mental health AIDS

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Biopsychosocial Update

HIV Prevention News

About Women

Jemmott, Jemmott, and O'Leary (2007) conducted a randomized controlled trial to test "the efficacy of **brief HIV**/sexually transmitted disease (**STD**) **risk-reduction interventions for African American women in primary care settings**" (p. 1034). "Designed to be educational but entertaining, culture sensitive, and gender appropriate, each intervention incorporated the 'Sister to Sister! Respect Yourself! Protect Yourself! Because You Are Worth It!' theme that encouraged the participants to respect and protect themselves, not only for their own sake, but also for their family and community" (p. 1035).

In this trial, 564 African American women who were recruited from a women's health clinic in Newark, New Jersey, were assigned to one of five conditions: a 20-minute one-on-one HIV/STD behavioral skill-building intervention,[1] a 20-minute one-on-one HIV/STD information intervention,[2] a 200-minute group HIV/STD behavioral skill-building intervention,[3] a 200-minute group HIV/STD information intervention,[4] or a 200-minute health intervention control group.[5] "At 12-month follow-up, participants in [both] the [individual and group] skill-building interventions reported less unprotected sexual intercourse [during the previous 3-month period] than did participants in the information interventions ..., reported a greater proportion of protected sexual intercourse than did information intervention participants ... and control participants ..., and were less likely to test positive for an STD than were control participants ..." (p. 1034). According to Jemmott and colleagues, these results

> support several tentative conclusions. They suggest that <u>brief, culture-sensitive, cognitive-behavioral, skill-building interventions can reduce the HIV/STD risk behavior of African American women and</u> that <u>intervention-induced changes in such behavior can be sustained at relatively long-term follow-up</u>, 12 months after implementation. The finding that the

[1] "The one-on-one intervention involved a 20-minute session that the facilitator tailored to the specific needs of each participant after conducting an HIV/STD risk assessment interview. The one-on-one HIV/STD skill-building intervention was designed to increase skills regarding condom use. It involved a review of the 'Sister to Sister' HIV/STD prevention behavioral skill brochure, video clips, condom demonstration, practice with an anatomical model, and role playing to increase self-efficacy and skills related to correct use of condoms and negotiation of condom use with a sexual partner" (p. 1035).

[2] "The one-on-one HIV/STD information intervention was designed to increase knowledge about HIV/STD transmission and prevention and personal vulnerability to HIV/STDs. It involved a review of the 'Sister to Sister' HIV/STD prevention information brochure and a discussion of basic HIV/STD risk-reduction information. It did not provide behavioral skill demonstrations or practice" (p. 1035).

[3] "The group interventions consisted of a 200-minute session with 3 to 5 participants. The group HIV/STD behavioral skill-building intervention was designed to increase skills regarding condom use and to allay participants' concerns about the adverse effects of condom use on sexual enjoyment. Group discussion, brainstorming, videos, interactive exercises, games, condom demonstrations, practice with anatomical models, and role playing were used to increase self-efficacy and skills related to correct use of condoms and negotiation of condom use with a sexual partner" (p. 1035).

[4] "The group HIV/STD information intervention was designed to increase the perception of vulnerability to HIV/STDs and increase knowledge about HIV/STD transmission and prevention. Similar to the group skill-building intervention, this intervention involved group discussions, brainstorming, videos, interactive exercises, and games. However, it did not provide behavioral skill demonstrations or practice or address participants' beliefs about the adverse effects of condom use on sexual enjoyment" (p. 1035).

[5] "To reduce the likelihood that effects of the HIV/STD interventions could be attributed to nonspecific features, ... the control group received a general health promotion intervention. It focused not on HIV/STD risk behavior but on behaviors (diet, physical exercise, alcohol and tobacco use) associated with risk of heart disease, stroke, and cancer" (p. 1035).

In This Issue:

effects of the skill-building interventions in modestly reducing the rate of STDs paralleled the interventions' effects on self-reported behavior increases confidence in the results. This study, with its excellent retention rates, lends credence to the notion that, to achieve desired outcomes, HIV/STD behavioral interventions may not have to be long in duration and implemented over multiple sessions – characteristics that diminish their practicality in primary health care settings. The single-session interventions in this study are feasible in primary health care settings. Nurses and other primary care providers can implement them. (pp. 1039-1040)

What about interventions conducted in correctional settings? In an exploratory study, Staton-Tindall et al. (2007) conducted four focus groups with a nonrandom sample of 36 **incarcerated, substance-using women**.

> Focus group findings suggested that a woman's HIV risk behavior is influenced by relationships in which drug and alcohol use ... [is] common, sex is used as a strategy to manipulate a partner, trust is often derived from the perceived commitment [of the partner] or by certain partner characteristics, HIV and other STIs [sexually transmitted infections] are not viewed as potential consequences of risky behavior, and feelings of low self-esteem or self-worth become normalized in relationships. Because these experiences within past relationships are likely to shape the way that a woman engages in risky behavior in future relationships, HIV interventions for incarcerated women should focus not only on HIV risk behavior education and prevention but also on the dynamics of relationships (both present and future) that may increase a woman's vulnerability for HIV and other STIs. (pp. 161-162)

More specifically, findings suggest that

> HIV interventions for women should be developed to target the context of relationships and relationship thinking patterns to maintain safe[r] sexual behaviors. These findings also suggest that there are inconsistencies between the ways a woman describes her behaviors in the context of relationships and her view of what is considered risky sex. In other words, a relationship can provide a sense of security and protection that trumps perceived risks associated with unprotected sex. Consequently, a woman may learn thinking patterns – or "risky relationship thinking myths" – that increase her risk for HIV or other STIs. (pp. 159-160)

In Connecticut, Ravi, Blankenship, and Altice (2007) surveyed a diverse sample of 1,588 **incarcerated women** with HIV-negative test results to examine the association between a **history of interpersonal violence** (i.e., physical violence and/or rape) **and unprotected intercourse** with male primary sex partners and nonprimary sex partners of either gender. The investigators found that "[e]xperiencing any violence was significantly associated with increased odds of unprotected sex with one's primary partner, even after controlling for race, history of sex work, drug use, employment status, and having other nonprimary partners. Of particular importance was having a history of physical violence. History of violence was not significantly associated with unprotected sex with nonprimary partners" (p. 210). These findings

> highlight the importance of initiating and incorporating programs that comprehensively address violence against women and recognize its association with HIV risk among incarcerated female populations. Given the high prevalence of past history of violence among the women in ... [this] sample (65.0%), nearly half of whom had experienced physical abuse only, it is critical for prisons to offer women programs in violence prevention and, especially for those who have experienced violence, in coping with its physical and mental effects. Such programs can ... not only decrease women's future exposure to violence, but can also enable them to have greater control of their health and lifestyle decisions, thereby decreasing the behaviors that put them at risk for HIV as well. ... The study findings also have implications for program coordinators insofar as ... [such findings] suggest both a means of identifying women who are at greater risk for HIV infection

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based on their disclosure of history of physical violence and a need to customize their assistance efforts accordingly. It is also imperative that prison-based HIV prevention interventions incorporate violence-associated issues in their programs. Education and practical suggestions regarding HIV risk and condom use negotiation, especially for survivors of violence, both increase personal safety and reduce the societal burden that HIV/AIDS carries with it for this high-risk population. (p. 215)

About Men Who Have Sex With Men

Mustanski (2007) compared retrospective and daily diary data drawn from a convenience sample of 113 men who have sex with men (MSM) who were recruited through a variety of Internet sites, to explore the association between **Internet sex-seeking and sexual risk-taking**. Surprisingly, "[t]he retrospective and daily diary data produced opposite results. In the retrospective data, a history of online sex-seeking was associated with greater numbers of sexual partners in the last year, one-time sex partners, sex without condoms and failure to discuss partners' sexual histories. In the daily diary data, unprotected anal intercourse (UAI) was less likely to occur with partners met online than with partners met by other means" (p. 822).

> These results indicate that, in this sample, safer sex behaviours have a higher probability on occasions when sex partners are met through the Internet relative to other means. In contrast, individuals who seek partners online more frequently are more likely to have higher HIV/STI risk profiles, a finding that has fairly consistently emerged from previous research using retrospective data. This pattern of findings suggests that Internet sex-seeking may help identify risk-prone *individuals* but not risk-prone *occasions* and therefore that intervention to reduce the prevalence of HIV and STIs among MSM should not focus on reducing the use of the Internet to seek sexual partners. On the contrary, if the processes by which using the Internet to find a sex partner lead to lower rates of UAI – possibly by facilitating conversations about safer sex in advance of sex occurring – can be identified, they may serve as new prevention tools as increasing numbers of MSM use the Internet to seek sex partners. (pp. 826-827)

Dutch investigators (van Kesteren, Hospers, van Empelen, van Breukelen, & Kok, 2007) examined the **determinants of intended condom use** with both steady and casual sex partners among 296 MSM living with HIV.

