# mental health AIDS

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# **Biopsychosocial Update**

# **HIV Prevention News**

# About Adolescents & Young Adults

Brown et al. (2010) "used a structured computer interview to examine the relationship between psychiatric disorders (i.e., major depressive disorder [MDD], mania, hypomania, generalized anxiety disorder [GAD], posttraumatic stress disorder [PTSD], [conduct disorder] CD, [attention-deficit/hyperactivity disorder] ADHD, and oppositional defiant disorder [ODD]) and sexual risk behaviors. Adolescents meeting criteria were compared with adolescents who did not meet criteria but who were in mental health treatment" (p. 591). "The study was conducted in three sites: Providence (Rhode Island), Atlanta (Georgia), and Chicago (Illinois). Participants were recruited from 10 outpatient settings (hospital, community-based, and public) and five inpatient psychiatric units from 2004 to 2007" (p. 591) and included 840 adolescents "(56% female, 58% African American, mean age = 14.9 years) and their parents" (p. 590). The teens "completed computerized assessments of psychiatric symptoms[,] . . . reported on sexual risk behaviors (vaginal/anal sex, condom use at last sex) and completed urine screens for a sexually transmitted infection (STI)" (p. 590).

Brown and colleagues found that "compared with age- and race-adjusted national data . . ., this sample

of youths in mental health treatment is no different in report of condom use, but they appear to be more likely to be sexually active (54% vs. 43%), to report four or more sexual partners (15% in the last 90 days vs. 14% lifetime), and to have a[n] STI (14% via urine screen vs. 6% lifetime history)" (p. 595). Moreover,

adolescents meeting criteria for mania, externalizing disorders ([ODD], [CD], and [ADHD]), or comorbid for externalizing and internalizing disorders ([MDD], [GAD], and [PTSD]) were significantly more likely to report a lifetime history of vaginal or anal sex than those who did not meet criteria for any psychiatric disorder. . . . Adolescents meeting criteria for mania were significantly more likely to have 2 or more partners in the past 90 days . . . and to test positive for a[n] STI . . . relative to adolescents who did not meet criteria for a psychiatric disorder. (p. 590)

On the basis of these findings, the investigators stress that

although adolescents in mental health treatment are at risk for HIV and other STIs, particular diagnoses convey additional risk. Those with externalizing disorders, even with a co-occurring internalizing disorder, are more likely to be sexually active and thus should be carefully screened for intervention to reduce their risk. Adolescents with a history of mania are at increased risk because of more sexual partners and STIs. In addition to treatment of psychiatric symptoms, careful monitoring of behavior and contact with lower risk peers may be helpful. Adolescents in treatment but without significant symptoms were the lowest risk group. It is possible that effective mental health treatment, without specific attention to sexual behavior risk, will reduce HIV/STI risk, but longitudinal studies are needed. For now, youths with externalizing disorders and mania deserve careful attention, and all adolescents can benefit from strategies to increase safer sexual behaviors. (p. 595)

Elkington, Bauermeister, and Zimmerman (2010) prospectively examined "the mediating or moderating role of substance use on the relationship between psychological distress and sexual risk behaviors ... over the four high school years" (p. 514) among a sample of

| In This Issue:         |  |
|------------------------|--|
| Biopsychosocial Update |  |
| HIV Prevention News    |  |
| HIV Assessment News    |  |
| HIV Treatment News     |  |
| Tool Boxes             |  |
|                        |  |

| OOI DOXCO              |    |
|------------------------|----|
| Safety in Numbers:     |    |
| The Emergence of       |    |
| Complex HIV Prevention |    |
| Interventions          | 4  |
| Resources              | 12 |
| A Note on Content      | 15 |

...3

...7

850 urban, predominantly African American youth. The investigators found that

substance use was associated with psychological distress. Greater psychological distress was associated with increased sexual intercourse frequency, decreased condom use, and increased number of partners. Substance use fully mediated the relationship between psychological distress and intercourse frequency and condom use. and partially mediated the relationship between psychological distress and number of partners. [Elkington and colleagues] found no differences in mediation by sex or race/ethnicity and no evidence to support moderation of psychological distress and substance use on sexual risk. (p. 514)

Stated simply, these "findings suggest that psychological distress is associated with sexual risk because youth with greater psychological distress are also more likely to use substances" (p. 514). "Thus, psychological distress appears to be a more distal or indirect factor of sexual risk in [this] sample while substance use has a more proximal or direct effect. These results suggest that efforts to address urban adolescents' psychological distress or improve their psychological well-being may have the benefit of both helping to reduce substance use and therefore sexual risk behavior" (p. 523).

On this point, Elkington and colleagues lament the fact that

despite the strong association . . . [among] mental health problems, substance use and sexual risk behaviors, HIV/STI prevention programming for youth has typically not focused on mental health problems and substance use while also addressing sexual risk. Th[ese] . . . findings . . . suggest [that] programs that address both psychological distress and substance use prevention may be most effective for HIV/STI prevention as well. . . . Programs that identify triggers for engaging in both sex and substance use risk behaviors while also promoting mental health are necessary to address the comprehensive needs of youth at greater risk for HIV/STI infection. (p. 524)

# About Men Who Have Sex With Men

Wong, Kipke, Weiss, and McDavitt (2010) "examined the way recent experiences of a diverse set of stressors predict illicit drug use, alcohol misuse, and inconsistent condom use (i.e., unprotected anal intercourse) among an ethnically diverse cohort of [526] YMSM [young men who have sex with men]" (p. 463). The investigators found that "stress related to financial and health con-

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cerns . . . [was] associated with increased risk for substance use, while health concerns and partnerrelated stress were associated with sexual risk-taking. Additional analyses indicated drug use and alcohol misuse did not significantly mediate the impact that stressors have on sexual risk" (p. 463). These results

highlight the significant impact that stressful life events can have in the lives of YMSM and . . . point to the importance of examining stressors related to both sexual identity and emerging adulthood as they have significant and distinct impact on HIV-risk behaviors. For example, when each risk behavior is examined separately, the experience of stress associated with financial difficulties consistently predicted both drug use and alcohol misuse. Level of sexual identity disclosure was only significantly associated with drug use. Stress related to one's own health concerns also predicted alcohol misuse. Partner-related stress and stress associated with concerns about ones' own health were significantly associated with sexual risk-taking.

While previous research has linked alcohol use with risky sexual behaviors . . ., only illicit drug use significantly predicted inconsistent condom use in the current study. . . . However, drug use did not significantly mediate the effects of stress on unprotected anal intercourse. Despite this, drug use may be a significant mediator of other psychosocial processes not examined currently.

Limitations associated with this study may affect the interpretation and generalizability of the findings. . . . Despite the limitations, findings . . . clearly show that emerging adulthood is an enormously stressful time in the lives of YMSM and that stressors from different life domains can have distinct impact on YMSM's risk-taking. The heterogeneity of these stressful experiences and their differential impact on risk behaviors suggest that interventions may need to be targeted at specific sets of stressors if they seek to diminish YMSM's adoption of specific types of risk behaviors. (pp. 472-473)

In North Carolina, Hurt et al. (2010) "evaluated the hypothesized association between primary [or newly acquired] HIV infection (PHI) and having older sexual partners among [74 YMSM]" (p. 185). Of these 74 men.

