mental health **AIDS**

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Biopsychosocial Update

HIV Prevention News

About Persons Who Use Substances

Mausbach, Semple, Strathdee, Zians, and Patterson (2007) "examined the efficacy of a behavioral intervention emphasizing motivational interviewing [(MI)] and social cognitive theory for **increasing safer sex behaviors in the context of ongoing methamphetamine** [(meth)] **use** in a [convenience] sample of [451] HIV-negative, heterosexual [meth] users" (p. 263). Study participants "were randomly assigned to receive one of three [individual] treatment conditions: (a) a safer sex behavioral intervention (Fast-Lane [FL]), (b) the FL intervention with boosters (FL + B), or (c) a time-equivalent diet-and-exercise attention-control (D&E) condition" (p. 263). The FL intervention

> utilizes [MI] to help participants develop insights into their motivations for unsafe sex and their triggers for unsafe sex and [meth] use. These insights are used to develop a plan for safer sex behavior, which includes skill-building exercises (e.g., condom use, negotiation of safe[r] sex) along with the enhancement of positive social supports for safer sex practices. The FL intervention was not designed to arrest or abate drug use. ... Changing drug-using behavior is a difficult and time-intensive process that requires specialized programs and facilities. ... Along with the EDGE intervention[1] ..., which was designed to reduce sexual risk behavior in men who have sex with men, FL is the first to test a sexual risk reduction intervention among heterosexuals in the context of active drug use. (p. 264)

Changes in safer sex behaviors were evaluated over an 18-month period. Mausbach and colleagues found that,

> [c]ompared to those in the D&E condition, participants in the FL + B condition ... and FL condition ... significantly increased their engagement in protected sex acts over the active intervention phase. Also, compared to the D&E condition, those in the FL condition demonstrated a significant decrease in unprotected sex ... and an increase in percent protected sex ... during the active intervention. Finally, relative to D&E participants, FL participants demonstrated significant improvements in self-efficacy for negotiating safer sex ..., and change in self-efficacy mediated the efficacy of the FL condition for increasing safer sex behaviors ... . (p. 263)

Mausbach and colleagues conclude that these findings suggest that this "behavioral intervention was successful in ... reducing high-risk sexual behaviors in the context of ongoing [meth] use among HIV-negative heterosexuals. Reductions in high-risk sexual behavior were likely because of the impact of the intervention on participants' self-efficacy" (p. 263); "increases in participants' self-efficacy for negotiating safer sex ... [were] moderately associated with actual change in safer sex behavior, accounting for approximately one fourth of the intervention's effect on safer sex behavior" (p. 272). Importantly, the investigators

> did not find a beneficial effect of booster sessions on maintenance of treatment gains. ... [Moreover, d]uring the active intervention phase, participants in the FL + B condition demonstrated significant increases in total protected sex but did not show significant improvement in total unprotected sex behavior or percentage protected sex. ... One explanation for this effect could be the FL + B condition's inferior impact on self-efficacy. ... One recommendation for future ...

[1] See the Spring 2007 issue of *mental health* **AIDS** for more information on the EDGE intervention.

In This Issue:

Biopsychosocial Update
HIV Prevention News...............1
HIV Assessment News.............5
HIV Treatment News................6
Tool Boxes
For Whom the Tell Tolls: Curbing the Cost of Giving & Getting Distressing, HIV-Related News (Part 2).....8
Resources............................14
A Note on Content................18

practitioners implementing the FL intervention into real-world settings is to implement monitoring of self-efficacy during the intervention. This may be useful in terms [of] helping participants adopt new strategies to build confidence in their ability to negotiate safer sex. (p. 272)

About Adolescents & Young Adults

Zimmerman et al. (2007) proposed and tested a comprehensive **multiple domain model** (MDM) **of condom use in adolescents**. In this model,

[t]he most proximal influences on condom use were hypothesized to be situational/contextual variables [i.e., relationship status and length, use of a hormonal contraceptive, substance use] and preparatory behaviors [e.g., buying and carrying condoms]. ... The next most proximal factors thought to influence condom use were previous condom use and intentions to use condoms. ... The next most proximal factors thought to influence condom use were the following, in order of most to least proximal: (1) social psychological variables of condom attitudes, norms, and self-efficacy; (2) personality [factors, i.e., sensation-seeking, impulsivity] and social environment factors [e.g., educational aspirations]; [and] (3) social structural variables [i.e., gender, race, age, socioeconomic status or SES]. (p. 383)

Data were drawn from 511 high school students at three points in time. "Adolescents who were sexually active at time 2 (6 months after baseline) and time 3 (1 year after time 2) and completed surveys at all three time points were included in the analyses" (p. 380). The model-testing process "resulted in a structural equation model that provided a good fit to the data" (p. 380). In brief,

[t]he strongest direct predictors of condom use were preparatory behaviors ... and intentions to use condoms ..., and the combination of variables directly related to condom use explained 28% of the variance in condom use ... . As hypothesized, attitudes, norms, and self-efficacy significantly were related to intentions to use condoms. In addition, high sensation seekers were found to have more negative condom norms ..., while impulsive decision makers had lower self-efficacy ..., more negative condom attitudes ..., and more negative norms ... . Those with higher SES had higher educational aspirations ..., which in turn positively related to condom attitudes ... . Gender and race also were related to variables in the model, with non-Whites being significantly less likely to be high sensation seekers compared with their White counterparts ..., and males being more likely to have intentions to use condoms than females ... . (pp. 387-388)

Additionally, "[m]odels comparing gender and race as moderators also were calculated and supported the generalizability of the ... [MDM]" (p. 380).

According to Zimmerman and colleagues, "the proposed MDM provides a possible explanation of pathways to condom use among sexually active adolescents" (p. 389), one "that goes beyond traditional social psychological models for a broader understanding of condom use in adolescents" (p. 380). As with other condom use models,

interventions based upon the MDM should strive to modify individuals' attitudes toward condoms, their perceptions of social norms surrounding condoms, and their self-efficacy to engage in condom use. The MDM goes a step further, however, in suggesting ... [that] individuals need to not only have favorable beliefs toward condom use, but also must possess the skills (preparatory behaviors) to procure condoms, have them available in a sexual situation, and talk to a partner about their use.

In addition, the model also suggests that particular subgroups of adolescents, such as higher sensation seekers and impulsive decisionmakers, may need targeted risk reduction messages. For instance, impulsive decisionmakers may have lower self-efficacy because they recognize their lack of a tendency to plan ahead for sexual situations. Messages directed toward this group might put a greater emphasis on planning ahead to specifically address impulsive decisionmak-

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ers' proclivity to make what are often poor decisions ... . Sensation seekers may be more likely to befriend individuals who also are sensation seekers, and may in turn underestimate how often their peers use condoms. Such individuals may need messages that reinforce the use of condoms among their peers at large and the normative support for condom use that exists among people important to an individual.

> Finally, the MDM also suggests that it is not just the preexisting personality and attitudinal factors that are important in safer sex, but that situational and contextual influences on sexual behavior also can have an influence. Evidence for the role of hormonal birth control use as a barrier to condom use was found in the current study, suggesting that beliefs about hormonal versus barrier methods should be addressed within interventions. (p. 391)

Several other researchers have focused, in recent publications, on the role of parents in moderating risk behavior. Prado et al. (2007) "evaluated the efficacy of Familias Unidas[2] + Parent-Preadolescent Training for HIV Prevention (PATH),[3] a **Hispanic-specific, parent-centered intervention**, in **preventing adolescent substance use and unsafe sexual behavior**" (p. 914). The investigators randomly assigned 286 Hispanic 8th graders and their primary caregivers to one of three conditions: Familias Unidas + PATH, English for Speakers of Other Languages (ESOL)[4] + PATH, and ESOL + HeartPower! for Hispanics (HEART).[5] Assessments were conducted at baseline and at 6, 12, 24, and 36 months. Prado and colleagues found that "(a) Familias Unidas + PATH was efficacious in preventing and reducing cigarette use relative to both control conditions; (b) Familias Unidas + PATH was efficacious, relative to ESOL + HEART, in reducing illicit drug use; and (c) Familias Unidas + PATH was efficacious, relative to ESOL + PATH, in reducing unsafe sexual behavior. The effects of Familias Unidas + PATH on these distal outcomes were partially mediated by improvements in family functioning" (p. 914).