> Given the proposition that safer sex behavior among HIV-positive people is a form of prosocial behavior, the present study extended the general framework of the Theory of Planned Behavior[6] with Schwartz's norm-activation theory[7] and tested the assumption that personal norms would mediate the effects of other psychosocial factors on intended condom use for anal sex. In addition, it was hypothesized that, depending on the context in which sex occurs, specific motives for unprotected anal sex may have a negative influence on intended condom use and, as such, undermine a prosocial tendency to practice safer sex. Therefore, ... [van Kesteren and colleagues] also investigated the influence of sexual motives for unprotected anal sex on intended condom use with steady and casual sex partners. Results indicated that the Theory of Planned Behavior adequately predicted condom use intentions (for casual sex partners and steady sex partners, the explained variance was 52% and 53%, respectively). However, ... [van Kesteren and colleagues'] proposed model of sexual decision-making significantly improved the prediction of behavioral intentions.[8] For steady and casual sex partners, the assumption of the mediating role of personal norms on condom use intention was confirmed empirically. Additionally, sexual motives for unprotected anal sex exerted, as expected, a direct, negative effect on condom use intention with casual sex partners. ... (p. 437)

Drawing on these findings, the investigators offer recommendations regarding the promotion of safer sex behavior among MSM living with HIV:

> When addressing condom use behavior with steady and casual sex partners, it seems particularly crucial to enhance feelings of moral obligation to use

[6] The Theory of Planned Behavior (TPB) "posits that the most proximal determinant of whether or not a person performs a behavior is his intention to do so. According to the theory, behavioral intention is determined by attitude, subjective norm, and perceived behavioral control. Attitude is the person's overall evaluation of the advantages and disadvantages of a particular behavior whereas subjective norms are determined by the perceived social pressure to perform the behavior. Perceived behavioral control is the person's conviction about whether or not the required skills and resources to perform the behavior are at his disposal ..." (p. 438).

[7] "According to norm-activation theory, personal norms are the immediate determinant of behavior. Personal norms are considered as strong intrinsic motivators, as they trigger an individual's internal value system and are tied to one's self-concept. In the case of sexual behavior, these aspects reflect the feeling of moral obligation to practice safer sex because of concern about the welfare of sex partners" (p. 439).

[8] "The results showed that, compared with the TPB[,] ... [this] proposed model of sexual decision-making led to a significant increase of explained variance from 53% to 62% for steady sex partners and from 52% to 68% for casual sex partners" (p. 447).

condoms for anal sex. Feelings of moral obligation could be addressed by inducing HIV-positive MSM to reflect on their own personal risk and personal standards for safer sex ... . The findings of this study further suggest that desirable changes in subjective norms and self-efficacy expectations might lead to corresponding changes in personal norms and intentions ... . Therefore, preventive interventions should focus on helping HIV-positive MSM to cope with an unsupportive social environment and to encourage them to build the skills and confidence required for communicating and negotiating condom use. For promotion of condom use with casual sex partners, personal norms may be further increased by urging HIV-positive MSM to accept responsibility for safer sexual behavior. Moreover, especially within casual sex encounters, it is imperative to help HIV-positive MSM to deal with feelings that may conflict with the goal of safer sex. Possible methods that can help HIV-positive MSM to identify and control high risk situations are, for example, action planning and coping planning ... . Action plans and coping plans are detailed plans of what a person needs to do when a specific situation occurs. When such [a] situation arise[s], it is likely to function as a cue for the execution of those precise plans of implementation. Additionally, stimulating HIV-positive MSM to imagine how they would feel if they were in their sex partner[']s shoes (i.e., perspective taking) may evoke a mixture of egoistic and altruistic motivation and, as such, lead to more protected sex ... . (p. 448)

About Adolescents & Young Adults

Sales et al. (2007) explored the relationship between the shame and stigma associated with STDs and condom-protected intercourse among 192 African American female adolescents and young adults (ages 15 to 21 years) receiving services from teen-oriented sexual health clinics. According to the investigators, "[t]his prospective study found **STD-related shame** as predictive of condom-protected intercourse at 6-month follow-up assessment ... . Specifically, participants with higher STD-related shame, assessed at baseline, were more likely to use condoms during intercourse 6 months later" (p. 573.e6). In contemplating this finding, Sales and colleagues make the following observation:

> Prior work with adolescents indicate[d] ... that STD-related *stigma* is a barrier to STD-related care ...[, since] adolescents with higher [perceptions of] stigma were more likely to delay seeking STD services. However, the present findings indicate that STD-related *shame*, rather than stigma, is an important factor in female adolescents' use of STD protective behaviors (i.e., condom-protected intercourse). The current findings suggest that some females may be engaging in a self-evaluative process in which they use the unpleasant feelings associated with "shame" as a lever to initiate health-promoting behavior changes designed to reduce the likelihood of subsequent STD infection (i.e., condom use). Thus, although shame is an unpleasant feeling, it can be a positive force motivating behavior change when used in a constructive manner; for example, by encouraging young women to use condoms as a way to avoid or decrease the unpleasant feeling of "shame" associated with contracting an STD. (p. 573.e5)

Sales and colleagues suggest that "incorporating a 'self-evaluative' component into interventions that explicitly link the unpleasant feelings associated with STD-related shame to STD-preventive practices (i.e., condom use) as a possible means to decrease the likelihood of contracting an STD and thereby experiencing the resultant feelings of shame, may be a beneficial intervention technique" (p. 573.e5).

DiIorio, McCarty, Resnicow, Lehr, and Denzmore (2007) conducted a randomized trial of an HIV prevention intervention for adolescent boys entitled **REAL** (Responsible, Empowered, Aware, Living) **Men**, designed "to promote delay of sexual intercourse, condom use among those who were sexually active, and communication on sexuality between fathers (or father figures) and sons" (p. 1084). A total of 277 fathers (or father figures) and their sons, ages 11 to 14 years, were randomized *by site of intervention* to the seven-session REAL Men program[9] or to a control condition focusing on nutrition and exercise. Assessments were conducted with these predominantly African American dyads at baseline and again at 3, 6, and 9 months. DiIorio and colleagues found "[s]ignificantly higher rates of sexual abstinence and condom use and of

[9] "In the REAL Men program, fathers were presented with information on communication with adolescents, general topics such as parental monitoring and relationships with peers, general sexual topics important in adolescence, and specific information about transmission and prevention of HIV and AIDS. ... The intervention, which consisted of seven 2-hour sessions for the fathers, was delivered once each week in a group format. Fathers attended the first 6 sessions alone, and fathers and sons attended the final session together. All sessions except the first began with a review of the previous session, a discussion of the take-home activities, and a review of personal goals set by study participants. Session content was delivered through a combination of lectures, discussion, role-plays, games and videotapes. Participants were given a participant manual to assist with weekly take-home activities and adherence to personal goals set each week. The last session included a celebration of the end of the intervention in which fathers and sons received certificates of completion" (p. 1085).

intent to delay initiation of sexual intercourse ... among adolescent boys whose fathers participated in the intervention. Fathers in the intervention group reported significantly more discussions about sexuality and greater intentions to discuss sexuality than did control-group fathers" (p. 1084). On the basis of these findings, the investigators conclude that "fathers can serve as ... important educator[s] on HIV prevention and sexuality for their sons" (p. 1084).

About Persons Who Use Substances

Bryan, Ray, and Cooper (2007) conducted both global- and event-level analyses to better understand the **relationship between alcohol use and the use of condoms** among 300 adolescents involved in the criminal justice system. Within this convenience sample, 267 participants (89%) participated in both the baseline assessment and the 6-month follow-up assessment. The investigators found that,

> [a]t the global level of analysis, there was a significant moderating effect of alcohol-related sexual-enhancement expectancies,[10] such that the relationship between alcohol and condom use was negative and significant only among individuals with higher sexual-enhancement expectancies. At the time-limited global level [i.e., covering the 6-month time interval between baseline and follow-up measures], impulsive sensation seeking at baseline was negatively associated with condom use at 6-month follow-up. At the event level, there was a Gender x Alcohol interaction such that alcohol use was unrelated to condom use among males but was strongly and negatively related among females. (p. 327)

Bryan and colleagues conclude from these data that,

> at least for this group of high-risk adolescents, a focus on decreasing overall alcohol use would not be an effective strategy for reducing risky sexual behavior. ... [These] data suggest that a more effective strategy would be to target the situation-specific event-level influence of alcohol on condom use. For example, instead of gearing intervention content toward reduction of alcohol use generally, ... [a clinician] could ... focus on helping young people be aware of and prepared for situations in which they drink and might have the opportunity for sexual activity. Specific skills include having a friend "keep an eye on them," always having condoms with them in party situations, and moderating alcohol consumption when sexual activity is likely. (p. 334)

Mizuno et al. (2007) identified correlates of **negative condom beliefs** that varied by gender among a convenience sample of 348 injecting drug users (IDUs) living with HIV who had a main partner of the opposite gender. In multivariate analyses, the investigators "found more significant correlates for women than for men. With men, perception that their sex partner is not supportive of condom use (negative partner norm) was the only significant correlate ... . Among women, negative partner norm ...; having less knowledge about HIV, STD, and hepatitis ...; lower self-efficacy for using a condom ...; and more episodes of partner violence ... were significantly associated with negative condom beliefs ..." (p. 523).

