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How Individuals with Insomnia View Their Own and Others Faces: An Eye-Tracking Study

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0703

HOW INDIVIDUALS WITH INSOMNIA VIEW THEIR OWN AND OTHERS FACES: AN EYE-TRACKING STUDY

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Introduction: Previous research has demonstrated that individuals with insomnia perceive their own facial appearance as more tired in comparison to others. Furthermore, facial perceptions of tiredness have been shown to rely on preferential attention towards the eyes. The present study aimed to objectively explore whether individuals with insomnia differentially observe their own and others faces relative to normal-sleepers and more specifically whether people with insomnia display a self-specific or general attentional bias towards the eye-region.

Methods: Twenty participants who met the DSM-V criteria for insomnia (85% female, mean age 21.30 ± 3.91) and 20 normal-sleepers (75% female, mean age 24.50 ± 7.08) viewed 48 neutral facial photographs (24 of themselves, 24 of another) each for periods of 4000 msec. Three interest-regions, examined for overall gaze duration (eyes, nose, mouth) were compared both between, and within groups.

Results: A mixed ANOVA demonstrated that Individuals with insomnia observed all three interest-regions for longer compared to normal-sleepers, $F(1,38) = 4.03$, $p = 0.05$. Further, a group x region interaction confirmed that those with insomnia spent more time looking at the eyes, and less time at the nose and mouth compared to normal-sleepers $F(2,76) = 5.64$, $p = 0.01$. Although all participants attended to their own eyes for longer than others, $F(1,50) = 27.00$, $p = 0.01$, no group x face (self vs. other) interaction was apparent, $p > 0.05$.

Conclusion: The present study showed that individuals with insomnia display preferential attention towards the eye-region whilst viewing faces in general compared to normal-sleepers. Additionally, such attention was evident whilst viewing both their own and others' faces, suggesting insomnia is characterized by a general, rather than self-specific, bias of attention towards eyes. Additional research should explore whether such attention may be indicative of evaluations of tiredness. The current findings contribute to understanding face perception in insomnia, highlighting potential importance of the eye-region for the perception of tiredness in insomnia.

0704

INSOMNIA IDENTITY VERSUS POOR SLEEP EFFECTS ON DAYTIME FUNCTIONING

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Introduction: Sleep groups can be defined in four ways: people with poor sleep and a sleep complaint (Insomniacs), people with a sleep complaint but who do not exhibit poor sleep (Complaining Good Sleepers), people with poor sleep but without a sleep complaint (Non-complaining Poor Sleepers), and people without poor sleep or sleep complaints (Healthy Sleepers). We compared these groups on subjective daytime impairment.

Methods: Randomly recruited 699 participants, 344 males, 485 Caucasian, (M age = 53.3 years; SD = 19.9), completed 14 days of sleep diaries and daytime functioning questionnaires. They were grouped based on data from the sleep diaries and the presence or absence of a sleep complaint. Participants were compared on six subcategories from the Insomnia Impact Scale (IIS): physical, cognitive, occupational, social, emotional, or general impairment.

Results: The data analytic model was a 2x2 MANOVA. Presence or absence of sleep disturbance was crossed with presence or absence of sleep complaint on the six IIS variables. We obtained a significant main effect for disturbance, Wilks' $\Lambda = 0.97$, $p < 0.01$, a significant main effect for complaint, Wilks' $\Lambda = 0.94$, $p < 0.001$, but no significant interaction. Univariate follow-up testing revealed significantly greater impairment if a complaint was present for five measures, excluding the occupational subcategory. The disturbance variable yielded significant findings for four measures, excluding physical and cognitive subcategories.

Conclusion: Individuals who believe they have insomnia, that is they endorse an insomnia identity, reported impaired daytime functioning on five of six subcategories compared to individuals with poor sleep who recorded significant deficits on four of six subcategories. The absence of an interaction indicated the combination of poor sleep and sleep complaint afforded no increment in daytime impairment compared to sleep complaint alone. Insomnia identity may be a component of insomnia disability meriting focal clinical attention.

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0705

DOES ACCULTURATION PREDICT INSOMNIA SEVERITY IN PREGNANT WOMEN ENROLLED IN A STUDY OF CBT FOR INSOMNIA?

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Introduction: Acculturation in the U.S. is associated with poor health outcomes, yet relatively little is understood about its role in sleep, specifically among pregnant women. One previous study among pregnant Latinas found that those who chose to complete study measures in English, a proxy for acculturation, had higher insomnia severity. The current study aimed to examine if acculturation, measured using a validated scale, predicted insomnia severity among pregnant women with insomnia disorder.

Methods: Pregnant women with insomnia disorder (gestational ages 18–32 weeks) were enrolled in a treatment study of cognitive behavioral therapy for insomnia (CBTI). Eligible women who met DSM-5 criteria for insomnia disorder and had no co-morbid affective or sleep disorders were recruited from community obstetric clinics. At baseline, participants completed the Acculturation Rating Scale for Mexican Americans-II (ARSMA-II) and the Insomnia Severity Index (ISI) among other measures.

Results: Twenty one of 39 women (mean age 32.9 ± 4.9 years; mean gestational age 24 weeks ± 4.5 weeks) self-identified as having been born and raised in a non-Anglo culture. Of these women, 48% were Latina. The ISI average score was 18.2 ± 4.1 . A multiple regression model that included the two ARSMA-II subscales, Anglo Orientation Scale (AOS) and Culture of Origin Orientation Scale (COS), explained a significant amount of variance in ISI scores [$p < 0.05$, $R^2_{\text{Adjusted}} = 0.24$]. AOS significantly predicted ISI scores (Beta = 0.62, $p = 0.01$) but COS did not ($p = 0.08$).

Conclusion: These preliminary findings suggest that, among pregnant women with insomnia disorder, greater cultural orientation toward the Anglo culture is associated with more severe insomnia severity, but greater cultural orientation toward the culture of origin is not. Future research is needed to better understand mechanisms underlying the observed relationship between acculturation and insomnia and the clinical relevance of acculturation in terms of response to CBTI.

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