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My socials told me I have ADHD: A cross-sectional study of information about ADHD symptomatology on social media

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Highlights:

- Posts about ADHD on Instagram and TikTok have become increasingly popular in recent years.
- 82.5% of posts about ADHD on Instagram and TikTok did not fully align with DSM-5 or ICD-11 ADHD criteria and were thus categorised as misleading.
- The majority (84.5%) of posts about ADHD on Instagram and TikTok were made by individuals selling ADHD-related products.
- While 78% of content creators had no known qualifications, mental health professionals were no more likely to post accurate information.

Abstract

Social media posts about attention deficit/hyperactivity disorder (ADHD) have become increasingly popular and have accrued billions of views, which has raised questions about the spread of ADHD misinformation. This coincides with an increasing number of long ADHD waiting lists globally, as posts shared by influencers with varying credentials appear to be prompting people worldwide to reflect on whether they might have ADHD. It has been found that approximately half of TikTok posts about ADHD contain misinformation. However, more exploration is needed to assess the amount of misinformation on social media regarding ADHD presentation and symptomatology. This study builds upon previous research by comparing posts about ADHD symptomatology on Instagram and TikTok, examining the relationship between misinformation and the qualifications of the account, and investigating potential financial benefits for accounts that post about ADHD. This cross-sectional study analysed 200 posts about ADHD symptomatology and assessed for misleading information by comparing the posts to the DSM-5 and ICD-11 criteria for ADHD. Of the 200 posts that met inclusion criteria, 17.5% (n = 35) were categorised as accurate and 82.5% (n = 165) were categorised as misleading. This aligns with research that has found misinformation about ADHD online, but shows a higher occurrence of misinformation about ADHD symptomatology specifically. Clinicians and the online public should be aware of the possibility of exposure to misleading information about ADHD symptoms on social media, which could lead to misunderstanding and inaccurate beliefs about diagnosis.

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1. Introduction

As of 2023, around 61% of UK internet users aged 16 to 24 reported using the internet to search for health-related information, reflecting a significant increase from 43% in 2015 (Statista, 2023). The prevalence of misinformation on social media raises concerns regarding the accuracy of health information to which the general public is being exposed alongside potential increasing susceptibility to misinformation agreement (Bizzotto et al., 2023; Khullar, 2022; Wang et al., 2019; Muhammed & Mathew, 2023). The World Health Organization advises that health literacy is the skill to be able to access, understand, and use information in ways that promote well-being (Aydin et al., 2015). Low levels of health literacy can lead to misunderstandings of medical information and diagnoses, especially as the internet becomes an increasingly common source of low-quality and misleading health content (Aydın et al., 2015).

Attention Deficit Hyperactivity Disorder (ADHD) is defined as "a persistent pattern of inattention and/or hyperactivity-impulsivity that interferes with functioning or development" (American Psychiatric Association, 2022). According to NHS England (2024), ADHD was the second most-viewed health condition on the NHS website in 2023 at 4.3 million views, beaten only by COVID-19. The search term "attention deficit hyperactivity disorder" on Google has also trended upwards between January 2018 and present day (See Figure 1) (Google Trends, 2025). At the same time, NHS health boards across the UK have been reporting an increase in inquiries related to ADHD (Morris, 2024; NHS England, 2024) and the CDC reported that an estimated 11.4% of U.S. children are diagnosed with ADHD (Center for Disease Control, 2024). Studies show that an increase in ADHD diagnoses is a trend that appears to be happening globally (Bonati et al., 2019; Abdelnour et al., 2022).