With regard to intervention possibilities, Mizuno and colleagues point to the significance of a negative partner norm regarding condom use, which suggests that men's negative condom beliefs might be addressed by working with the man *and* his partner. The challenge, then,

> is to come up with a strategy so that men would perceive strong normative pressure to use a condom from their partners. One potential strategy would be couples-based interventions where men and women each practice to develop norms supporting condom use. Another strategy would be to provide women with skills to clearly communicate their positive beliefs about condoms and also to apply appropriate pressure on their partners to use condoms. Partner violence may need to be factored into the discussion, particularly for women, as that might affect how they could comfortably apply such pressure. (p. 532)

Continuing this focus on research with drug users, Mitchell, Severtson, and Latimer (2007) analyzed data drawn from a sample of 229 IDUs in Baltimore and

> found a complex **relationship between knowledge of someone who died from AIDS and risky injection drug use behavior**. Cognitive performance moderated the effect of knowing someone who had died from AIDS on engaging in risky injection drug use behaviors, such that individuals who had lower cognitive scores and knew someone who had died from AIDS were more likely to be in the high-risk group for injection behavior. ... In addition, ... [Mitchell and colleagues] found that individuals with higher cognitive performance who also knew someone who had died from AIDS were less likely to engage in risky injection practices. Although these IDUs were part of a riskier social network,

[10] "Expectancy theory ... [posits that individuals'] beliefs about the effects of alcohol will influence both the situations under which they consume alcohol and their behavioral and social reactions to alcohol consumption" (p. 328).

their greater cognitive skills served a protective function. IDUs with greater cognitive reserve may have been more likely to recognize their risk, generate solutions to reduce their risk, weigh the consequences of each alternative, and successfully implement the least risky option. (p. 294)

The investigators suggest that

> [t]hese results can be used to target groups of IDUs who are at greater risk for drug-related HIV infection, especially those individuals with less cognitive ability within higher risk social groups. Simple health messages may be insufficient to change behavior among these individuals, who may need more intensive interventions that help them recognize and process the health threat as well as assess and implement effective coping strategies. These findings also suggest that an assessment of IDUs' cognitive abilities should be conducted prior to interventions. (p. 294)

HIV Assessment News

HIV Counseling & Testing

"To examine the long-term efficacy of both **fear-inducing arguments** and HIV counseling and testing at encouraging and maintaining knowledge about HIV transmission and prevention, as well as condom use" (p. 496), Earl and Albarracín (2007) conducted a meta-analysis of research reports available by January 2005. "Of the 735 research reports considered for inclusion in this meta-analysis, 76 met ... inclusion criteria, providing 184 statistically independent groups or units" (p. 499).

> Analyses were conducted with a sample of 150 treatment groups and 34 controls and included measures of change at an immediate follow-up and a delayed follow-up. ... Results indicated that receiving fear-inducing arguments increased perceptions of risk at the immediate follow-up but decreased knowledge and condom use, whereas resolving fear via HIV counseling and testing decreased perceptions of risk and increased knowledge and condom use at both the immediate and delayed follow-ups. The effects on perceived risk and knowl-

Tool Box

Resources

Books & Articles

Antoni, M.J., Ironson, G., & Schneiderman, N. (2007). *Cognitive-behavioral stress management for individuals living with HIV. Facilitator guide. First edition.* New York: Oxford University Press.

From the publisher: "Written by the developer[s] of the treatment, this manual presents an empirically supported, group treatment program that teaches HIV-infected individuals how to manage their stress. This comprehensive Cognitive-Behavioral Stress Management (CBSM) program combines stress management with relaxation training. Each group meeting introduces a new relaxation method, such as progressive muscle relaxation, imagery, and meditation. Stress management skills build on one another and include cognitive restructuring, coping strategies, and establishing a strong social network. By the end of the program, participants are equipped with a variety of inter-related techniques that they can use to reduce stress and improve their quality of life. The guide is designed to be used in conjunction with the corresponding workbook, which provides exercises to be completed in session, monitoring forms, and homework assignments. Together they include all the material and information needed to effectively implement this program."

Aral, S.O., & Douglas, J.M., Jr. (Eds.). (2007). *Behavioral interventions for prevention and control of sexually transmitted diseases.* New York: Springer Science.

From the publisher: "Informed by a comprehensive knowledge of behavioral theory, intervention methods, and affected populations, the authors of this important book examine the central role of behavioral interventions in combating STDs. The book addresses the complexities and social contexts of human behaviors which spread STDs, the cultural barriers to STD education (ranging from conservative mores to 'stay out of my bedroom' libertarianism), and the sociopolitical nuances surrounding treatment. Over forty contributors offer a practical appraisal of what is being done now and what can be improved ... ."

Berg, C.J., Michelson, S.E., & Safren, S.A. (2007). Behavioral aspects of HIV care: Adherence, depression, substance use, and HIV-transmission behaviors. *Infectious Disease Clinics of North America, 21*(1), 181-200.

"[T]his article reviews clinical and research findings regarding four important psychosocial concerns relevant to HIV: (1) medication adherence, (2) depression, (3) sexual risk-taking, and (4) substance use. Each section summarizes research findings on the occurrence of these issues, their correlates, and interventions. The article concludes with an overview of selected general behavioral change models that HIV providers can use when they discuss behavioral change with HIV-infected patients" (p. 182).

Bunn, J.Y., Solomon, S.E., Miller, C., & Forehand, R. (2007). Measurement of stigma in people with HIV: A reexamination of the HIV Stigma Scale. *AIDS Education & Prevention, 19*(3), 198-208.

"The HIV Stigma Scale was designed to measure the perception of stigma by those who are HIV infected. Reanalysis of the psychometric properties of this scale was conducted ... [and t]his resulted in revision of the scale: shortening it from 40 to 32 items and retaining the original four factors but renaming one: Enacted Stigma (formerly Personalized Stigma), Disclosure Concerns, Negative Self-image, and Concern With Public Attitudes. These four subscales have been refined such that each consists of unique items" (p. 198).

Cohen, M.A., & Gorman, J.M. (Eds.).

> edge decreased over time, but the effects on condom use became more pronounced. (p. 499)

The investigators conclude quite simply that "[i]nducing fear is not an effective way to promote HIV-relevant learning or condom use either immediately following the intervention or later on. However, HIV counseling and testing can provide an outlet for HIV-related anxiety and, subsequently, gains in both knowledge and behavior change immediately and longitudinally" (p. 499).

Earl and Albarracín express comfort in knowing

(2007). *Comprehensive textbook of AIDS psychiatry.* New York: Oxford University Press.
From the publisher: "Using a biopsychosocial approach, this 41-chapter volume offers insight into the interface ... [among] the psychiatric, medical, and social dimensions of HIV and AIDS. Drawing on clinical experience as well as evidence-based medicine, this textbook provides a basic understanding of the comorbid medical and psychiatric conditions that cause distress, morbidity, and mortality in persons with HIV and AIDS, while at the same time examining the epidemic from the viewpoints of public health and public policy experts."

Douaihy, A.B., Stowell, K.R., Kohnen, S., Stoklosa, J.B., & Breitbart, W.S. (2007). Psychiatric aspects of comorbid HIV/AIDS and pain, part 1. *AIDS Reader, 17*(6), 310-314.
"This article discusses the psychiatric components and considerable impact of pain in the HIV population. Special attention is given to psychological assessment issues, psychosocial barriers to treatment, and psychotherapeutic approaches. An integrated, flexible, and interdisciplinary team approach model for treating HIV/AIDS-related pain is presented with specific recommendations" (p. 310).

Douaihy, A.B., Stowell, K.R., Kohnen, S., Stoklosa, J.B., & Breitbart, W.S. (2007). Psychiatric aspects of comorbid HIV/AIDS and pain, part 2. *AIDS Reader, 17*(7), 350-352, 357-361.
"Part 2 of this review aims to discuss mood, anxiety, and substance abuse assessments; barriers to care; and psychiatric treatments in the context of HIV/AIDS-related pain. Recommendations are made from the gathered data that highlight the need for an interdisciplinary comprehensive approach to managing pain in HIV disease. Further research is needed to examine the relationship of pain and psychiatric issues in order to formulate effective treatment strategies" (p. 350).

Johnson, M.O., Neilands, T.B., Dilworth, S.E., Morin, S.F., Remien, R.H., & Chesney, M.A. (2007). The role of self-efficacy in HIV treatment adherence: Validation of the HIV Treatment Adherence Self-Efficacy Scale (HIV-ASES). *Journal of Behavioral Medicine, 30*(5), 359-370.
"Self-efficacy for treatment adherence has been identified as an important correlate of medication adherence in the treatment of HIV and other medical conditions" (p. 359). "[T]he ASES demonstrates robust reliability and validity, lending support for its use ... in research and clinical practice to anticipate and address potential treatment adherence problems" (p. 368).

Kirshenbaum, S.B., Pinto, R.M., Correale, J., Remien, R.H., Goldstein, R.B., Catz, S.L., Johnson, M.O., Morin, S.F., Rotheram-Borus, M.J., & Ehrhardt, A.A. (2007). Opening up windows when clients keep closing doors: Key elements in engaging HIV-positive individuals in prevention interventions. *Journal of HIV/AIDS & Social Services, 6*(3), 5-28.
"[T]his paper ... provide[s] specific recommendations for service providers and health care practitioners delivering prevention services to PLH [people living with HIV] regarding approaches to overcome engagement and retention issues" (p. 9). "Qualitative methods revealed key components to tailoring prevention programs to successfully engage PLH: making interventions personally relevant, teaching skills that can be applied to participants' life contexts, providing support and consistency, and challenging resistance to sexual behavior change" (p. 6).