20 had PHI (27%) [and 54 (73%) were uninfected]. Demographics (including age) were similar between groups; 39% were nonwhite and 74% identified as gay. The mean age of sex partners differed significantly: men with PHI had partners on average 6 years older than themselves, whereas uninfected men's partners were 4 months their junior. . . . After adjusting for race, sex while intoxicated, and having a serodiscordant/serostatus unknown partner, a participant had twice the odds of PHI if his sex partner was 5 years his senior. (p. 185)

According to Hurt and colleagues, these findings reinforce the importance of applying

an individualized approach to counseling when talking to young MSM about their sexual risk behavior. Provision of safe[r] sex messages should include both traditional [e.g., injecting drug use, unprotected intercourse] and nontraditional risk factors, directed at all age groups of sexually active individuals. Young men who have older sexual partners should be informed of the comparatively increased risk that such partnerships pose for HIV infection. In parallel, older MSM living with HIV and engaged in care should receive secondary prevention messages encouraging disclosure of their status to partners, maintenance of safer sex behavior, and [awareness] that [antiretroviral] treatment alone is not enough to prevent transmission. (p. 189)

# **HIV Assessment News**

# Psychiatric Assessment

Serchuck et al. (2010) "evaluated the prevalence of pain and psychiatric symptoms in perinatally HIV-infected children" (p. 640) recruited from 29 sites in mainland U.S. and Puerto Rico. The study included 576 children - 320 living with HIV and 256 "HIV-uninfected controls who were either perinatally HIV-exposed or living in a household with an HIV-infected person" (p. 641) - between the ages of 6 and 17 years, and their primary caregivers. The "most important finding," according to Serchuck and colleagues, "is a high prevalence of pain across all age groups, HIV-infected or not, with 37% of all subjects and 41% of HIV-infected children reporting pain during the two months prior to enrollment" (p. 644). Yet, "for all subjects, only 52% of caregivers recognized their child's pain and just 22% were aware that pain affected their child's daily activities" (p. 640). Moreover, "HIV-infected children who reported pain had higher symptom severity scores for anxiety and depression. Even after adjustment for age, gender, and HIV status, [Serchuck and colleagues] found that as the severity of generalized anxiety, major depression, or dysthymia symptoms increased, the odds of reported pain in . . . study subjects also increased, particularly among children with HIV infection" (p. 646). Additionally,

an AIDS diagnosis was associated with increased [odds] of reported pain, yet contrary to expectations, disease severity . . . [was] not predictive of pain. Economic and family stressors appear to be less a factor in reported pain in HIV+ than HIVuninfected children. The high proportion of reported pain amongst uninfected children underscores the importance of querying for these stressors in the primary care setting when providing services for children living in an HIVaffected household. Lastly, increasing severity of generalized anxiety, major depression, and dysthymia symptoms in HIV-infected children were associated with significantly increased odds of pain. Queries concerning pain and psychiatric symptomatology should be incorporated into the primary and specialty care of HIV+ children and adolescents; children HIV-uninfected despite prior exposure and those living in a household with an HIV+ individual. (p. 647)

"The discordance between patient and caregiver reports of pain and its impact on activities of daily living highlights that pain in children is under-recognized and therefore potentially under-treated" (p. 640).

Discordance was also evident in findings from Krug, Karus, Selwyn, and Raveis (2010), who compared "the self-assessments of 67 late-stage HIV/AIDS patients regarding their symptomatology, sense of selfworth, and several other aspects of their health-care situation, to assessments of that situation provided by their informal caregivers" (p. 23) among a convenience sample drawn from an urban health-care setting. Using a 10-item instrument, the investigators report that "substantial or moderate agreement . . . was found between patient and caregiver assessments with regard to only four

# **Tool Box**

# Safety in Numbers: The Emergence of **Complex HIV Prevention Interventions**

Referencing a seminal paper by Coates, Richter, and Caceres (2008), Des Jarlais et al. (2010) observe that "no single HIV prevention intervention has been able to eliminate risk behavior in any population at high risk of HIV, and no single intervention has been equally effective with all members of a high-risk population. These limitations on individual interventions have generated increased interest in the potential effectiveness of 'combined' systems of prevention programs targeted to a single population at risk" (p. 154).

In this Tool Box, recent papers evaluating three different combined or complex HIV prevention interventions are highlighted.

#### **Too Many Cooks?**

In "the first published cross-site outcomes study from the [U.S. Health Resources and Services Administration (HRSA)'s Special Projects of National Significance] Prevention with Positives Initiative" (p. 492), designed to "test whether interventions delivered in clinical settings were effective in reducing HIV transmission risk among HIV-infected patients" (p. 483),

items assessing physical or emotional states of the patient (pain, other symptoms, anxiety, and life worthwhile). Fair or slight agreement was found for the six remaining items, including those assessing the patient's sense of self-worth, family/ friends' anxiety, interactions with family/friends, and practical matters" (p. 23). In fact, "a statistically significant difference was noted between the mean patient and mean caregiver ratings for one item - patient self-worth. On average, caregivers tended to rate patient self-worth lower than patients rated their own selfworth. In fact, 37% of caregivers stated that the patient had some or severe trouble with self-worth when the patient reported no trouble at all" (p. 30). Moreover,

Myers et al. (2010) report findings from 13 demonstration sites at which

patients were individually randomized to an intervention group or a comparison condition on a site-bysite basis. Patients in the intervention group were assigned to receive interventions from their medical care providers during routine HIV care visits alone or in combination with services delivered by health educators, case managers or social workers or by HIV-infected peers trained to conduct HIV prevention counseling. Providers delivered interventions as stand[-] alone sessions or in conjunction with routine clinical visits. Social workers, health educators and HIVinfected peers hired by these projects served the same role. In sites that included either medical provider-delivered or prevention specialist-delivered interventions, patients in the comparison group received the standard of care, routine HIV care visits by their medical care provider. Some sites' interventions used a combination of approaches so that patients received prevention counseling from

caregivers of HIV/AIDS patients . . . tended to assess the patient as being in poorer health and experiencing greater problems with physical symptoms than did the patient himself. For over a quarter of the sample, caregivers reported a problem with pain, the patient's sense of self-worth and/ or the receipt of adequate, understandable information when the patient reported no such problem. In contrast, the finding that in those instances . . . [in which] the patient and caregiver agreed on the presence of a problem but not its severity, [it was] the patient [who] was more likely to describe the problem as 'severe' suggests [that] reliance on proxy data might result in insufficient both medical providers and prevention specialists. In these multiprovider sites, patients in the comparison group received medical provider-delivered prevention counseling only. For this analysis, data were combined from patients in sites where the comparison group received the standard of care with those in multi-provider sites where the intervention condition was medical provider prevention only. (pp. 485-486)

The investigators found that

all interventions were associated with reduced unprotected vaginal and/or anal intercourse with persons of HIV-uninfected or unknown status among the 3,556 participating patients. Compared to the standard of care, patients assigned to receive interventions from medical care providers reported a significant decrease in risk after 12 months of participation. Patients receiving prevention services from health educators, social workers or paraprofessional HIV-infected peers reported significant reduction in risk at 6 months, but not at 12 months. While clinics have a choice of effective models for implementing prevention programs for their HIV-

provision of care or services among those who need it most. (pp. 30-31)

