126.

Hogg, R. S., Yip, B., Chan, K., O'Shaughnessy, M. V., & Montaner, J. S. G. (2000, February). *Nonadherence to triple combination therapy is predictive of AIDS progression and death in HIV-positive men and women*. Poster presented at the 7th Conference on Retroviruses and Opportunistic Infections, San Francisco, CA.

Holzemer, W. L., Croless, I.B., Nokes, K. M., Turner, J. G., Brown, M. A., Powell-Coppe, G. M., Inouye, J., Henry, S. B., Nicholas, P. K., & Portillo, C. J. (1999). Predictors of self-reported adherence in persons living with HIV disease. *AIDS Patient Care & STDS, 13*, 185-197.

Ickovics, J. R. & Meisler, A. W. (1996). Adherence in AIDS clinical trials: A framework for clinical research and clinical care. *American Journal of Medicine, 92*(5), 492-502.

Kalichman, S. C., Catz, S., & Ramachandran, B. (1999a). Barriers to HIV/AIDS treatment and treatment adherence among African American adults with disadvantaged education. *Journal of the National Medical Association, 91*, 439-446.

Kalichman, S. C., Nachmison, D., Cherry, C., & Williams, E. (1998). AIDS treatment advances and behavioral prevention setbacks: Preliminary assessment of reduced threat to HIV/AIDS. *Health Psychology, 17*(6), 546-550.

Kastrissios, H., Suarez, J. R., Katzenstein, D., Girard, P., Sheiner, L. B., & Blaschke, T. F. (1998). Characterizing patterns of drug-taking behavior with a multiple drug regimen in an AIDS clinical trial. *AIDS, 12*, 2295-2303.

Interventions To Improve HIV Medication Adherence

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Interventions designed to improve HIV medication adherence are urgently needed. Significant numbers of those on HIV medication regimens are unable to maintain recommended adherence rates of 95% or greater (Fogarty, Roter, Larson, Burke, Gillespie, & Levy, 2002; Low-Beer, Yip, O'Shaughnessy, Hogg, & Montaner, 2000; Halkitis, Parsons, Wolitski, & Remien, in press; Paterson et al., 2000). However, few published studies exist that document the efficacy of behavioral interventions designed to improve medication adherence among persons with HIV (Fogarty et al., 2002). Intervention approaches that address the wide range of issues that those living with HIV face and that can be tailored for the diverse populations affected by HIV need to be developed and tested.

Research on HIV Medication Adherence Interventions

Although the published literature now includes many studies examining predictors or correlates of HIV medication adherence, few intervention studies have been published. A recent review of published and abstract reports on such interventions (Fogarty et al., 2002) identified 16 interventions. The majority of these interventions consisted of individual counseling programs (typically in person, but other approaches were identified utilizing telephone counseling, Web-based, and group interventions). Interventions were delivered by varied types of service providers, including nurses, physicians, pharmacists, counselors, and peers. These programs typically included both cognitive and behavioral techniques designed to improve medication adherence. Cognitive strategies included the provision of general educational information (e.g., dosing instructions, information on drug interactions, treatment options); behavioral strategies included the use of pill boxes, self-monitoring, directly observed therapy, and feedback.

Many of these studies were too small to have substantial statistical power, and some failed to include control groups. In some cases, adherence improved among participants in both the intervention and control groups. As such, it is difficult to ascertain intervention effectiveness. It is likely that no "one size fits all" intervention program will be identified that can meet the needs of all persons living with HIV because of the vast array of factors that affect medication adherence. Programs that are theory based and those with the flexibility to be tailored to individual needs of clients offer the most promising chances of success.

An Integrated Approach to HIV Medication Adherence Counseling

Motivational interviewing and cognitive-behavioral skills training are two approaches that hold promise in terms of improving medication adherence among those with HIV. HIV researchers have recently combined motivational elements with skills-building approaches to improve on the well-documented success of skills-based behavior change interventions. Motivation is a key to treatment success because clients are more likely to be committed to a behavior change plan when their ambivalence about change is addressed and when they perceive the behavior change plan as their own. Carey and his colleagues (1997; 2000) have published two studies documenting the success of such an integrative intervention on reducing HIV infection risk behaviors among low-income women. One recent study found that a single-session integrated intervention improved HIV medication adherence (Safren et al., 2001).

It has been recommended that comprehensive interventions include skills-training and motivational enhancement (Baer, Kivlahan, & Donovan, 1999; Ickovics &

seek substance abuse treatment (Halkitis, Parsons, & Maurer, 2000). For gay men, it has been suggested that internalized homophobic states are often a great source of distress and may explain recreation drug use as a form of coping and escapism (Shidlo, 1994). Those who use avoidant coping strategies (e.g., isolation from others, sleeping, indulging in food, having sex, becoming a workaholic) may be less inclined to take an active role in their medication management. Instead, these individuals may choose to escape the stressors and reminders related to being HIV+ (Halkitis & Kirton, 1999).

Adolescents and Substance Use

For adolescents with HIV, substance use may serve as a form of rebellion. The period of adolescence typically generates turmoil (Resnick et al., 1997), during which risk behaviors, emotional distress, and conflict may be more heightened (Arnett, 1999). For adolescents with HIV, this already turbulent stage is exacerbated by the presence of a stigmatizing illness, the likelihood that family members are struggling with AIDS-related problems, and peers who are likely to be engaging in recreational drug use as well (Stein et al., 1999).

Self-Efficacy and Substance Use

Self-efficacy (confidence that one can take medication even in situations where they are tempted not to), while known to play a role in adherence, also appears to correlate with substance use. For example, data from a study of HIV+ drug using and abusing men who have sex with men (MSM) (Halkitis and Parsons, in press) found a relationship between adherence self-efficacy and the number of problems associated with drug use and abuse. Those with higher scores on a standard screening tool for drug dependence (the DAST) reported lower levels of self-efficacy for adhering to HAART while on vacation, out all night, or while drunk or high. Overall, the adherence self-efficacy scores were highest for those with no drug-related problems and lowest for those with moderate and substantial drug-related problems. Further, men in this study reported more drug-related problems and were more likely to endorse the item "I tend to skip doses of my

Knobel, H., Carmona, A., Lopez, J. L., Gimeno, J. L., Saballs, P., Gonzalez, A., Guelar, A., & Diez, A. (1999). Adherence to very active antiretroviral treatment: Impact of individualized assessment. *Enfermedades infecciosas y microbiología clinica, 17*(2), 78-81.

Low-Beer, S., Yip, B., O'Shaughnessy, M. V., Hogg, R. S., & Montaner, J. S. G. (2000). Adherence to triple therapy and viral load response. *Journal of Acquired Immune Deficiency Syndrome, 23*(4), 360.

Melbourne, K. M., Geletko, S. M., Brown, S. L., Willey-Lessne, C., Chase, S., & Fisher, A. (1999). *The AIDS Reader, 9*, 329-338.

Miller, M., Meyer, L., Boufassa, F., Persoz, A., Sarr, A., Robain, M., Spira, A., & the SEROCO Study Group. (2000). Sexual behavior changes and protease inhibitor therapy. *AIDS, 14*(4), 33-39.

Misener, T. R. & Sowell, R. L. (1998). HIV infected women's decisions to take antiretrovirals. *Western Journal of Nursing Research, 20*, 431-447.

Montaner, J. S., Harris, M., Mo, T., & Harrigan, P. R. (1998). Rebound of plasma HIV viral load following prolonged suppression with combination therapy. *AIDS, 12*, 1398-1399.

Paterson, D. L., Swindells, S., Mohr, J., Brester, M., Vergis, E. N., Squier, C., Wagener, M. M., & Singh, N. (2000). Adherence to protease inhibitor therapy and outcomes in patients with HIV infection. *Annals of Internal Medicine, 133*(1), 21-30.

Remien, R. H., Halkitis, P. N., O'Leary, A., & Hays, R. (1998, June). *Perceptions, attitudes, and sexual risk taking among HIV-positive men with undetectable plasma viral loads.* Poster presented at the 12th International AIDS Conference, Geneva, Switzerland.

Richman, D. D. (1996). New strategies to combat HIV drug resistance. *Hospital Practice, 15*, 47-58.

Roland, M. (1998). Antiviral adherence dilemmas. *Focus: A Guide to AIDS Research and Counseling, 13*, 1-4.

Routy, J. P., Brenner, B., Salomon, H., Quan, Y., Campos, A. F., Rouleau, D., Lefebvre, E., Coté, P., Leblanc, R., Tsoukas, C., Conway, B., Sekaly, R., Wainberg, M. A., & Investigators of the Quebec Primary Infection Study. (2000). *Transmission of dual and triple-class drug-resistant viral variants in primary/early HIV-1 infection (PHI) in Montreal.* Paper presented at the 7th Conference on Retroviruses and Opportunistic Infections, San Francisco, CA.

Sackett D., Haynes, R. B., & Taylor, D. W. (1979). *Compliance in health care.* Baltimore: The Johns Hopkins University Press.

Schmidt, J. C., Ruiz, L., & Clotet, B. (1996). Resistance-related mutations in the HIV-1 protease gene of patients treated for 1 year with protease inhibitor Ritonavir (ABT-538). *AIDS, 10*, 995-999.

Shafer, R. W., Winters, M. A., Palmer, S., & Merigan, T. (1998). Multiple concurrent reverse transcriptase and protease and multidrug resistance of HIV-1 isolates from heavily treated patients. *Annals of Internal Medicine, 128*, 906-911.