Lowe, W. (2007). "I finally got real parents, and now they're gonna die" – A case study of an adolescent with two HIV-positive parents. *Families, Systems, & Health, 25*(2), 227-233.
"This case study examines the various therapeutic strategies used in working with the family of an adolescent Hispanic male street gang member whose mother was HIV positive, and whose father had already developed AIDS" (p. 227).

Wood, S.A. (2007). The analysis of an innovative HIV-positive women's support group. *Social Work with Groups, 30*(3), 9-28.
"This paper illustrates and discusses an innovative support group for HIV-positive women in central Massachusetts. The purpose of this paper is to describe the context, formation, and functioning of the group, followed by a deconstruction analysis. In addition, the paper will build on this innovative method of support group work by suggesting additional women-engaging themes, activities, and tasks" (p. 9).

On the Web

Treating adolescents with HIV: Tools for building skills in cultural competence, clinical care, and support (http://www.hivcareforyouth.org) provides continuing education for physicians, nurses, psychologists, social workers, and other care providers working with HIV-infected minority youth in the form of five online training modules. "The expert authors and editors come from diverse clinical settings around the country, and present course information from the perspective of a culturally aware care provider. Throughout the course, practical tools are provided to assist with 'operationalizing' culturally sensitive best practices in the clinic setting. This training was produced by John Snow, Inc. under subcontract to WriteProcess, Inc. in collaboration with a diverse committee of adolescent HIV specialists, trainers, evaluators, and technologists, including the AETC National Resource Center and the Adolescent AIDS Program" (AETC National Resource Center Web site).

– Compiled by Abraham Feingold, Psy.D.

that an effective HIV-prevention intervention can promote increases in HIV-relevant knowledge and condom use. However, it is even more reassuring that the positive behavioral effects of an intervention can spiral over time, with behavior change strengthening beyond the immediate follow-up. This spiraling suggests that marginal effects at the time of the immediate follow-up may nonetheless be worthwhile in the longer term. Although a common observation from intervention research is that changes following a preventive intervention can decay after about 3 to 6 months, when an effective strategy is implemented, it is possible that this barrier can be overcome.

By the same token, ... [these] results highlight the possibility that the impact of ineffective intervention strategies may also get stronger (more negative) over time. ... On the basis of the results of this meta-analysis, the effects of interventions associated with decreased condom use at the first follow-up may worsen. Hence, additional strategies may be necessary to prevent future deterioration as soon as negative effects are detected.

From a practical standpoint, in ... [this] meta-analysis, the effects of fear inducements and HIV counseling and testing were strongest for populations with high HIV seropositivity. This finding is contrary to the impression that study groups from these populations change less than others ... . In fact, in the high seropositive populations, behavior change ... was weaker in response to fear-inducing arguments but stronger in response to HIV counseling and testing. Arguably, then, high-risk populations can change more than lower risk populations when one can provide closure for HIV-related anxiety. (p. 504)

Psychiatric Assessment

Radcliffe et al. (2007) looked at **posttraumatic stress and trauma history among** 30 **teens and young adults** (ages 18-24 years) **living with HIV/AIDS** who were predominantly male and African American.

> Overall, participants reported a mean of 5.63 traumatic events, with 93% of the sample reporting that receiving a diagnosis of HIV was experienced as traumatic. Of these, 13.3% met criteria for posttraumatic stress disorder in response to HIV diagnosis, while an additional 20% showed significant ... [post-traumatic] stress symptoms. Even greater rates of posttraumatic stress were reported in response to other trauma, with 47% of youth surveyed reporting symptoms of posttraumatic stress in response to such traumatic events as being a victim of a personal attack, sexual abuse, or being abandoned by a caregiver. (p. 501)

Radcliffe and colleagues urge care providers to

> be aware of the traumatic nature of receiving a diagnosis of HIV/AIDS among adolescents and young adults. This may be particularly true among those youth who have already experienced multiple traumas. The symptoms associated with posttraumatic stress, reexperiencing, hyperarousal, and avoidance, may interfere with adherence to medical care, in that youth may miss clinic visits due to these mental health symptoms. Having counseling resources available or making referral to mental health professionals is an important component of providing comprehensive care to adolescents and young adults with HIV. (p. 507)

Continuing this focus on comprehensive care, Zanjani, Saboe, and Oslin (2007) examined "**age differences in rates of mental health/substance abuse and behavioral health treatment**" (p. 347) among 109 adults receiving HIV primary care. The investigators found that

> [o]ver half of the sample displayed significant mental health and substance abuse symptoms ... [and that] approximately a third [of these] were actively participating in behavioral health care. Major depression and illicit drug use appeared to be the most prevalent syndromes. However, individuals with mania and psychosis were most likely to be participating in behavioral health treatment, while individuals with at-risk drinking and illicit drug use were least likely to be participating in treatment. Furthermore, older-aged adults were less likely to be receiving behavioral health care when there was evidence of need. (p. 347)

"The conclusions of this study verify the need to include [mental health/substance abuse] care as part of HIV care, as well as illustrating the increased attention necessary for older HIV patients in order to prevent poor late-life physical and mental health outcomes" (p. 352).

Neuropsychological Assessment

Italian investigators (Tozzi et al., 2007)

> examined the **prevalence of and risk factors for persistent** NP [**neuropsychological**] **deficits** in a complete clinic population of [94] patients with HIV-related NCI [neurocognitive impairment] treated with HAART [highly active antiretroviral therapy]. ... [The investigators] found that 62.8% of patients persistently showed abnormal results on serial NP testing. ... [T]he overall

> 65-month probability of showing persistent NP deficits despite HAART was 53.0%. ... [The investigators] found an association of persistent NP deficits with lower education and with greater impairment at baseline in different cognitive abilities such as concentration and speed of mental processing, memory, and mental flexibility. ... [T]he baseline severity of the cognitive impairment ... was the strongest predictor of persistent NP deficits despite HAART. (pp. 178-179)

According to Tozzi and colleagues, "[t]he results of this study extend previous observations indicating that current HAART regimens are inadequate to treat HIV-related NCI. Although a reversal of NP deficits was observed in more than one third of subjects, nearly two thirds of patients showed persistent NP deficits despite more than 5 years of HAART" (pp. 179-180). Importantly, the investigators "found that CD4 cell count and plasma viral load at baseline and over time, virologic response to HAART, HIV disease stage, age, CDC stage, and risk category were not associated with persistent NP deficits[, although the role of antiretroviral adherence was not assessed in this study]. Thus, clinical and laboratory markers routinely used to assess the efficacy of [antiretroviral] treatment and disease progression are of no use in predicting the evolution of neurologic disease" (pp. 180-181). Drawing on these data, Tozzi and colleagues conclude that "patients with reversible NCI were much closer to normal performance at baseline. The association between the severity of NCI before HAART initiation and the persistence of NP deficits despite HAART makes a strong argument for the initiation of HAART as soon as NCI is diagnosed. As such, diagnostic studies for early detection of NP dysfunction should be considered in routine clinical practice in untreated patients" (p. 181).

HIV Treatment News

Medical Care

On August 6, the U.S. Food and Drug Administration (FDA) approved **maraviroc** (MVC or Selzentry™), the first in a new class of antiretroviral drugs known as CCR5 co-receptor antagonists. Maraviroc is approved for use in combination with other antiretroviral drugs

> for the treatment of adults with CCR5-tropic HIV-1, who have been treated with other HIV medications and who have evidence of elevated levels of HIV in their blood (viral load). Rather than fighting HIV inside white blood cells, maraviroc prevents the virus from entering uninfected cells by blocking the predominant route of entry, the CCR5 co-receptor. CCR5 is a protein on the surface of some types of immune cells. Among patients who have previously received HIV medications, approximately 50 percent to 60 percent have circulating CCR5-tropic HIV-1. ...
>
> The product label includes a boxed warning about liver toxicity (hepatoxicity) and a statement in the Warnings/Precautions section about the possibility of heart attacks. ... The most common adverse events reported with maraviroc were cough, fever, upper respiratory tract infections, rash, musculoskeletal symptoms, abdominal pain, and dizziness. (FDA, 2007)

Psychiatric/Psychological/ Psychosocial/Spiritual Care

Adherence to Treatment

In a prospective, longitudinal study, British investigators (Horne, Cooper, Gellaitry, Date, & Fisher, 2007) tested the utility of the **necessity-concerns framework**[11] in predicting acceptance of and adherence to HAART. A total of 136 study participants, predominantly white gay men, were given a recommendation by their physicians to initiate HAART. Of these men, 38 (28%) declined the offer of treatment, and 98 (72%) accepted the treatment that was offered. Study participants were reassessed 12 months after joining the study. Horne and colleagues found that "[u]ptake of HAART was associated with perceptions of personal necessity for treatment ... and concerns about potential adverse effects ... . There was a significant decline in adherence over time. Perceived necessity ... and concerns about adverse effects ..., elicited before initiating HAART, predicted subsequent adherence. These associations were independent of clinical variables and depression" (p. 334). The investigators conclude that

> [t]he necessity-concerns framework may be used to inform interventions facilitating informed choice and supporting optimal adherence to HAART. Patients' perceptions of necessity and concerns about HAART should be elicited and addressed after a clinically indicated treatment recommendation. Interventions to support informed decision making and adherence should ensure that all patients have an accurate description of the medical model of HIV, including the ways in which the CD4 cell count is used as a marker of disease progression and the action of anti-HIV medication. Clinicians and researchers should also be sensitive to the fact that many patients have experienced earlier treatments for HIV that were later found to be ineffective or have seen others experience problems with

[11] "Research in a variety of chronic illnesses suggests that the salient beliefs relating to patients' medication decisions can be grouped under 2 categories: perceptions of necessity or personal need for treatment and concerns about potential adverse effects. ... [T]his 'necessity-concerns' framework ... [may be used by] clinicians to elicit and address key beliefs underpinning patients' attitudes and decisions about treatment" (p. 335).