On this point, the investigators note their surprise

> that the ESOL + HEART condition, in which the HEART module was specifically designed to prevent cardiovascular risk behaviors, such as cigarette smoking, was less efficacious in preventing smoking than Familias Unidas + PATH, in which smoking was not directly addressed. Of similar interest is the fact that ESOL + PATH, in which the PATH module was specifically designed to target HIV risks, was not efficacious in preventing unsafe sexual intercourse. However, Familias Unidas + PATH was efficacious in preventing both cigarette smoking and unsafe sexual behavior at last intercourse. These findings suggest that targeting specific health behaviors in the context of strengthening the family system may be most efficacious in preventing or reducing cigarette smoking and unsafe sex in Hispanic adolescents. (p. 923)

Despite a number of limitations, including sampling from a Hispanic population that was not representative of the larger U.S. Hispanic population, Prado and colleagues conclude

> that working primarily with parents may be an especially effective strategy for preventing or reducing negative behaviors among Hispanic adolescents and perhaps among adolescents in general. Improving family functioning – especially parent-adolescent communication and positive parenting – is critical in preventing substance use and unsafe sex in Hispanic adolescents. Educating parents and adolescents about risks associated with substance use and with unsafe sex appears to be less effective, especially without attention to family functioning beforehand. (p. 924)

To evaluate the efficacy of a **parent-based sexual-risk prevention program for African American children between the ages of 9 and 12 years**, Forehand et al. (2007)

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[2] "Familias Unidas is a Hispanic-specific, family-based preventive intervention designed to reduce risk for and increase protection against substance use and sexual risk behaviors in Hispanic adolescents. Hispanic-specific cultural issues are integrated in all aspects of the intervention, from the underlying theoretical model to the specific content of the intervention to the format of the intervention activities[.] ... Familias Unidas aims to prevent substance use and sexual risk behaviors by (a) increasing parental involvement in the adolescent's life, (b) increasing family support for the adolescent, (c) promoting positive parenting, and (d) improving parent-adolescent communication" (pp. 917-918).

[3] "PATH ... is a theoretically based HIV prevention curriculum designed to promote responsible sexual behavior by training parents to become effective HIV educators for their children. PATH is designed to increase parents' and adolescents' knowledge about HIV and to promote parent-adolescent communication about HIV risks" (p. 918).

[4] "The ESOL classes aimed to help parents communicate more effectively in English. It was expected that parents would be interested in this module because the majority of them were monolingual and had no working knowledge of English" (p. 918).

[5] "HEART is designed to reduce adolescents' risk for cardiovascular disease and to promote adolescent cardiovascular health by (a) increasing awareness of cardiovascular risk factors, such as cigarette use, and (b) improving attitudes toward exercise and nutrition. HEART encourages parents to be involved in their adolescents' cardiovascular health, but it is not specifically designed to reduce risk for adolescent illicit drug use or unsafe sexual behavior" (p. 918).

conducted a community-based, randomized controlled trial that included a convenience sample of 1,115 African American parent-preadolescent dyads enrolled in three locations (Athens and Atlanta, Georgia; and Little Rock, Arkansas). Participants were randomly assigned to one of three study conditions: an enhanced communication intervention, consisting of five 2½-hour group sessions; a single-session communication intervention, consisting of one 2½-hour group session; and a general health intervention, a control condition consisting of one 2½-hour group session.[6] All group sessions had African American facilitators, all of whom co-led groups in all three study conditions. Sexual communication between the parent and the preadolescent, as well as parental responsiveness to sex-related questions, was measured at baseline, postintervention, and at 6- and 12-month follow-ups. Additionally, the preadolescents were asked if they had engaged in or were intending to engage in sexual intercourse at the 12-month follow-up. According to Forehand and colleagues,

> [t]his study provides some preliminary evidence for the efficacy of a program for parents of preadolescents. Specifically, after intervention, parents participating in the enhanced intervention, relative to the control, demonstrated higher levels of parent-preadolescent sexual communication and comfort with and responsiveness to sex-related questions. In addition, at the 12-month follow-up, preadolescents whose parents attended all 5 sessions of the enhanced intervention ... [were less likely to have] had sexual intercourse or anticipat[e] ... engaging in such behavior during the next year, compared with controls and those receiving the single-session intervention. The beneficial effects for the single-session intervention were minimal. <u>The enhanced intervention appears promising as an innovative method of conveying risk reduction messages</u>. However, longer follow-up is needed to determine if group differences persist as preadolescents progress through adolescence.
>
> The findings suggest that <u>effective prevention efforts require repeated exposure and opportunities for practice to produce lasting behavioral effects</u>. Participants attending all 5 sessions of the enhanced intervention were provided more exposure (12½ hours) to the key intervention targets than those in the single-session (2½ hours) and control (0 hours) interventions as well as opportunities to observe models, practice new skills, and obtain performance feedback and social support. These exposures and opportunities allow for greater skill acquisition and more lasting behavioral change.
>
> This study had several limitations. First, the participants were a convenience sample. Second, there was a high rate of attrition; however, the intent-to-treat analyses suggest that, even when those who did not complete the intervention and/or assessments were considered, group differences still emerged. Third, sexual behavior other than intercourse and intentions to engage in such behavior were not examined. Among its strengths, this study represents <u>the first empirically validated skills-based intervention designed for parents of preadolescent children with the goals of modifying sexual intentions and preventing early initiation of sexual behaviors</u>. The findings suggest that, <u>with intervention, parents can learn sexual communication skills and enhance their communication, which may prevent early adolescent high-risk sexual behavior</u>. (pp. 1127-1128)

In this same vein, Glenn, Demi, and Kimble (2008) "examine[d] the relationship between **fathers' influences** and African American male adolescents' perceptions of self-efficacy to reduce high-risk sexual behavior" (p.73). Data came from a convenience sample of 70 fathers recruited from churches in a large metropolitan area in the southern United States. Glenn and colleagues found that "the greater the son's perception of his father's communication of sexual standards (more communication about sexual issues and positive attitudes about HIV prevention) and ... [the] greater [the] father's perception of ... [his] son's self-efficacy[, the] ... greater [the] son's self-efficacy for abstinence" (p. 84). The relationship between fathers' influ-

[6] "The enhanced intervention's first 2 sessions ... focused on raising parents' awareness of adolescent sexual-risk behavior and teaching parents how they can help their preadolescents avoid such risks[. These sessions also focused on] ... skills known to reduce sexual-risk behavior among adolescents, including the use of positive reinforcement, monitoring, and effective parent-preadolescent communication. Sexual communication – focused on increasing parents' communication about sexual topics and their confidence, comfort, and responsiveness in communicating with their preadolescents about sexual behavior – was delivered in sessions 3 through 5. The enhanced intervention used multiple teaching strategies, including structured learning experiences, discussion, videotapes, overhead projections, modeling, role playing, group exercises, and homework assignments. Preadolescents attended part of the fifth session so that parents could practice and receive feedback on their communication skills.

The single-session intervention covered the same topics as the enhanced intervention but in a single session that was primarily a lecture format with visual aids and some videos but no opportunity to practice skills. The single-session control intervention focused on general health issues and emphasized how parents can help their preadolescents establish long-term health habits that would reduce the risk of such diseases as obesity, diabetes, cardiovascular disease, and hypertension. Preadolescents did not attend the single-session or control interventions" (pp. 1124-1125).

ences and sons' self-efficacy for safer sex was not statistically significant. Nevertheless, the investigators conclude that the "[d]ata support the need for fathers to express confidence in their sons' ability to be abstinent or practice safer sex and to communicate with their sons regarding sexual issues and standards" (p. 73).

About Men Who Have Sex With Men

Grov et al. (2008) analyzed interview data drawn from 111 gay and bisexual men in New York City who were experiencing **out-of-control sexual thoughts and/or behaviors**. The focus of the investigation was **the role of the Internet** in the lives of these men, 24 of whom were living with HIV (21.6% of the total sample). Grov and colleagues report that

> [f]or some it facilitated their problematic sexual thoughts and behaviours and, to some extent, was a distraction from important facets of their lives. Equally, men identified strategies to limit their internet use and reduce these negative consequences. For some, the internet ... [contributed] to [their] being less discriminating about partners. In contrast, other men compared the internet to other venues for meeting sex partners (e.g. bars) and described the internet as a medium for reducing physical (cruising online versus cruising a dark alley) and sexual (multiple partners at bathhouses versus cybersex only) risk. (p. 107)

In the context of these findings, Grov and colleagues caution clinicians to conduct "a more nuanced assessment of the impact of internet use on a person's overall well-being, rather than assume that the internet primarily negatively impacts on sexual health" (p. 120). Moreover, the investigators invite clinicians to "consider ways in which internet use could be a beneficial aspect of therapy or treatment. Cognitive behavioural strategies could focus on the internet as a method of stimulus control and an outlet for channelling sexual urges" (p. 120).