Singh, N., Berman, S. M., Swindells, S., Justis, J. C., Mohr, J. A., Squier, C., & Wagener, N. M. (1999). Adherence of human immunodeficiency virus-infected patients to antiretroviral therapy. *Clinical Infectious Diseases, 29*, 824-830.

Stall, R., Hoff, C., Coates, T. J., Paul J., Phillips, K. A., Ekstrand, M., Kegeles, S., Catania, J., Daigle, D., & Diaz, R. (1996). Decisions to get HIV tested and to accept antiretroviral therapies among gay/bisexual men: implications for secondary prevention efforts. *Journal of Acquired Immune Deficiency Syndrome Human Retrovirology, 11*(2), 151-160.

Stone, V. E., Adelson-Mitty, J., Duefield, C. A., et al. (1998). *Adherence to protease inhibitor therapy in clinical practice: usefulness of demographics, attitudes and knowledge of predictors.* Paper presented at the 12th World AIDS Conference, Geneva.

Tisdale, M., Myers, R. E., Maschera, B., et al. (1995). Cross-resistance analysis of human immunodeficiency virus type 1 variants individually selected for resistance to five different protease inhibitors. *Antimicrobial Agent Chemotherapy, 39*, 1704-1710.

Vanable, P. A., Ostrow, D. G., McKirnan, D. J., Taywaditep, K. J., & Hope, B. A. (2000). Impact of combination therapies on HIV risk perceptions and sexual risk taking among HIV-positive and HIV-negative gay and bisexual men. *Health Psychology, 19*(2), 134-145.

Vanhove, G. F., Schapiro, J. M., Winters, M. A., Merigan, T. C., & Blaschke, T. F. (1996). Patient compliance and drug failure in protease inhibitor monotherapy. *Journal of the American Medical Association, 276*, 1955-1956.

Wainberg M. A., & Friedland, G. (1998). Public health implications of antiretroviral therapy and HIV drug resistance. *Journal of the American Medical Association, 279*, 1977-1980.

Weidle, P. J., Ganea, C. E., Irwin, K. L., McGowan, J. P., Ernst, J. A., Olivo, N., & Holmberg, S. D. (1999). Adherence to antiretroviral medications in an inner-city population. *Journal of Acquired Immune Deficiency Syndromes, 22*, 498-502.

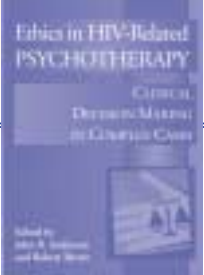
Ethics in HIV-Related Psychotherapy: Clinical Decision Making in Complex Cases

Edited by John R. Anderson, PhD,
and Robert L. Barret, PhD

In this volume, Anderson and Barret provide a practical decision-making model and down-to-earth advice for clinicians with HIV-positive clients. They begin with an overview of common ethical dilemmas, discuss the risk of legal malpractice, and offer guidance on reducing this risk. Ten diverse case studies are presented highlighting common ethical conflicts and including comments from an ethicist and an attorney. This volume is ideal not only for seasoned therapists but also for those taking graduate ethics courses in psychology, counseling, social work, and related mental health. 2001. 376 pages. Hardcover.

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BSSV

Behavioral and Social Science Volunteer Program Update



Duane Wilkerson, MPH,
Program Director

The Behavioral and Social Science Volunteer (BSSV) Program has provided volunteer technical assistance (TA) in HIV prevention to community-based organizations (CBOs), state and local health departments (HDs), and HIV prevention community planning groups (CPGs) since 1996. Since 2001 we have responded to nearly 120 requests for TA, resulting in more than 70 linkages between program volunteers and organizations requesting TA. Examples of some of the TA provided in these linkages range from developing needs assessment tools to developing evaluation components for an HIV prevention program.

Currently, more than 220 volunteer scientists are on the BSSV volunteer roster, ready and willing to work with community planning and prevention efforts across the United States, Puerto Rico, Virgin Islands, and Guam. Volunteers are from many disciplines besides psychology. While psychologists make up a majority of our volunteers, the program has good representation from public health researchers, sociologists, anthropologists, social workers, and several other disciplines.

In the past 3 years we have trained 139 volunteers in six basic trainings. We recently completed our first advanced training with 22 participants. Additionally, the program has expanded from one and a-half staff to more than three full-time staff.

Exciting new possibilities are ahead in the program for the rest of 2002 and the year 2003. The program is beginning a new and far-reaching alliance with the Centers for Disease Control and Prevention (CDC) in its effort to disseminate proven HIV interventions. This new effort, called the Diffusion of Effective Behavioral Interventions Project (the DEBI Project), seeks to make HIV-prevention intervention packages available to CBOs and train the CBOs in their use. Intervention packages are being developed for several well-known and thoroughly tested interventions, such as the popular opinion leader intervention (POL) (Kelley, Murphy, Sikkema, McAuliffe et al., 1997), the video opportunities for innovative condom education and safer sex intervention (VOICES/VOCES) (O'Donnell, O'Donnell, Doval, Duran et al., 1998), and the Mpowerment Project (Kegeles, Hays & Coates, 1996).

BSSV Program volunteers will be invited to contribute their skills and experience in this new effort by becoming trained in a specific curriculum. Once trained, they can make themselves available, as coaches, to a local community agency seeking to replicate the intervention in their community.

Another area of expansion for the BSSV Program is to make TA available to all indirectly funded CBOs that provide HIV prevention services. Indirectly funded means they do not have a contract with CDC for funding, but rather their funding comes from their state or local health departments. There are an estimated 1,700 such indirectly funded agencies across the country. Until this was added to the BSSV's scope of work, there were no CDC-funded TA programs available to these organizations.

With the expansion of TA possibilities growing on several fronts, we are always looking for new volunteers who want to be part of the BSSV Program. If you would like to know more about the program, please contact me either at 877.754.1404 (toll free) or by e-mail at dwlkerson10@attbi.com.

References

Kelly, J. A., Murphy, D. A., Sikkema, K. J., McAuliffe, T. L., Roffman, R. A., Solomon, L. J., Winett, R. A., Kalichman, S. C., & the Community HIV Prevention Research Collaborative. (1997). *Popular opinion leader (POL).*

O'Donnell, C. R., O'Donnell, L., San Doval, A., Duran, R., & Labes, K. (1998). *Video opportunities for innovative condom education and safer sex (VOICES/VOCES).*

Kegeles, S. M., Hays, R. B. & Coates, T. J. (1996). *Mpowerment Project: A community-level HIV prevention intervention for young gay men.*

Another area of expansion for the BSSV Program is to make TA available to all indirectly funded CBOs that provide HIV prevention services....With the expansion of TA possibilities growing on several fronts, we are always looking for new volunteers who want to be part of the BSSV Program.



Christopher Rowe

HOPE Program Update

Christopher Rowe,
HOPE Program Training Director

Funded originally in October 1991 by a 3-year contract with the Center for Mental Health Services (CMHS) of the Substance Abuse and Mental Health Services Administration (SAMHSA), the HIV Office for Psychology Education (HOPE) Program has trained more than 370 regional psychologist trainers who have, in turn, provided HIV/AIDS-related mental health training for more than 15,000 psychologists and other mental health professionals around the country.

In September 2001, the APA Office on AIDS began its fourth 3-year contract with CMHS to expand and further develop the capabilities of the HOPE Program. Before I go into the details of all of our new efforts, let me take just a moment to say that the last year we lost our Administrative Coordinator, Dana Gatewood, to a position at National Public Radio. I am very (whew!) happy to report that we've finally been able to fill that position. Thus, I'd like to welcome to HOPE David P. DeVito. David comes to us from inside APA, where for just over a year he was working in Membership Services—it's quite possible you already know or have spoken to him. David has a BA in American Studies from George Washington University (GWU), right here in DC. He's now pursuing a master's of public administration at GWU. David is originally from Pennsylvania—like yours truly. He grew up outside of Philadelphia in Prospect Park. He's been in the nonprofit arena for 14 years and brings to HOPE not only a solid understanding of administrative procedures and HIV, but also a really great attitude. I just know everyone will enjoy working with him. I sure do.

Early this year HOPE began a recruitment effort to enlist 75 new volunteer regional psychologist trainers for our upcoming National Train-the-Trainer Conference (NTC) to be held at the Le Meridien Hotel in Dallas, TX, February 27-March 2, 2003. Word went out through the usual channels (APA division newsletters, electronic mailing lists, database mailing lists, and state psychological association newsletters and electronic mailing lists to name just a few), and I've got to tell you, we're already having a strong response. It never ceases to amaze me how many people take interest in HOPE. By the way, we're still recruiting. Applications will be accepted through September 30, 2002.

Application to become a HOPE regional trainer involves submitting a curriculum vita; a completed application form; and a letter describing the applicant's HIV-related clinical work, training, or lecture presentations and research.

A thorough knowledge of HIV is vital. Clinical experience is very important, but all who believe they possess other important strengths are encouraged to apply.

In addition to recruiting and making plans for our 2003 NTC in Dallas, the HOPE Program is deeply involved in preparations to enter the next frontier—cyberspace. We are in the process of creating an online, Web-based education program that will be available to any and all who have Internet access.