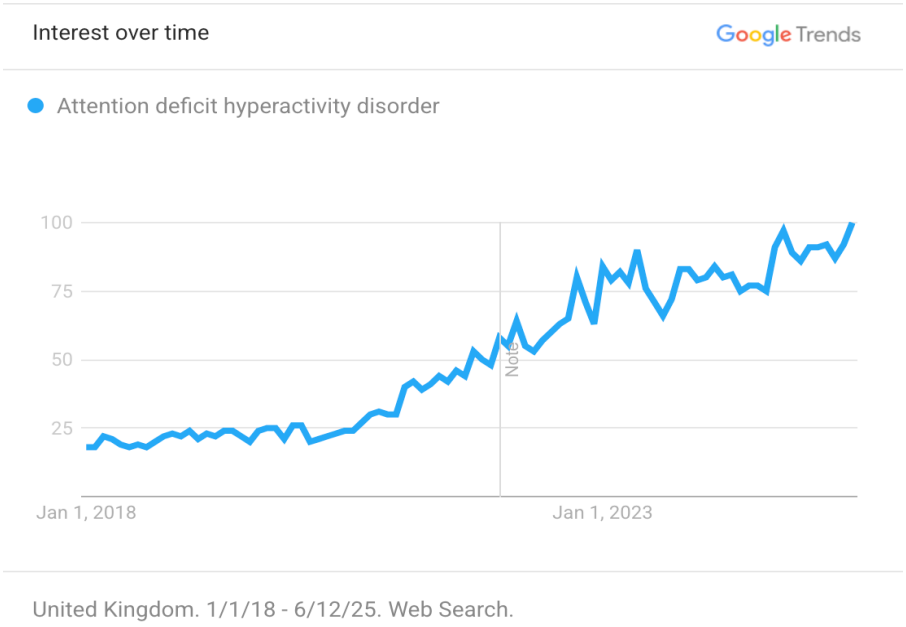

Figure 1. Search data on attention deficit and hyperactivity disorder. Source: Google Trends data, 2025

Alongside this increase in ADHD inquiries, the number of social media posts about ADHD has spiked significantly in the past several years as videos about ADHD are accruing billions of views (Harper & Sandhu, 2023). Due to the nature of social media, misinformation is more likely to be shared on social media platforms than on other online mediums, primarily because of the ease of access to posting information (Ceylan et al., 2022; Muhammed & Mathew, 2023). Algorithms on Instagram, TikTok, and Facebook may contribute to the spread of sensationalised or inaccurate information (Fernández et al., 2021). This can lead to inaccurate self-diagnosis (Corzine & Roy, 2024) and a misunderstanding of health and mental health conditions (Muhammed & Mathew, 2023). One cross-sectional study reviewed 100 TikTok videos tagged with #ADHD and found that 52% of videos were deemed misleading, 27% were personal experience stories, and 21% were useful (Yeung et al., 2022). Yeung et al. (2022) also found that misleading content was significantly more popular than accurate information, as videos created by non-healthcare professionals were more prone to misinformation than those produced by healthcare professionals. Thapa et al. (2018) found similar results on YouTube, where a significant number of misleading videos about ADHD by non-professionals appear to be gaining increasing popularity.

The link between social media and mental health is becoming ever more apparent. The Royal College of Psychiatrists have called for more research on the understanding of technology on mental health, including

ADHD (Royal College of Psychiatrists, 2020). While studies evaluating misinformation about ADHD on TikTok have been conducted, there appears to be a lack of research regarding ADHD content on Instagram. Previous studies have focused on general misinformation about ADHD as opposed to focusing on misinformation about ADHD symptomatology. Further exploration is needed to compare various platforms and accounts with differing credentials, and previous studies have not yet investigated how many content creators may profit financially from promoting products alongside posts about ADHD.

The overall aim of the present study is to expand previous research by examining 200 highly viewed social media posts on Instagram (n = 100) and TikTok (n = 100) about ADHD signs/symptoms/traits to determine what percentage contain misleading information. In this study, misleading information is defined as signs, symptoms, or traits shared that do not align with the DSM-5 or ICD-11 criteria. The objectives were the following:

- To determine the quantity of misleading vs non-misleading content on TikTok and Instagram.
- To determine the credentials of individuals sharing ADHD-related content on TikTok and Instagram.
- To determine what percentage of creators are promoting ADHD-related products and thus may experience financial gain from posting about ADHD.
- To determine whether there is a difference in engagement (likes and followers) between misleading and non-misleading content. This will be explored using an independent t-test or non-parametric equivalent.
- To determine whether creators with varied categories of credentials differ in rates of engagement (likes and followers). This will be explored using a One-Way ANOVA or non-parametric equivalent.
- To determine whether Instagram and TikTok differ in the quantity of misleading information, product promotion, and credentials of creators. This will be explored with a Chi-Square Analysis.
- To assess whether content creators with certain credentials are more likely to disseminate misleading information. This will be explored with a Chi-Square analysis.