About Persons With Severe Mental Illnesses

Meade, Graff, Griffin, and Weiss (2008) assessed 101 adults with **co-occurring bipolar disorder** (BD) **and substance use disorder** (SUD). This sample of convenience included 47 men and 54 women who were primarily white and well-educated. "For [those with] BD diagnoses, 81% had bipolar I, 16% bipolar II, and 3% bipolar not otherwise specified. Most (84%) experienced a mood episode within the past month, and 49% were categorized as having a recent manic episode. All participants had a substance dependence disorder: 25% both drug and alcohol, 50% alcohol alone, and 25% drug alone. Among drug dependent participants, the most common primary drugs were cocaine (41%) and marijuana (41%)" (p. 297). Meade and colleagues found that, among these study participants, "[t]he majority (75%) were sexually active in the past 6 months and reported high rates of sexual risk behaviors, including unprotected intercourse (69%), multiple partners (39%), sex with prostitutes (24%, men only), and sex trading (10%). In a multivariate linear regression model, recent manic episode, lower psychiatric severity, and greater drug severity were independent predictors of total HIV risk. Cocaine dependence was associated with increased risk of sex trading" (p. 296). The investigators conclude that "acute mania and cocaine dependence seem to be risk factors for sexual risk behavior" (p. 298) and observe that "persons with co-occurring BD and SUD are in need of targeted HIV prevention services, particularly sexual risk reduction" (p. 299).

HIV Assessment News

Psychiatric Assessment

In France, Préau et al. (2008) investigated "the specific impact of treatments for chronic hepatitis C virus (HCV) infection on **anger expression and control** in adult patients coinfected with HIV and HCV receiving antiretroviral therapy" (p. 92). Préau and colleagues found that

> [a]mong the 139 patients who were receiving antiretroviral[s] ... at the time of [the] survey and who had complete self-reported data, 24 were being treated for ... HCV ..., using either pegylated interferon [(IFN)] and ribavirin or pegylated [IFN] alone. Control of anger was significantly lower among treated patients than among untreated ones ... . Sociodemographic and clinical characteristics did not differ significantly between these 2 groups. Control of angry feelings was significantly correlated with psychologic and social relationship dimensions of quality of life. (p. 92)

Expanding on these findings, Préau and colleagues point out that "[t]his result is consistent with literature on anger among HCV mono-infected patients, ... and provides further information about the association between IFN therapy and neuropsychiatric disorders, as many other studies have focused only on depression" (p. 93). Moreover, the investigators hypothesize "that the lack of anger control impairs patients' interactions with their close relations or occupational companions and also with their healthcare providers – interactions which have been shown to be of crucial importance in HIV-infected patients' [quality of life] ..." (p. 93). Préau and colleagues conclude that "[r]outine ... assessment of [each] patient's pattern of symptoms should be integrated into HCV and HIV services to develop programs to reduce anger expression and to increase anger control ability" (p. 95).

Parent-Child Assessment

In New York City, Bauman, Silver, Draimin, and Hudis (2007) assessed clinically significant psychiatric and behavioral symptoms every 6 months over a period of 2 years among 129 **children** between the ages of 8 and 12 years who were not infected with HIV but **living with** their **mothers**, **who had HIV disease**. Remarkably, during this 2-year period, "every child had a score in the clinical range (12% once, 25% twice, 26% 3 times, 27% 4 times, and 9% all 5 times). Clinically significant symptoms were most likely at baseline when mothers were sickest. Few had clinically significant symptoms based on maternal report only (5%) or child report only (8%). Chronicity of clinically significant symptoms was not related to child age or gender, maternal health or depression, [or] parent-child relationship" (p. e1141). With regard to the symptomatology,

> [t]he type of mental health problem that children experienced varied, although separation anxiety was most common in younger children, and internalizing problems were reported more by children than by their parents; parents reported more conduct problems, a finding consistent with the larger mental health literature. These children of HIV-infected mothers did not exhibit consistent profiles of symptoms across the sample; neither were symptoms consistent within individual children over time. This puts an additional burden on health professionals who are looking for ways to target clinical assistance to distressed children. (p. e1146)

It bears mentioning that, during this study, "[a]lthough two thirds of the children received mental health services ..., < 25% did at any 1 time, and 28% of children with chronic clinically significant symptoms never received care" (p. e1141). Bauman and colleagues conclude that "[c]hildren who are affected by AIDS should be routinely screened for psychiatric problems by using multiple measures and sources to avoid underidentification and be carefully monitored long-term" (p. e1141).

HIV Treatment News

Medical Care

On January 18, the U.S. Food and Drug Administration (FDA) approved **etravirine** (TMC125 or Intelence™) tablets for use in combination with other antiretrovirals for the treatment of adults who have experienced treatment failure with other antiretrovirals. Granted a "priority review," etravirine is the newest non-nucleoside reverse transcriptase inhibitor (NNRTI) to receive FDA approval. The most common side effects that were reported during clinical trials were skin rashes and nausea.

Psychiatric/Psychological/ Psychosocial/Spiritual Care

Adherence to Treatment

Cruess, Minor, Antoni, and Millon (2007) "examined the association of psychosocial and behavioral characteristics using the **Millon Behavioral Medicine Diagnostic** (MBMD; Millon, Antoni, Millon, Meagher, & Grossman, 2001)[7] and adherence to highly active antiretroviral therapy (HAART) among 117 HIV-positive individuals on HAART regimens" (p. 277). The investigators found that

> particular MBMD indexes, especially the Medication Abuse scale, could perhaps help identify medical patients with adherence problems early in the course of treatment. There was also some evidence that the MBMD could identify patients who were less responsive to standard medication counseling, perhaps suggesting the need for more intensive interventions for these subsets of individuals. In addition, the Medication Abuse scale was able to predict HAART adherence behaviors by asking more general medication usage questions (i.e., "Sometimes I can't remember what medication to take or when to take them"; and "If I don't get relief from medicine, I may increase the dosage on my own."). Thus, the MBMD might be used in clinical settings in which it is important to identify medication-taking tendencies at the inception of a new antiretroviral regimen. (p. 288)

Drawing on cross-sectional survey data from a diverse sample of 779 men and women receiving HIV care at one of four clinics in London and southeast England, Sherr et al. (2007) examined the experience of **switching antiretroviral treatment regimens** and the effect of such switches on a range of psychological parameters. Sherr and colleagues found that

> [t]reatment naive, non-switchers and single switchers generally reported lower symptom burden and higher quality of life. Multiple switchers reported higher physical symptom burden and higher global symptom distress scores. Those who had stopped treatment had significantly lower quality-of-life scores than all other groups. Suicidal ideation was high across the groups and nearly a fifth of all respondents had not disclosed their HIV status to anyone. Reported adherence was suboptimal – 79% of

[7] "The MBMD ... is a self-report inventory designed to assess a wide array of psychosocial factors that impact medical treatment and adjustment to illness. ... The main sections of the MBMD include: (a) Psychiatric Indications, (b), Coping Styles, (c) Stress Moderators, (d) Treatment Prognostics, and (e) Management Guides. The instrument contains 165 true-false items and takes approximately 20 to 25 min to complete. ... The MBMD is computer scored, generating a profile of scores that are automatically corrected for the patient's response style (i.e., overreporting or underreporting symptoms)" (p. 280).

subjects were at least 95% adherent on self-report measures of doses taken over the preceding week. (p. 700)

In all, nearly half of this clinic sample switched regimens since initiating antiretroviral treatment. The investigators urge clinicians to attend to

> any changes to treatment regimen and in particular to the psychological impact of moving through successive treatment switches. ... A holistic approach to treatment switching is important, as is an understanding of the impact of side-effects and the future management of disease. ... [Additionally], the level of psychological and global symptom burden was associated with adherence, and if clinicians can improve their assessment and management of treatment and disease-related symptoms, then adherence may be improved. (p. 703)

Cohn et al. (2008) examined antiretroviral adherence and health behaviors both **during and after pregnancy** among 149 women living with HIV and participating in a multi-site study. In this study, adherence was defined as self-reporting not missing *any* doses during a 3-month period. The investigators found that women with a history of illicit drug use and those who were nonadherent to prenatal vitamins were also nonadherent to antiretroviral therapy. "By targeting women with prior illicit drug use or non-adherence to prenatal vitamins for adherence counseling, more women will get the help they need to benefit optimally from antiretroviral therapy and prevent their offspring from acquiring HIV perinatally and from being exposed to toxic effects of alcohol, tobacco, and drugs" (p. 38).

Johnson et al. (2007) conducted a randomized, controlled trial involving 204 men and women in four U.S. cities – Los Angeles, Milwaukee, New York, and San Francisco – with self-reported adherence to antiretroviral therapy of < 85%. Participants were assigned to either a **15-session, individually delivered, cognitive behavioral intervention**[8] or to a control condition, in which no active psychosocial interventions were delivered until the trial had concluded. Both groups participated in follow-up assessments at 5, 10, 15, 20, and 25 months following randomization, and self-reported adherence to antiretrovirals was measured by a 3-day computerized assessment. According to Johnson and colleagues,

> [t]he Healthy Living Project intervention was successful in improving [antiretroviral therapy] adherence among participants with lower initial [antiretroviral therapy] adherence; however, the effect was only present at 2 of 5 time points, dissipating over time. At the 5- and 15-month assessments, the intervention and control groups reported substantial increases in their adherence rates, with the intervention group reporting a relative 10% to 13% improvement over the control group. ... There is evidence that, depending on specific regimen characteristics and baseline level of adherence, a 10% increase in mean adherence may be associated with as much as a halving of viral load ... and a 20% to 30% decreased risk of progression to AIDS, ... suggesting that the magnitude of the current effect is potentially clinically meaningful. (pp. 578-579)

Because "[t]he relative improvements among the intervention group compared with the control group dissipated at follow-up" (p. 574), the investigators conclude that "[c]ognitive behavioral intervention programs may effectively improve [antiretroviral therapy] adherence, but the effects ... may be short-lived" (p. 574).