The online program will consist of four 1-hour continuing education modules, entitled (1) "Epidemiology, Clinical

Course, Medical Treatments, and Adherence"; (2) "Assessment and Treatment of Psychological and Neuropsychological Disorders in People Living With HIV Disease & Common Roles of Mental Health Providers"; (3) "Assessment and Treatment of Substance Abuse Disorders in People Living With HIV Disease"; and (4) "Coping With HIV Disease." Users will be able to log onto the site, review the materials, take a test, have their answers reviewed and corrected, and receive CE credits—all without cost! That's right, free CE—just because we want to make basic HIV psychology education available to everyone who wants it. Who says you can't get something for nothing?

Lastly, as I've said before, the true focus of HOPE work is training. Each of our contracts has stipulated that HOPE must provide training for a minimum of 1,000 mental health professionals per contract year. That's never been a problem; we consistently more than meet our goals. Our September 1998-September 2001 contract total was 201 HOPE trainings, reaching a total of 5,832 participants. That is amazing! Our current contract total (October 2001-June 2002) is 37 trainings, reaching a total of 877 participants. Don't fret, number wise we would seem to be a bit behind schedule, but we've got a few trainings on the books between now and the end of September, and I assure you readers that the next issue of the Psychology & AIDS Exchange will find HOPE right on, or well ahead of our first-year goal.

That's it for now. Don't forget that we're still recruiting. If you'd like to request an application to become a HOPE regional trainer or additional information about any aspect of the HOPE Program, please contact David at DDeVito@apa.org/(202) 336-5158 or me at CRowe@apa.org/(202) 216-7603. We're both looking forward to hearing from you.

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start me on a regimen of AZT, Zerit, Fortovase, and Ritonvir. I was completely caught off guard and had many concerns about this, plus I was beginning to feel a lot like a guinea pig. When I started to bring up concerns of possible failure of the new regimen, the fact that I was perfectly fine with my current regimen, and quite use to it, his response was, "I'm the doctor, I know what's best. If you do not want me to treat you the way that I want to then you should find another doctor." I took my doctor's advice and through referrals from friends found a doctor that was much more willing to work with my preferences and concerns.

At our first meeting, my new doctor informed me that had I been his patient from the beginning he would not have put me on medication so soon and instead would have taken the "wait and see" approach—yet another mantra from the medical profession. He changed my dosing of Viracept to five pills, two times a day rather than three pills, three times a day. This change proved to be much more manageable for me and it meant that I would no longer have to eat a midday meal or snack. I am still on this regimen today and I am happy to say that my viral load remains at an undetectable level.

My life on a 4-year regimen of Viracept and Combivir has not always been an easy one. It took quite some time to get used to taking the pills. Nevermind the chalkiness or how hard they are to swallow, but sometimes just remembering to take them is a chore. There have been many times when I've taken a dose an hour or two late or early or missed it all together. These lapses always cause some slight anxiety for me. Thoughts of drug resistance always come into play.

The first step in remembering to take my pills was to find something easy and inconspicuous to carry them in, as I did not want to lug around those big bottles everywhere I went. Luckily, I stumbled upon a container that was the perfect fit for a day's dosage and was small enough to put into the little inside pocket of my jeans. I've been through five similar containers. Because they've not always been easy to find, I buy extras now for future use.

In the beginning, I was so terrified about missing a dose that I rarely did. I was unbelievably strict about it. In fact, one time I accidentally double dosed because I'd forgotten that I already took my pills before I left the house and I took them again when I got to work. That is something you only want to do once—double dosage means double side effects—I was so sick the whole day that from then on I decided that if I couldn't remember if I took my pills or not I would err on the side of caution and just wait until the next dosage time to take them.

As time went on, I got more and more comfortable about taking my pills just about anywhere I was and in front of whomever I was with. This change has actually helped me disclose to many people my HIV status. The one exception has been my family. I've never felt comfortable enough to tell them that I had become HIV+ so whenever I am with them or home for a family function, I have to hide taking my pills. Usually I sneak upstairs to the bathroom and down the dose as quickly as possible. I won't even put my pill case in my pocket for fear that it may fall out when I am playing with one of my nieces or nephews. I leave my pill case in whatever bag I have with me. Needless to say, most of my missed or delayed doses

occur when I am visiting family. It happens at least one time on every visit.

The other difficult thing about being with family and sticking to my regimen is dealing with the unexpected invitation to "stay the night." How do I explain to my brother that I can't stay because I didn't bring any extra pills? This issue of explanations also affects my general social life—whether I am out on a date or just hanging with friends—no matter how late it is—I always have to go home so I can be there for my morning dose. I've recently tried to alleviate this problem by using a slightly larger pill case that holds three doses of all my meds instead of two. So far, this strategy has only succeeded in causing confusion because having that extra dose in my pill case usually causes me to forget whether or not I took my pills when I was supposed to.

I do a lot of traveling and at first I was very concerned about how to handle my dosing when I was in a different time zone. My doctor did not really have a definitive opinion, but I found that when I tried to factor in the time difference when taking my pills I usually forgot to take them altogether. To alleviate this problem, I take my pills at 10 a.m. and 10 p.m. no matter what time zone I am in. Unfortunately, this solution does not help to keep my mind focused on adherence while I am away on "vacation mode."

The one major thing that has helped me get through being HIV-positive and dealing with the trials and tribulations that come with it has been talking to and sharing experiences with other HIV-positive people. I've learned how to deal with

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HIV Antiretroviral Medications: Past, Present, and Future

Simon Slater, MA, New York University



Simon Slater, MA,

The use of antiretroviral medications to treat HIV-infected individuals began in 1986 with the U.S. Food and Drug Administration (FDA) approval of the first antiretroviral drug, AZT (Zidovudine). AZT was used to prevent HIV replication in the blood by inhibiting the activity of the reverse transcriptase enzyme (the enzyme by which HIV turns its RNA into a cell's DNA).

While the use of AZT as an antiretroviral drug to treat HIV was promising at first, its benefits were short lived, as individuals developed different side effects and the virus soon became resistant to its intended beneficial effects. AZT's lack of effectiveness led to the production of a class of medications known as NRTIs (nucleoside reverse transcriptase inhibitors), such as Videx (Didanosine), Zerit (Stavudine), Hivid (Zalcitabine), and Epivir (Lamivudine). However, these drugs began to be seen as offshoots of AZT, as they worked on inhibiting the same enzyme. As such, it did not take long for the virus to become resistant to this class of drugs and once again to continue to mutate and multiply.

For much of the decade between 1986-1996, the standard in HIV prescribed drug treatments remained a monotherapeutic approach of using a solo NRTI to treat HIV. This approach was eventually found to be of limited effectiveness, as HIV is a virus that has the potential to quickly develop a resistance to any one antiretroviral medication (Shernoff & Smith, 2001).

Soon after, researchers developed other classes of antiretroviral drugs to treat HIV. The first class of these new antiretrovirals, called NNRTIs (non-nucleoside reverse transcriptase inhibitors), was put on the market in 1996. These antiretrovirals, which include Viramune (Nevirapine), Sustiva (Efavirenz), and Rescriptor (Delavirdine), are similar to NRTIs, as they inhibit the same enzyme, but are chemically different and are more powerful.

The second class of HIV medications to be released that same year was called protease inhibitors (PIs). Examples of this class of antiretrovirals include Norvir (Ritonavir), Crixivan (Indinavir), Viracept (Nelfinavir), and Fortovase (Saquinavir). PIs work by inhibiting the enzyme-protease. When protease is blocked, HIV is unable to make copies of the virus and therefore cannot infect new cells. It was therefore thought that PIs might be agents that could possibly eradicate HIV from the body. While this was later found to not be the case, studies have in fact shown that PIs do have the capability of reducing the amount of the virus in the blood stream and increasing CD4+ T cell counts (New Mexico AIDS Infonet, 2000).

Even though these new classes of HIV medications were more potent than their predecessors, when they are used alone, the virus becomes resistant to the drugs as it does when using solo NRTI therapy. However, because of the increase in the number of different classes of antiretroviral medications, a shift from monotherapy to combination therapy became possible, in which drugs from two or more classes could be used simultaneously (Shernoff & Smith, 2001).

The combinations that then became (and continue to be) the standard in antiretroviral therapy consisted of some combination of the three classes of antiretroviral medications. Popular types of combination therapies include (a) two NRTIs and one PI; (b) two NRTIs and two PIs; or (c) one NRTI, one NNRTI, and one PI. These combinations are called HAART regimen to treat HIV, and the advantage was that the virus could now be treated on a number of different fronts, as combination therapies can "suffocate mutated forms of HIV before they have a chance to flourish (Shernoff & Smith, 2001)."

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the disease and its side effects in many different ways. I've gained important advice on how to remember to take my pills and what to take them with to help them go down more smoothly. I've even been told what kinds of foods are better to have in your stomach when you take them. I've laughed with other HIVers while sharing our horrible diarrhea stories—just how do your bowels know when you are putting your key in the front door anyway? As well as shared tricks to make the diarrhea go away. I have heard and learned from experiences of disclosing status to potential partners and how to deal with dating and sex. In general, the best advice I get is usually the kind that comes from someone who is living with HIV—it's invaluable.

CDC: Young Black Gays Don't Know HIV Status: "Outrageously high" Percent of Study Participants With HIV Didn't Know They Carried the Virus

by Laura Douglas-Brown

(The following is summarized from the Southern Voice, August 30, 2002, Retrieved September 19, 2002, from <http://www.southernvoice.com/national/020830cdc.php?pub=all>)

Almost all HIV-positive young Black gay men interviewed in a 4-year study by the Centers for Disease Control and Prevention did not know they had the virus, CDC researchers reported last week.