Tool Box

Enlisting Service Consumers as Active Participants in HIV-Related Assessment & Care

In the Summer 2007 issue of *mental health* **AIDS**, the main **Tool Box** outlined steps for "Tailoring Evidence-Based HIV Behavioral Risk-Reduction Interventions to Local Capacity & Target Audience Characteristics." Lightfoot, Rotheram-Borus, Comulada, Gundersen, and Reddy (2007) observe that efficacious interventions, such as those recommended for tailoring, have been delivered at a relatively high cost, both with regard to time and resources. Yet,

> [i]n every HIV prevention clinical trial mounted, those participants that did not receive intervention (i.e.[,] the control group) decreased their sexual risk behaviours over time. The control group's only experience in these trials is repeated assessment of behaviour. ... The improvements found in participants in the control conditions suggest that conducting ongoing self-assessments can effectively reduce sexual risk behaviours by as much as 30% among varied groups. ... [B]uilding on the observed change in control condition participants by repeatedly assessing risk behaviours over time may be a cost-efficient HIV preventive intervention. (p. 758)

To test this hypothesis, Lightfoot and colleagues "examined ... the impact of repeated risk assessments for **behavioural self-monitoring as an intervention strategy for reducing** sexual and substance use **risk behaviours**" (p. 757). Their ethnically diverse sample consisted of 365 adults, predominantly men who have sex with men, recruited from among clients of health management organizations, health departments, and community clinics. Over a period of more than 1 year, Lightfoot and colleagues found that

> [c]ompleting greater numbers of self-assessments [prior to or just after regularly scheduled medical appointments[1]] resulted in a number of changes in HIV-related transmission behaviour. Increases in the number of self-assessments were significantly related to increases in protected sex with sexual partners of HIV-negative or unknown serostatus ... . In addition, [persons living with HIV] with increased self-assessment were more likely to acknowledge their higher risk for contracting STDs [sexually transmitted diseases] or being reinfected with HIV, as well as [to report] decreasing negative attitudes about stopping unprotected sex. ... Consequently, it appears that allowing [persons living with HIV] to reflect on their sexual behaviour influences their subsequent decisions regarding sexual behaviour. It is likely that by having the patients acknowledge and report, in a nonconfrontive and nonjudgemental manner, those behaviours that could result in transmission of HIV, their motivation to reduce HIV-transmission related behaviour increased and their attitudes became more conducive to reducing risk behaviours. Consequently, self-assessments appear to be a promising avenue for promoting behaviour change in a setting ... [where persons living with HIV] regularly interface [with HIV service providers]. (p. 760)

[1] "Upon arriving for their medical appointments, participants were taken to a private clinic room to complete the self-assessment while waiting for their medical provider. The self-assessment interviews were conducted in English ... [with] laptop computers utilizing ACASI (audio computer-assisted self interview). Patients responded to all questions directly into the computer. Each question was presented visually and was read by the computer to the patient. The self-assessment was approximately 25 to 30 minutes [in length], depending on the behavioural profile of the patient. If the participant could not complete the assessment before seeing ... [his or her] provider, he or she completed the self-assessment following his or her provider appointment. Participants received the self-assessment in concordance with ... [their] existing schedule[s] for medical visits of every three to four months" (p. 758).

Lightfoot and colleagues conclude that these "results support the use of computers and self-assessments as ... tool[s] for HIV prevention" (p. 760).

Created to Cultivate Confidence

Self-monitoring is one matter; self-management is quite another. Managing one's own chronic health problems requires self-efficacy, or "confidence in one's personal ability to perform a task or specific behavior or to change a specific cognitive state successfully, regardless of circumstances ... . In the context of social cognitive theory ..., where personal attributes are mediators of behavior, self-efficacy specifically implicates the importance of an individual's perception of both his or her ability and capability to execute as well as to achieve successful and valued behavioral outcomes" (Marks, Allegrante, & Lorig, 2005a, p. 39).

Steeped in this perspective, professionals at the Stanford Patient Education Research Center developed the Chronic Disease Self-Management Program (CDSMP). "This program consisted of a 17-hour course delivered over 7 weeks to patients with a variety of chronic illnesses. The focus of the course was the day-to-day self-management of symptoms common to chronic diseases" (Marks, Allegrante, & Lorig, 2005b, p. 150). "[T]he CDSMP ... incorporates (a) skills mastery, (b) reinterpretation of symptoms, (c) modeling, and (d) social persuasion to enhance the individual's sense of personal efficacy ... . More specifically, the course includes guided mastery of skills through weekly action planning and feedback of progress, modeling of self-management behaviors and problem-solving strategies, and social persuasion through group support and guidance for individual self-management efforts ..." (p. 152).

Living Well With HIV & AIDS

In the mid-1990s, dramatic improvements in the antiretroviral treatment of HIV disease prompted consider-

antiretroviral treatment and, as a result, may be suspicious of current medical advice. ... In the current study, having previously stopped therapy was associated with low adherence. Many patients stop therapy because of side effects, ... indicating that adherence in this group may be enhanced by more proactive management of side effects. (p. 339)

Similarly, in Sweden, Södergard et al. (2007) analyzed data for a nationwide, cross-sectional survey of 828

ation of and movement toward a chronic disease model of care. People living with HIV/AIDS would now need "a wide range of self-care skills, particularly skills for interpreting and acting on symptoms and for using and adhering to medication regimens" (Gifford, Laurent, Gonzales, Chesney, & Lorig, 1998, p. 137).

In response to these developments, the Stanford Patient Education Research Center solicited detailed input from HIV service consumers and their caregivers regarding the primary concerns and problems of living with HIV/AIDS. "Based on these results, a collaborative group of HIV/AIDS physicians, nurses, health educators, and HIV-positive community representatives" (p. 138) designed the **Positive Self-Management Program (PSMP)**. In its present form, the PSMP

> is a workshop for people with HIV given two and a half hours, once a week, for seven weeks, in community settings such as senior centers, churches, libraries and hospitals. Workshops are facilitated by two trained leaders, one or both of whom are non-health professionals with HIV. The PSMP is available in English, Spanish, and Japanese.
>
> Subjects covered include: 1) how to best integrate medication regimens into daily life so they can be taken consistently, 2) techniques to deal with problems such as frustration, fear, fatigue, pain and isolation, 3) appropriate exercise for maintaining and improving strength, flexibility, and endurance, 4) communicating effectively with family, friends, and health professionals, 5) nutrition, 6) evaluating sym[p]toms, 7) advanced directives, and 8) how to evaluate new or alternative treatments.
>
> Each participant in the workshop receives a copy of the companion book, *Living Well With HIV and AIDS, 3rd Edition,* and an audio relaxation tape, *Time for Healing. ...*
>
> It is the process in which the program is taught that makes it effective. Classes are highly participative, where mutual support and success build the participants' confidence in their ability to manage their health and maintain active and fulfilling lives. (Stanford Patient Education Research Center, n.d.)

Putting Self-Care Into Practice

Expanding on the design of the program, Gifford and colleagues (1998) note that "[t]he program outline is divided into detailed modules, clearly set out to maximize consistent reproducibility of the curriculum between different classes and leaders" (p. 138). "Key attributes of the PSMP include group classes conducted by trained peer-leaders using ... [a] detailed leader's manual, self-efficacy-building strategies/techniques designed to enhance confidence and motivation, and curricular elements to teach about management of symptoms, proper exercise and nutrition, and use of medications" (p. 141).