Similarly, Parsons, Golub, Rosof, and Holder (2007) randomly assigned 143 men and women on HAART who met criteria for **hazardous drinking**[9] to either Project PLUS, **an 8-session intervention integrating MI and cognitive-behavioral skills training** (CBST),[10] or a time- and content-equivalent educational condition. "Viral load, CD4 cell count, and self-reported adherence and drinking behavior were assessed at baseline and at 3- and 6-month follow-ups" (p. 443).

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[8] "The Healthy Living Project experimental intervention ... consisted of 15 90-minute individual counseling sessions grouped into 3 modules, each consisting of 5 sessions. Module 1 (Stress, Coping, and Adjustment), addressing quality of life, psychologic coping, and achieving positive affect and supportive social relationships, was delivered before the 5-month time point. Module 2 (Safer Behaviors), addressing self-regulatory issues, such as avoiding sexual and drug-related risk of HIV transmission or acquisition of additional sexually transmitted diseases, and disclosure of HIV status to potential partners, was delivered between the 5- and 10-month time points. Module 3 (Health Behaviors), addressing accessing health services, medication adherence, and active participation in medical care decision making, was delivered between the 10- and 15-month time points. ... Intervention sessions followed a standard structure and set of activities but were individually tailored to participants' specific life contexts, stressors, and goals" (p. 575).

[9] "Because the intervention was specifically designed to target heavy or hazardous drinkers, the final requirements for enrollment included meeting criteria for hazardous drinking (> 16 standard drinks per week for men or > 12 standard drinks per week for women) ... and having alcohol problems greater than those associated with other drugs" (p. 444).

[10] "The Project PLUS intervention was based on the Information-Motivation-Behavioral Skills (IMB) Model, ... which posits that information and motivation activate behavioral skills, resulting in behavior change. Two complementary techniques[, MI and CBST,] ... were integrated, allowing trained counselors to match targeted information and skill-building techniques to the particulars of each client's motivation for change. ... All sessions were delivered by master's degree-prepared counselors who completed significant training in MI and CBST and received individual and group supervision throughout the project" (p. 444).

The investigators found that,"[r]elative to the education condition, participants in the intervention demonstrated significant decreases in viral load and increases in CD4 cell count at the 3-month follow-up and significantly greater improvement in percent dose adherence and percent day adherence. There were no significant intervention effects for alcohol use, however, and effects on viral load, CD4 cell count, and adherence were not sustained at 6 months" (p. 443). Parsons and colleagues point out that "Project PLUS is the first behavioral adherence intervention to demonstrate such improvements in all 3 measures (viral load, CD4 cell count, and percent adherence) and is the first intervention for HIV-positive individuals with alcohol-related problems to demonstrate any significant effects" (p. 448).

Although "[t]he study failed to maintain significant interaction effects at the 6-month visit, most likely because participants were no longer receiving the intervention content" (p. 448),

> [m]ean scores at the 6-month follow-up are all in the hypothesized direction (... [i.e.], the in-

Tool Box

For Whom the Tell Tolls: Curbing the Cost of Giving & Getting Distressing, HIV-Related News (Part 2)

Part 1 of this series (presented in the Winter 2008 issue of *mental health* **AIDS**) tackled the terminology used to describe how clinicians are thought to be affected by their work with trauma survivors. The earlier tool box also summarized literature on recognizing and alleviating the dangers facing clinicians practicing trauma-related psychotherapy. This concluding segment expands on the current state of qualitative and quantitative research in this area and offers emerging evidence for the *positive* consequences of this work for clinicians.

Practicing What We Preach?

Bober and Regehr (2006) administered traumatic stress and coping measures to 259 therapists working with victims of interpersonal violence in southern Ontario and found that therapists

> who spent more time per week counseling individuals who were victims of trauma reported higher levels of traumatic stress symptoms ... and, in particular, higher levels of intrusion symptoms. ... [It bears noting that] hours per week counseling trauma victims was not associated with maladaptive cognitive schemas[, the hallmark of vicarious traumatization (VT)] ... . However, years of experience was associated with more disruptive beliefs regarding intimacy with others. This suggests that degree of exposure has an impact on intrusion and avoidance symptoms but that altered beliefs do not appear to occur in the short run. ... Personal histories of childhood or adult trauma were not associated with ... [traumatic stress] scores except in individuals who sought treatment, suggesting that those who were distressed and unresolved about personal histories were likely to appropriately seek assistance. (p. 7)

Of great interest were findings related to coping strategies. "Although participants generally believed in the usefulness of recommended coping strategies including leisure activities, self-care activities and supervision, these beliefs did not translate into time devoted to engaging in the activities. Most importantly, there was no association between time devoted to coping strategies and traumatic stress scores" (p. 1).

Bober and Regehr conclude that "it does not appear that engaging in any coping strategy recommended for reducing distress among trauma therapists has an impact on immediate traumatic symptoms" (p. 8). The investigators go on to highlight an intriguing inconsistency in this area of clinical practice:

> As mental health professionals dedicated to the fair and compassionate treatment of victims in society, we have been strong in vocalizing concerns that those who are abused and battered not be blamed for their victimization and their subsequent traumatic response. Yet when addressing the distress of colleagues, we have focused on the use of individual coping strategies, implying that those who feel traumatized may not be balancing life and work adequately and may not be making effective use of leisure, self-care, or supervision. ... In light of the findings of this study that the primary predicator of trauma scores is hours per week spent working with traumatized people, the solution seems more structural than individual. That is, organizations must determine ways of distributing workload in order to limit the traumatic exposure of any one worker. This may not only serve to reduce the impact of immediate symptoms but may also address the potential longitudinal effects of disrupted beliefs regarding intimacy. ... [I]t is perhaps time that vicarious and secondary trauma intervention efforts with therapists shift from education to advocacy for improved and safer working conditions. (p. 8; see sidebar)

Cloudy, Chance of Showers

Research studies on VT and secondary traumatic stress (STS) have been reviewed and synthesized by a number of investigators in recent years (e.g., Baird & Kracen, 2006; Canfield, 2005; Dunkley & Whelan, 2006; Sabin-Farrell & Turpin, 2003). The most comprehensive synthesis to date was conducted by Sabin-Farrell and Turpin (2003), who reviewed journal articles, peer-reviewed e-journals, and book chapters in their attempt "to disentangle VT and its proposed PTSD [posttraumatic stress disorder] symptoms from alternative explanations involving normal distress to trauma and occupational stress arising within the workplace" (p. 452).

In their comparison of quantitative and qualitative studies, Sabin-Farrell and Turpin conclude that

> the evidence to support the concepts of VT and secondary trauma

tervention group demonstrating better clinical outcomes, higher levels of adherence, and less drinking compared with the education group. It is possible that the Project PLUS intervention would benefit from "booster visits" to reinforce the intervention components and to help participants sustain the positive effects impact on adherence and virologic and immunologic functioning. Future studies should consider the inclusion of booster sessions to examine their impact on long-term outcomes.

Because of its flexibility in tailoring intervention components to the specific needs of individual patients, the Project PLUS intervention is a perfect model for integration into HIV clinical care settings. Although an "intensive" intervention by some standards, the success of Project PLUS in improving clinical outcomes suggests that it might be a cost-effective investment, especially if delivered to the patients at highest risk for nonadherence. The intervention could be delivered by many different clinic profession-

Kicking More of It Upstairs

Bell, Kulkarni, and Dalton (2003) drew from multiple sources to offer a number of prevention and intervention strategies that merit consideration as an agency's administrative response to the vicarious traumatization of its workers. Four areas – organizational culture, workload, work environment, and education – of the seven identified by Bell and colleagues were discussed in the Winter 2008 issue of *mental health* **AIDS**. The three remaining areas – group support, supervision, and resources for self-care – are briefly discussed here:

o **Group support** – Both the burnout literature and the writings about vicarious trauma emphasize the importance of social support within the organization ... . Staff opportunities to debrief informally and process traumatic material with supervisors and peers are helpful ... . Critical incident stress debriefing ... is a more formalized method for processing specific traumatic events but may be less helpful in managing repetitive or chronic traumatic material ... . Support can also take the form of coworkers' help with paperwork or emergency backup. Time for social interaction between coworkers, such as celebrating birthdays ... as well as organized team-building activities and staff retreats, can increase workers' feeling of group cohesion and mutual support.