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COPA AD HOC COMMITTEE ON PSYCHOLOGY AND AIDS

2002 Call for Nominations

The American Psychological Association (APA) Ad Hoc Committee on Psychology and AIDS (COPA) is seeking nominations for three new members whose terms will begin on January 1, 2003, and end on December 31, 2005. The mission of COPA, an ad hoc committee that reports directly to the APA Board of Directors, is to guide the development and implementation of APA's organizational responses to the HIV/AIDS epidemic.

COPA members are required to attend at least one face-to-face meeting per year in Washington, DC, with expenses reimbursed by APA, and to participate in monthly conference calls.

Between meetings, members are expected to devote a substantial portion of time to COPA projects, provide consultation to APA Office on AIDS staff, and participate in advocacy activities as needed.

Candidates should have demonstrated expertise in dealing with HIV/AIDS issues as a researcher, practitioner, educator, and/or policy advocate. COPA seeks to involve a diverse group of psychologists, including persons of color and individuals who are living with HIV. COPA is particularly interested in candidates who are employed in traditional university settings as well as candidates with expertise in

the following areas:
(1) HIV/AIDS public policy,
(2) treatment and prevention for persons with substance use disorders who are living with HIV, (3) treatment and prevention for women, and (4) technology transfer and/or replication of effective HIV-related interventions.

Nomination materials should include the nominee's qualifications, a letter from the nominee indicating willingness to serve on COPA, and a curriculum vita. Self-nominations are encouraged. Materials should be sent to: Robert Beverly, Office on AIDS, American Psychological Association, 750 First Street, NE, Washington, DC 20002-4242. All material must be received by November 15, 2002.

Upcoming Events

FELLOWSHIPS AND INTERNSHIPS

Minority Fellowship Program: HIV/AIDS Research Training Fellowship

The APA Minority Fellowship Program (MFP) has created programs to support the training of researchers and practitioners. The MFP Mental Health Research and HIV/AIDS Research Fellowships, funded by the National Institute of Mental Health (NIMH), supports the training of researchers in psychological and mental health research and in HIV/AIDS research.

The MFP Fellowship provides an annual stipend for up to 3 years. It is geared to those pursuing careers as research scientists in HIV/AIDS issues and ethnic minority populations. Students specializing in such research areas as psychoneuroimmunology, HIV prevention, AIDS treatment adherence, and provider education are encouraged to apply. Students of any specialty in psychology will be considered if they plan careers in HIV/AIDS research.

Applications are accepted September 1 until January 15 of the year in which support is being sought. To request an application, contact: APA/MFP Fellowship Application, 750 First Street, NE, Washington, DC 20002-4242; Phone: (202) 336-6127; Fax: (202) 336-6012; E-mail: mfp@apa.org; or visit: www.apa.org/mfp/hprogram.html.

HIV/Health Psychology Internship

The Medical College of Georgia (MCG)/VA (VAMC) Consortium in Augusta, GA, is pleased to announce that they have added an HIV/Health Psychology internship track for 2003-2004. The consortium has full APPIC approval, and the summary and goals of this track are outlined below.

The core purpose of the MCG-VAMC Consortium is to produce professional and racially/ethnically diverse psychologists who are well prepared for and seek out careers that are directed toward integrated approaches to health care issues, who have experience with and interest in serving in mental health and medically underserved areas, who are well prepared to stay abreast if not lead the way in the development of evidence-based practices in the field of mental health care, and who aspire to cultural competence in their practice. The HIV/AIDS track endeavors to provide additional specialty training in preparing professional psychologists to provide services for individuals and families infected and affected by HIV/AIDS.

The settings include Medical College of Georgia Outpatient Psychiatry, Medical College of Georgia Infectious Disease Clinic, Amethyst Project (AIDS Service Organization), and Veterans Affairs Medical Center.

For complete information and application, contact: Lara Stepleman, PhD, Director of HIV Psychological Services, Assistant Professor of Psychiatry, Medical College of Georgia at (706) 721-7969.

GRANTS

2003 HIV/AIDS Prevention Small Grant Call for Proposals

The APA Society for the Psychology of Women (Division 35), Section on the Psychology of Black Women is soliciting proposals for the 2003 HIV/AIDS Prevention Small Grant. The grant is for prevention/intervention research or curriculum materials designed to prevent or reduce HIV infection among Black women and female teenagers.

The Division 35, Section on the Psychology of Black Women seeks to assist in reducing or eliminating HIV infection and cases of AIDS among Black women and female teenagers by supporting curriculum development and prevention/intervention research that is culturally relevant, gender-specific, and age-appropriate.

The Section hopes to encourage researchers who work with these populations to design, promote, or enhance innovative, creative, and effective prevention and health promotion curriculum materials that can aid in the reduction of HIV-related sexual behaviors that may incur exposure to HIV infection.

Submission Deadline is March 31, 2003. Accepting online submissions only. For more information, please visit <http://www.apa.org/pi/wpo>. Questions should be addressed to: Tanya L. Burrwell, Special Projects Associate, Women's Programs Office at (202) 336-6049 or at tburwell@apa.org.

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Meisler, 1997). Researchers have suggested that the two approaches be sequenced such that motivation enhancement and goal setting precede skills building (Annis, Schober, & Kelly, 1996; Sobell & Sobell, 1993). Most interventions that have been shown to improve adherence for non-HIV medication regimens have included multiple components, including education, motivation enhancement, social support enhancement, and the development of cognitive-behavioral skills (Dunbar-Jacob, Dwyer, & Dunning, 1991; Turk & Meichenbaum, 1991).

Motivational interviewing can be used to increase a person's readiness for adherence. Through the use of such techniques as reflective listening, asking open-ended questions, affirmation, summarizing, and eliciting self-motivational statements, providers can be client-centered in the approach and work with clients at varying levels of readiness for change. Providers can work with clients on the development of a personalized goal change plan, and they can help clients to identify their own barriers and facilitators to medication adherence, thus enhancing their motivation for change.

For some clients, enhanced motivation may be sufficient to promote acceptable rates of adherence. For many clients, however, additional skills will be necessary. Cognitive-behavioral skills training is used to enhance the skills most relevant to the client's unique needs. A functional analysis, by which the counselor and client work together to identify triggers for nonadherence, can be helpful in identifying particular areas in which skill building can be most useful. For example, if a functional analysis were to reveal that clients are most tempted to miss doses when they don't feel confident in their ability to stick to the regimen or when they are worried about side effects, the provider could focus on enhancing self-efficacy and managing side effects. Further, cognitive-behavioral skills training can be used to improve patient-provider communication or facilitate a client's ability to obtain additional sources of social support.

Conclusions

An integrated intervention model that emphasizes both motivational enhancement and skills acquisition appears to be a very promising approach for improving HIV medication adherence. By addressing adherence from a client-centered approach, where the clients take personal responsibility for their plans for change, an integrated intervention model has the potential for meeting the needs of diverse individuals. Ideally, such interventions should be delivered directly in clinic settings where clients receive their HIV care. If a wide range of providers were trained in techniques of motivational interviewing and cognitive-behavioral skills training, clients could encounter the same approach from multiple service providers, thereby further reinforcing the principles learned. Ultimately, an intervention approach that can be individually tailored, flexible, and delivered by a variety of providers has the potential to be easily integrated into existing clinic operations.

References

- Annis, H. M., Schober, R., & Kelly, E. (1996). Matching addiction outpatient counseling to client readiness for change: The role of structured relapse prevention counseling. *Experimental and Clinical Psychopharmacology, 4*, 37-45.
- Baer, J. S., Kivlahan, D. R., & Donovan, D. M. (1999). Integrating skills training and motivational therapies: Implications for the treatment of substance dependence. *Journal of Substance Abuse Treatment, 17*, 15-23.
- Carey, M. P., Braaten, L. S., Maisto, S. A., Gleason, J. R., Forsyth, A. D., Durant, L. E., & Jaworski, B. C. (2000). Using information, motivational enhancement, and skills training to reduce the risk of HIV infection for low-income urban women: A second randomized clinical trial. *Health Psychology, 19*, 3-11.

Carey, M. P., Maisto, S. A., Kalichman, S., Forsyth, A. D., Wright, E. M., & Johnson, B. T. (1997). Enhancing motivation to reduce the risk of HIV infection for economically disadvantaged. *Journal of Consulting and Clinical Psychology, 65*, 531-541.

Dunbar-Jacob, J. H., Burke, L. E., & Puczynski, S. (1995). Clinical assessment and management of adherence to medical regimens. In P. M. Nicassio & T. W. Smith (Eds.), *Managing chronic illness: A biopsychosocial perspective* (pp. 313-349). Washington, DC: American Psychological Association.

Fogarty, L., Roter, D., Larson, S., Burke, J., Gillespie, J., & Levy, R. (2002). Patient adherence to HIV medication regimens: A review of published and abstract reports. *Patient Education and Counseling, 46*, 93-108.

Halkitis, P. N., Parsons, J. T., Wolitski, R., & Remien, R. H. (in press). Adherence to HIV antiviral treatments in a community-based sample of men who have sex with men. *AIDS Care*.

Ickovics, J. R., & Meisler, A. W. (1997). Adherence in AIDS clinical trials: A framework for clinical research and clinical care. *Journal of Clinical Epidemiology, 50*, 385-391.