Krug and colleagues conclude that

when circumstances allow, information on health-care outcomes is best obtained directly from the patient. . . . Although there was little evidence of systematic bias, patient and caregiver responses show substantial disagreement. Indeed, reliance on caregivers as proxy informants may contribute to both unmet need and delivery of unnecessary or unwanted care. . . . Conflicted dyads may especially benefit from an intervention designed to assist both patients and caregivers in cominfected patients, medical provider-delivered methods are comparatively robust. (p. 483)

Yet, according to Myers and colleagues,

this study also illustrates the importance of tailoring behavioral interventions to specific clinical settings. Although prevention specialist-led interventions were less likely to influence longer term behavior changes, they did create meaningful change at 6-months and may be a good option for some clinics. The difference in sustained outcomes may be due to factors associated with implementation. In provider sites, patients likely received interventionrelated counseling at each medical visit, with more visits likely to occur and more visits likely to be made closer to the 12-month assessment point. In prevention specialist sites, patients usually received counseling in the days or weeks immediately following the baseline assessment. [These] results suggest that behavioral interventions are most effective if they are delivered in "doses" such as at routine medical care visits - over time, which has been noted in other studies. . . .

municating more effectively about healthcare issues, to help provide more accurate accounts of the patient's illness experience. (p. 31)

## Neuropsychological Assessment

A team of Swiss investigators (Simioni et al., 2010) set out "to determine the prevalence of cognitive complaints and HIV-associated **neurocognitive disorders** (HANDs) in a cohort of aviremic HIV-positive patients" (i.e., patients with undetectable viral loads) and "to evaluate the relevance of the HIV dementia scale [(HDS)] to detect HANDs" (p. 1243). As a reminder to readers, "the new nosology for HANDs recognizes three conditions given hereafter by order of increasing severity:

The sites using a combination of medical care providers and prevention specialists ("multi-provider" sites) did not demonstrate effectiveness in terms of reduced risk among patients receiving intervention services. . . . It may have been that the level of resources available for this intervention study was not great enough to support such complex interventions. It may also be that the complexity of behavioral interventions combined with supporting different types of providers in one setting was just too difficult. In any case, future studies may want to explore issues of quality assurance and efficiency in prevention with positives projects involving more than one type of provider in a clinical setting.

Finally, it is important to note that risk assessment alone seems to influence risk reduction among patients. As has been noted in other studies . . ., study participants who were not exposed to any intervention at all still reported reduced risk during ACASI [audio computer-assisted self-interview] assessments at 6- and 12-months. . . . It appears that simply asking patients to report their risk provides an opportunity for reflection that may serve as a cue for self-moti-

HIV-associated asymptomatic neurocognitive impairment (ANI), HIV-associated mild neurocognitive disorders (MNDs), and HIV-associated dementia (HIV-D)" (p. 1244).

In this study, 200 "HIV-infected patients with undetectable HIV-1 RNA concentrations in the plasma, no history of major opportunistic infection of the central nervous system [(CNS)] in the past 3 years, no current use of intravenous drugs, and no major depression answered a questionnaire designed to elicit cognitive complaints. Cognitive functions of 50 complaining and 50 noncomplaining HIV-positive patients were assessed" (p. 1243) with neuropsychological (NP) tests. Simioni and colleagues "found that 27% of HIV-

vated change. . . .

This study contributes to the growing evidence regarding the effectiveness of prevention interventions for HIV-infected people in clinical settings. [These] results support increased calls for the integration of prevention into care settings and for more research to understand how intervention "fit" contributes to program success. (pp. 491-492)

#### Easy Does It

Another perspective on complex interventions comes from Carey, Senn, Vanable, Coury-Doniger, and Urban (2010), who evaluated "the separate and combined effectiveness of brief and intensive interventions for sexual risk reduction among patients at a sexually transmitted disease (STD) clinic" (p. 504). The investigators reason that

brief motivational interventions might stimulate initial change and help patients to recognize the benefits of attending intensive (skillsbased) interventions. A brief motivational intervention also might prepare patients to profit from an intensive intervention and, thereby, optimize response to the latter.

(Tool Box is continued on Page 6)

positive patients with longstanding undetectable HIV-1 RNA concentration complained of neurocognitive disorders and 84% of them actually presented HANDs [ANI 24%, MND 52%, and HIV-D 8%]. Even in patients with no specific complaints, this percentage was 64% [ANI 60%, MND 4%, and HIV-D 0%]. . . . The message of [this] study is that the prevalence of HANDs remains elevated even in HIV-positive patients who are aviremic for a long time" (p. 1248). Importantly,

to ensure that there was no other obvious cause than HIV itself to explain HANDs, [the investigators] tried to minimize confounding factors by not enrolling patients with major depression, active drug addiction, or opportunistic infection of the CNS. Some patients using methadone (8%) or having a remote history of cerebral toxoplasmosis (6%) were enrolled, but none of these factors was found to be associated with HANDs after correction for multiple comparisons. Patients with HCV [hepatitis C virus] coinfection (19%) were also accepted and were not found to have

a higher prevalence of HANDs as compared with HCV-negative patients. . . .

Cognitive complaint was relatively predictive of the presence of HANDs (84% of patients) but not complaining certainly did not rule it out (64% of patients). However, whereas most complainers presented with MNDs or HIV-D, the vast majority of noncomplainers

presenting with HANDs had ANI. Thus, in HIV-positive patients, contrary to HIV-negative patients . . ., cognitive complaints are predictive of actual impairment. Interestingly, a sensitivity analysis of the HDS revealed that a cutoff of 14 points or less was associated with a good sensitivity and a good predictive value to detect HANDs despite a somewhat decreased specificity, either in

(Tool Box -- continued from Page 5) In summary, the combined use of a brief, clinic-based intervention with a more intensive intervention may optimize long-term sexual risk reduction.

This randomized controlled trial

"Patients (N =1483; 54% men; 64% African-American; M = 29.2 years old) were recruited from a publicly funded, walk-in STD clinic. Patients completed a baseline assessment, and then were randomized to one of six intervention arms" (p. 504), as described above. "Follow-up assessments, including STD screening, occurred at 3, 6, and 12 months post-intervention" (p. 504).

The investigators report four major findings:

(RCT) was designed to evaluate a two-step approach to sexual risk reduction. The first step included: (a) a brief informational intervention (B-INFO), or (b) a brief motivational intervention (BMI). [Carey and colleagues] envisioned the B-INFO arm as a high quality "standard" care control condition that meets HIV post-test counseling requirements; and . . . hypothesized that receiving a BMI would motivate increased condom use and improve attendance at a subsequent intensive intervention. . . . The second step involved: (a) an intensive informational, motivational, and behavioral skills training (I-IMB) workshop, (b) an intensive informational (I-INFO) workshop (that served as a time-matched comparison intervention), or (c) a no workshop control. [Carey and colleagues] hypothesized that inclusion of skills exercises in the I-IMB workshop would promote more behavior change relative to an intensive informational workshop or no workshop. . . . In addition, [the investigators] tested hypotheses

that the combination of the BMI and

I-IMB interventions would lead to

greater risk reduction relative to the

other intervention combinations,

and that improvement would be

greatest at a 3-month follow-up

with a gradual dilution of interven-

tion effects from 3 to 12 months.