Peer support groups may help because peers can often clarify colleagues' insights, listen for and correct cognitive distortions, offer perspective/reframing, and relate to the emotional state of the ... worker ... . Group support can take a variety of forms, such as consultation, treatment teams, case conferences, or clinical seminars, and can be either peer led or professionally led. ...

Regardless of the form group support takes, ... it should be considered an adjunct to, not a substitute for, self-care or clinical supervision. (pp. 467-468)

o **Supervision** – Effective supervision is an essential component of the prevention and healing of vicarious trauma. Responsible supervision creates a relationship in which the ... worker feels safe in expressing fears, concerns, and inadequacies ... . Organizations with a weekly group supervision format establish a venue in which traumatic material and the subsequent personal effect may be processed and normalized as part of the work of the organization. ...

In addition to providing emotional support, supervisors can also teach staff about vicarious trauma in a way that is supportive, respectful, and sensitive to its effects ... . If at all possible, supervision and evaluation should be separate functions in an organization because a concern about evaluation might make a worker reluctant to bring up issues in his or her work with clients that might be signals of vicarious trauma. ... In situations where ... supervisory and evaluative functions [cannot be separated], agency administrators might consider contracting with an outside consultant for trauma-specific supervision on either an individual or group basis. The cost of such preventive consultation might be well worth the cost savings that would result from decreased employee turnover or ineffectiveness as a result of vicarious trauma. (p. 468)

o **Resources for self-care** – Agencies can make counseling resources available for all staff that interact with traumatic material ... . If there are many employees encountering the same type of trauma in the agency or within the larger community, agencies may consider the feasibility of forming a peer support group, as discussed earlier. Workers also need health insurance that provides mental health coverage ... .

... [I]n addition to providing resources for therapy, organizations should provide opportunities for structured stress management and physical activities. Organizations with limited resources might consider exchanging training on areas of expertise with other agencies that have experts in stress management. ... [S]ending one staff member to a conference or workshop to learn stress management techniques and then asking that person to present what he or she learned to coworkers is a cost-effective way to circulate this information through an organization. Organizing something as simple as a walking or meditation group during the lunch hour or after work might also contribute to staff wellness at no cost. (p. 468)

Reference

Bell, H., Kulkarni, S., & Dalton, L. (2003). Organizational prevention of vicarious trauma. *Families in Society, 84*(4), 463-470.

is meager and inconsistent, relying on small and variable correlations between symptomatic distress and trauma exposure. The relationship between exposure and altered cognitions and beliefs is even less robust. These quantitative findings starkly contrast with the certainty and conviction of those who write about the effects of working with trauma. Nevertheless, the findings from qualitative studies provide more support for the definition and suggested effects of VT than [do] the quantitative studies. There are clearly a number of important difficulties surrounding the

(*Tool Box is continued on Page 10)*

(Tool Box -- continued from Page 9)

> research methods, instruments, and selection of participants within the studies of VT, which may be largely responsible for the inconsistency in the results. (p. 467)

Sabin-Farrell and Turpin further discern from research studies that

> a number of factors may contribute to PTSD and other symptoms in staff who work with traumatized clients. These may be both personal and work related, and perhaps interact with each other. This is suggested by the weak correlations and the fact that multiple regression models only predict small percentages of the variance. It is also difficult to distinguish how much of the reported symptoms of distress could be attributed to the stressful nature of the job as opposed to being specifically related to working with traumatized clients. (p. 468)

Additionally, "the evidence suggests that some workers experience disrupted beliefs and cognitions associated with their work, but this may interact with their own history of trauma and other personal and work-related factors. Although the disruption in cognitions is a central part of the definition and theory of VT ..., the evidence for this is unclear, and where evidence for a disruption in beliefs has been found, it is possible that this may relate to or interact with factors other than the trauma work itself" (p. 469). Because "[t]he research related to beliefs ... is inconsistent and inconclusive[,] ... evidence for lasting changes is neither supported nor unsupported" (p. 472).

To summarize, Sabin-Farrell and Turpin conclude that

> [t]he evidence for VT in trauma workers is inconsistent and ambiguous. There may be some workers for whom the work is traumatizing and causes PTSD symptoms, more general symptomatic distress, and disruptions in beliefs and schemas. There appears to be more consistent evidence for symptomatic responses, particularly intrusive symptoms, than for cognitive effects. It is also unclear what the associated factors are, and how they interact with each other. Personal history of trauma may be a key factor in interacting with trauma work, but the effect of this is still uncertain. It is also possible that some workers are already utilizing good coping strategies which inhibit the impact of this work and this is likely to influence the results of research in this area. There were also positive effects of trauma work, which were identified by some of the qualitative studies, and it is possible that these factors may also balance the negative impacts of the work. Further research needs to be carried out to investigate these factors and their interactions in more detail, and to assess further whether work with trauma clients affects workers specifically over and above what could be considered to be effects of the stressful nature of mental health work. (pp. 472-473)

Additionally, "the methodological rigor within this area would be considerably improved by attending to the construct validity of VT and its measurement, issues of sampling, and the use of prospective designs. ... [Also, t]o date, the extent of this risk for staff working within the general health care system is not yet known. Previous research has been carried out with staff working solely with trauma, and the effects of working with trauma as part of a more varied caseload have not yet been studied" (p. 475).

Accentuate the Positive

As Sabin-Farrell and Turpin point out, although research has focused largely on risks to clinicians conducting trauma-related psychotherapy, emerging evidence for the positive consequences of this work has also been noted.

In an exploratory study, Arnold, Calhoun, Tedeschi, and Cann (2005) interviewed 21 clinicians with diverse caseloads (i.e., not working exclusively with trauma survivors) to explore the impact of trauma-related work. The findings

> confirm the existence of many negative sequelae; all ... 21 clinicians ... said that they had experienced some sort of negative response to trauma-related work, including intrusive thoughts and images of clients' trauma; emotional responses such as sadness, anger, fear, and countertransferential avoidance; physical exhaustion or pain; and concerns about their effectiveness as therapists. ... In addition to describing negative consequences, however, all of the clinicians in this sample reported that their work with trauma survivors had led to the experience of positive outcomes. A clear majority of these clinicians (16 of the 21 therapists, or 76% of the sample) spontaneously mentioned some sort of positive consequence in their responses to the interviewer's neutral, open-ended lead question about how they had been affected by their work with trauma survivors. ... Many therapists reported that their work with trauma survivors had changed their lives in profound and positive ways, a finding that suggests that the potential benefits of trauma work – **vicarious posttraumatic growth**, if you will – may be significantly more powerful and far-reaching

> als, including nurses, social workers, or case managers. If integrated within an HIV clinic setting, individual CBST modules could be delivered as "booster" sessions during routine care visits or when a client presented with treatment failure because of nonadherence. (p. 449)

What factors *other* than adherence appear to contribute to health outcomes? Surveying a diverse sample of 275 men and women with alcohol use disorders who were living with HIV, Parsons, Rosof, and Mustanski (2008) examined "the relationship between negative consequences of alcohol use, **adherence self-efficacy**, medication adherence, and biological markers of HIV health (CD4 count and viral load)" (p. 95). "The construct of self-efficacy, or confidence, hinges on a belief in oneself,

than the existing literature's scant focus on potential benefits would suggest. (pp. 255-256)

Arnold and colleagues observe that "[t]hese perceptions of growth following therapists' vicarious brushes with clients' trauma are remarkably similar in content to those described by individuals who have experienced trauma directly; in fact, all three major categories of posttraumatic growth outcomes[1] – positive changes in self-perception, interpersonal relationships, and philosophy of life ... – were reported by the clinicians who were interviewed for this study" (p. 257). Moreover, "certain kinds of vicarious posttraumatic growth – for example, the spiritually broadening effects of accompanying clients on spiritual paths radically different from one's own – would seem to be uniquely linked to the therapeutic role" (p. 260).

Although they recognize that "it would be inappropriate to extrapolate the experience of the clinicians interviewed in this study beyond this sample," (p. 259), Arnold and colleagues suggest that "[a]dopting a more inclusive, less pathologizing conceptualization ... of trauma work – as an endeavor that holds the promise of life-affirming benefits as well as sadness and pain – might help clinicians to view themselves, their clients, and the work in new and empowering ways" (p. 260).

Similarly, Hernández, Gangsei, and Engstrom (2007) propose a new concept – **vicarious resilience** (VR) – on the basis of interviews with 12 psychotherapists working with victims and families of victims of political violence in Bogotá, Columbia. This concept "draws on a synthesis of several different areas of clinical theory, research, and practice. The first relates to the vicarious impact of trauma survivors' stories and experiences on the professionals who work with them. This phenomenon has been analyzed primarily through the concepts of ... [VT, STS,] and compassion fatigue ... . The second relates to resilience, exploring the way in which trauma survivors access adaptive processes and coping mechanisms to survive and even thrive in the face of adversity ..." (p. 229).