The developers

> integrated self-efficacy concepts into the PSMP curriculum by using key course elements to enhance four types of experience that can influence self-efficacy perceptions. ... For each of these types of experience, specific elements have been included in PSMP to maximize participants' self-efficacy learning.
>
> *Performance accomplishments* ... provide individuals with direct experiences that are evidence of mastery and skill. "Contracting" is a skill taught and reinforced ... to enhance ... a sense of performance accomplishment. During each PSMP session participants "contract" by: (a) articulating specific goals, (b) formulating goals into "doable" behaviours, and (c) collecting problem-solving suggestions from the group about how best to achieve the goal during the following week. ... The contracting process is linked with a feedback process. Each week, group members report on their contracts to the group, and get immediate feedback on any problems encountered. This reporting process maximizes a sense of mastery when contracts are successful, and provides social support to minimize perceptions of failure in the relatively rare instances when contracts are not successful.
>
> *Vicarious experiences* raise efficacy perceptions by allowing individuals to see others succeeding at important tasks, therefore helping them to learn that they themselves can also succeed. Modeling by PSMP group leaders is used throughout the curriculum, maximizing positive self-efficacy effects by exposing the group to leaders' successes. ... [B]ecause PSMP is designed as a small group intervention, co-operation and interaction between participants allow ... each to vicariously experience and profit from the successful experiences of other group members as well ... .
>
> *Persuasion* and other forms of social influence can have a positive impact on personal efficacy. If persuasion and support are appropriately expressed, recipients can come to believe in their abilities to master tasks and achieve goals. When this happens, they are more likely to sustain efforts in the face of problems and overcome self-doubts. ...
>
> Finally, *physiological states* influence efficacy because they are a potent form of immediate feedback about any task being attempted. ... PSMP includes stress manage-

(Tool Box is continued on Page 12)

adults who were prescribed antiretrovirals. The purpose of this study was to assess the role of **readiness** in maintaining antiretroviral adherence. Using a structural equation modeling approach, the investigators identified "readiness as a distinct factor that influences adherence and hence treatment outcome" (p. 108). Although this approach "could not rule out that other models might also fit the data equally well" (p. 108), "[b]ased on ... [these] results, ... it seems appropriate to shift focus from

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(Tool Box -- continued from Page 11)

ment techniques to maximize participants' sense of control over physiologic symptoms. Techniques used or introduced in PSMP include muscle relaxation, guided imagery, self-talk, distraction, visualization, dissociation/ distancing, re-labelling and prayer/ meditation.

PSMP also deals with physiologic symptoms ... by teaching disease management skills for responding appropriately to new symptoms. ... Fear associated with new symptoms is managed by teaching PSMP participants to use symptom evaluation charts to evaluate nine common and potentially dangerous symptoms associated with HIV. Each chart leads the user through a few simple questions about the symptom and its associated features. By answering the questions, the user finds out whether the problem could be urgent enough to require immediate medical attention ... . (Gifford & Sengupta, 1999, pp. 119-121)

Efficacious, Indeed!

Early incarnations of PSMP were evaluated, both quantitatively (Gifford et al., 1998, 2001) and qualitatively (Gifford & Sengupta, 1999).

The pilot study (Gifford et al., 1998) was conducted in the San Francisco Bay area with 71 educated, primarily white gay men with symptomatic HIV disease or AIDS. Results from this "randomized controlled trial, with self-administered questionnaire measurements before randomization and at 3-month follow-up" (p. 137),

> indicate that the PSMP is practical, inexpensive, and accepted by patients, peer-leaders, and health care providers. Furthermore, the pilot results ... suggest that in the short term, self-management education may help HIV patients experience fewer significant somatic symptoms and may lead to improved self-efficacy for symptom control. The pilot results also suggest a trend toward higher levels of physical exercise, a self-care health behavior highly emphasized in the program. Improvements were not seen in psychological symptoms, and no conclusions are possible about any long-term effects of the educational program. (pp. 141-142)

To gather qualitative data from this pilot group, Gifford and Sengupta (1999) conducted "[s]tructured, open-ended telephone interviews ... with a sample of [24] PSMP participants ... . Responses to PSMP were favourable, emphasizing the importance of the contracting process, group social support and the PSMP resource book provided. Subjects also described variation in HIV knowledge and experience among group participants, and emphasized the importance of changes in health-related attitudes and behaviours as a result of PSMP education" (p. 115).

In a more recent quantitative study, Gifford et al. (2001) "found that HIV patients in PSMP who are using antiretroviral medications have significantly better medication adherence and have better HIV suppression in the blood after 6 months. In spite of this, they have no more side effects than non-PSMP participants" (Stanford Patient Education Research Center, n.d.).

Taking the Measure of a Self-Manager

Recognizing the need for an instrument designed specifically to assess self-efficacy for disease management skills among people living with HIV, Shively, Smith, Bormann, and Gifford (2002) developed and evaluated the psychometric properties of the **HIV Self-Efficacy (HIV-SE) questionnaire** (http://cfar.ucsd.edu/HIV-SE_Questionnaire.pdf). The investigators arrived at a 34-item measure with six subscales: managing depression/ mood, managing and adhering to medications, managing symptoms, managing fatigue, communicating with health care providers, and getting support from others.

According to Shively and colleagues, "[t]he results of this methodological study provide initial support for the construct validity and internal consistency reliability of this HIV-SE questionnaire. Further psychometric testing is recommended. This new HIV-SE questionnaire should be useful in future studies for evaluating patient education interventions and outcomes. Selected items may also be useful in clinical settings for evaluating patients' confidence to manage their own symptoms and their medication regimens" (p. 378).

The investigators suggest that "[f]urther evaluation should address consideration of additional domains and differentiation between the depression and the fatigue domains" (p. 371) and emphasize that "[f]urther research is needed ... before using the HIV-SE for individual clinical evaluation" (p. 377).

Variations on a Theme

Improvements in psychological symptoms were not seen among PSMP participants. A program with more of a mental health focus was evaluated in Hawaii, where Inouye, Flannelly, and Flannelly (2001) assigned 40 men and women living with HIV to either standard treatment or a 7-week, ***individualized* self-management intervention**. "To minimize the possible effects of social support on treatment outcomes, the ... study used individualized treatment modalities to determine the effects of a comprehensive self-management training program on moods, coping, and perceptions of health" (p. 72).

The 7-week program consisted of cognitive-behavioral management skills training; coping skills training; anxiety, anger, and depression management training; biofeedback-assisted relaxation therapy; and psycho-educational classes.

> Educational material in the protocol contained information specific to HIV, stress theory, and community resources. Self-management techniques included biofeedback-assisted relaxation techniques of imagery, abdominal breathing, progressive muscle relaxation, and autogenic training. Cognitive/ coping strategies included cognitive restructuring and management of stressful emotions such as anger, depression, [and] anxiety, ... [as well as the enhancement

> of] problem-solving skills. The interventions were administered individually twice a week for approximately 60 to 90 minutes. All participants received 14 sessions during the 7-week program. (p. 73)

Inouye and colleagues measured "significant improvements in mood, coping ability, and health attitudes in response to ... [the] self-management intervention ... [and] treatment effects tended to be more salient on those aspects of psychological functioning that were the specific foci of the various interventions. These included reductions in anger and tension, the use of more effective coping strategies, and the decreased use of ineffective coping strategies" (p. 77). "Treated participants also showed significant increases on the Internal subscale of the Health Attribution Test [i.e., an increase in their self-perceived ability to control their own health]" (p. 71). Inouye and colleagues encourage the teaching of self-management strategies to address negative mood and improve coping skills (and, by extension, quality of life) in people living with HIV.

Addressing the increasing interest in antiretroviral adherence in recent years, Smith, Rublein, Marcus, Brock, and Chesney (2003) randomly assigned 43 individuals who were initiating or changing their highly active antiretroviral therapy regimen to either a **clinic-based medication self-management program** or standard care.

> Participants in the self-management program received **individualized** patient **education and** assistance with medication self-management and **skills training by a registered pharmacist or nurse** (i.e., an efficacy intervention). The self-management program consisted of three central components: (a) information exchange, (b) skills development, and (c) social support enlistment. In addition to the education and assistance, [participants in] the self-management group scheduled three follow-up appointments with the study pharmacist ... or nurse and received private one-on-one counseling[, as well as feedback on their adherence performance derived from electronic monitors on their medication bottles,] at approximately monthly intervals. Prior to each follow-up counseling session, participants were asked to complete ... [a 40-item] self-efficacy questionnaire. (p. 189)

Smith and colleagues found that self-management group participants were more likely to take at least 80% of their medication doses each week than were study participants receiving standard care. "This study found preliminary evidence that a clinic-based intervention based on feedback and discussion of adherence performance and principles of self-regulation improves adherence to dosing schedules for antiretrovirals" (p. 196).

A Question of Consumers' Priorities

British investigators (Kennedy, Rogers, & Crossley, 2007) utilized a mix of qualitative methodologies to both observe and assess a PSMP course organized by a British AIDS service organization and run under governmental auspices for a diverse set of participants.

The investigators lay the groundwork for their analysis by highlighting differences between groups dedicated to self-management and those dedicated to self-help and mutual support. Self-management groups, with their focus on assuming personal responsibility, increasing self-efficacy, and promoting individual behavioral change, have already been amply described. In contrast,

> [s]elf-help groups ... [rely] on collective notions of mutuality, at the same time emphasizing the rights and responsibilities of individuals to manage their health in any manner they choose. The approach attributes agency to consumers regarding decisions about their health care. Self-help and mutual support groups operate with a range of values: mutual support and friendship, fundraising for research, information and learning resources, a safe haven for people with stigmatized conditions, and a lobby for recognition and support. Involving people in self-help groups allows for the development of a shared identity based on common experiences ... . The help that can be gained by simply coming together is said to be as a result of the collective wisdom derived from shared experiences ... . (p. 745)

In short, the support group experience *itself* might be a crucial factor in the change process associated with participating in such a group.

