Feeling Refreshed? Psychological Flexibility and Perceptions of Sleep Quality in a Chronic Illness Sample

Caroline Kelley, M.A.¹, Abbie Beacham, Ph.D.¹, & Desiree Green, B.S.¹

1 Xavier University, Cincinnati, OH

INTRODUCTION

Poor sleep quality is reported by 38% of adults (Kang, Lee, Jang, Kim, & Sunwoo, 2013). Despite recommendations that adults need 7–8 hours of sleep per day, almost 30% report sleeping 5 h per day (Schoenborn & Adams, 2010). Depending on the diagnostic criteria applied, the prevalence of insomnia is estimated between 6 and 37% (Hayes, Lubker, Jordan, & Croft, 2012). Poor sleep in adults is related to decreased quality of life, work productivity and physical activity, as well as increased risk of accidents, health care utilization and costs, physical distress, mental distress, number of days spent in bed, and restricted activity (Daley et al., 2009; Roth, 2007; Strine & Chapman, 2005).

Adults with chronic illness (CI) experience insomnia at an even higher rate than the general population (Taylor et al., 2007). Moreover, within this population sleep problems tend to be more severe and persistent (Anncoli-Israel, 2006). Poor sleep among patients with CIs is often associated with decreases in daytime functionality and adverse medical and psychological outcomes including depression, fatigue, and lower overall health-related quality of life (White & White, 2011; Katz & Mclnmore, 2002). Patients who receive interventions specifically targeting sleep show improved symptoms, less healthcare utilization, and reduced healthcare spending (McCrae, Bramoweth, Williams, Roth, & Mosti, 2014).

The purpose of this study was to examine factors related to psychological flexibility, functional outcomes and self-reported sleep patterns and subjective ratings of sleep quality in an online CI support group sample. More specifically, subjective ratings of sleep quality (i.e., sleep interpretation) were examined relative to measures of mindfulness, acceptance and perceived disability.

METHOD

Participants and Procedure: Participants were recruited via online chronic illness support groups. The sample (N=380; mean age=52.9, SD=12.3) was primarily Caucasian (91.5%), female (95%), married (89%), and well educated (mean years=15.4, SD=2.7), with a median household income between US $40K, and US $90K. Mean number of chronic illnesses was 2 (SD=1.5).

Measures:
Percieved Illness Disability Inventory (PDI): The PDI was adapted from the Pain Disability Index to make it inclusive of all chronic conditions, not just pain. Self-reported illness interference is assessed in the following life domains: family/home responsibilities, recreation, social activities, occupation, sexual behavior, self-care, and life-support activity. Items are rated on a 0 ("no disability") to 10 ("total disability") scale (Pollock, 1984). The seven items are summed to create a total single disability score.

Mindful Attention Awareness Scale (MAAS): The MAAS consists of 15 items designed to measure a single-factor construct of mindfulness (Brown & Ryan, 2003). Each of the items is rated on a 6-point scale from 1 ("almost always") to 6 ("almost never").

Chronic Illness Acceptance Questionnaire (CIAQ): The CIAQ (Beacham, Linfield, Kinmen, & Payne-Murphy, Revision under review) was adapted from the Chronic Pain Acceptance Questionnaire (CPAQ) (McCracken et al., 2004). Twenty items are rated on a 0 ("never") to 6 ("always") scale to produce a two-factor structure: Activity Engagement and Pain Willingness. All CPAQ items were retained in the development of the CIAQ, and analyses revealed item loadings on the same two-factor structure as the CPAQ (McCracken et al., 2004).

Valued Directions Questionnaire (VDQ): The VDQ is a self-report questionnaire that asks participants to rate their perceived importance and satisfaction across several domains related to quality of life (Hayes, Sh))==, & Wilson, 1999). Domains include family, intimate relationships, parenting, work/study, recreation/training, recreation/hobbies, spirituality, community/service, and health/physical well-care. Participants rate the items on a 10-point scale from 1 ("not important/satisfied") to 10 ("very important/satisfied") or "N/A" if an item does not apply.

The Pittsburgh Sleep Quality Index (PSQI): The PSQI is an 18-item self-report measure used to assess quality of sleep (Buysse, Reynolds, Monk, Berman, & Kupfer, 1989). Items relate to sleep efficiency, sleep latency, hours spent in bed and asleep, use of sleep aids (e.g., medications) as well as other sleep quality-related questions.

Acceptance and Action Questionnaire-II (AAQ-II): The AAQ-II (Bond et al., 2011) is a shortened, seven-item measure of psychological inflexibility and experiential avoidance designed to measure the same constructs as the Acceptance and Action Questionnaire (AAQ; Hayes et al., 2004). Items are rated from 1 ("never true") to 7 ("always true") scale for statements like "Endures causes problems in my life."