- 1. Patients in all six conditions appear to have benefited. Across the intervention conditions, there was a consistent pattern of lower STD rates, reduced sexual risk behavior, and improved risk reduction knowledge, attitudes, and skills. . . . This pattern of improvement was consistently observed over 12 months and across multiple outcomes....
- 2. The pattern of improvement across the six intervention conditions was relatively equivalent. This finding contrasts with the prediction that intensive workshops would facilitate greater risk reduction; however, it is not unprecedented, especially when the comparison conditions are also active risk reduction interventions. . . .

The equivalent improvement among conditions might also be explained, at least in part, by the fact that all patients (a) received comprehensive medical services at a progressive STD clinic and (b) completed a comprehensive baseline assessment that elicited detailed information regarding their sexual history, attitudes, motivations, and behavior. . . . [As noted above by Myers and colleagues (2010),] detailed assessments can prompt behavior change. . . . Thus, the detailed baseline assessment coupled with receipt of comprehensive medical services and an active comparison intervention may help to explain the equivalent pattern of improvement across conditions observed in this trial....

- 3. Contrary to research in the treatment of substance use . . ., the BMI did not improve attendance at the intensive interventions (i.e., compared to the B-INFO intervention). This finding might indicate that the BMI . . . implemented was not effective; alternatively, it is possible that the practical strategies . . . used to encourage attendance (e.g., offering child care, telephoning participants to prompt attendance, providing food and a financial incentive for attendance) may have been so encouraging that they eclipsed the benefits of the BMI....
- 4. The effects observed at the initial 3-month follow-up did not appear to decay over the ensuing 9 months. Indeed, patients continued to reduce the number of partners from 3 to 12 months; moreover, [the investigators] detected no significant decay on the other outcomes. The lack of decay is encouraging, and may reflect the enduring influence of the interventions. However, because patients were reassessed and re-tested for STDs for the entire study, it is also possible that these ongoing assessments prompted contin-

(p. 505)

complainers or noncomplainers. . . . Whereas the HDS alone is not sufficient to ascertain HANDs, [Simioni and colleagues] propose that HIV-positive patients with undetectable viremia and a[n] HDS score of 14 points or less should benefit from a thorough [NP] evaluation. . . .

Altogether, [these] results show that cognitive dysfunction is fre-

ued vigilance regarding risk reduction and, in this sense, served (inadvertently) as intervention booster sessions. (pp. 512-514)

Carey and colleagues conclude that

the consistent pattern of risk reduction observed across outcome measures, patients, and intervention conditions provides evidence that behavioral interventions can strengthen patients' knowledge, motivation, and skills, reduce sexual risk behavior, and decrease the likelihood of infection with a[n] STD. Research needs to identify the active ingredients of such interventions, and clarify the differential benefits afforded by detailed assessments, STD testing, and brief and intensive interventions. Research also needs to identify ways to further supplement the gains achieved with biomedical and behavioral interventions. Investigation of community-based programs, media campaigns, and other structural interventions is needed. (p. 515)

#### Protect & Respect

Yet another study investigating a complex intervention comes from Teti et al. (2010), who

evaluated the efficacy of an intervention to increase HIV status disclosure and condom use among 184 women living with HIV/AIDS (WLH/A). Participants were [predominantly African American,] recruited from an HIV clinic and randomly assigned to: (1) a comparison group, who received brief messages from their health care providers (HCPs), or (2) an quent in virologically optimally treated HIV-positive patients. These data point out the importance of an early diagnosis of HANDs and of a regular followup of HIV-positive patients, especially when they complain of cognitive disorders. (p. 1249)

# **HIV Treatment News**

#### Medical Care

Thompson et al. (2010), writing for

intervention group, who received messages from HCPs, a grouplevel intervention [(GLI)], and peerled support groups.1 Participants

<sup>1</sup> In the *Protect and Respect* intervention, "HCPs (nurses or physicians) attended . . . training sessions to learn the intervention's messages and prevention counseling skills, and discuss how to deliver the messages successfully given the constraints of the clinic (e.g., sick patients, limited time). During women's regularly scheduled visits, HCPs worked with participants to assess their stage of readiness regarding condom use and/or disclosure, deliver prevention messages or teach skills, and create a follow-up plan. A health educator . . . delivered the GLI, which included five consecutive, weekly, 1.5 h[our] sessions that focused predominantly on safer sex by addressing sexual risk reduction education and skillbuilding; women's challenges and opportunities; HIV/AIDS and STI [sexually transmitted infection] facts; male and female condom use and condom negotiation; triggers to unsafe sex; HIV status disclosure; problem solving; healthy relationships; social support; and goal setting. . . . Incentives for attending the GLIs included a \$10 gift card, transportation tokens, and lunch. . . . The number of participants in a session ranged from two to seven and on average, each GLI session included four women.

The study's Peer Educators, . . . who participated in weekly supervision and training to enhance their HIV/AIDS prevention knowledge and group facilitation skills, conducted weekly 1-h[our] support groups throughout the length of the project. Every woman who completed the GLI was eligible to attend the peer groups, which were designed to help women discuss the skills that they learned in the GLI in the context of their lives and challenges over the long term. Peer group discussions were less structured than the GLI. The GLI facilitator and the Peers collaborated weekly to outline peer sessions. Examples of peer group topics were intimate discussions about how to talk to partners about using condoms, how to make condom use fun and exciting, and how to

the International AIDS Society – USA Panel, recently updated their "guidelines for the use of antiretroviral therapy in adults with HIV infection" (p. 321) as follows:

Patient readiness for treatment should be confirmed before initiation of antiretroviral treatment. Therapy is recommended for asymptomatic patients with a CD4 cell count ≤ 500/µL, for all

completed risk surveys at baseline, 6-, 12-, and 18-months. (p. 567)

Of interest is Teti and colleagues' use of "quantitative methods to investigate the effect of the intervention on women's disclosure of their HIV status to partners and unprotected vaginal and anal sex acts . . . [and] qualitative methods to examine how women experienced the group intervention and perceived it to be associated with their safer sex and disclosure skills" (p. 568). Despite declines in participant attendance over the course of the intervention (71% at 6 months; 30% at 18 months), "quantitative analyses . . . indicated that intervention participants had significantly higher odds of reporting condom use with sexual partners in months 6 and 18[, while] . . . qualitative analyses suggested that the opportunity to discuss the social context of their lives in addition to HIV/ AIDS, including continued stigma and fear related to disclosure, are also essential components of a prevention strategy for WLH/A" (p. 567). Speaking to these qualitative findings, the investigators point out that

the groups provided a forum for women to discuss their lives and devise solutions for their risk prac-

(Tool Box is continued on Page 8)

manage or leave unhealthy relationships. Although [the investigators] asked the women to attend at least two peer support groups during the project, there was no limit to the number of times participants could attend the weekly group. Incentives for the Peer groups included transportation tokens and lunch. . . . Attendance in the groups ranged from two to seven [women] and on average, each Peer session included five women" (Teti et al., 2010, pp. 569-570).