Among the observations made by Kennedy and colleagues regarding the self-management group experience,

> the constraints of the course content and its formulaic and strictly timed delivery precluded people being as therapeutically confessional as they might have wished ... . In the PSMP, lay leaders are constricted by having to get through a specified series of topics within a rigid timescale. Many potentially useful discussions were cut short during the course.
>
> In this respect, this CDSMP differed from the ethos and practices of self-help and mutual support groups, where users have control over the content of discussions and traditionally allow more room for individuals to take part in storytelling, which enables the emergence and construction of collective and individual identities ... . (pp. 754-755)

Reframing and commenting upon this observation, the investigators discern that

> narratives or ways of presenting to the group that did not fit the underlying ethos and structure of the course were marginalized in favor of the structured delivery of content of the PSMP. In this respect, the notions of empowerment and individual responsibility, which underpin the outcomes of formal self-management groups, appear to be at variance with the self-help philosophy of mutual aid. The desire of the group to introduce experiential and other agendas into

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(Tool Box -- continued from Page 13)

their discussion of managing their HIV status clashed with the highly individualistic approach to self-management inherent in the philosophy of the course (e.g., goal setting and action planning for individual well being). ... The unexpected value people placed on the increase in social networking and the relevance of social and material resources indicate that a course with greater emphasis on this aspect might be of as much or greater worth to participants than the goal of increasing in self-confidence at an individual level. The latter might not, in any case, be sustainable without adequate social and material support. (p. 755)

"[I]n considering the way in which self-management becomes focused on the future," conclude Kennedy and colleagues, "collective user-defined need and the preexisting relationships and support provided by host organizations might be as important in bringing about improvement in the self-management of a chronic condition, if not more so, than the structured course content of the PSMP" (p. 755).

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– Compiled by Abraham Feingold, Psy.D.

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adherence to readiness, especially in conditions where treatment can be postponed such as antiretroviral treatment. The benefits of readiness compared to adherence are that readiness might be measured prior to treatment initiation and could, as a result, predict if a patient is ready to become adherent and hence predict future treatment outcome" (p. 114).[12]

Support for adherence may also be derived from finding meaning in one's life. Westling, Garcia, and Mann (2007) asked 41 low-income women living with HIV to participate in a writing task twice weekly over a period of 1 month. Participants were randomly assigned to either "write about the best future they could imagine" (p. 629), or to write about a neutral topic (i.e., not about their expectations regarding the future). Antiretroviral adherence was self-reported at baseline (Time 1) and again at the conclusion of the intervention (Time 2). Westling and colleagues

> found that individuals who were able to discover meaning in their lives reported better adherence to their HIV medications than individuals who were not able to discover meaning in their lives. Nineteen of 40 participants[13] were coded as having at least one **discovery of meaning** statement in their writing, and these individuals were significantly better at following their HIV medication regimens at Time 2. The size of these effects is small to moderate, but ... finding meaning was associated with adhering to medications 'most' of the time, while failing to find meaning was associated with adhering only 'some' of the time. (p. 633)

Additionally,

> participants who were engaged in cognitive processing were more

[12] In a recent article, Highstein, Willey, and Mundy (2006) describe the development of Stage of Readiness and decisional balance instruments that are based on the Transtheoretical Model of Behavior Change. "Use of these instruments can give a provider added objective data on which to base a decision to either prescribe [antiretroviral therapy] immediately or to first implement an intervention tailored to enhance this patient's readiness to adhere" (p. 563). Readers are also referred to the **Tool Box** entitled "Emerging Methods for Motivating Effective Medication Practice" in the Summer 2006 issue of *mental health* **AIDS** for a discussion of approaches that may enhance treatment readiness.

[13] One participant in the control condition did not turn in her writing assignments for analysis.

likely to demonstrate discovery of meaning than participants who were not engaged in cognitive processing. All of the participants who were coded as having discovered meaning also showed cognitive processing. In addition, ... [the investigators] predicted that optimistic individuals would be more likely to find meaning during the writing task, and ... this [was also found] to be true. Higher situation-specific optimism and higher dispositional optimism at baseline were related to participants' discovery of meaning during the writing task. (p. 634)

Westling and colleagues conclude that the "[d]iscovery of meaning may result in positive health outcomes by leading individuals to engage in healthier behaviors" (p. 627).

Access to Care

Gardner et al. (2007) "examine[d] psychological and behavioral variables as **predictors of** ... [**visiting**] **an HIV medical care provider** among [273] persons recently diagnosed with HIV" (p. 418) in four U.S. cities. Data analysis revealed that "seeing a care provider was significantly more likely among participants diagnosed with HIV within 6 months of [study] enrollment ..., those in the preparation versus precontemplation stages at baseline ..., those who reported at baseline that someone (friend, family member, social worker, other) was helping them get into care ..., and those who received a case manager intervention ..." (p. 418).

> For HIV case management professionals, ... [these] findings indicate that cognitive state of readiness, time since HIV diagnosis, ... and interpersonal helping relationships are all important to assess when working with people with HIV. Most of these variables are susceptible to intervention. The data also indicate a need to reach HIV positive persons soon after they learn they are infected and assist them in getting into care. Furthermore, assessing the person's readiness to enter care is an important first step in establishing a client plan. ... Clients who are assessed as low on readiness should be asked questions to elicit underlying attitudes and motivational states, as well as knowledge about HIV and its treatment that may influence their state of readiness. This information can be turned into an action plan. Similarly, some of the behaviors that deter getting into care can be intervened on if case managers are available. ... [For example,] family or friends can be enlisted to assist clients in obtaining care ... by ... providing brief strengths-based case management to persons recently diagnosed with HIV. (pp. 423-424)

Tobias et al. (2007) interviewed a geographically diverse sample of 1,000 people living with HIV, **not newly diagnosed and not fully engaged in medical care**. "The sample was predominantly non-white (86%), male (59%), and unstably housed (61%), with a past history of cocaine use (68%). Twelve percent had received no HIV medical care in the 6 months prior to the interview" (p. 426).

The investigators found that "[t]hose with no care were similar to those who received some HIV care in sociodemographic characteristics, but in multivariate analysis were less likely to have a case manager ... or use mental health services ..., had lower mental health status scores ..., were more likely to be active drug users ..., had greater unmet support service needs ... and reported that health beliefs were a barrier to care ..." (p. 426).

Tobias and colleagues conclude that "interventions may need to provide more intensive case management and address barriers to the receipt of mental health care and support services. Furthermore, ... interventions to engage the unengaged need to address people's health beliefs about HIV care by delivering information about the benefits of care and treatment in such a manner that this information can be received, processed, trusted, and acted upon" (p. 433).

Coping, Social Support, & Quality of Life

In their continuing effort to clarify the association between various clinical and psychosocial factors and **health-related quality of life** (HRQOL) at different points in time, Jia et al. (2007) have reported once again on their analysis of data elicited at baseline and 12 months later from a cohort of 197 men receiving HIV medical care in north Florida. The investigators

> found that increased active coping and social support remained strong predictors of multiple dimensions of HRQOL improvement; more comorbid conditions and longer HIV infection duration were predictive of decreases in multiple dimensions of HRQOL over time. CD4 cell count was significantly associated with emotional well-being at baseline and 12 months. In addition, the association between CD4 cell count and five HRQOL dimensions was negative at baseline but positive at 12 months. These results suggest that to improve the HRQOL of men with HIV infection over time in the HAART era, continuous effort is important in enhancing active coping strategies and social support, improving the management of comorbid conditions of HIV/AIDS, and in assessing ... HIV diagnosis duration. The results also suggest that patients' CD4 cell count has a differential effect on HRQOL de-

pending on the patients' frame of reference and the patients' current goals. Clinicians cannot assume that low CD4 cell count will automatically lead to poorer HRQOL. Rather, clinicians should explore the meaning that patients attach to various levels of CD4 cells and recognize the importance of the patients' psychosocial characteristics and other clinical factors when making clinical decisions and initiating treatments. (p. 967)

One factor receiving greater attention in HIV care is the smoking of tobacco. Webb, Vanable, Carey, and Blair (2007) examined the self-reported prevalence and correlates of **cigarette smoking** among 212 adult men and women receiving care in an HIV clinic. The investigators found that

> 74% of the sample smoked at least one cigarette per day; using standard definitions, 23% of the sample were light smokers, 22% were moderate smokers, and 29% smoked heavily. Smoking was associated with more HIV-related symptoms, greater alcohol and marijuana use, and less social support. Light smoking was related to minority race/ethnicity and less income; moderate smoking was associated with less education; and heavy smoking was related to less education and younger age. Viral load, CD4 count, and depression[14] were not associated with smoking status. (p. 371)

Webb and colleagues acknowledge that

> [t]he findings from this study need to be tested longitudinally before definitive clinical practice recommendations can be made. Until that time, these results have initial implications for smoking cessation interventions. First, clinicians should assess HIV+ patients for the presence of multiple factors that may place them at increased risk for smoking ... [and] educate HIV+ patients on the consequences of tobacco use. The present research also suggests that targeting heavy alcohol use and marijuana smoking may be an important intervention component. Finally, healthcare providers ... should encourage patients to seek social support, which could help heavy smokers manage their response to diagnosis. ... Future research should ... work towards developing biopsychosocial interventions that consider the unique needs of this underserved group. (p. 380)

On this point, French investigators (Bénard et al., 2007) collected self-report data on **tobacco/other drug use**, **nicotine dependence**, **motivation to stop smoking**, and **depressive symptoms** from a cohort of men and women receiving outpatient HIV care.

