

# Sleep-related breathing disturbances in adolescents with treatment resistant depression.

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## Author information

### Abstract

#### **OBJECTIVE/BACKGROUND:**

A considerable subgroup of adolescents does not respond to standard antidepressant treatments. There are some indications that sleep disordered breathing may contribute to refractory depression in adults, but little is known about how it may relate to the course of depressive disorders in adolescents. Focussing on a group of Canadian adolescents with treatment resistant depression (TRD), this study aimed to investigate how the severity of residual depressive symptoms following unsuccessful antidepressant trials relates to breathing disturbances during sleep.

#### **PATIENTS/METHODS:**

A retrospective chart review was conducted at a tertiary mental health facility. Polysomnography, the Beck Depression Inventory-II (BDI-II), and the Epworth Sleepiness Scale (ESS) were collated from 18 adolescents (15-18 years old, 44% females) patients with depressive disorders who did not respond to at least two 4-week trials of antidepressant medications.

#### **RESULTS:**

Of this sample, 39% reported at least mild levels of excessive daytime sleepiness, and 55% had an apnea/hypopnea index  $\geq 1$ . Worse depressive symptoms correlated with higher RDI ( $r = 0.53$ ,  $p = 0.022$ ). This was mainly driven by respiratory effort-related arousals occurring during NREM sleep ( $r = 0.52$ ,  $p = 0.029$ ). No significant correlation was found between depressive symptoms and other respiratory or sleep variables. Higher daytime sleepiness correlated significantly with lower minimum oxygen desaturation ( $r = -0.51$ ,  $p = 0.030$ ).

#### **CONCLUSIONS:**

These results suggest that even subtle respiratory disturbances during sleep may play a role in persistent depressive symptoms and treatment resistance. Early screening for sleep-related breathing disturbances in adolescents with TRD may be relevant, since previous work suggests that treating sleep-related breathing disturbances can attenuate depressive symptoms.

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#### **KEYWORDS:**

Adolescence; Daytime sleepiness; Sleep apnea; Sleep disordered breathing; Treatment resistant depression