(Tool Box -- continued from Page 7) tices. As such, these forums countered the common intervention practice of reducing WLH/As['] needs to a single medical diagnosis or risk behavior only. . . . Technically, specific behaviors such as unsafe sex transmit HIV. Pragmatically, these behaviors occur within a context of ecological factors (e.g., poverty, substance abuse, relationships with partners, etc.). Thus, interventions that fail to address the context of risk for WLH/A in favor of an individualistic risk behavior approach solely, are doomed to fail. Women bring their painful histories, lack of formal education opportunities, isolation, abusive partnerships, and myriad other life challenges that affect sexual decision making to interventions. They need a space to discuss their lives before they can successfully implement the skills that they have learned in the intervention. (p. 576)

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symptomatic patients, and those with specific conditions and comorbidities. Therapy should be considered for asymptomatic patients with CD4 cell count > 500/µL. Components of the initial and subsequent regimens must be individualized, particularly in the context of concurrent conditions. Patients receiving antiretroviral treatment should be monitored regularly; treatment failure should be detected and managed early, with the goal of therapy, even in heavily pre-treated patients, being HIV-1 RNA suppression below commercially available assay quantification limits. (p. 321)

The Panel's 2008 guidelines recommended initiating therapy for asymptomatic patients with a CD4 cell count < 350/µL, but

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> - Compiled by Abraham Feingold, Psy.D.

increasing evidence that insidious damage occurs during "asymptomatic" HIV infection underscores the potential benefit of ART [antiretroviral therapy], even when the risk of traditional AIDSdefining diseases is relatively low. The prominence of non-AIDS events as a major cause of morbidity and mortality in those with ongoing HIV replication suggests that early ART initiation may further improve the quality and length of life for persons living with HIV. The strategic use of newer drugs can improve tolerability, as well as provide durable and potent viral suppression in initial and subsequent therapy. (p. 329)

# Psychiatric/Psychological/ Psychosocial/Spiritual Care

**Psychopharmacology** 

Following up on a pilot study first reported in the Spring 2005 issue of

mental health AIDS (Rabkin, McElhiney, Rabkin, & Ferrando, 2004), Rabkin, McElhiney, Rabkin, and McGrath (2010) conducted "a 4-week randomized, placebo-controlled, double-blind trial" to assess "the efficacy and safety of modafinil [Provigil®; a wake-promoting agent] in the treatment of **fatigue** in patients with . . . HIV/AIDS1 . . . and to assess [the] effect [of modafinil] on depressive symptoms" (p. 707). In total, 115 patients living with HIV who "had clinically significant fatigue (according to the Fatigue Severity Scale)" (p. 707) were randomized to the medication or to a placebo. "This was followed by an additional 8 weeks of open-label treatment for modafinil responders and 12 weeks for placebo nonresponders.... Visits were weekly for 4 weeks, then biweekly, with a follow-up visit at 6 months. Maximum trial dose of modafinil was 200 mg/d" (p. 707). Importantly, "markers of immunologic and virologic status were monitored for safety reasons because of the theoretical possibility of an inducer effect of modafinil on antiretrovirals (hastening their metabolism and thus reducing potency), since both drug classes share the same metabolic pathway" (p. 713). The investigators' analyses revealed that the

fatigue response rate to modafinil was 73% and to placebo, 28%. Attrition was 9%. Modafinil did not have an effect on mood alone in the absence of improved energy. At week 4, CD4 cell counts did not change significantly; HIV RNA viral load showed a trend decline for patients taking modafinil but not for those taking placebo. At 6 months, [among the 97 patients who were reevaluated,] those still taking modafinil had more energy and fewer depressive symptoms than patients

<sup>&</sup>lt;sup>1</sup> A recent review of predictors and treatment strategies for HIV-related fatigue (Jong et al., 2010) is highlighted in this issue's Resources Tool Box.

who were not taking modafinil, and only those still taking modafinil showed a significant decline from baseline in their HIV RNA viral load. (p. 707)

The investigators contextualize the effect on fatigue by noting that "modafinil was widely considered helpful and effective in enabling participants to carry out activities of daily living that previously had been restricted by fatigue. Examples include cleaning one's house, going outside more often, taking walks, socializing, and otherwise being less isolated and limited. However, initiation or resumption of more complex goals [such as taking classes or returning to work] was uncommon" (p. 714). Within these parameters, Rabkin and colleagues conclude that "modafinil appears to be effective and well tolerated in treating fatigue in HIV+ patients. Consideration of its use is warranted considering the high prevalence of fatigue in the HIV community, its minimal side effects, and overall patient acceptance" (p. 707). As for achievement of more complex goals, "it seems likely that additional support and tailored interventions are needed to assist HIV+ patients in achieving such goals[, as] . . . [m]odafinil alone did not bring about widespread behavior change of this nature" (p. 714).

In a separate paper, McElhiney, Rabkin, van Gorp, and Rabkin (2010)

examined the efficacy of modafinil for HIV+ patients who sought treatment for fatigue in a placebo-controlled double-blind 4week trial. A battery of standard [NP] tests was administered at study entry and Week 4, and change in performance was compared for 59 patients receiving modafinil versus 44 patients receiving placebo. A significant effect on fatigue was observed. In addition, cognitive performance, as measured by a global change score, improved more in the modafinil than in the placebo group although the effect was not specific to any cognitive domain. (p. 474)

Notably, "this overall effect for drug versus placebo on the global NP score may be of more than academic interest; [one study] . . . reported that this kind of global NP finding, even when slight, has been related to employment status in HIV+ individuals" (p. 479). McElhiney and colleagues conclude that "findings show a positive effect of 4 weeks of modafinil treatment on overall cognitive function among HIV+ adults with fatigue, in terms of both performance on NP tests and subjective perception of cognitive problems. Future research would usefully examine the effect of modafinil on patients with the primary presenting problem of cognitive impairment" (p. 479).

#### Adherence to Treatment

Hart et al. (2010) conducted a systematic review and meta-analysis to assess the impact of directly observed therapy of highly active ART (DOT-HAART) on adherence as well as virologic and immunologic response. Among the 17 peer-reviewed controlled studies published or presented through August 2009 and included in the analysis, "compared with control groups, DOT-HAART recipients were more likely to achieve an undetectable viral load . . ., a greater increase in CD4 cell count . . ., and HAART adherence of > 95%" (p. 167). Importantly, when comparing randomized and nonrandomized studies.

the positive effect of DOT-HAART on virologic and immunologic outcomes among RCTs [randomized controlled trials] was attenuated and not statistically significant, whereas the association remained significant in nonrandomized studies.... Nonrandomized DOT-HAART experiences may have allowed greater flexibility in intervention design and modification and may have enrolled vulnerable populations in whom the intervention effect could be great-

... [Moreover, g]reater effect on virologic outcome was observed among substance-using and HAART-experienced cohorts. . . . Residence and methadonebased DOT-HAART interventions demonstrated greater treatment effect compared with clinic-based interventions, although the effect among methadone-based interventions was not statistically significant. Choosing a convenient site - such as a methadone clinic or the patient's residence - could enhance the effect of the intervention. Interventions delivered in patient homes, communitybased vans, prisons, and methadone clinics may impose minimal additional burden on patients' routines. On the other hand, the time and expenses of daily travel to a site (e.g., HIV clinic, hospital) that is not part of a patient's daily routine may pose important barriers to DOT-HAART adherence. . . .

