



Anxiety Sensitivity in Relation to Sleep Quality Among HIV-Infected Individuals

Teresa M. Leyro, PhD

Kimberly A. Babson, PhD

Marcel O. Bonn-Miller, PhD

Sleep disturbance is one of the most prevalent symptoms reported by HIV-infected individuals (Wheatley & Smith, 1994), with up to 73% reporting significant sleep disturbances (Rubinstein & Selwyn, 1998). Unlike some other symptoms associated with HIV that typically present during the initial phase of illness (e.g., fever, chills, muscle aches), sleep disturbance has been shown to be present over the course of the disease (Reid & Dwyer, 2005). This is particularly concerning as disturbed sleep has been associated with poorer antiretroviral (ART) medication adherence (Babson, Heinz, & Bonn-Miller, 2013), viral load (Saber, Neilands, & Johnson, 2011), greater HIV symptom severity (Babson et al., 2013; Robbins, Phillips, Dudgeon, & Hand, 2004), and higher rates of negative psychological symptoms (Nokes & Kendrew, 2001).

While the prevalence and consequences of sleep disturbances among individuals with HIV have been established, relatively little work has investigated malleable factors that may confer greater risk of sleep disturbances for this population. One relevant factor in this area is anxiety sensitivity (AS), a cognitive vulnerability defined as the fear of anxiety, its relevant bodily sensations, and its potential negative social, physical, and mental consequences (Taylor et al., 2007). AS has unique relations to sleep disturbances and, among individuals with HIV, specifically, has been linked to greater physiological distress, anxiety, and depression symptoms (Gonzalez, Zvolensky, Parent, Grover, & Hickey, 2012; Gonzalez, Zvolensky, Solomon, & Miller, 2010), suicidality (Capron, Gonzalez, Parent, Zvolensky, & Schmidt, 2012), as well as self-

reported HIV symptom severity (Leyro, Vujanovic, & Bonn-Miller, *in press*).

Unfortunately, there has been little work in terms of understanding whether greater AS might relate to decrements in sleep quality among individuals with HIV. Drawing from the literature more broadly, Vincent and Walker (2001) found that, in a sample of adults with chronic insomnia, AS was related to sleep-related impairment, with a trend relation between AS and frequency of medication use, after accounting for general worry and presence of Axis I psychopathology. Babson, Trainor, Bunaciu, and Feldner (2008) found that AS interacted with sleep anticipatory anxiety to predict sleep onset latency, after accounting for negative affect, gender, age, cannabis use, nicotine dependence, and alcohol use. In a similar investigation conducted among

Teresa M. Leyro, PhD, is an Assistant Professor in the Department of Psychology at Rutgers, The State University of New Jersey, New Brunswick, New Jersey, USA. Kimberly A. Babson, PhD, is a Postdoctoral Fellow at the Center for Innovation to Implementation, VA Palo Alto Health Care System and the Department of Psychiatry and Behavioral Sciences, Stanford University, Palo Alto, California, USA. Marcel O. Bonn-Miller, PhD, is a Health Science Specialist at the Center for Innovation to Implementation and National Center for PTSD, VA Palo Alto Health Care System, Palo Alto, California, USA; Health Science Specialist at the Center of Excellence in Substance Abuse Treatment and Education, Philadelphia VAMC, Philadelphia, Pennsylvania, USA; and Adjunct Assistant Professor of Psychology in the Department of Psychiatry, University of Pennsylvania Perelman School of Medicine, Philadelphia, Pennsylvania, USA.

individuals with panic disorder, Hoge et al. (2011) found that after accounting for relevant covariates including age, major depression, and panic disorder severity, individuals with elevated AS reported significantly greater latency to sleep. Taken together, these studies indicated that elevations in AS confer risk for greater sleep disturbances, although these associations appear nuanced in terms of particular aspects of sleep quality, with no research having sought to elucidate these relations for individuals with HIV.

Our study sought to explore the incremental association between AS and global sleep quality, as well as to determine differential associations between AS and a variety of facets that comprise global sleep quality, including perceived sleep quality, latency, duration, efficiency, disturbance, medication use, and daytime dysfunction in HIV-infected individuals receiving treatment at community clinics. We sought to explore AS in relation to global sleep impairment and specific components in order to explicate which aspects of sleep interference might be most relevant to AS. Such targeted examination will help provide a foundation for prospective work on AS and the etiology and maintenance of sleep pathology, with a long-term goal of guiding intervention development. Because AS serves to amplify fearful responses, it was hypothesized that AS would be associated with decrements in global sleep quality. In addition, we sought to conduct exploratory analyses on the relations between AS and each of the specific components of global sleep quality. Based on previous research that suggested that age, gender, ethnicity (Lichstein, Durrence, Riedel, Taylor, & Bush, 2004), and negative affect (Bower, Bylsma, Morris, & Rottenberg, 2010; Harvey, 2011) were related to sleep disturbance, these factors were examined as potential covariates. Given that participants were categorized based on their cannabis use, and due to the elevated prevalence of alcohol use, both of which may impact sleep disturbance (Krystal, 2012; Roehrs & Roth, 2001), these were also considered as potential covariates.

Methods

Our analyses were secondary to a larger study, which examined cannabis use in relation to HIV

medication adherence (Bonn-Miller, Oser, Bucossi, & Trafton, 2014). From this sample, 136 individuals who completed requisite questionnaires were included in the current study. Inclusionary criteria involved being (a) at least 18 years old, (b) HIV infected, (c) currently prescribed at least one antiretroviral medication, and (d) undergoing treatment at an outpatient HIV clinic. As the parent study sought to examine cannabis use in relation to HIV medication adherence, participants fell into separate cannabis use categories such that approximately one third ($n = 40$) met *Diagnostic and Statistical Manual of Mental Disorders-IV* (DSM-IV; with the inclusion of withdrawal) criteria for current cannabis dependence, one third of the sample ($n = 47$) were nondependent cannabis users (use in the previous 30 days), and one third ($n = 49$) reported no cannabis use within the previous 6 months. Exclusionary criteria included (a) limited mental competency; (b) inability to provide informed, voluntary, written consent; (c) inability to speak and read English; or (d) suicidal ideation as determined by structured clinical interview.

Measures

Log-transformed viral load. Participants' viral loads (copies/mL), as determined by the most recent blood test, were obtained via a review of participants' medical records on file at their HIV clinics. Viral load was used as a reflection of participants' HIV status, burden of infection, and response to ART (U.S. Health Resources and Services Administration, 2012), and considered as a potential covariate given that research has indicated that viral load and disease burden impact sleep (Robbins et al., 2004; Saberi et al., 2011). Consistent with prior work (Mellors et al., 1997), viral load was log-transformed prior to analysis.

The structured clinical interview for DSM-IV axis I disorders-non-patient edition (SCID-I/N/P). The SCID-I/N/P (First, Spitzer, Gibbon, & Williams, 2002) is a well-established semi-structured interview used to determine diagnostic status of axis-I psychological disorders. Trained research assistants administered the SCID-I/N/P to assess for current suicidal ideation and axis-I psychopathology, including

Download English Version:

<https://daneshyari.com/en/article/5870259>

Download Persian Version:

<https://daneshyari.com/article/5870259>

[Daneshyari.com](https://daneshyari.com)