0551

MOVEMENT PARASOMNIAS IN A COMMUNITY SAMPLE: ASSOCIATIONS WITH SLEEP HEALTH AND MENTAL HEALTH

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Introduction: Movement-related parasomnia symptoms are associated with several sleep disorders and are associated with adverse health, mental health, and social outcomes. Current literature lacks data regarding parasomnia prevalence in the general population. This study examined prevalence of these symptoms and correlates in a community-based sample.
Methods: Data were from the Sleep and Healthy Activity, Diet, Environment and Socialization (SHADES) study, consisting of N=1,007 working-age adults. Parasomnia symptoms were assessed with, "I have been told that I walk, talk, eat or act strange or violent while sleeping." Responses were categorized as Never (1/year or less), Sometimes (<1/week), or Often (>=1/week). Sleep health variables included sleep duration, categorized as very short (<=4h), short (5-6h), normal (7-8h, reference group) or long (>=9h), Insomnia Severity Index, Epworth Sleepiness Scale, Fatigue Severity Scale, Brief Index of Sleep Control, frequency of loud snoring, and frequency of sleep medication use. Mental health variables included PHQ9 depression score, GAD7 anxiety score, Perceived Stress Scale, and self-reported survival of severe physical/emotional trauma (None, Possible, Definite). Covariates included age, sex, race/ethnicity, education, income, employment, and body mass index.
Results: Parasomnia symptoms were reported sometimes by 24% and often by 7% of the sample. The following sleep-related variables were associated with more movement-related symptoms sometimes: very short sleep (RRR=2.26), higher ISI (RRR=1.08), ESS (RRR=1.09), and FSS (RRR=1.05), and frequent snoring (RRR=2.84). The following were associated with more symptoms often: very short sleep (RRR-4.40), higher ISI (RRR=1.18), ESS (RRR=1.18), FSS (RRR=1.07), frequent snoring (RRR=7.38) and medication use (RRR=5.99), and less sleep control (RRR=0.43). Regarding mental health, more symptoms sometimes or often was associated with higher depression (RRR=1.11 and 1.16, respectively), anxiety (RRR=1.12 and 1.17, respectively), and stress (RRR=1.06 and 1.10, respectively) scores. Trauma survivors were more likely to report symptoms often (RRR=4.78).
Conclusion: Movement-related parasomnia symptoms are fairly prevalent and may impact nearly one third of community-dwelling working-age adults. Those exhibiting symptoms are more likely to experience shorter sleep duration, poor sleep quality, daytime dysfunction, and worse mental health. Screening efforts for subclinical symptoms should be increased, and further work should explore pathways linking these symptoms to health and functional outcomes.
Support (If Any):

0552

"EYE-MOVEMENT-INTEGRATION THERAPY" (EMI) IN PATIENTS WITH NIGHTMARES - A PILOT STUDY

Introduction: Nightmares are associated with enormous suffering as well as a significant reduction in the quality of life of those affected. Various studies also show a direct correlation between the frequency of nightmares and suicidal tendencies. Nightmares are therefore diseases that must be taken very seriously. Currently, they are treated with costly therapy methods and sometimes with unstable success. In addition, patients must fulfil certain requirements such as suggestibility and the ability to imagine. Consequently, direct and economical treatment methods are needed. Since nightmares often have a traumatic character for those affected, it was obvious to test this therapeutic technique, which was developed especially for the treatment of PTSD.The aim of this study is to test the neurotherapeutic technique "Eye-Movement-Integration Therapy" (EMI) for the treatment of nightmares for its effectiveness.
Methods: Three patients between the ages of 19 and 24 who met the diagnostic criteria for nightmares were treated with EMI.
Results: Just one EMI session was able to reduce nightmare frequency from an average of 5.4 nightmares per week in the post-measurement two weeks after the EMI session to 1.6. This effect improved to 1.3 nightmares per week in the follow-up after 3 months.
Conclusion: EMI may be a way to treat nightmares causally and specifically. Other possible treatment outcomes could be an improvement in comorbid symptoms and a reduction in suicide risk. Larger controlled, randomised clinical trials are needed to test this treatment method for its effectiveness. It would also be desirable to investigate the treatment success of EMI in comorbid mental disorders, especially in post-traumatic stress disorder with nightmares.
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0553

AT-HOME DETECTION OF REM SLEEP BEHAVIOR DISORDER USING A MACHINE LEARNING APPROACH AND WRIST ACTIGRAPHY

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Introduction: Isolated rapid-eye-movement (REM) sleep behavior disorder (iRBD) affects over 1% of middle-aged and older adults and is in most cases a prodromal stage of alpha-synucleinopathy. However, a small fraction of them is currently diagnosed due to poor access to the gold-standard diagnostic procedure polysomnography (PSG). We aimed to test an ambulatory diagnostic procedure for iRBD based on wrist actigraphy alone and combined with a short questionnaire on nonmotor symptoms.
Methods: A total of 35 PSG-confirmed iRBD and 28 age-matched clinic and community control participants with and without a sleep disorder (1:1 ratio) wore high-frequency (25 Hz) wrist actigraphy for at least 7 nights and completed sleep diaries. Raw accelerometer data recorded during sleep was analyzed by deriving an activity count and extracting movement-related features for each night. Additionally, participants completed the Innsbruck RBD inventory (RBD-I) and a 3-item questionnaire on hyposmia, constipation, and orthostasis. We fitted machine learning models, specifically, boosted decision trees, in a leave-one-out cross-validation framework to classify iRBD patients from controls based on either actigraphy or questionnaire data. For each participant, model predictions from actigraphy were averaged across all available nights.
Results: The boosted decision trees classified iRBD with an area under the receiver-operator-characteristics (ROC) curve (AUC) of 0.972, a sensitivity of 97.1%, and a specificity of 89.3%. Analyses