Hypotheses: Considering the results obtained by previous research, the present study expects to find the following:

- The percentage of misleading information on social media is higher than non-misleading information.
- The percentage of people with no known qualifications sharing ADHD-related information on TikTok and Instagram is higher than the percentage of creators with mental health qualifications.
- The percentage of creators that advertise ADHD-related products is higher than the percentage of creators who are not advertising anything.
- Misleading content has higher engagement than non-misleading content.
- There is a significant difference in user engagement (likes, views, and followers) between the various types of credentials among content creators.
- There is a difference between Instagram and TikTok in the quantity of misleading information, financial gain, and credentials of creators.
- People with no credentials share more misleading information than people with mental health qualifications.

2. Method

This observational study used a cross-sectional, between-subjects design. An opportunistic sampling approach gathered 200 highly viewed posts on Instagram and TikTok. Data collection began in May 2024 and concluded in July 2024 upon reaching a total of 100 posts from each social media platform. Inclusion criteria for engagement were met if the post (a) had at least 30,000 likes or views or (b) was by an account with at least 30,000 followers. Inclusion criteria for relevance were met if the post discussed signs, symptoms, or traits of ADHD. Posts with fewer than 30,000 likes, views, or followers were excluded to ensure we only assessed popular and highly visible content, while those unrelated to the signs, symptoms, or traits of ADHD were excluded to ensure that only content relevant to ADHD diagnosis was included. A social listening tool called Brand24 was used to collect top-performing TikTok posts, all of which met the inclusion threshold for engagement. Due to Instagram's privacy restrictions, posts were manually searched using a new account to avoid algorithmic bias. Posts from both platforms were included if they met the thresholds for relevance and engagement defined above. A total of 543 posts on Instagram and TikTok were assessed sequentially until 100 qualifying posts meeting inclusion criteria were reached on each platform for a total sample size of n = 200. The final sample included posts published between September 2020 and July 2024; 76.5% were video content (reels), and 23.5% were written photo posts. This study utilised publicly available, anonymised data, and did not involve any interaction with human participants. Therefore, ethical review was not required.