Not all DOT is the same. Enhanced DOT-HAART, defined as an intervention that provides additional material or behavioral adherence support not offered to the control group,2 seemed to enhance treatment effect. . . .

<sup>&</sup>lt;sup>2</sup> Hart and colleagues (2010) "defined 'enhanced DOT-HAART' as any intervention that included additional formal adherence support not offered to the control group (i.e., material or financial incentives/enablers) or a behavioral intervention or ancillary services aimed at improving adherence. Because certain services were often provided as necessary and ethical consequences of DOT, [the investigators] did not consider the following activities to constitute formal additional support: asking about side effects and adherence at DOT visits and reporting any problems to providers; prepackaging and delivering HAART via DOT visits; and referring patients to other social services unless additional staff (e.g., case manager,

Although there were few studies that assessed postintervention effect [i.e., beyond immediate outcomes], [the investigators] found that initial intervention effect may wane after completion of DOT support. . . . [E]xploring this time-limited effect may be . . . [particularly] important for DOT-HAART, if the mechanism of action is through improved adherence via direct supervision. If DOT-HAART is to have a sustained effect on postintervention outcomes, interventions must be designed to engender psychosocial and behavioral changes in patients through DOT encounters. . . . Efforts to sustain the benefits of DOT postintervention may . . . require closer attention to the transition from DOT to selfadministration and to individualizing DOT through varied frequency, intensity, and duration of support. . . . If DOT-HAART effect is not durable, another option would be long-term or even life-long DOT-HAART for certain individuals or populations. . . . Creating and implementing durable HAART adherence interventions remains an enormous challenge. (p. 167)

In short, according to Hart and colleagues,

DOT-HAART seems to be effective among selected patient populations, such as those with a history of prior HAART experience and/or substance use. Features of DOT-HAART which may increase treatment effect include nonclinic-based DOT and the provision of additional forms of adherence support. Because the impact of DOT-HAART on virologic response did not reach statistical significance when restricted to RCTs, the efficacy of DOT-HAART still remains in

social worker) was integrated into the DOT team" (p. 169).

question. Areas for future research include assessment of long-term treatment effects and the refinement of DOT-HAART interventions to optimize the intensity, duration, and frequency according to patient need. Similar to the body of knowledge that has guided decisions on DOT for tuberculosis, efficacy trials should be complemented by outcomes data from large-scale DOT-HAART programs and cost-effectiveness analyses to inform public health decisions regarding whether and under what circumstances DOT-HAART should be employed. (pp. 176-177)

In London, Lampe et al. (2010) "examined the association of self-reported physical and psychological symptoms with subsequent virologic rebound among [188] patients with viral suppression on combination [ART] (cART)" (p. 500). "Among this subgroup of HIV patients on successful ART," the investigators found that "physical and psychological symptoms were common, and were among the strongest predictors of virologic rebound. The associations appeared largely independent of various known risk factors for virologic failure" (p. 502). Lampe and colleagues stress that

an assessment of virologic failure risk that is based solely on laboratory results, treatment history and adherence may be missing an important dimension – information from the patient's perspective that is not captured by these measures. These results suggest the importance of ongoing clinical focus on physical and psychological symptoms among patients on successful cART, in addition to those starting treatment. Simple symptom inquiry conducted as part of routine clinical care may be valuable to identify patients at risk of

future treatment failure, and provide opportunity not only for assessing adherence but also for appropriate medical or psychological interventions to address physical symptoms and psychological distress. (p. 504)

Carrico, Johnson, Colfax, and Moskowitz (2010) "examined affective correlates of stimulant use and ART adherence among HIV-positive methamphetamine users. . . . [A convenience sample of 122 HIV-positive [MSM] or transgendered individuals on ART who reported using methamphetamine in the past 30 days . . . [was] recruited from the community" (p. 769) in San Francisco. The investigators found that "HIVspecific traumatic stress was consistently and independently associated with more frequent cocaine/ crack use (but not with methamphetamine use). Positive affect was independently associated with a decreased likelihood of reporting any injection drug use and an increased likelihood of reporting perfect ART adherence" (p. 769) among methamphetamine users living with HIV. Carrico and colleagues contend that, despite limitations, findings from this study

may assist with the development of innovative psychological treatments designed to meet the needs of diverse groups of HIVpositive stimulant users on ART. Specifically, findings highlight that interventions designed to reduce HIV-specific traumatic stress as well as enhance positive affect may be efficacious in decreasing stimulant use and improving ART adherence. Future studies should attempt to replicate these findings with larger samples and examine the clinical relevance of interventions designed to improve affect regulation among HIV-positive stimulant users. (p. 776)

# Coping, Social Support, & Quality of Life

"Although IPV [interpersonal violence] is primarily studied among women, men (especially sexual minority men) are also frequently victims of abuse, and sexual minority men with HIV may be particularly vulnerable to abuse and susceptible to adverse health outcomes if abused" (pp. 393-394), according to Pantalone, Hessler, and Simoni (2010), who "examined mental health pathways between . . . IPV . . . and health-related outcomes in [178] HIV-positive sexual minority men engaged with medical care" (p. 387). Study participants were recruited from two urban, public HIV primary care clinics and were diverse with regard to race and ethnicity. The mental health problems that were assessed included anxiety, depression, suicidal ideation, and symptoms of PTSD. The investigators found that

greater frequency of adult and partner abuse experiences was associated with more frequent or severe mental health problems. Having more mental health problems was, in turn, related to [lower] self-reported HRQOL [health-related quality of life], [lower] self-reported adherence, and [higher] chart-extracted viral load. . . . Those who reported for emergency care were also those who reported experiencing more frequent IPV by nonpartners. This was the only direct effect that emerged, and it is consistent with the results of several large-scale studies of HIV-positive outpatients. . . . [For this reason,] [emergency room] staff should routinely screen for IPV in all HIV patients, irrespective of the presenting problem. (p. 394)

Pantalone and colleagues continue:

As hypothesized, both adult and partner abuse were independently related to mental health problems while controlling for each other. This finding in itself has important clinical implications in terms of the need to assess for all forms of IPV as vulnerability factors for mental disorders, poorer HIV health, and overuse of health care resources. Frequently, the HIV literature focuses on child abuse leading to HIV risk behaviors ..., which highlights an important but incomplete picture of IPVhealth relations. Mental health problems resulting from abuse experiences may be exacerbated by homophobia or anti-HIV attitudes of the perpetrator. . . .

