



Getting to Zero: Targeting Psychiatric Comorbidities as Drivers of the HIV/AIDS Epidemic

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Since the early days of the HIV/AIDS epidemic, psychiatric comorbidities such as mental health and substance use disorders have been linked to greater risk for HIV seroconversion [1], onward HIV transmission [2], and clinical HIV progression [3, 4]. In recent years, groundbreaking advances in biomedical prevention have demonstrated that we have the tools to end the HIV/AIDS epidemic. Early initiation of anti-retroviral therapy by HIV-positive persons, commonly referred to as HIV treatment as prevention (TasP), optimizes health outcomes and dramatically reduces onward HIV transmission rates [5, 6]. Among HIV-negative persons, pre-exposure prophylaxis (PrEP) substantially decreases risk for HIV seroconversion [7]. Realizing the clinical and public health benefits of these advances will require expanded efforts to address prevalent psychiatric comorbidities that undermine the effectiveness of biomedical approaches to HIV/AIDS prevention. This issue of the *International Journal of Behavioral Medicine* (IJBM) contains four articles that advance science, practice, and policy regarding the role of psychiatric comorbidities in HIV/AIDS prevention.

It is well established that people living with HIV/AIDS are at elevated risk for depressive disorders and suicide [8, 9], which fuel difficulties with HIV disease management and hastened mortality [3]. In this issue, Shim and colleagues [10] present findings from a cross-sectional study testing an interpersonal theory of suicide in South Koreans living with HIV/AIDS. Findings demonstrate that perceived burdensomeness and thwarted belongingness are plausible pathways whereby depression could increase suicide risk. These results will inform longitudinal and intervention

research targeting key affective, cognitive, and social factors relevant to suicide risk among people living with HIV/AIDS.

The experience of positive affect such as happiness or gratitude is theorized to have a unique adaptive significance in the midst of chronic stress [11]. One study from this issue by Rzeszutek and Gruszczyńska [12] documented affective changes over 1 year in people living with HIV/AIDS in Poland. Results of this longitudinal study highlight the independence of positive and negative affect trajectories over time. Consistent with prior research on the role of negative affect in clinical HIV progression [3], increasing negative affect was associated with concurrent decreases in self-reported CD4+ T cell count. There were no concurrent associations of positive affect with self-reported CD4+ T cell count. These findings contribute to a growing clinical research literature on the implications of positive and negative affect among people living with HIV/AIDS. For example, recent randomized controlled trials enrolling people living with HIV demonstrate that positive affect interventions are efficacious for improving psychological adjustment and reducing stimulant use [13, 14]. Further clinical research is needed to examine the efficacy of positive affect interventions improving biomarkers of HIV disease progression.

Problematic patterns of alcohol and other substance use are key drivers of the HIV/AIDS epidemic, and two of the studies published in the present issue examine these intertwining epidemics around the globe. Rogers and colleagues [15] conducted a thematic analysis of in-depth qualitative interviews conducted as part of the multi-national HIV Prevention Trials Network (HPTN) 063 study. Their findings provide important information regarding the cognitive processes whereby alcohol amplifies risk for engaging in HIV transmission risk behavior in various populations. The other paper by Noroozi and colleagues [16] demonstrates the multi-level nature of HIV risk among people who inject drugs in two Iranian cities [16]. After controlling for individual-level risk factors, more than one fifth of variance in HIV risk was attributable to city-level factors. Taken together, these two studies will inform

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efforts to develop and test multi-level interventions to address alcohol and substance use as key risk factors for HIV/AIDS.

Recent advances in biomedical HIV/AIDS prevention underscore the continued relevance of behavioral medicine research to reach a day when there are zero new HIV infections and zero new AIDS diagnoses. It is likely that those with psychiatric comorbidities will experience difficulties with performing health behaviors that are curical to maiximize the benefits TasP and PrEP. The four studies published in this issue of *IJBM* will inform efforts to develop and test a new generation of behavioral medicine inteventions to optimize biomedical HIV/AIDS prevention.

Compliance with Ethical Standards

Conflict of Interest The author declares that there is no conflict of interest.

Ethical Approval This article does not contain any studies with human participants or animals performed by any the author.

Informed Consent There were no human subjects in this submission.

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