Low-Beer, S., Yip, B., O'Shaughnessy, M. V., Hogg, R. S., & Montaner, J. S. G. (2000). Adherence to triple therapy and viral load response. *Journal of Acquired Immune Deficiency Syndrome, 23*(4), 360.

Paterson, D. L., Swindells, S., Mohr, J., Brester, M., Vergis, E. N., Squier, C., Wagener, M. M., & Singh, N. (2000). Adherence to protease inhibitor therapy and outcomes in patients with HIV infection. *Annals of Internal Medicine, 133*(1), 21-30.

Safren, S. A., Otto, M. W., Worth, J. L., Salomon, E., Johnson, W., Mayer, K., & Boswell, S. (2001). Two strategies to increase adherence to HIV antiretroviral medication: Life-steps and medication monitoring. *Behavior Research and Therapy, 39*, 1151-1162.

Sobell, M. B., & Sobell, L. C. (1993). *Problem drinkers: Guided self-change treatment*. New York: Guilford Press.

Turk, D. C., & Meichenbaum, D. (1991). Adherence to self-care regimens: The patient's perspective. In J. J. Sweet, R. H. Rozensky, S. M. Tavian (Eds.), *Handbook of clinical psychology in medical settings* (pp. 249-268). New York: Plenum.

Importance of Screening Adolescent Women for Sexual Trauma

(The following is summarized from AIDS Alert (2002, Aug.), 17(8), 93(3).)

Adolescent sexual trauma screening is urged for HIV-infected women: one in two women with HIV have sexual abuse history.

Childhood sexual abuse appears to be a common experience among American women who are infected with HIV, and the trauma resulting from this abuse could have a negative impact on HIV treatment unless it is addressed specifically, according to a recent study of HIV-infected women of various ethnic backgrounds.

"We looked to see what predictors of HIV serostatus were the most salient for women," says Gail Wyatt, PhD, associate director of behavior sciences at the University of California, Los Angeles (UCLA) AIDS Institute. "And a number of studies have reported that ethnic minority women are at greater risk for HIV," Wyatt says. "But when we looked at predictors for risk for HIV-positive women, we looked at demographic statistics, and we found that a history of child sexual abuse was more likely to predict HIV serostatus than ethnicity."

UCLA researchers found that among a community sample of 490 women, those who were HIV positive were significantly more likely to report having had a pattern of child sexual abuse.* HIV-positive women were recruited from HIV and service agencies, flyers, radio and print advertisements, personal contacts, and a random sample of women who were HIV negative were recruited with random-digit dialing and 1990 U.S. census track data.*

medication when I want to forget about being HIV+," suggesting that drug use is related to AIDS anxiety and adherence.

Conclusion

Given the complexity of adherence, it is imperative for researchers to understand substance use and its relationship to HIV adherence. Certainly there are both direct and indirect effects of drug use and abuse on adherence, including exacerbated side effects, using drugs to escape anxiety surrounding AIDS and homophobia, and the burdens of poverty that are often related to substance use. Essentially, the health-seeking behaviors that are central to optimal adherence are dramatically affected by the dynamics of substance use, where HIV+ substance users have predispositions to vulnerabilities as well as less effective coping strategies as a result of their substance use.

References

- Andersen, J. R., Sparks, C. H., Hamid, G., & Stockett, L. (1999). *HIV/AIDS instructional guide for graduate faculty in psychology*. Washington DC: American Psychological Association.
- Arnett, J. J. (1999). Adolescent storm and stress reconsidered. *American Psychologist, 54*, 317-326.
- Batki, S. L., & Ferrando, S. J. (1996). Diagnosis and treatment of substance use disorders in patients with HIV infection. *International Review of Psychiatry, 8*(2-3), 242-252.
- Bing, E. G., Galvan, F., Burnam, M. A., Longshore, D., Orlando, M., Eggan, F., Fleishman, J., Caetano, R., & Shapiro, M. (2000, July). *Psychiatric disorders and drug and alcohol use among people with HIV disease*. Paper presented at the XIII International AIDS Conference, Durban: South Africa.
- Bondi, M. W., Drake, A. I., & Grand, I. (1998). Verbal learning and memory in alcohol abusers and polysubstance abusers with concurrent alcohol abuse. *Journal of the International Neuropsychological Society, 4*(4), 319-328.

Brown, G. R., Rundell, J. R., McManis, S. E., Kendall, S. N., Zachary, R., & Temoshok, L. (1992). Prevalence of psychiatric disorders in early stages of HIV infection. *Psychosomatic Medicine, 54*(5), 588-601.

Cook, R. L., Sereika, S. M., Hunt, S. C., Woodward, W. C., Erlen, J. A., & Conigliaro, J. (2001). Problem drinking and medication adherence among persons with HIV infection. *Journal of General Internal Medicine, 16*, 83-88.

Crespo-Fiero, M. (1997). Compliance/adherence and care management in HIV disease. *Journal of the Association of Nurses in AIDS Care, 8*(4), 43-54.

Dew, M. A., Becker, J. T., Sanchez, J., Calderaro, R., Lopez, O. L., Wess, J., Dorst, S. K., & Banks, G. (1997). Prevalence and predictors of depressive, anxiety and substance use disorders in HIV infected and uninfected men: A longitudinal evaluation. *Psychological Medicine, 27*(2), 395-409.

Elovich, R. (1996). Staying negative-It's not automatic: A harm-reduction approach to Freeman, R. C., Rodriguez, G. M., & French, J. F. (1996). Compliance with AZT treatment regimen of HIV-seropositive injection drug users: A neglected issue. *AIDS Education & Prevention, 8*(1), 58-71.

Halkitis, P., Parsons, J., Wolitski, R., & Remien, R. (2001). Characteristics of HIV antiretroviral treatments and adherence in an ethnically diverse sample of men who have sex with men. *Journal of Health Psychology*. Manuscript under review.

Halkitis, P. N., & Parsons, J. T. (in press). Recreational drug use and HIV risk sexual behavior among men frequenting gay social venues. *Journal of Gay and Lesbian Social Services*.

Halkitis, P. N. (1998). Advances in the treatment of HIV disease: Complexities of adherence and complications for prevention. *Health Psychologist, 20*(1), 6-7, 14.

Halkitis, P. N., & Kirton, C. (1999). Self-strategies as means of enhancing adherence to HIV antiretroviral therapies: A Rogerain approach. *Journal of the New York State Nurses Association, 30*(2), 22-27.

Halkitis, P. N., Remien, R., & Wolitski, R. (1998, August). *Examining factors related to adherence of antiretroviral regimens*. Paper presented at the meeting of the American Psychological Association, San Francisco, CA.

"If you had at least one incident of sexual abuse before age 18, you were twice as likely to be HIV positive as were women with no history," Wyatt says. "These findings have implications because we have normally talked about high-risk behavior that is current or in the recent past for a person who is at risk for being infected or who is infected," Wyatt notes.

"This was one of the first studies that documented that not only do current practices have to be discussed," she says, "but also experiences in life that could have happened long ago that might have been equally traumatic, if not more so."

The study found that one in two HIV-positive women had a history of childhood sexual abuse, compared with one in three women among those who were HIV negative, she says. This abuse involved rape and other nonconsensual sexual trauma before the age of 18, and the study found that the typical age gap between the victim and perpetrator was 5 years, Wyatt says.

"This is a common occurrence, and the findings stress the need for HIV [service] providers to ask about past histories of sexual trauma and not to just ask traditional questions about the woman's current partner and the last 3 months of sexual activity," she explains. "There are many experiences in one's life that can influence what we do today."

The UCLA research highlights a little-discussed problem with treating women who are HIV positive. Unless an HIV clinic provides psychosocial support or unless a clinician builds

unequal social status on their risk of becoming infected with HIV has been noted by experts worldwide. For example, the work of Pleck, Sonenstein, & Ku (1993) on the relationship of masculine ideology and sexual behavior among young men indicates that attitudes, beliefs, and behaviors related to male gender roles have a major impact on sexual behaviors and the risk posed for female partners. More recently, a number of studies have indicated that partner abuse significantly increases the likelihood of women's not using condoms and contracting an STD (Gomez & Van Oss, 1996; Wingood & DiClemente, 1997). While these findings are about sexual risk behavior, they may have implications for the influence of gender on dynamics related to negotiation and partner influence with other health care behaviors, specifically adherence to medical care.

Interventions for Couples Living With HIV/AIDS

Because strict adherence to HAART is crucial for longer-term clinical success for people living with HIV/AIDS, and as effective interventions to improve adherence among people with poor adherence have shown limited success, we must continue to explore the development of innovative programs that transcend individual-level interventions. Currently, most funded studies aimed at improving adherence focus on the individual, even though substantial research exists on the important role of social support on health care behavioral outcomes. Results from HIV primary prevention studies suggest that using a couple-based, skills-building approach may help men and women in long-term relationships shape health care behaviors, including eroticizing safer sex and developing the necessary communication and negotiation skills to implement a long-term safer sex plan that includes condom use and HIV testing (Remien, Carballo-DiEguez, & Wagner, 1995; Tanner & Pollack, 1988). Several studies suggest that couple-level interventions can be effective in promoting condom use among HIV serodiscordant couples and contraception use in family planning programs (Danielson, Barbey, Cassidy, Rosenzweig, & Chowdhury, in press; Terefe & Larson, 1993). The couple is affected during the course of HIV disease; as a result, the partners are interdependent, and their actions and responses shape their perceptions, course of events, and the extent to which the illness dominates their daily lives (Remien, 1998). Thus, it is important to consider ways of intervening with the couple as a unit.