> The themes emerging from this qualitative study indicate ... that therapists who work in extremely traumatic social contexts learn about coping with adversity from their clients, that their work does have a positive effect on the therapists, and that this effect can be strengthened by bringing conscious attention to it. ... VR ... is characterized by a unique and positive effect that transforms therapists in response to client trauma survivors' own resiliency. In other words, it refers to the transformations in the therapists' inner experience resulting from empathic engagement with the client's trauma material. VR may be a unique consequence of trauma work. ... [Hernández and colleagues] argue that this process is a common and natural phenomenon illuminating further the complex potential of therapeutic work both to fatigue and to heal. (p. 237)

As Hernández and colleagues see it,

> a complex array of elements contribut[es] ... to the empowerment of therapists through interaction with clients' stories of resilience. These elements are witnessing and reflecting on human beings' immense capacity to heal; reassessing the significance of the therapists' own problems; incorporating spirituality as a valuable dimension in treatment; developing hope and commitment; articulating personal and professional positions regarding political violence; articulating frameworks for healing; developing tolerance to frustration; developing time, setting, and intervention boundaries that fit therapeutic interventions in context; using community interventions; and developing the use of self in therapy. Awareness of the phenomenon and component elements of VR and introducing the concept into the professional vocabulary can guide therapists in strengthening themselves and their work. (p. 238)

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Dunkley, J., & Whelan, T.A. (2006). Vicarious traumatisation: Current status and future directions. *British Journal of Guidance & Counselling, 34*(1), 107-116.
Hernández, P., Gangsei, D., & Engstrom, D. (2007). Vicarious resilience: A new concept in work with those who survive trauma. *Family Process, 46*(2), 229-241.
Sabin-Farrell, R., & Turpin, G. (2003). Vicarious traumatization: Implications for the mental health of health workers? *Clinical Psychology Review, 23*(3), 449-480.

– Compiled by Abraham Feingold, Psy.D.

[1] For more information on posttraumatic growth among people living with and affected by HIV/AIDS, go to the **Tool Box** entitled "From Surviving to Thriving: HIV-Associated Posttraumatic Growth" in the Winter 2007 issue of *mental health* **AIDS**.

a self-belief that one can accomplish even the most difficult ... of tasks, such as taking the often complex regimens of HAART" (p. 100). Interestingly, the investigators found that

> adherence self-efficacy predicted viral load, while alcohol [use problems] did not. Further analysis found that self-efficacy had direct effects on viral load, but not on CD4 counts. ... [The investigators] next sought to determine whether the relationship between self-efficacy and viral load was mediated by adherence to medication and found that adherence significantly, but only partially, mediated the relationship. In other words, self-efficacy for adherence to HIV medications had a direct effect on viral load that was not explained by self-reported medication adherence.

> However, ... [the investigators] found that adherence did not mediate the relationship between self-efficacy and CD4 counts, which was explained by the fact that none of the paths to CD4 counts were significant. (p. 100)

Although Parsons and colleagues could not explain "why adherence self-efficacy did not directly impact CD4 count in the way it affects viral load" (p. 100), their findings do

> reveal that factors other than adherence to medication can predict variability in HIV health. ... Thus, future interventions should include enhancing self-efficacy and strengthening beliefs in the benefits of taking medication and maintaining good health. Clearly, cognitive interventions, which emphasize boosting confidence in one's ability to take medication and confidence in the effects of medication, are implicated. Motivational therapies can address self-efficacy directly by simply asking patients about their level of confidence. Health care providers could engage their patients in a brief conversation about [their] confidence to adhere to their HAART medications that could be highly motivational and lead to higher confidence levels. Similarly, [physical health] providers could partner with behavioral health clinicians to deliver adherence interventions that include motivational components. ... Health professionals should use motivational techniques to also explore ambivalence about medication taking and attempt to assist the patient in resolving this ambivalence.[11] Additionally, cognitive behavioral therapy could offer a way to improve self-efficacy by setting goals that are accomplishable and challenging thinking that interferes with confidence. (p. 101)

Serostatus Disclosure

Tompkins (2007) explored **the process of HIV status disclosure** between 23 mothers living with HIV and one of their children (ages 9 to 16 years) who was not infected with HIV. Within this group of mothers, 61% disclosed their positive serostatus to the child who participated in the study. "Consistent with previous research, disclosure was not related to child functioning. However, children sworn to secrecy demonstrated lower social competence and more externalizing problems. Differential disclosure, which occurred in one-third of the families, was associated with higher levels of depressive and anxiety symptoms. Finally, knowing more than mothers had themselves disclosed was related to child maladjustment across multiple domains" (p. 773). Speaking to their

> positive feelings about the disclosure, both children and mothers most frequently cited increased child involvement and decreased maternal stress. Disclosure regrets, which were few, most frequently concerned fear of increased child stress and worry.
>
> Interviews with mothers who had not yet disclosed suggested that all of these mothers would tell their children in the future. Concerns about child protection, developmental inappropriateness, and stigma were cited by these mothers as reasons for not having told. In considering future disclosure, mothers endorsed open communication and avoidance of inadvertent disclosure as reasons for disclosing [their] diagnostic status to [their] children. In light of results suggesting that children's negative emotional reactions decrease over time while hope increases following initial disclosure, such information may prove useful in preparing mothers who are contemplating disclosure to expect a wide range of initial emotional reactions from their children. Additionally, for mothers who are not yet ready to tell their children, it may be comforting to know that others share their concerns and have also made a choice to delay disclosure. Similarly, being able to normalize both mother and child reactions to disclosure may be helpful in assisting individual families [to] cope with the stress associated with disclosure-related decisions. (p. 782)

Tompkins outlines several steps that can be taken to assist mothers who are considering the disclosure of their diagnosis to their children. These steps include

> contemplating and preparing for all possible reactions; honestly considering what the child may already know; learning about the typical ways in which children cope with and process stressful situations (including developmental differences and the ways in which children continue to seek information as they mature and develop); thinking about the effects such news may have on the child and the relationship; practicing developmentally appropriate ways to impart the information; deciding how to handle issues around telling others; and developing and implementing a plan to keep the topic open for discussion over time.
>
> If the current findings should survive replication, professionals may want to inform mothers about ... the complex advantages and disadvantages of swearing a child to secrecy; of disclosing to some, but not all, family members; and of not being fully honest about

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[11] See the **Tool Box** on "Emerging Methods for Motivating Effective Medication Practice" in the Summer 2006 issue of *mental health* **AIDS** for more information on the application of MI to antiretroviral medication taking.

what the child "knows" and sees ... . For example, if children are of drastically different ages, it may be difficult, if not impossible, to withhold disclosure from an older child before informing a younger sibling. However, considering the strain that secrets can place on family openness and communication, as well as on the individual child who must withhold information from a younger sibling, a mother who has carefully considered such factors may make different decisions. She may decide to tell the younger child sooner than if s/he was an only child and/or she may discuss the situation with the older child in order to explain the reason for differential disclosure. Similarly, a mother who honestly acknowledges that a child already knows that "something" is wrong may feel empowered to open up the lines of communication after considering some of the possible disadvantages associated with continued withholding of information (e.g., maternal guilt over concealment; avoidance of closeness with the child to prevent questions; child confusion, mistrust, anger). (p. 786)

Coping, Social Support,
& Quality of Life

In another study involving mothers living with HIV, Burns, Feaster, Mitrani, Ow, and Szapocznik (2008) "examined the **mechanism by which stressors, dissatisfaction with family, perceived control, social support, and coping** were **related to psychological distress** in a [convenience] sample of [206 urban, low-income,] HIV-positive African American mothers. Additional analyses explored whether women who had a history of a drug abuse or dependence diagnosis differed either on levels of the study variables or the model pathways" (p. 95). Burns and colleagues found that "HIV-positive African American mothers who had higher levels of stressors perceived their stressors as a whole to be less controllable. Coping resources, available social support and perceived control ... were positively associated with active coping and negatively associated with psychological distress. Avoidant coping was the most important predictor of psychological distress. Furthermore, the effect of avoidant coping on psychological distress was stronger for mothers with a history of drug [use] diagnosis" (p. 95). In the view of the investigators,

> these results point to several promising avenues for interventions. First, working directly on the reported family dissatisfaction and building skills to enhance perceived control would potentially decrease ... psychological distress. Second, working on recruitment, maintenance and utilization of available social support would have beneficial effects on the constellation of coping responses. Having supportive and positive persons in one's network could increase supportive coping and coping strategies such as planning and taking action, while decreasing the use of avoidant coping strategies such as disengagement, distraction and suppression of thoughts as a coping response. Finally, for substance abusing HIV-positive women, encouraging and demonstrating the utility of more active and less avoidant coping responses should have direct benefits on psychological distress. (p. 113)

Fife, Scott, Fineberg, and Zwickl (2008)

> evaluated **an intervention to facilitate adaptive coping** by persons living with HIV ..., **with the participation of** their **cohabiting partners** as a dimension of the intervention. An experimental design with randomization was used, and 84 [persons living with HIV] and their partners were recruited. The intervention[12] was based on a psychosocial educational model that incorporated four 2-hour sessions focused on communication, stress appraisal, adaptive coping strategies, and building social support. Both members of the dyad were included in each session. The comparison control included four supportive phone calls to the [person living with HIV] alone. Data were collected from both the [persons living with HIV] and their partner[s] in each of the two groups at baseline, immediately following the intervention, and 3 months and 6 months posttreatment. (p. 75)

Fife and colleagues found that "the experimental intervention involving partners was more effective in facilitating adaptive coping for [persons living with HIV] than ... supportive telephone calls to the [person living with HIV] alone" (p. 82). "The strongest effects of this intervention were changes in coping behaviors[,] ... the decrease in negative emotions and the increase in positive feelings as well as the construction of positive meaning related to the illness" (p. 82) among those who participated in the experimental intervention. Importantly, "[i]n the case of coping effectiveness and active coping, the difference between the intervention and control groups was at least partially explained by a positive change in the partner's behavior" (p. 81). Although retention was a problem in this study, particularly at the 6-month data collection point, the investigators suggest that "the design was ... feasible[, with] ... demonstrated potential for the management of stress ... [among persons living with HIV]" (p. 75).

