

# THE PREVALENCE OF ADULT ADHD AND GENERALIZED ANXIETY DISORDER FOLLOWING THE COVID-19 PANDEMIC IN A CLINICAL POPULATION

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## Abstract

ADHD is often comorbid with a range of other mental health disorders including anxiety-related conditions. Many clinical findings have reported increased rates in both ADHD and GAD diagnoses following the COVID-19 pandemic. The purpose of the present study was to examine a large Canadian clinical sample of adults with ADHD to explore the co-occurrence of anxiety disorders following the COVID-19 pandemic.

**Keywords:** Anxiety, ADHD, COVID, prevalence, adult.

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## 1. Introduction

Attention Deficit and Hyperactivity Disorder (ADHD) is characterized by diminished attention, disorganization, hyperactivity, and impulsivity. ADHD manifests in three primary presentations: inattentive, hyperactive-impulsive, and a combination thereof (Diagnostic and Statistical Manual of Mental Disorders, 5th edition-TR, 2022; National Comorbidity Survey, 2007). Often, ADHD coincides with other mental health disorders, notably anxiety-related conditions. ADHD is prevalent in Canada, affecting 4-6% of adults (CADDAC, 2023). Generalized Anxiety Disorder (GAD) is classified as excessive, persistent, and irrational worry concerning everyday matters (Munir, 2022). Both ADHD and GAD have multifaceted etiologies, influenced by genetic and environmental factors (Eroglu & Lus, 2022). Individuals with anxiety disorders, such as GAD, face double the risk of meeting full criteria for ADHD compared to those without anxiety disorders (Alarachi, 2024).

Comorbid ADHD and anxiety typically develop through two pathways: cognitive impairments leading to heightened anxiety or symptoms arising from elevated levels of anxiousness resulting in increased cognitive load and inattention (Alarachi, 2024). This complex cascade of effects indicates a significant rise in anxiety symptoms 12 months after the onset of the COVID-19 pandemic. This increase in anxiety symptoms has been particularly pronounced among individuals with ADHD, with studies reporting a doubling of anxiety prevalence from 21% pre-pandemic to 42% during the pandemic (Shakeshaft et al., 2023). The overlap in symptoms, such as restlessness and impaired attention (Alarachi et al., 2024; Pallanti & Salerno), complicates diagnosis and treatment, especially as the pandemic heightened mental health issues, including an increased rate of ADHD-related healthcare visits (Butt et al., 2023).

## 2. Methods

The study sample comprises 209 adults (ages 18-55) clinically referred and diagnosed with ADHD at a large metropolitan ADHD program over a 1-year period following the COVID-19 pandemic (2020-2022). Participants completed the Adult ADHD Self-Report Scale (ASRS) and underwent an extensive 2.5-hour DSM-5-TR-based structured diagnostic interview conducted by both staff clinicians and team psychiatrists. Additionally, patients were asked to complete the Beck Anxiety Inventory (BAI) as part of the routine screening procedure for anxiety. All diagnoses and treatment recommendations were made by a team psychiatrist.

### 3. Results

In our clinical sample of ADHD patients (n=209), 76 patients (36.3%) reported moderate to high anxiety using the Beck Anxiety Inventory (BAI) and met the clinical criteria for a formal diagnosis of Generalized Anxiety Disorder in addition to the ADHD diagnosis, including both Combined Presentation and Predominantly Inattentive Presentation.

### 4. Discussion

Our study reveals a 36.3% comorbidity rate of GAD in adults with ADHD, underscoring the complex interplay between these conditions and highlighting the exacerbated challenges during the COVID-19 pandemic. Echoing Nigg et al. (2004) and Hall (2023), we find that ADHD and GAD comorbidity often stems from shared executive function deficits, with COVID-19 amplifying these challenges (Gouin et al., 2023; Shakeshaft et al., 2023). The pandemic has significantly impacted mental health, with a notable increase in anxiety symptoms among individuals with ADHD, reflecting a broader trend of elevated mental health challenges during this period. Our findings align with those reported by Hall (2023) and further emphasized by Gouin et al. (2023), which shed light on the mechanisms by which the pandemic has aggravated mental health issues. Gouin et al. (2023) elucidated that the heightened anxiety seen during the pandemic can be attributed to various stressors, including prolonged social isolation, economic uncertainties, etc. These stressors exacerbate the already present challenges in individuals with ADHD and GAD by amplifying the executive function deficits that underlie both conditions.

Screening for both conditions is crucial, given their symptomatic similarities and the significant impact on life outcomes (Hartman et al., 2023). Our findings advocate for early, comprehensive care strategies, emphasizing the pandemic's role in increasing mental health service demands and the essential nature of targeted treatment and support for those affected by ADHD and GAD comorbidity. Moreover, Alarachi et al. (2024) and Connolly et al. (2023) highlighted the complexity of diagnosing ADHD in the presence of anxiety or related disorders, pointing to the potential for poor clinical outcomes if ADHD remains undetected. This complexity is compounded by the interrelated nature of these disorders, where symptoms of one can exacerbate the other, forming a negative feedback loop that worsens symptom presentation over time (Connolly et al., 2023).

### 5. Limitations

It is important to consider possible limitations of our study such as the study's focus on a clinical population, which may not fully represent the broader population of adults with ADHD and GAD. Clinical data from patients who are referred to specialty programs may differ significantly from the general population in terms of demographic characteristics, health status, and other variables (Collet, 2000). Thus, our findings might not be generalizable to all adults with ADHD and GAD.

### 6. Conclusions

Our study highlights the critical interplay between ADHD and GAD, within the context of the heightened mental health challenges following the COVID-19 pandemic. The findings emphasize the need for clinicians to adopt a holistic approach in the diagnostic process, considering the potential comorbidity of these conditions to ensure comprehensive patient care. The significance of our research lies in its contribution to the ongoing dialogue on mental health care strategies, particularly in response to global crises, such as COVID-19 Pandemic, which may exacerbate existing conditions like ADHD and GAD. Identifying and understanding the clinical complexities involved in the comorbidity of these disorders is crucial for the development of effective treatment plans and patient care strategies. Future research projects within our programs will focus on broadening the scope of our findings to include diverse populations and settings, enhancing the generalizability and applicability of our work. By doing so, we hope to contribute to a more nuanced understanding of ADHD and GAD comorbidity and improve treatment outcomes for those affected.

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