As expected, participants who endorsed greater frequency and severity of mental health problems were those whose health-related outcomes were poorer. It appears clear that violence victimization and mental health problems influence individuals' perceptions of their physical health and their ability to function independently to meet the demands of multiple roles. . . . The final model . . . provid[es] . . . a clear message about the potential benefits of treating mental health problems to improve perceptions of physical health as well as functional capabilities. Interventions that focus on increasing social support and self-care behaviors may be able to improve HRQOL. (p. 394)

Pantalone and colleagues conclude that these results

provide strong support for the contribution of violence exposure and mental health problems to poor health-related outcomes among HIV-positive sexual minority men. Clinical practice implications include provision of more intensive mental health services to patients in order to contain costs associated with physical health problems, which are potentially exacerbated by psychological distress and an IPV history. Also, provider interventions that increase identification of abuse and mental health problems may be needed. Given their social and financial problems, many HIV-positive individuals clearly need referral to social services. However, rather than providing supportive counseling or case management alone, HIV care settings may also wish to offer evidence-based mental health treatments that target specific disorders or symptom clusters. Investigators are encouraged to test and disseminate such interventions in HIV care settings, especially those that combine traditional evidencebased approaches to mental disorders with a specific focus on relevant health-promotion behaviors (Safren et al., 2009[; summarized in the Spring 2009 issue of mental health AIDS]). (p. 395)

Naar-King, Parsons, Murphy, Kolmodin, and Harris (2010) continued their evaluation of data compiled on "a randomized clinical trial compar[ing] . . . Healthy Choices, a four session motivational intervention targeting two of . . . three risk behaviors (HIV medication adherence, sexual risk behavior and substance use)[,] to multidisciplinary specialty care alone" (p. 422; described in the Spring 2010 issue of mental health AIDS). The trial was conducted among a convenience sample of 186 predominantly African American 16- to 24year-olds living with HIV drawn from adolescent medicine HIV clinics in five American cities. In this paper, the investigators present "intermediary outcomes available at 3-month follow-up . . . [among] variables proposed to be precursors to behavior change (motivation, self-efficacy, and depression)" (p. 422).

Importantly, the youth living with **HIV** (YLH) who took part in this study "received the intervention in the realworld setting of adolescent medicine clinics instead of a research venue" (p. 426) and, "of the 94 youth randomly assigned to the treatment condition, 84% received at least one session, 67% received at least two sessions, 56% received at least three sessions, and 49% completed all four sessions" (p. 422). Naar-King and colleagues report that this

brief MI [motivational interviewing] intervention improved depression and also motivation for changing risk behaviors for those who attended at least two MI sessions. This is the first study of a brief intervention to test these important precursors to behavior change in YLH. The intervention effect was strongest for depression . . . [, and s]elf-efficacy, as defined by belief in the ability to avoid risky behaviors in the face of temptation, approached significance for those who received the intervention. It is possible that although MI supports self-efficacy through affirmation of client strengths, confidence to avoid risk in very specific tempting situations may require a more intensive skill-building intervention.

Two-thirds of the sample assigned to the treatment condition received at least two intervention sessions. These youth could not be distinguished from the remaining high-risk youth on any of the baseline variables measured. Increasing access by offering the intervention in the home or community and by including an outreach component may improve intervention retention. . . . Incorporating outreach strategies within behavior change interventions could not only increase access by providing services in flexible locations, but also by including case-finding approaches....

# **Tool Box**

#### Resources

Cohen, M.A., Goforth, H., Lux, J., Batista, S., Khalife, S., Cozza, K., & Soffer, J. (2010). Handbook of AIDS psychiatry. New York: Oxford University Press.

From the publisher: "The Handbook of AIDS Psychiatry is a practical pocket guide that provides protocols for the recognition and treatment of the psychiatric disorders most prevalent in persons with [HIV/]AIDS and most relevant for . . . AIDS psychiatrists and other mental health professionals as well as for other clinicians who work with persons with HIV and AIDS . . . because of the . . . impact [of psychiatric disorders] on health, adherence, behavior, and quality of life."

Fernandez, F., & Goforth, H.W. (2010). The future and great challenge of HIV/ AIDS psychiatry: A blending of medicine and psychiatry in a model of unified care [Opinion article]. Frontiers in Psychiatry, 1(Art. 6). Retrieved June 22, 2010, from http://dx.doi.org/10.3389/ fpsyt.2010.00006

"The involvement of psychiatrists in the diagnosis and treatment of AIDS and HIV infection is essential, as this disease binds both internal medicine and psychiatry together like few other diseases have the potential to do. The course of HIV infection is associated with a variety of emotional, cognitive, and neurological disturbances which may be caused by premorbid psychiatric disorders; psychological stress, opportunistic infections or neoplasms; or by medications used in the treat-

Further studies of factors influencing appointment attendance (e.g., motivation and self-efficacy for attending treatment sessions) may elucidate strategies to improve intervention retention.

A limitation of the study is the lack of an attention control. However, standard care in these clinics included significant support services with an average of more than nine visits over a period of 3 months, more than twice what was offered in Healthy

ment of HIV. Clinical experience and research also provide substantial evidence that HIV directly infects the brain soon after initial infection, which can result in central nervous system . . . impairment. HIV has been described as 'a neuropsychiatric disease with systemic manifestations' . . . whose assault on the brain and human body requires the participation of both psychiatrists and internists throughout the course of illness. Missed diagnoses by inadequately trained providers can lead to irreversible damage."

Golin, C.E., Davis, R.A., Przybyla, S.M., Fowler, B., Parker, S., Earp, J.A., Quinlivan, E.B., Kalichman, S.C., Patel, S.N., & Grodensky, C.A. (2010). SafeTalk, a multicomponent, motivational interviewing-based, safer sex counseling program for people living with HIV/AIDS: A qualitative assessment of patients' views. AIDS Patient Care & STDs, 24(4), 237-245.

"In the past, the few safer sex interventions that targeted HIV-infected people met with limited success because they basically adapted strategies previously used with HIV-uninfected individuals. In addition, often these adaptations did not address issues of serostatus disclosure, HIV stigma, or motivation to protect others from HIV" (p. 237). "The purpose of this article is to describe a multicomponent, motivational interviewing (MI)based safer sex program for people living with HIV called SafeTalk, and report reactions of people living with HIV who were exposed to a description of the counseling programs and shown and listened to its audiovisual

Choices. . . .

Results suggest the utility of brief MI delivered in adolescent medicine clinics to improve depression and motivational readiness among youth who access the intervention. Brief MI interventions may be helpful to boost motivation to engage in services offered by multidisciplinary adolescent clinics serving YLH. Interventions that use MI as a precursor to more intensive interventions. such as cognitive-behavioral materials in focus groups. These focus groups were conducted to use participant input to refine the materials to best meet client needs" (p. 238).

Jong, E., Oudhoff, L.A., Epskamp, C., Wagener, M.N., van Duijn, M., Fischer, S., & van Gorp, E.C.M. (2010). Predictors and treatment strategies of HIVrelated fatigue in the combined antiretroviral therapy era [Review]. AIDS, 24(10), 1387-1405.

"HIV-related fatigue and its clinical, social and psychological impact are challenging for the caregiver. To improve the care for HIV-infected patients, a thorough understanding of the complex interplay between sociodemographic, physiological and psychological factors in HIV-related fatigue and available treatment options for HIV-related fatigue is important. We conducted . . . [a] narrative review to summarize the latest evidence regarding predictors and treatment strategies for HIV-related fatigue in the cART era" (p. 1388).

Poindexter, C.C., & Shippy, R.A. (2010). HIV diagnosis disclosure: Stigma management and stigma resistance. Journal of Gerontological Social Work, 53(4), 366-381.