A couple-level intervention to improve adherence to HAART is currently being tested in a randomized clinical trial. This 4-year research study, funded by the National Institute of Mental Health (NIMH R01 MH61173) is called the SMART Couples Project. "SMART" is an acronym for "sharing medical adherence responsibilities together." The primary aim of the study is to determine whether a brief, clinic-based counseling program for HIV serodiscordant couples is effective in improving adherence to medication regimens and medical care among the HIV+ partners in these relationships. In essence, the study will serve as a "proof-of-concept trial," testing the idea that intervening with a couple can be an effective way to change the behavior of an individual.

The SMART study population is HIV serodiscordant couples in which the HIV+ partner is on combination therapy and has demonstrated problems with adherence to his/her medication regimen. All study participants will be recruited from two HIV outpatient clinics at St. Luke's-Roosevelt Hospital in New York City, which primarily serve lower-income, minority populations. Participants will include heterosexual couples with an HIV+ male partner, heterosexual couples with an HIV+ female partner, gay male couples, and lesbian couples. The study aims to enroll 240 couples.

Eligible couples will be randomly assigned to receive either the brief counseling program or standard clinic care. The brief counseling program is administered to each couple individually by a nurse practitioner in the clinic setting. It consists of four 45-60 minute sessions over a period of 5 weeks, and it includes discussion, instruction, and structured exercises. The program focuses on developing communication and problem-solving strategies to overcome barriers to medical care adherence, understanding the demands of the medication regimen relative to avoiding

Haubrich, R., Little, S., Dube, M., Forthal, D., Beall, G., Kemper, C., Hwang, J., & McCutchan, J. A. (1998, June). *Self-reported treatment adherence and drug/alcohol use are associated with virologic outcomes in CCTG 570: A clinical strategy trial of HIV RNA antiretroviral (ARV) monitoring.* Poster presented at the 12th World AIDS Conference, Geneva, Switzerland.

Hirschhorn, L., Quinones, J., Goldin, S., & Metras, L. (1998, June). *Highly active anti-retroviral therapy (HAART) in the "real world": Experiences in an inner-city community health center (CHC).* Poster presented at the 12th World AIDS Conference, Geneva, Switzerland.

Kelly, B., Raphael, B., Judd, F., Perdices, M., Kernutt, G., Burrows, G. D., Burnett, P. C., & Dunne, M. (1998). Psychiatric disorder in HIV infection. *Australian and New Zealand Journal of Psychiatry, 32*(3), 441-453.

Lefevre, F., O'Leary, B., Moran, M., Mossar, M., Yarnold, P. R., Martin, G. J., & Glassroth, J. (1995). Alcohol consumption among HIV-infected patients. *Journal of General Internal Medicine, 10*(8), 458-460.

Low-Beer, S., Yip, B., O'Shaughnessy, M. V., Hogg, R. S., & Montaner, J. S. G. (2000). Adherence to triple therapy and viral load response. *Journal of Acquired Immune Deficiency Syndrome, 23*(4), 360.

Lucas, G. M., Gebo, K. A., Chaisson, R. E., and Moore, R. D. (2002). Longitudinal assessment of the effects of drug and alcohol abuse on HIV-1 treatment outcomes in an urban clinic. *AIDS, 16*, 767-774.

Martim, M., Agnoletto, V., Carosi, G., Guarinieri, M., Paoletti, F., Paoletti, F., & Mazzotta, F. (2000, July). *Drug use: Substances-specific implication for adherence to anti-HIV therapy.* Paper presented at the XIII International AIDS Conference, Durban: South Africa.

Mehta, S., Moore, R. D., and Graham, N. M. (1997). Potential factors affecting adherence with HIV therapy. *AIDS, 11*, 1665-1665.

Moatti, J. P., Carrieri, M. P., Spire, B., Gastaut, J. A., Cassuto, J. P., Moreau, J., & the Manif study group. (2000). Adherence to HAART in French HIV-infected injecting drug users: The contribution of buprenorphine drug maintenance treatment. *AIDS, 14*, 151-155.

Paterson, D. L., Swindells, S., Mohr, J., Brester, M., Vergis, E. N., Squier, C., Wagener, M. M., & Singh, N. (2000). Adherence to protease inhibitor therapy and outcomes in patients with HIV infection. *Annals of Internal Medicine, 133*(1), 21-30

Petry, N. M. (1999). Alcohol use in HIV patients: What we don't know may hurt us. *International Journal of STD & AIDS, 10*, 561-570.

Resnick et al. (1997). Protecting adolescents from harm. Findings from the National Longitudinal Study on Adolescent Health. *Journal of the American Medical Association, 278*, 823-832.

Rosselli, M., & Ardila, A. (1996). Cognitive effects of cocaine and polydrug abuse. *Journal of Clinical & Experimental Neuropsychology, 18*(1), 122-135.

Shidlo, A. (1994). Internalized homophobia: Conceptual and empirical issues in measurement. In B. Green & G. Herek (Eds.), *Psychological perspectives on lesbian and gay issues: Theory research and clinical applications.* Thousand Oaks, CA: Sage.

Spire, B., Duran, S., Souville, M., Lepout, C., Raffi, F., Moatti, J., and the APROCO cohort study group (2002). Adherence to highly active antiretroviral therapies (HAART) in HIV-infected patients: From a predictive to a dynamic approach. *Social Science and Medicine, 54*, 1481-1496.

Stein et al. (1999). Parentification and its impact on adolescent children of parents with AIDS. *Family Processes, 38*(2), 193-208.

Stone, V. E., Adelson-Mitty, J., Duefield, C. A., Steger, K. A., Stein, M. D., and Mayer, K. H. (1998, June). *Adherence to protease inhibitor (PI) therapy in clinical practice: Usefulness of demographics, attitudes and knowledge as predictors.* Poster presented at the 12th World AIDS Conference, Geneva, Switzerland.

Stone, V. E., Adelson-Mitty, J., Arnsten, J. H., Davenny, K., & Schoenbaum, E. E. (2002, July). What strategies do providers use to enhance adherence to HAART? Paper presented at the XIII International AIDS Conference, Durban: South Africa. substance use and sex. *AIDS & Public Policy Journal, 11*(2), 66-77.

Summers, J., Zisook, S., Atkinson, J. H., Sciolla, A., Whitehall, W., Brown, S., Patterson, T., & Grant, I. (1995). Psychiatric morbidity associated with acquired immune deficiency syndrome-related grief resolution. *Journal of Nervous Mental Disorder, 183*, 384-389.

Turner, J. G., Nokes, K. M., Corless, I. B., Holzemer, W. L., Inouye, J., Brown, M. A., & Powell-Cope, G. M. (1998, June). *History of drug use and adherence in HIV+ persons.* Paper presented at 12th World AIDS Conference, Geneva, Switzerland.

Williams, A., Wolf, H., Yu, C., Singh, M. (1998). *Adherence to antiretroviral therapy among HIV positive women.* Poster presented at the 12th International AIDS Conference, Geneva, Switzerland.

MEETINGS AND CONFERENCES

APA 2003 Annual Convention Call for Programs

The deadline is fast approaching for program proposals for the 111th Annual Convention of the American Psychological Association. The convention will take place August 7-10, 2003, in Toronto, Ontario, Canada. The deadline is November 15, 2002. APA Continuing Professional Education (CPE) Workshop proposals are due November 1, 2002. For complete information, visit <http://www.apa.org/convention>, see the insert in the September issue of the *APA Monitor*, e-mail convention@apa.org, or call (202) 336-6020.

NMAC 2002 North American AIDS Treatment Action Forum

Sponsored by the National Minority AIDS Council, the 2002 North American AIDS Treatment Action Forum (NATAF) will be held in New Orleans, LA, on December 8-11, 2002. NATAF is open to anyone interested in broadening their knowledge of HIV/AIDS research and treatment issues and learning to use this knowledge to advocate on behalf of everyone living with HIV/AIDS. Participants include the volunteers, staff, and board members of community-based organizations; case managers; social workers; AIDS educators; outreach workers; pharmaceutical and government representatives; health care professionals; and people living with HIV/AIDS. For more information, visit <http://www.nmac.org/nataf/2002/>.

15th National HIV/AIDS Update Conference

The 15th National HIV/AIDS Update Conference (NAUC) will be held March 30-April 2, 2003, in Miami, FL. Sponsored by the American Foundation for AIDS Research (AmFAR), this conference will present updates on AIDS prevention, treatment, and care, featuring the latest information on current issues facing the United States and other nations affected by the epidemic. Topics will include side effects of antiretroviral therapy, treatment sequencing, drug pricing, immigration, cultural competence, national and regional prevention policies, novel and innovative prevention techniques, epidemiological trends, and HIV/hepatitis co-infection.

For more information, contact Jennifer Attonito, Conference Director, AmFAR, (212) 806-1631; Fax: (212) 806-1608; E-mail: nauc@amfar.org; or visit: www.amfar.org/cgi-bin/iowa/nauc. Abstract and scholarship deadlines: November 8, 2002.

