common self-reported physician-diagnosed comorbidities were anxiety (44%) and depression (42%) followed by hypertension (39%), dyslipidemia (26%), and asthma (21%). Among the symptoms participants reported having had at the time of OSA diagnosis, the most common were EDS (79%), fatigue (79%), snoring (75%), and awakening with a dry mouth or sore throat (63%). Concentration/Memory problems (48%) and mood changes (46%) were also common. In the overall population, the symptoms present at the time of OSA diagnosis that were most likely to be highly burdensome were fatigue (53%), EDS (46%), snoring (35%), difficulty concentrating/memory issues (31%), and mood changes (25%).

Conclusions. These real-world survey data identify anxiety and depression as the most frequently reported comorbidities in a population of participants with OSA, each affecting over 40% of participants. In addition to classic OSA symptoms (e.g., EDS, fatigue, snoring, and awakening with dry mouth/sore throat), concentration/memory problems and mood changes were also common at the time of OSA diagnosis and were among the presenting symptoms most frequently reported as highly burdensome, along with fatigue, EDS, and snoring.

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Excessive Daytime Sleepiness in a Real-World Study of Participants With OSA With or Without Comorbid Depression

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Abstract

Background. Obstructive sleep apnea (OSA) is a sleep disorder that is highly comorbid with psychiatric disorders, including depression and anxiety. Excessive daytime sleepiness (EDS) is common in psychiatric disorders and OSA. In participants with OSA, EDS can persist despite use of positive airway pressure (PAP) therapy. This analysis of real-world data aimed to describe EDS and its relationship with PAP use in participants with and without depression.

Methods. US residents (≥18 years of age, self-reported physician diagnosis of OSA [from 1/1/2015 to 3/31/2020]) completed a survey in Evidation Health's Achievement app assessing subjective levels of sleepiness (Epworth Sleepiness Scale [ESS]) and self-reported PAP usage, categorized as nonuse (no PAP use), nonadherent (<4 h/night or <5 d/wk), intermediate (4-6 h/night, ≥5 d/wk), or highly adherent (≥6 h/night, ≥5 d/wk). ESS score >10 defined EDS. A linear model assessed relationships between PAP use and ESS score. *P*-values are uncontrolled for multiplicity (nominal).

Results. In total, 2289 participants (EDS, n=972; no EDS, n=1317) completed the survey (50.3% female; 82.5% White; mean±standard deviation [SD] age, 44.8 ± 11.1 years). Anxiety and depression were the most common comorbidities and were more common in participants with EDS (49% and 49%, respectively) than those without EDS (41% and 37%, respectively). Overall, EDS was more common among participants with comorbid depression (49%) than those without (38%), even among highly adherent PAP users (46% vs 30%, respectively). In a linear model (PAP users only), an additional 1 h/night of PAP use was associated with lower ESS scores in the subgroup of participants without depression (n=928; estimate [SE], −0.42 [0.09]; $P<0.05$), but not in the subgroup with depression (n=661; estimate [SE], −0.15 [0.10]; $P>0.05$). In a sensitivity analysis that excluded participants using medications that cause sleepiness, PAP use was associated with lower ESS scores regardless of depression status; however, EDS remained more common in participants with comorbid depression (46%) than in those without (36%).

Conclusions. In this real-world population of participants with OSA, those with EDS were more likely to have comorbid anxiety or depression. EDS was more common in participants with comorbid depression than those without, even with highly adherent PAP use. PAP use was associated with lower ESS scores in participants without comorbid depression, but not in those with comorbid depression; the use of medications that cause sleepiness may contribute to but does not fully explain this phenomenon.

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Genetic Behavioral Trait Assessment Paired With Personalized Recommendations and Coaching to Support Mental Health and Wellness

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Abstract

Background. Genetics, environment, and lifestyle each contribute to human behaviors. We have developed a direct-to-consumer genetic assay (Mental Health Map) that allows users to explore their genetic behavioral predispositions and potential interventions that may positively influence mental health and wellness. Based on preliminary consumer feedback suggesting increased desire to take action on their mental health and wellness, we initiated a pilot study to assess several measures of mental health and self-care in individuals both before and after reviewing their Mental Health Map.