> Among 509 patients included, mean age was 44 years, 74% were men, 19% were infected through injection drug use, and 257 (51%) were regular smokers (at least one cigarette per day). Among them, 60% had a medium or strong nicotine dependence ..., 40% were motivated to quit smoking and 70% had already tried at least once. ... [A medium or strong nicotine dependence] was more frequently reported in the 146 smokers (62%) with depressive symptoms compared to other smokers (70% versus 48%). Fifty-five regular smokers (23%) were codependent on cannabis and 31 (12%) ... [on] alcohol. Overall, only 35 (14%) regular smokers were motivated, noncodependent, without depressive symptoms, and could be proposed a standard tobacco cessation program. (p. 458)

On the basis of these findings, the investigators conclude that "HIV-infected regular smokers can be dispatched in three main categories: those who could benefit from standard tobacco cessation programs, with a management of depressive symptoms if needed, those who need a treatment of codependencies prior to smoking cessation and those who first need motivational interventions" (p. 467).

Bénard and colleagues take particular note that "[d]epressive symptoms were highly prevalent in this representative population of HIV-infected patients. To be successful, smoking cessation interventions should be specifically built to take into account depression and codependencies in addition to nicotine dependence and motivation" (p. 458).

McKee et al. (2007) "examine[d] interactions between **psychosocial risk** (i.e., maternal depressive symptoms) **and protective** (i.e., child coping skills and mother-child relationship quality) **correlates of depressive symptoms**" (p. 259) **among** 108 **African American children** between the ages of 9 and 11 whose mothers were either living with HIV (n = 46) or were not HIV infected (n = 65). The investigators found

> that the risk and resource factors ... studied do [appear to] operate differently in the families in which mothers are and are not HIV infected. Specifically, the mother-child relationship was a buffer when maternal depressive symptoms were elevated, but only

[14] "Symptoms of depression were substantial, despite the exclusion of somatic items to eliminate the overlap with HIV symptoms. With the focus on cognitive-affective depression, there was a high prevalence of depressive symptoms in ... [this] sample[.] ... Thus, the high rates of depression might have obscured the actual influence of depression on smoking rates (i.e., creating a restricted range)" (pp. 379-380).

when mothers were HIV infected. Furthermore the combination of a better mother-child relationship and more active child coping skills was associated with fewer child depressive symptoms, but again only when mothers were HIV infected. These findings suggest that a family-based approach that targets children whose mothers are infected with HIV/AIDS could include enhancing the mother-child relationship (e.g., teaching attending, praising, and positive communication skills), promoting child coping skills (e.g., use of distraction, positive thinking, and acceptance) to handle uncontrollable stressors (e.g., maternal HIV infection), and ameliorating maternal depressive symptoms (e.g., through the scheduling of pleasant activities and completion of thought records). More important, none of these strategies necessarily require[s] maternal disclosure of the mother's HIV/AIDS to her child; rather, for example, activities involving the child could be conducted with a more general focus, such as how to cope with a mother's depressive symptoms and the changes in parenting behavior that may occur over time. The aim of such a general approach would be to enhance overall parenting skills, coping skills, and child and maternal adjustment to help a child adjust to the short- and long-term consequences of maternal HIV infection. (p. 265)

Speaking to a key consequence of infection, Chenard (2007) identified ways in which **stigma affects** the **self-care behaviors**[15] of gay men living with HIV by examining data drawn from 15 individual interviews and a focus group with five men. According to Chenard, "[t]hese men responded to HIV/AIDS stigma by using various stigma management strategies. Striving for normalcy emerged as the central theme. Participants saw HIV status disclosure as the main route to an affirming social support system and ultimately as a way to resolve any incongruence between self-view and reflected appraisals" (p. 23). In Chenard's view, clinicians

> can play a key role in evaluating clients' emotional responses to HIV/AIDS and their use of effective coping strategies. Asking the person to "tell me how you are dealing with the social pressures of being a gay man with HIV" acknowledges the presence of stigma in the client's life and encourages him to talk about how stigma affects his ability to self-manage the illness. Given that HIV/AIDS stigma is such an integral part of the illness experience, it may be helpful to think of stigma as a symptom of HIV/AIDS. As such, strategies for managing stigma should be included when teaching clients about self-management skills.
>
> Strong and stable social support networks are important for ameliorating the untoward effects of HIV/AIDS stigma. ... [Clinicians] are well-positioned to facilitate discussion with their HIV-positive gay male clients about the availability of both formal and informal social support networks and to suggest avenues for finding support. ...
>
> [Therapists working with] HIV-positive gay men can help them make informed decisions about the risks and benefits of status disclosure. HIV-positive gay men who feel heavily stigmatized and use more hiding strategies will likely experience increased stress and risk[,] closing off access to the social support needed to facilitate adaptation to the illness. The model presented here can be used to frame a discussion with clients about how stigma management is integrally related to the goal of having a life of normalcy. (p. 31)

Lastly, previous studies have associated a number of psychosocial factors (e.g., depression, life stress, avoidant coping) with HIV disease progression. O'Cleirigh, Ironson, Weiss, and Costa (2007) "examined the relationship between the Big Five **Conscientiousness** factor[16] **and HIV disease progression** (CD4 cell and viral load) over 1 year in 119 seropositive participants" (p. 473) who were diverse with regard to gender, ethnicity, sexual orientation, and socioeconomic status. The investigators "also examined whether Conscientiousness effects were mediated by adherence, perceived stress, depression, or coping measures" (p. 473). "[C]ontrolling for demographic variables, initial disease status, and antiretroviral medications[,] ... Con-

[15] "For the purpose of this study, *self-care* was defined as any independent, self-determined behavior that had a direct or indirect impact on physical or mental health, such as health maintenance, health promotion, or disease prevention behaviors (primary or secondary); self-treatment behaviors; adherence to prescribed or recommended treatment interventions; and any behaviors that ... [militate against] negative health sequelae or those that enhance health status ..." (p. 25).

[16] "The Five-Factor Model (FFM) of personality is the predominant model of personality traits, positing that five domains – Neuroticism, Extraversion, Openness to Experience, Agreeableness, and Conscientiousness – summarize most individual differences in personality[.] ... Within the Conscientiousness domain, six facets have been operationalized ..., which include competence, order, dutifulness, achievement striving, self-discipline, and deliberation. ... Conscientiousness has both proactive (e.g., need for achievement) and inhibitive (e.g., cautiousness) aspects ... . On the basis of this conceptualization, ... [the investigators] hypothesized that Conscientiousness may be related to slower disease progression through both aspects, with the inhibitive facets of Conscientiousness protecting the individual from engaging in risky or health-damaging behaviors and [the] proactive ... [factors helping] through the practice of health-promoting behaviors (e.g., medication adherence), through more favorable coping profiles (e.g., more active and less avoidant coping), and through greater resilience to distress (e.g., less catastrophic disease-related stressor appraisals and lower levels of depressive symptomatology)" (pp. 473-474).

scientiousness predicted significant increases in CD4 number and significant decreases in viral load at 1 year. Conscientiousness was related positively to medication adherence and active coping and negatively to depression and perceived stress. Only perceived stress emerged as a possible mediator" (p. 473).

On the basis of these findings, O'Cleirigh and colleagues speculate that "lower Conscientiousness may be a risk factor for accelerated disease progression in people living with HIV" (p. 478) and

> suggest that measuring Conscientiousness in people with HIV could help to identify those who may be ... in need of additional support in the management of HIV. The observed relationship of Conscientiousness with perceived stress particularly, but also with medication adherence, depression, and coping, may also suggest appropriate targets for psychosocial interventions. As the Conscientiousness assessment in this study is brief, it could easily be incorporated in primary medical care and other outpatient clinical settings.[17] Although Conscientiousness is not generally conceptualized as a modifiable trait, coping, stress appraisal, depressive symptoms, and adherence have each been shown to be responsive to cognitive-behavioral interventions specifically designed for people facing the challenges of living with HIV ... and may be good targets for intervention among patients with HIV who are low in Conscientiousness. (pp. 478-479)

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Tool Box

A Note on Content

This publication has been developed to help the frontline provider of HIV-related mental health services, allied professionals, and consumers stay up-to-date on research-based developments in HIV care. The contents for the "Biopsychosocial Update" are drawn from a variety of sources including, but not limited to: the *CDC HIV/STD/TB Prevention News Update* (http://www.cdcnpin.org/news/prevnews.htm); the *Kaiser Daily HIV/AIDS Report* (http://report.kff.org/hivaids/); and information e-mailed by Florida International University researcher Robert M. Malow, Ph.D., ABPP. Other sources are identified when appropriate.

It is presumed that readers have at least a fundamental understanding of medical, psychiatric, psychological, psychosocial, and spiritual considerations when assessing and intervening with people who are living with HIV/AIDS and their families. For additional background information on these aspects of care, the following resources may be of assistance:

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