2003 Community Planning Leadership Summit (CPLS)

The 11th Community Planning Leadership Summit for HIV Prevention will be held March 12–15, 2003, at the Sheraton in New York City. Health department staff, community co-chairs, and community planning leaders involved in this process at the local, state, and national levels will come together to share perspectives on progress achieved, gain new knowledge and skills to enhance planning, and network and learn from each other.

Based upon the success of the abstract-driven offerings at the 2002 Summit, CPLS is again developing the conference agenda through the abstract process. This process will ensure the participation of community planning leaders from across the nation. We strongly encourage every planning group to submit at least one abstract. You may submit your abstract(s) online at: http://www.nmac.org/conferences/CPLS2003/Abstract/abstract_sub.asp. Abstracts must be received by October 11, 2002, 5:00 p.m. EST.

The 2003 CPLS will offer 48 workshops as well as institutes and other sessions designed to enhance the HIV-prevention planning skills of participants. These sessions will be organized in four tracks: Effective Interventions, Future Trends in Community Planning, Managing the Process, and the Steps of Community Planning. A registration fee of \$225 covers the costs of all plenary meals and all conference materials.

2003 National HIV Prevention Conference

The Centers for Disease Control and Prevention (CDC) joins other governmental and nongovernmental prevention partners to announce the third conference highlighting HIV prevention in the United States. The conference will be held July 27–30, 2003, at the Hyatt Regency Atlanta Hotel in Atlanta, GA. For more information, you may visit the conference Web site at www.2003HIVPrevConf.org.

viral resistance and maintaining health, and building the couple's confidence (self-efficacy) for achieving and maintaining improved adherence.

To test the relative impact of these conditions on medical adherence, participants will take part in four assessments over a period of approximately 9 months (baseline, postintervention, and 3- and 6-month follow-ups). Medication adherence will be determined through the use of an electronic cap (eDEM cap) affixed to a medication bottle for a 2-week period prior to each assessment, in addition to self-reported medication adherence.

Specific Personal and Public Health Concerns for Serodiscordant Couples

Because people living with HIV/AIDS are living longer and healthier lives, more opportunities exist for relationship formation and sexual activity for this group of people. HIV is unique in that it carries the risk for transmission of the infectious agent to the uninfected partner through intimate contact. Studies have consistently shown that unprotected sex is more likely to occur in the context of primary relationships than with casual partners (McLean et al., 1994). In particular, sexual risk behavior occurs within serodiscordant relationships for many reasons—one major factor is a desire for greater intimacy (Hoff et al., 1997; Parsons et al., 1998). Also, it is known that poor adherence is a strong contributing factor to the development of resistant virus (Deeks, Beatty, Cohen, Grant, & Volberding, 1998). Further, there is preliminary evidence that a relationship exists between lower levels of medication adherence and higher levels of sexual risk behavior among HIV serodiscordant couples (Remien & Wagner, 2000).

Thus, in the context of HAART, with the potential for the development of resistant virus, there is grave concern about sexual risk behavior between HIV+ people on HAART and their HIV negative partners. Improving medical adherence (and clinical outcome), reducing the risk for the development of drug-resistant virus, and understanding and addressing changing attitudes about transmission risk (among both HIV+ and HIV- individuals) in the era of HAART are all issues that providers need to address with their patients (and their patients' partners). Serodiscordant couples are an ideal and important population with which to intervene and study these issues.

References

- Berkman, L. F. (1985). The relationship of social networks and social support to morbidity and mortality. In S. Cohen & S. L. Symy (Eds.), *Social support and health*. Orlando, FL: Academic Press, Inc.
- Cochran, S. D., & Mays, V. M. (1993). Applying social psychological models to predicting HIV-related sexual risk behaviors among African Americans. *Journal of Black Psychology, 19*, 142-154.
- Cutter, C. G., & Cutter, H. S. (1987). Adult children of alcoholics. *Journal of Studies on Alcohol, 48*, 29-32.
- Danielson, R., Barbey, A., Cassidy, D., Rosenzweig, J., & Chowdhury, D. (in press). Couple-friendly services: Client and provider views in a metropolitan health department. *Family Planning Perspectives*.
- Deeks, S., Beatty, G., Cohen, P. T., Grant, R., & Volberding, P. (1998). *Viral load and CD4 T-cell changes in patients failing potent protease inhibitor therapy*. Abstract 419 in the 5th Conference on Retroviruses and Opportunistic Infections, February 1-5, Chicago.
- DiMatteo, M. R. & Hays, R. (1981). Social support and serious illness. In B. A. Gottlieb (Ed.), *Social networks and social support in community mental health*. Beverly Hills, CA: Sage.
- Dolcini, M. M., Catania, J. A., Coates, T. J., Stall, R., Hudes, E. S., Gagnon, J. H., & Pollack, L. M. (1993). Demographic characteristics of heterosexuals with multiple partners: The National AIDS Behavioral Surveys. *Family Planning Perspectives, 25*, 208-214.

Continued on page 21

Ehrhardt, A. A., Exner, T. M., Hoffman, S., Silberman, I., Leu, C. S., Miller, S., & Levin, B. (2002). A gender-specific HIV/STD risk reduction intervention for women in a health care setting: Short- and long-term results of a randomized clinical trial. *AIDS Care, 14*, 147-161.

Ehrhardt, A. A., Exner, T. M., Hoffman, S., Silberman, I., Leu, C. S., Miller, S., & Levin, B. (2002). A gender-specific HIV/STD risk reduction intervention for women in a health care setting: Short- and long-term results of a randomized clinical trial. *AIDS Care, 14*, 147-161.

Exner, T. M., Ehrhardt, A. A., & Seal, D. (1997). A review of HIV interventions for at-risk women. *AIDS and Behavior, 1*, 93-124.

Exner, T. M., Gardos, P. S., Seal, D. W., & Ehrhardt, A. A. (1999). Heterosexual men in the AIDS epidemic: The forgotten group. *AIDS and Behavior, 3*, 347-358.

Gómez, C. A., & Van Oss Marín, B. (1996). Gender, culture and power: Barrier to HIV-prevention strategies for women. *The Journal of Sex Research, 33*, 355-362.

Harvey, M. A. (1985). Toward a dialogue between the paradigms of family therapy and deafness. *American Annals of the Deaf, 130*, 305-314.

Hoff, C. C., Stall, R., Paul, J., Acree, M., Daigle, D., Phillips, K., Kegeles, S., Jinich, S., Ekstrand, M., and Coates, J. (1997). Differences in sexual behavior among HIV discordant and concordant gay men in primary relationships. *Journal of Acquired Immune Deficiency Syndromes and Human Retrovirology, 14*, 72-78.

Jacob, M., Frank, E., Kupfer, D. J., Cornes, C., & Carpenter, L. L. (1987). A psychoeducational workshop for depressed patients, family, and friends: Description and evaluation. *Hospital & Community Psychiatry, 38*, 968-972.

Kaplan, R. M., & Toshima, M. T. (1990). The function effects of social relationships on chronic illnesses and disability. In I. G. Sarason, B. R. Sarason, & G. R. Pierce (Eds.), *Social support: An interactional view*. NY: Wiley.

Levy, R. L. (1983). Social support and compliance: A selective review and critique of treatment integrity and outcome measurement. *Social Science and Medicine, 17*, 1329-1338.

Maiman, L. A., Becker, M. H., Katlic, A. W. (1986). Correlates of mothers' use of medications for their children. *Social Science Medicine, 22*, 41-51.

McLean, M., Boulton, M., Brookes, M., Lakhani, D., Fitzpatrick, R., Dawson, J., McKechnie, R., Hart, G. (1994). Regular partners and risky behavior: Why do gay men have unprotected intercourse? *AIDS Care, 6*, 331-341.

Meichenbaum, D., & Turk, D. C. (1987). *Facilitating treatment adherence: A practitioner's guidebook*. New York: Plenum Press.

Mitrowski, C. A. (1985). Social work intervention with geriatric cancer patients and their children. *Social Casework, 66*, 242-245.

Parker, T., Hill, J. W., & Miller, G. (1987). Multiple family therapy: Evaluating a group experience for mentally retarded adolescents and their families. *Family Therapy, 14*, 43-51.

Parsons, J. T., Huszti, H. C., Crudder, S. O., Gage, B., Jarvis, D., Mendoza, J., Parish, K. L., and the HBIEP Adult Study Group. (1998). Determinants of HIV risk reduction behaviors among female partners of men with hemophilia and HIV infection. *AIDS and Behavior, 2*, 1-12.

Pleck, J., Sonenstein, F., & Ku, L. (1993). Masculinity ideology: Its impact on adolescent males' heterosexual relationships. *Journal of Social Issues, 49*, 11-19.

Ptacek, J. T., Pierce, G. R., Dodge, K. L., & Ptacek, J. J. (1997). Social support in spouses of cancer patients: What do they get and to what end? *Personal Relationships, 4*, 431-449.

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Of the 920 young Black "men who have sex with men" in the six-city study, 16% tested positive for HIV. Of those, a staggering 93 percent did not know they were infected, according to a study released August 23 in the CDC's *Morbidity & Mortality Weekly Report*.

The numbers are "outrageously high," said CDC epidemiologist Duncan MacKellar, author of the report. The numbers released last week expand upon preliminary results of the CDC's Young Men's Survey that were released last month at the International Conference on HIV/AIDS in Barcelona.