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[12] "A manual detailing the specifics of the intervention was developed, refined, and evaluated as a part of this research; it is available upon request from the first author" (p. 76; Betsy L. Fife, Ph.D., R.N.; bfife@iupui.edu).

Uphold, Holmes, Reid, Findley, and Parada (2007) "examined the relationships between health-promoting behaviors, risk behaviors, stress, and **health-related quality of life** (HRQOL) among 226 men with HIV infection who were [living in predominantly rural and suburban areas of the southeastern United States and] attending [one of] three infectious disease clinics" (p. 54). The investigators found that "health-promoting behaviors were positively related and stress was negatively related with most of the HRQOL dimensions ... [and h]azardous alcohol use was negatively associated with one HRQOL dimension – social functioning" (p. 54). These results "highlight the association of modifiable factors, such as health-promoting behaviors and stress, with HRQOL among men living with HIV infection" (p. 61) and suggest that

> relatively simple, straightforward changes in lifestyles such as eating well, managing stress, and remaining active may result in significant improvements in HRQOL. Although there are challenges in altering one's behavior, this study highlights the importance of counseling men with HIV infection about the benefits of engaging in health-promoting behaviors and avoiding stressful life events. In addition, ... educational programs that emphasize self-care ..., coping improvement ...., and cognitive behavior ... strategies that reduce stress ... are practical and cost-effective mechanisms for empowering patients with HIV infection to take personal responsibility for improving their health and quality of life. (p. 64)

It goes without saying that improving mental health among persons living with HIV is another worthy intervention goal. To this end, McDowell and Serovich (2007) "compare[d] the ways in which **perceived and actual social support** affect the mental health of [139] gay men, [93] straight or bisexual men, and [125] women living with HIV/AIDS" (p. 1223). "Results of this study suggest that there are significant differences in the relationship of perceived and actual social support to mental health. Women, gay men and straight/bisexual men all experienced perceived social support versus actual social support as significantly more predictive of mental health" (pp. 1227-1228), which was measured with indices of depressive symptomatology and loneliness. McDowell and Serovich identify the value of this information to clinicians working with people living with HIV/AIDS in the following ways:

> First, it suggests that individuals with small social networks can be adequately supported. Therefore, investigating the degree to which clients feel they have the resources they need would be more important than assessing the numbers of persons who can assist. Helping professionals should focus on supporting clients in recognising the many

Tool Box
Resources

Books & Articles

Balfour, L., Kowal, J., Tasca, G.A., Cooper, C.L., Angel, J.B., MacPherson, P.A., Garber, G., Béique, L., & Cameron, D.W. (2007). Development and psychometric validation of the HIV Treatment Knowledge Scale. *AIDS Care, 19*(9), 1141-1148.
"Existing HIV knowledge scales focus on disease transmission and risk factors. This is the first study to develop and validate a scale to measure HIV treatment knowledge about complex treatment issues such as adherence, side-effects and drug resistance. ... The [21-item] HIV Treatment Knowledge Scale is a novel, easy-to-administer measure demonstrating high levels of validity and reliability. It has important applications as a clinical teaching tool with patients and health-care workers and it could be used as an outcome indicator in HIV educational intervention studies" (p. 1141).

Balfour, L., Tasca, G.A., Kowal, J., Corace, K., Cooper, C.L., Angel, J.B., Garber, G., MacPherson, P.A., & Cameron, D.W. (2007). Development and validation of the HIV Medication Readiness Scale. *Assessment, 14*(4), 408-416.
"The [10-item] HMRS is a brief, easy-to-use, clinically relevant tool that can assist in identifying people living with HIV at high risk of nonadherence, who might benefit from tailored readiness counseling prior to initiating HIV medications" (p. 408).

Bova, C., Burwick, T.N., & Quinones, M. (2008). Improving women's adjustment to HIV infection: Results of the Positive Life Skills workshop project. *Journal of the Association of Nurses in AIDS Care, 19*(1), 58-65.
"This report describes the results of a program designed to assist HIV-infected women to reframe negative meanings associated with HIV infection and adjust to HIV infection. ... Small-group sessions (6-15 women) met weekly for 10 consecutive weeks to identify and dialogue about personal and group learning needs. Women explored the power of art, science, and alternative therapies as venues for reframing the meaning of HIV in their lives. ... Responses from the workshop participants over a 6-year time frame suggested that the [Positive Life Skills] workshop was effective at increasing antiretroviral adherence, improving mental well-being, and reducing stress" (p. 58).

Chernoff, R.A. (2007). Treating an HIV/AIDS patient's PTSD and medication nonadherence with cognitive-behavioral therapy: A principle-based approach. *Cognitive & Behavioral Practice, 14*(1), 107-117.
"This article presents the case study of a patient with HIV/AIDS who was unable to adhere to his antiretroviral medication regimen primarily because of PTSD [posttraumatic stress disorder] and depressive symptoms resulting from a sexual assault that had caused his seroconversion. Exposure-based cognitive-behavioral therapy was instrumental in helping the patient overcome his PTSD and

other dimensions of support offered that may not be easily recognisable such as offering material aid (i.e.[,] providing transportation) or advice. Second, therapists and other helping professionals should invest in developing or enhancing interventions that increase the value of support provided by the social network. Clinicians might consider focusing on and assisting with repairing damaged family relationships or finding ways in which friends have offered support in order to adequately buffer the effects of HIV on functioning. (p. 1228)

Lastly, Crepaz et al. (2008) conducted a meta-analysis to determine "**the efficacy of cognitive-behavioral interventions** (CBIs)[13] **for improving** the **mental health and immune functioning** of people living with HIV" (p. 4). The investigators included data from 15 controlled trials, published between 1991 and 2005, in their analysis, and found that "[s]ignificant intervention effects were

[13] CBIs "focus on the interaction of thoughts, feelings, and behaviors ... . Although there are various CBI techniques, the most common practices focus on altering irrational cognitions related to negative psychological states (e.g., depression, anger, anxiety), correctly appraising internal and external stressors, gaining stress management skills, and developing adaptive behavioral coping strategies. A recent systematic review of meta-analyses on CBIs ... showed that CBIs are highly effective for adult and adolescent unipolar depression, generalized anxiety disorder, panic disorder, social phobia, posttraumatic stress disorder, and childhood depressive and anxiety disorders. Across many disorders, including depression and anxiety, the intervention effects are maintained for substantial periods (e.g., 12 months). In cases of depression, CBIs demonstrated greater long-term effects, with relapse rates half those of pharmacotherapy ..." (pp. 4-5).

depressive symptoms so that he could tolerate his HIV medications. ... The article discusses the importance of accurate assessment, therapist flexibility, and principle-based treatment versus strict adherence to manual-based protocols" (p. 107).

Harper, G.W. (2007). Sex isn't that simple: Culture and context in HIV prevention interventions for gay and bisexual male adolescents. *American Psychologist, 62*(8), 806-819.
"The purpose of this article is to demonstrate the need for an increased focus on the development of HIV prevention programs for gay and bisexual male adolescents and young adults and to offer guidance for the creation of such interventions. Since the social and sexual lives of these young people are impacted by a host of cultural and contextual factors, interventions should be designed to address the population-specific influences on both sexual risk and protective behaviors. Recommendations are offered regarding the range of multisystemic factors that may be addressed in these prevention programs, as well as activities that may be included in HIV prevention programs for gay and bisexual adolescents and young adults" (p. 807).

Harris, G.E., & Larsen, D. (2007). HIV peer counseling and the development of hope: Perspectives from peer counselors and peer counseling recipients. *AIDS Patient Care & STDs, 21*(11), 843-860.
"The present paper ... explores the benefits of peer support counseling from the perspective of 12 participants living with HIV who have had experiences with peer counseling. Participants identified several thematic benefits of peer support counseling, including the role of peer counselors in the process of fostering hope. Roles and benefits of peer counseling, in relation to the facilitation of hope for people living with HIV/AIDS, suggest potentially interesting implications for future research and practice in HIV/AIDS care" (p. 843).