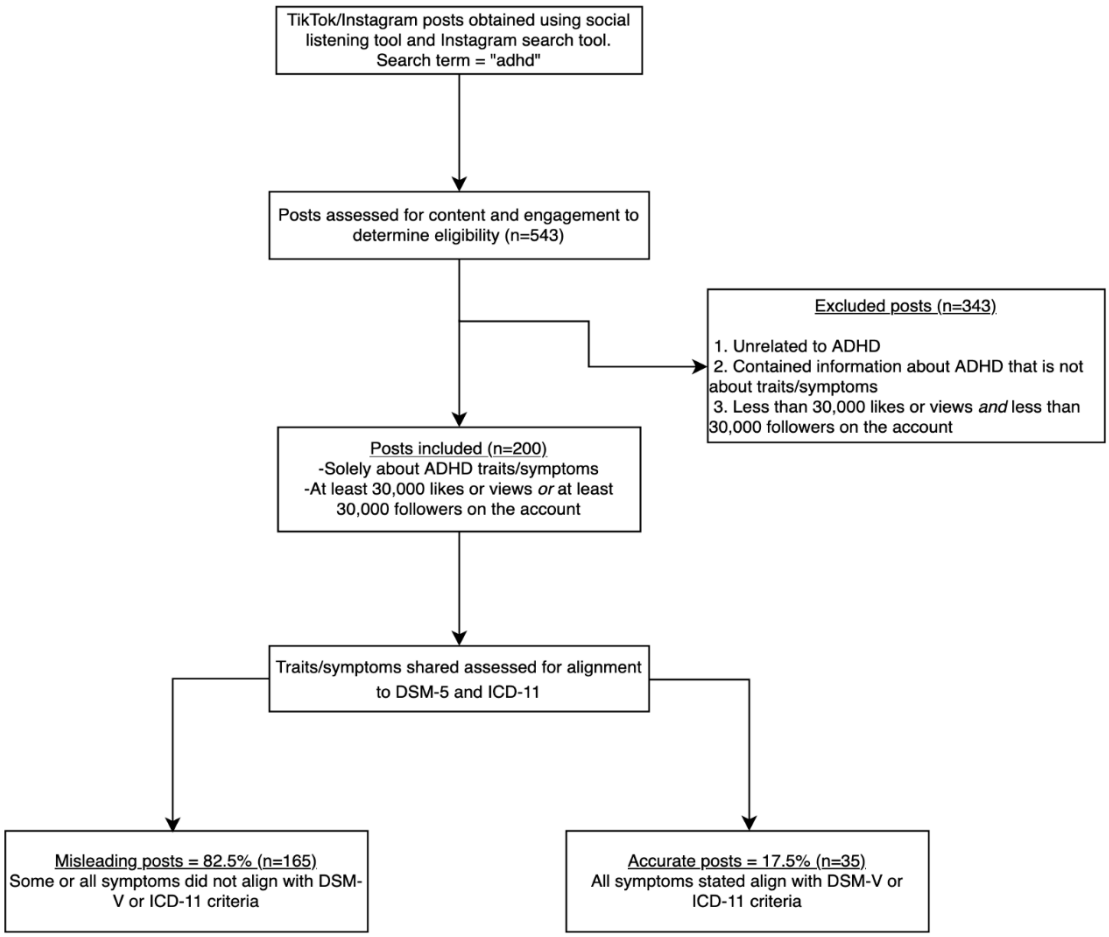

Figure 2. Flow chart of method for post inclusion

Procedure: Each post was assessed for the following descriptive and quantitative data that was gathered in an Excel spreadsheet before being transferred to SPSS for statistical analysis:

- Credentials of the account
- Date posted
- ADHD signs/symptoms/traits listed
- Whether or not the signs/symptoms/traits listed aligned with the DSM-5 or ICD-11
- Number of likes on the content
- Number of views if it was a reel (missing value for photo posts)
- Number of followers of the account
- Whether or not the account advertised an ADHD-related product (financial gain)
- Whether or not a study or source was cited

The credentials were gathered by visiting the profile page of the post. If the credentials or lack thereof were not clearly stated in the bio, then a Google search was conducted to determine if the individual's or page's credentials were listed on a website or professional register. The credentials were then categorized into one of four groups: mental health professionals, other professionals, coaches, or individuals with no known credentials.

Posts that included an ADHD-related product or service for sale within the content were labelled as exhibiting financial gain. Examples of marketed products include support groups, coaching courses, 1:1 coaching, curriculum materials, books, workbooks, fidget toys/sensory products, mobile applications, tickets to educational talks, and inclusive sex toys. Given that many social media accounts promote products via link-in-bio features, each account was also examined for such a link. If present, the link was opened to assess whether any ADHD-related products or services were being promoted. Accounts that listed any such offerings were categorized as exhibiting financial gain. However, some accounts may promote products through temporary

content such as stories or previous posts, which would not always be visible at the time of analysis. This represents a limitation that may result in the underreporting of financial gain.