Conducted from 1994–2000 in seven cities—Baltimore, Dallas, Los Angeles, Miami, New York City, San Francisco, and Seattle—the Young Men's Survey interviewed young men at gay-identified venues such as bars, organizations, shopping areas, and dance clubs. From 1994 to 1998, interviews focused on young men ages 15–22, expanding to men 22–29 from 1998 to 2000. Using results from the full age range of 15–29, the findings released in Barcelona showed major racial discrepancies in awareness of HIV infection, although not in actual risk behaviors.

Out of all study participants, 77 percent of those with HIV did not know they were infected: 60 percent of Whites, 70 percent of Hispanics, and 91 percent of Blacks.

Remien, R. H. (1998). HIV medical advances and couples. *FOCUS: A Guide to AIDS Research and Counseling*, 13, 1-4.

Remien, R. H., Carballo-DiEguez, A., Wagner, G. (1995). Intimacy and sexual risk behavior in serodiscordant male couples. *AIDS Care*, 7, 429-38.

Remien, R. H., & Christopher, R. (1996). A family psychoeducational model for long-term rehabilitation: Prevention and treatment. *Physical and Occupational Therapy in Geriatrics*, 14, 2.

Remien, R. H., and Wagner, G. (2000). *Poorer adherence to HAART and risky sex behavior within HIV serodiscordant couples*. XIII World AIDS Conference, TuOrD335, Durban, South Africa.

Shelton, D., Marconi, K., Pounds, M. B., Scopetta, M. (1993). Medical adherence among prenatal, HIV seropositive African American women: Family issues. *Family Systems Medicine*, 11, 343-56.

Somer, E., & Tucker, C. M. (1988). Patient life engagement, spouse marital adjustment, and dietary compliance of hemodialysis patients. *Journal of Compliance in Health Care*, 3, 57-65.

Tanner, W. M., & Pollack, R. H. (1988). The effect of condom use and erotic instructions on attitudes toward condoms. *The Journal of Sex Research*, 25, 537-541.

Terefe, A., & Larson, C. (1993). Modern contraception use in Ethiopia: Does involving husbands make a difference? *American Journal of Public Health*, 83, 1567-1591.

Wilchesky, M., & Reynolds, T. (1986). The socially deficient LD child in context: A systems approach to assessment and treatment. *Journal of Learning Disabilities*, 19, 411-415.

Wingood, G. M., & DiClemente, R. J. (1997). The effects of an abusive primary partner on the condom use and sexual negotiation practices of African-American women. *American Journal of Public Health*, 87, 1016-1018.

funding would strengthen and implement educational strategies to prevent HIV and integrate teen pregnancy and STD prevention initiatives in at least 25 of the nation's largest school districts. Currently, such programs are being funded in 19 of the largest school districts most affected by HIV to implement HIV prevention strategies alone.

For the National Center for Chronic Disease Prevention and Health Promotion, PPO recommended \$5 million to establish a demonstration program for community health workers. This program is based on legislation spearheaded by the APA Congressional William A. Bailey Fellow, Tamara Jackson, PhD, who recently worked in Senator Jeff Bingaman's (D-NM) office. Chronic diseases, defined as any conditions that require long-term medical attention or medication, are the leading cause of death and disability for women in the United States across racial and ethnic groups. Poor diet, physical inactivity, tobacco use, and alcohol and drug abuse are the health risk behaviors that most often lead to disease, premature death, and disability. These are particularly prevalent among many groups of ethnic minority women. The community health workers would promote positive health behaviors for women, particularly women in ethnic minority communities. Funds would be used to train and supervise community health workers to: (a) conduct outreach in community settings; (b) educate women about effective strategies to promote positive health behaviors within the family; (c) provide experiential learning opportunities that target behavioral risk factors, such as poor nutrition, physical inactivity, tobacco use, alcohol and substance use, injury and violence, and risky sexual behavior; and (d) increase access to quality health care services, including preventive health care services, by referring target populations to appropriate health and mental health care agencies and community-based programs and organizations.

For the National Center for HIV, STD, and TB Prevention, PPO recommended full funding for the Congressional Black Caucus/Minority AIDS Initiative to address the needs of underserved racial and ethnic minority communities. According to the CDC, between 4 million and 5 million people in the United States are at continued behavioral risk for HIV infection. This is a low estimate due to underreporting by participants and the lack of inclusion of schools, prisons, and the military. Communities must be better equipped with local data to identify and direct resources to those most at risk. They must have an array of effective interventions available and the capacity to implement and evaluate them at the local level. They must also be able not only to address barriers and deter risky behaviors but also to encourage health-promoting behavior through a variety of individual and group interventions, community-level supports, and structural level changes. Because those at risk for, or living with, HIV infection are often also at risk for other health problems, HIV prevention must be integrated with other services, such as STD and TB screening and treatment, reproductive health services, mental health services, and drug use prevention and treatment. In addition, more than 60% of people living with AIDS are racial and ethnic minorities, despite the fact that African Americans and Latinos are only 12 percent and 13 percent, respectively, of the U.S. population. Minority youth, adolescents, young adults, women, and gay men remain at disproportionate risk for HIV infection and in critical need of targeted culturally competent and linguistically appropriate HIV prevention interventions and services. Therefore, PPO recommended support for the CDC's HIV Strategic Plan high priority, especially with regard to behavioral research, development, implementation, and evaluation of prevention and intervention programs for at-risk subpopulations, such as racial and ethnic minorities, adolescents, women, sex workers, substance abusers, and incarcerated individuals. PPO urged support for funds to support HIV behavioral surveillance studies on American Indian, Asian Americans, Native Hawaiians, Pacific Islanders, and Haitian Americans.

In addition, PPO recommended the following increases for the STD program:

- **7.5 Million for Adolescent-Focused STD Prevention.** Adolescents, especially adolescents of color, are at high risk for STDs—more than 50% of teenagers aged 15-19 have had sexual intercourse, and about a quarter of all new cases of STDs occur in adolescents. By age 24, at least one in three sexually active people will have

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contracted an STD. This funding level would allow states and localities to initiate integrated, multilevel intervention trials for STD approaches among adolescents, parents, medical providers, schools, media, and other domains, such as faith communities, to increase access and utilization of health services and facilitate healthier sexual behaviors; increase STD screening of adolescents, especially adolescents of color, and strengthen surveillance activities, especially behavioral approaches; augment STD components of school health education and expand testing for other STDs in school-based clinics; establish health communications; and develop and evaluate STD educational messages targeting adolescents, with a particular focus on adolescents of color.

- **\$5.5 Million for STD Treatment To Enhance HIV Prevention.** A person with a preexisting STD has a three- to five-fold greater risk of acquiring HIV/AIDS. A recent study has shown that testing and treating STDs resulted in a 43% reduction in HIV rates. This funding level will establish five demonstration projects to provide on-site STD screening, treatment, and related services in settings serving HIV-infected and at-risk individuals, particularly in areas in which STD increases are occurring among MSM and ethnic minorities.

- **\$3 Million To Expand and Improve Surveillance, Training, and Partner Referral Services in State and Local Managed Care Settings.** Testing, counseling, and referrals are the cornerstones of all STD programs. This funding level would aid in the establishment and expansion of training and partner services capacity as it relates to the expansion of STD-related services provided in managed care settings.

If you would like to contribute to the PPO advocacy efforts for HIV/AIDS prevention, treatment, and research, please contact our office at (202) 336-6062 and ask for Pat Kobor, Denis Nissim-Sabat, or Lori Valencia Greene.

"suffocate mutated forms of HIV before they have a chance to flourish (Shernoff & Smith, 2001)."

...hit hard,
...hit early...
...or wait and see?

With the advent of HAART being prescribed to treat HIV infected individuals, the number of deaths from HIV seroconversion decreased for the first time since the outbreak of the virus. Because of these promising clinical results, medical researchers and practitioners began to theorize that by prescribing HAART, they could possibly completely suppress the virus. The theory was based around the belief that if HIV could be completely inhibited, it would not be able to reproduce or mutate and would not become resistant to antiretroviral medications. This led to the late 1990s approach to HIV-related antiretroviral usage of "hit hard, hit early," whereby medical practitioners hoped that by placing their patients on a HAART regimen during the early stages of contraction of the virus, they could control the virus (Bartlett & Finkbeiner, 2001).

Unfortunately, it appears that although HAART may be able to suppress the virus, it is not able to eradicate the virus in most documented cases. For even with the aid of a HAART regimen, the body's immune system is unable to prevent mutations of the virus, and the virus, therefore, persists in the body. Secondly, though HAART regimens increase the number of possible drug combinations, many of the drugs cannot be used together, and resistance to any one drug can confer resistance to other drugs. Furthermore, while switching regimens is possible, the number of times a change is possible is limited. In fact, the first regimen that one is placed on is the one that is most likely to succeed. Subsequent treatments are much less likely to be as effective (Bartlett & Finkbeiner, 2001).

For these reasons, the latest *Guidelines for the Use of Antiretroviral Agents in HIV Infected Adults and Adolescents* (1999) recommends a "wait and see" approach to prescribing HAART regimens. It should be noted that this approach is only

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rapport and specifically asks female patients about sexual abuse in their past, their history of sexual trauma may never be identified. Often, a woman who has experienced sexual abuse will engage in self-destructive behavior that both contributed to the HIV risk and that causes her to sabotage her antiretroviral therapy treatment.

*Wyatt, G. E., Myers H. F., Williams, J. K., et al. (2002). Does a history of trauma contribute to HIV risk for women of color? Implications for prevention and policy. *American Journal of Public Health*, 92(4), 660-665.