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Methods. This was a virtual case series in adults who purchased a Mental Health Map. Subjects served as their own control based on survey responses leading up to genetic testing and up to 7 weeks after an introductory coaching session. Coaching included a demonstration of how to navigate the interactive online report, discussion of key results, and provision of additional external resources as appropriate. The co-primary measures were changes in quality of life as measured by WHO-5, report of initiating a discussion or seeking mental health care with a health care provider, report of initiating and sustaining positive lifestyle changes, and subjective improvements in stress management, sleep quality, mood, focus, and social interactions. Secondary measures were changes in GAD-7 and PHQ-9.
Results. Twenty-seven individuals completed the study. Average WHO-5 at baseline was 41.2 which numerically increased to 48.3 at week 7, suggesting improved quality of life, but this effect was not statistically significant. 42.3% of individuals were in treatment with a mental health provider at the time of survey. Of those not in treatment, 33.3% were actively seeking professional mental healthcare prompted by the coaching session. At week 6, 87% of survey respondents (n=15) asserted that they continued to make lifestyle changes that improved stress; 74% made changes to improve mood and 80% made changes that improved their habits. Percentage of respondents who reported lifestyle changes to improve sleep, focus, and social interactions were all less than 70%. In secondary outcomes, average GAD-7 at baseline was 8.9 and decreased to 6.7 at week 7, while PHQ-9 averaged 10.3 at baseline and decreased to 7.5 at week 7. Neither of the secondary outcome measures achieved a statistically significant difference.
Conclusion. Despite the small patient population, this pilot study provides proof-of-concept that Mental Health Map and the accompanying coaching session encourages participants to make positive lifestyle changes and prompts pursuit of a healthcare professional. We also saw numerical trends toward modest improvements in quality of life, anxiety, and depression symptoms, although these differences were not statistically significant, and may require larger sample sizes.
Funding. Genomind

Characterizing the Impact of Stigma From the Perspective of Bipolar Disorder Patients: Results From a Social Listening Study

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Abstract

Background. Bipolar disorder (BP) is a chronic and recurrent psychiatric disorder characterized by manic/hypomanic and depressive episodes with or without mixed features. Despite high levels of functional disability associated with BP, internal and external stigma can create barriers to successful recovery. This retrospective, observational social listening study was conducted to understand how stigma-related terms correlated with discussion of therapeutic interventions and psychosocial domains associated with functional recovery in unprompted, online conversations by self-identified bipolar disorder patients.
Methods. A comprehensive search was performed for publicly available, online conversations posted on forums, blogs, message boards, and the social media platforms Facebook and YouTube between 1/1/2019 and 9/30/2021. Digital interactions of anonymous self-identified BP-diagnosed patients were analyzed to identify associations between common themes and sentiments related to BP and stigma. An index value (baseline=100) was calculated based on the expected correlation between the rate that a stigma-related concept was used in BP conversation versus general online conversation. An index value >100 indicated higher correlation than statistically expected; index values <100 indicated lower correlation than expected.
Results. A total of 257,964 conversations from 30,710 patients with BP were identified for analysis (mean, 8.4 BP-I posts per individual/year). The most prevalent stigma-related terms in patient conversations were guilt (6.9%), frustrated/discouraged (1.8%), shame (1.1%), and exhaustion (1.1%). Stigma-related terms over-indexed in conversations attributed to bipolar patients (e.g., guilt=708, denial=563, embarrassment=480); stigma-related terms were also over-indexed in relapse-related conversations (e.g., stressed=184, shame=141, and frustrated/discouraged=124). Social/familial topics (47.2%) were discussed as often as medical/psychological interventions (48.7%) and medication (42.8%). Medical intervention-related conversations were not highly correlated with stigma, except in areas of insurance/disability. Stigma-related terms were over-indexed in conversations related to social/familial relationships (e.g., isolation/loneliness=134, guilt=132), and jobs/school (e.g., embarrassment=190, stigma=184, overwhelmed=154, shame=142, isolation/loneliness=140).
Conclusion. These analyses describe the pattern by which stigma appears in patient perceptions of psychosocial and medical/therapeutic domains. Stigma significantly associates with psychosocial domains related to functional recovery, but not with patient perceptions of therapeutic interventions. Thus, stigma may act as a barrier between symptomatic remission and functional recovery. The patient-provider therapeutic alliance represents a trusted channel and an opportunity through which patients should be supported in overcoming stigma-related barriers to functional recovery.
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