The symptoms/traits listed in each post were then gathered and analysed for misleading information. Each symptom or trait mentioned in the post was individually examined and compared against the diagnostic criteria for ADHD outlined in both the DSM-5 and ICD-11. The ICD-11 aligns much more fully with the DSM-5 than the ICD-10, albeit with some subtle differences still present (Gomez et al., 2023). One of the main differences is that the DSM-5 contains nine inattention and nine hyperactivity/impulsivity diagnostic criteria while the ICD-11 contains 11 diagnostic criteria for each respective category (Gomez et al., 2023). Because the DSM-5 is used more widely in North America while practitioners in other parts of the world tend to use the ICD-11, it was decided to compare each post to the core criteria in both diagnostic manuals and only require that the post align with one of them to be categorised as accurate. This approach ensured avoidance of labelling any posts as misleading that might align with one manual but not the other. If the listed symptoms fully aligned with either of the diagnostic manuals, then the post was categorised as accurate. In posts where some or all of the symptoms did not align with either manual, the post was categorised as misleading. One researcher analysed each post, and if there was any doubt about categorisation then a second researcher's opinion was obtained and a decision made through discussion.

In cases where a stated symptom was a specific example of a general DSM/ICD symptom, the information was categorised as accurate. For example, one lived experience video stated that a trait of ADHD can include 'feeling the need to get my life together.' This was portrayed through a theatrical demonstration of disorganisation, which is a diagnostic criterion for ADHD in both the DSM-5 and ICD-11 (American Psychiatric Association, 2022; World Health Organization, 2019). Thus, this video was categorised as accurate. Examples of traits shared in these posts that were categorised as inaccurate included 'Being unable to sit up straight [slouching],' 'rage,' and 'getting more dopamine from thinking about a task than from actually doing it.' These were all assessed to be misleading information because they were not portrayed in a way that could be attributed to the criteria listed in the DSM-5 or ICD-11. Although each post was analysed for whether a source was cited, posts that cited a source could still be categorised as misleading if any of the signs/symptoms/traits shared did not align with the DSM-5 or ICD-11.

3. Results

As shown in Figure 3, 156 (78%) content creators were influencers with no known credentials; 10 (5%) were mental health professionals (including psychologists, psychiatrists, and mental health nurses); 15 (7.5%) were other professionals (including lawyers, researchers, and doctors); 19 (9.5%) were coaches, for which there is typically no registration regulation.

Overall, 17.5% of posts analysed contained signs/symptoms/traits that fully aligned with the DSM-5 or ICD-11 while 82.5% of posts analysed contained symptoms that did not fully align with either and were thus categorised as misleading. On Instagram, 83 posts (83%) contained misleading information while 82 posts (82%) on TikTok contained misleading information (see Figure 4). This left 17 Instagram posts (17%) and 18 TikTok posts (18%) that were categorised as accurate. Three posts (1.5%) cited a study or a source while 197 posts (98.5%) did not cite a study or source. A complete list of all misleading signs, symptoms, and traits of ADHD that were analysed in this study can be found in the appendix section.

An analysis of these posts was completed to determine the percentage of accounts exhibiting financial gain through the promotion of ADHD-related products or services. It was found that 169 of posts (84.5%) were published by accounts exhibiting evidence of financial gain compared to 31 accounts (15.5%) that exhibited no evidence of sales or financial gain.

At the time of data collection, all posts (n = 197) on both platforms had accumulated 29,012,235 likes. The missing value (n = 3) is due to 3 Instagram posts with a hidden number of likes. The reels (n = 153) had accumulated 346,938,940 views. The accounts overall had a total of 120,524,512 followers.