Hawk, S.T. (2007). Disclosures of maternal HIV infection to seronegative children: A literature review. *Journal of Social & Personal Relationships, 24*(5), 657-673.
"This literature review devotes specific attention to rates and predictors of maternal disclosure, justifications for (non)disclosure, how mothers plan and execute disclosures, and postdisclosure adjustment in families. Although no research has conclusively shown that maternal disclosures are detrimental to children's wellbeing, findings on adjustment may differ depending on child age and whether mothers or children are the informants in research" (p. 657).

Lescano, C.M., Hadley, W.S., Beausoleil, N.I., Brown, L.K., D'eramo, D., & Zimskind, A. (2007). A brief screening measure of adolescent risk behavior. *Child Psychiatry & Human Development, 37*(4), 325-336.
"This study examined the factor structure and reliability of a brief but comprehensive measure, the adolescent risk inventory (ARI), designed to assess adolescent risk behaviors and attitudes. ... These analyses suggest that the ARI can be useful in quickly identifying the broad range of risk behaviors found among adolescents with psychiatric disorders" (p. 325).

Maguire, C.P., McNally, C.J., Britton, P.J., Werth, J.L., Jr., & Borges, N.J. (2008). Challenges of work: Voices of persons with HIV disease. *Counseling Psychologist, 36*(1), 42-89.
"The purpose of this qualitative study was to provide in-depth descriptions of ... [the] vocational experiences of persons with HIV. ... Results support the need for ... mental health professionals to address real and perceived [employment-related] barriers, both internal and contextual, while also becoming advocates for persons with HIV who want to work. A model derived from qualitative data analysis provides visual representation of the work experiences of people living with HIV, for potential application in assessment and treatment" (p. 42).

Malow, R.M., Kershaw, T., Sipsma, H., Rosenberg, R., & Dévieux, J.G. (2007). HIV preventive interventions for adolescents: A look back and ahead. *Current HIV/AIDS Reports, 4*(4), 173-180.
"This article provides a review of the literature on interventions among adolescents, summarizing why adolescents provide a unique challenge for HIV prevention, the intervention approaches that have been taken, and the challenges and recommendations for the future as the field con-

(*Tool Box is continued on Page 16*)

(Tool Box -- continued from Page 15)

fronts the neurobiologic dimension of risk" (p. 173).

Morgan, B.D., & Rossi, A.P. (2007). Difficult-to-manage HIV/AIDS clients with psychiatric illness and substance abuse problems: A collaborative practice with psychiatric advanced practice nurses. *Journal of the Association of Nurses in AIDS Care, 18*(6), 77-84.
"Complex clients with comorbid HIV disease, other medical illness, psychiatric illness, and substance abuse problems present tremendous challenges to providers. ... This report describes the practice of two advanced practice psychiatric registered nurses who worked collaboratively with each other and with nurse practitioners to provide care to such ... clients. ... [T]he model of collaboration used by the two practitioners ... [is actualized] through three case studies. Conclusions about the practice and its use with complex clients are provided" (p. 77).

Murphy, D.A. (2008). HIV-positive mothers' disclosure of their serostatus to their young children: A review. *Clinical Child Psychology & Psychiatry, 13*(1), 105-122.
"A great deal of recent research ... has been conducted to investigate maternal disclosure of HIV, and the outcomes on children. This article reviews the current state of the research literature, focusing on factors that appear to influence whether or not mothers chose to disclose; characteristics of children who have been made aware of their mothers' serostatus relative to children who remain unaware; factors that appear to influence children's reactions to maternal disclosure; and implications of this research as well as future research directions" (p. 105).

Safren, S.A., Wingood, G., & Altice, F.L. (2007). Strategies for primary HIV prevention that target behavioral change. *Clinical Infectious Diseases, 45* (Suppl. 4), S300-S307.
"In this report, tested initiatives for preventing HIV infection are summarized and their success evaluated for men who have sex with men, injection drug users, and women of minority racial groups. Objective evidence of reductions in high-risk behavior in these 3 groups, which account for the majority of HIV transmissions in the United States, has critical implications for reducing the overall rate of new HIV infections" (p. S300).

Sharpe, T.T., Glassman, M., & Collins, C. (2007). The use of epidemiologic and other data in selecting behavioral HIV prevention interventions for African-American women. *Women & Health, 46*(2-3), 145-166.
"We describe a 'research to practice' method by which ... HIV prevention service providers can integrate the findings of national surveillance with other sources of public health data. We suggest developing a comprehensive risk profile, based on multiple sources of data, to inform the selection and implementation of evidence-based behavioral interventions ... for African-American women" (p. 145).

Treisman, G., & Angelino, A. (2007). Interrelation between psychiatric disorders and the prevention and treatment of HIV infection. *Clinical Infectious Diseases, 45*(Suppl. 4), S313-S317.
"In this report, the interrelation between major depression and HIV infection is evaluated, the impact of this interrelation on adherence to HAART [highly active antiretroviral therapy] is described, and methods for effective treatment of psychiatric conditions in HIV-infected persons are discussed" (p. S313).

Wojna, V., Skolasky, R.L., McArthur, J.C., Maldonado, E., Hechavarria, R., Mayo, R., Selnes, O., Ginebra, T., de la Torre, T., Garcia, H., Kraiselburd, E., Melendez-Guerrero, L.M., Zorrilla, C.D., & Nath, A. (2007). Spanish validation of the HIV Dementia Scale in women. *AIDS Patient Care & STDs, 21*(12), 930-941.
"This study's purpose was to determine the psychometric properties of the Spanish-language HIV Dementia Scale (HDS) in a group of HIV-infected women. ... Modification of the HDS into a Spanish-language version consisted of translating the instructions, substituting four words in Spanish (*gato, media, azul, pina*), increasing 1 second in the psychomotor speed because the Spanish alphabet has more letters than the English alphabet, and not offering clues for memory recall. ... The HDS-Spanish translation offers a useful screening tool with value for the identification of Hispanic women at risk of developing HIV-as-

observed for improving symptoms of depression ..., anxiety ..., anger ..., and stress ... . There is limited evidence suggesting intervention effects on CD4 cell counts ... . The aggregated effect size estimates for depression and anxiety were statistically significant in trials that provided stress management skills training and had more than 10 intervention sessions" (p. 4). Additional analyses

> showed that the significant intervention effects on depression and anxiety were observed at the immediate postintervention assessment; however, there was no evidence for longer term effectiveness. It is plausible that without boosters, there would be a gradual discontinuation in the practice of skills to correctly assess irrational thoughts and improve coping and stress management skills. ... [T]he findings ... suggest that the challenge of coping with emotional issues over the course of HIV infection may require on-going behavioral reinforcement to prevent relapse. (p. 10)

Although Crepaz and colleagues correctly acknowledge a variety of limitations to this meta-analytic review, these results "suggest that CBIs can improve the mental health of [people living with HIV] ... [and that] to effectively treat [people living with HIV], mental health services must be available and accessible to [recipients of] medical care. However, it is important to recognize that the effects of CBIs may not last long term. [People living with HIV] may therefore need on-going or periodic provision of CBIs or other mental health services to ensure the sustainability

sociated symptomatic neurocognitive disturbances" (p. 930).

Zaller, N., Gillani, F.S., & Rich, J.D. (2007). A model of integrated primary care for HIV-positive patients with underlying substance use and mental illness. *AIDS Care, 19*(9), 1128-1133. "In 2003, with funding from the Center for Substance Abuse Treatment (CSAT), we developed a model of integrated substance-use counselling and referral for treatment within a primary care HIV-care setting at The Miriam Hospital in Providence, Rhode Island. The project uses a multidisciplinary approach to provide linkage to treatment services for substance use and mental illness as well as to help participants with social service needs, such as housing and medical coverage, to ensure continuity of care and optimal HIV treatment adherence" (p. 1128).

On the Web

The Centers for Disease Control and Prevention's (CDC's) *Updated Compendium of Evidence-Based HIV Prevention Interventions* was posted on November 30, 2007, and may be found here: http://www.cdc.gov/hiv/topics/research/prs/evidence-based-interventions.htm. This *Updated Compendium* includes 49 evidence-based, individual- and group-level interventions derived from a comprehensive review of literature published between 1988 and 2005.

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of intervention effects. Certainly, more research in this area is needed" (p. 12).

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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:

Bartlett, J.G., & Gallant, J.E. (2007). *Medical management of HIV infection, 2007 edition.* Baltimore: Johns Hopkins University, Division of Infectious Diseases.

Fernandez, F., & Ruiz, P. (Eds.). (2006). *Psychiatric aspects of HIV/AIDS.* Philadelphia: Lippincott Williams & Wilkins.

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