"Three overarching disclosure themes demonstrate the complexity of diagnosis disclosure decisionmaking: (a) hiding or selectively disclosing, or stigma management; (b) partial disclosure because of the perception of partial control of the information; and (c) widespread or complete voluntary diagnosis disclosure, representing stigma resistance.

treatment . . ., are worth further exploration in YLH. (pp. 426-427)

At the other end of the age continuum, "correlations . . . [among] depression, loneliness, health, and HIV/AIDS-related stigma have been studied, but there is little evaluation of these associations among HIV-positive adults over the age of 50," according to Grov, Golub, Parsons, Brennan, and Karpiak (2010), who examined data on "914 New York City-based HIVpositive men and women over the

. . . Experiences of HIV stigma and choices about diagnosis disclosure and stigma management or resistance are individual, reciprocal, and dynamic" (p. 366).

Sawyer, A., Ayers, S., & Field, A.P. (2010). Posttraumatic growth and adjustment among individuals with cancer or HIV/ AIDS: A meta-analysis. Clinical Psychology Review, 30(4), 436-447.

"There is increasing research on posttraumatic growth after life-threatening illnesses such as cancer and HIV/ AIDS, although it is unclear whether growth confers any psychological or physical benefits in such samples. Consequently, this meta-analysis explored the relationship between posttraumatic growth and psychological and physical wellbeing in adults diagnosed with cancer or HIV/AIDS and examined potential moderators of these relationships. Analysis of 38 studies (N = 7927) of posttraumatic growth after cancer or HIV/AIDS revealed that growth was related to increased positive mental health, reduced negative mental health and better subjective physical health. Moderators of these relationships included time since the event, age, ethnicity, and type of negative mental health outcome. It is hoped that this synthesis will encourage further examination of the potentially complex relationship between posttraumatic growth and adjustment in individuals living with life-threatening medical conditions" (p. 436).

Sowell, R.L., & Phillips, K.D. (2010). Understanding and responding to HIV/

age of 50" (p. 630). The investigators report that "39.1% of participants exhibited symptoms of major depression" (p. 630) and

controlling for demographic differences and perceived health indicators, higher rates of HIV stigma, and loneliness place older adults at increased risk for major depressive symptoms. . . . [F]or example, every 10-unit increase in loneliness increases the odds of major depressive symptoms by over 80%. Since AIDS stigma and disclosure: An international challenge for mental health nurses. Issues in Mental Health Nursing, 31(6), 394-402.

"Mental health nurses have a unique opportunity to influence the trajectory of HIV/AIDS through counseling and interventions that address HIV/AIDS stigma with clients, communities, and society. This article provides an indepth examination of HIV/AIDS stigma and its relationship to nondisclosure as well as strategies to deal with these issues at individual and group levels" (p. 394).

Willinger, B.I. (2010). Interventions for HIV clients with co-occurring substance use and personality disorders. Social Work in Health Care, 49(5), 444-457.

"Many HIV/AIDS clients who currently need some form of psychosocial intervention are individuals diagnosed with substance use, a mental health problem, or both. In any setting a proportion of these clients, because of their behaviors, present myriad challenges to individual providers in terms of engagement in medical care, medication adherence, and difficulty with interpersonal skills. These clients struggle with how to appropriately express their needs. Providers struggle to understand and respond to clients' escalating and disruptive behaviors in a therapeutic, concerned, and consistent manner. This case-based article. which highlights strategies, interventions, and client vignettes, will focus on these issues" (p. 444).

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neither HIV stigma nor loneliness was associated with objective indicators of health (i.e., CD4 count and AIDS diagnosis), the magnitude of these psychosocial factors rather than physical symptoms of disease severity, are primary factors contributing to depression. . . . Although other studies have identified objective indicators of disease progression as significant predictors of depression . . ., these data highlight the importance of looking beyond physical health indicators and focusing efforts to reduce HIV-related stigma and loneliness in order to reduce major depressive symptomatology and improve perceived health among older adults living with HIV. . . . Older HIV-positive adults as they age need to be linked to healthcare, as well as social and emotional support. (p. 637)

In Toronto, Atkins et al. (2010) "examined the role social support may play in attenuating the effects of both [NP] status and depression on cognitive difficulties. A total of 357 [male] participants completed a battery of [NP] tests, questionnaires about cognitive difficulties and depression, and an interview that included an assessment of perceived level of social support" (p. 793). Analyses of these data

revealed that higher levels of cognitive symptom burden were significantly associated with depression . . . while lower levels of coqnitive symptom burden were significantly associated with greater social support . . . and higher level of education. . . . There was a significant interaction between [NP] status and depression . . .; the presence of [NP] impairment with depression was associated with higher levels of cognitive symptom burden. There was also a significant interaction between social support and depression. . . . Interestingly, social support was also associated with a lower cognitive symptom burden for non-depressed individuals living with HIV/AIDS. (p. 793)

Atkins and colleagues believe that these

findings have important clinical implications for psychological well-being in people with HIV/ AIDS. To improve quality of life, it is important to identify individuals who may be depressed and

intervene appropriately. Although no evidence supports the hypothesis that depression affects [NP] impairment . . ., depression has been found, both in the present and previous studies, to be associated with higher subjective cognitive symptom burden. . . . This relationship suggests that depression is a key to understand[ing] self-perception of cognitive symptoms. Furthermore, the degree of perceived social support in non-depressed individuals appears to be an important determinant of neurocognitive complaints and is, therefore, a potential target for intervention for individuals with HIV/ AIDS who are not depressed. It is important for AIDS organizations and other service providers to recognize the significant protective role of social support on psychological well-being, and be involved in developing programs and activities that promote social support for people living with HIV/ AIDS. (p. 799)

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Simioni, S., Cavassini, M., Annoni, J.-M., Abraham, A.R., Bourquin, I., Schiffer, V., Calmy, A., Chave, J.-P., Giacobini, E., Hirschel, B., & Du Pasquier, R.A. (2010). Cognitive dysfunction in HIV patients despite long-standing suppression of viremia. AIDS, 24(9),

### **Tool Box**

# A Note on Content

This publication is designed to help frontline providers of HIV-related mental health services, allied professionals, and consumers stay up to date on research related to HIV care in developed-world settings. The content for the "Biopsychosocial Update" is drawn from a variety of sources including, but not limited to the CDC HIV/ Hepatitis/STD/TB Prevention News Update (http://www.cdcnpin.org/news/ NewsList.asp): Kaiser Health News (http://www.kaiserhealthnews.org): and information provided by Florida International University researcher Robert M. Malow, Ph.D., ABPP. Other sources are identified when appropriate.

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Thompson, M.A., Aberg, J.A., Cahn, P., Montaner, J.S.G., Rizzardini, G., Telenti, A., Gatell, J.M., Günthard, H.F., Hammer, S.M., Hirsch, M.S., Jacobsen, D.M., Reiss, P., Richman, D.D., Volberding, P.A., Yeni, P., & Schooley, R.T. (2010). Antiretroviral treatment of adult HIV infection: 2010 recommendations of the International AIDS Society – USA Panel [Review]. *Journal* 

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., & Pham, P.A. (2009). *Medical management of HIV infection, 2009-2010 edition.* Hillsborough, NC: Knowledge Source Solutions.

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

of the American Medical Association, 304(3), 321-333.

Wong, C.F., Kipke, M.D., Weiss, G., & McDavitt, B. (2010). The impact of recent stressful experiences on HIV-risk related behaviors. *Journal of Adolescence*, 33(3), 463-475.

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mental health AIDS is available online! Go to: http://mentalhealthAIDS.samhsa.gov