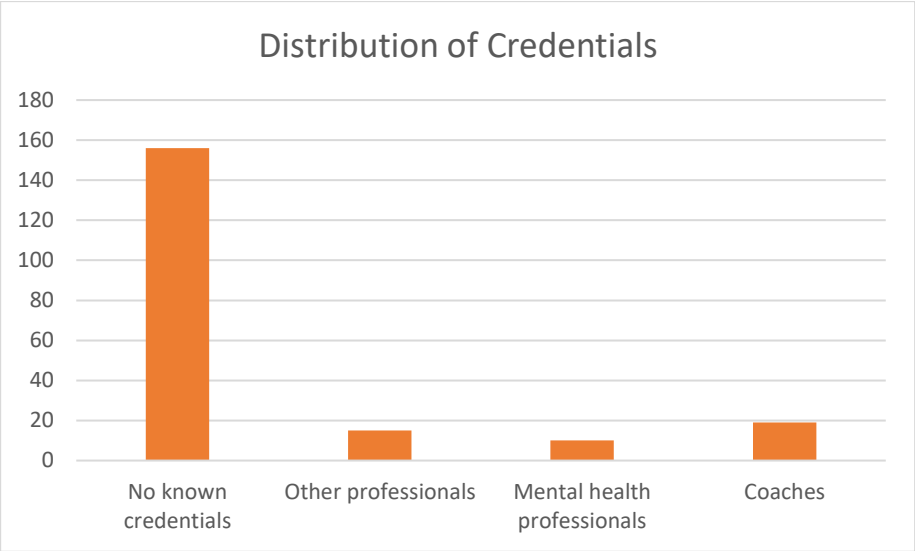

Figure 3. Distribution of content creators by credentials

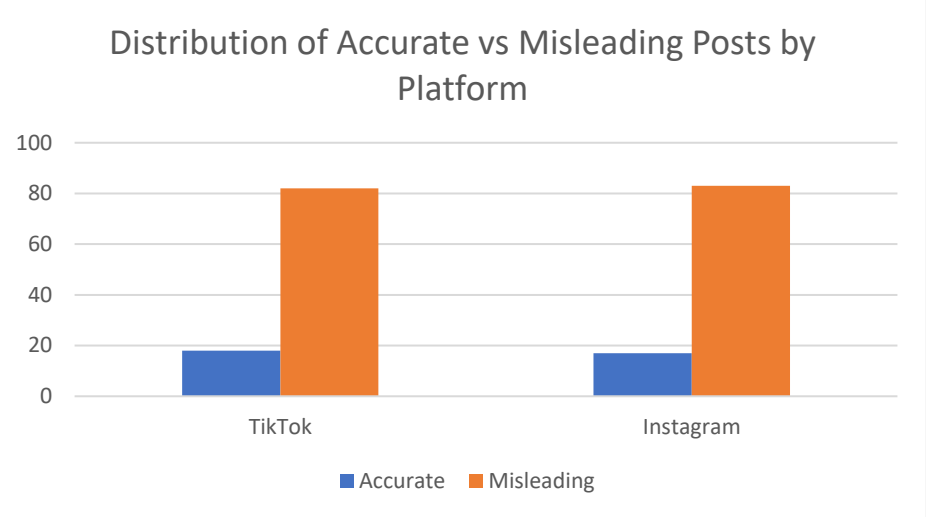

Figure 4. Distribution of accurate vs. misleading posts on Instagram and TikTok

Misleading/Non-misleading Posts and Likes

A Mann-Whitney U test was run to determine if there were differences in numbers of likes between misleading and non-misleading posts. This non-parametric test was chosen as the assumptions of outliers, normal distribution and normality were not met for the independent t-test. Distribution of likes for misleading and non-misleading content were similar, as assessed by visual inspection. There was no statistically significant difference between the number of likes for misleading (*Mdn* = 32752) and non-misleading (*Mdn* = 20200) content, $U = 2691.500$, $p = .639$.

Misleading/Non-misleading Posts and Views

A Mann-Whitney U test was run to determine if there were differences in the numbers of views between misleading and non-misleading content. This non-parametric test was chosen as the assumptions of outliers, normal distribution, and normality were not met for the independent t-test. Distributions of likes for misleading and non-misleading content were similar, as assessed by visual inspection. There was no statistically significant difference between misleading (*Mdn* = 786000) and non-misleading (*Mdn* = 519500) content, $U = 1751.500$, $p = .667$.

Credentials and Engagement

A Kruskal-Wallis H test was conducted to determine if there were differences in the number of likes between groups that differed in their credentials. The following groups were compared: “no qualification" (*n* = 153), “mental health professionals" (*n* = 11), “other professionals" (*n* = 15) and "coaches" (*n* = 19). Distributions of likes were similar for all groups, as assessed by visual inspection of a boxplot. Median of likes increased from coaches (*Mdn* = 11,413), mental health professionals (*Mdn* = 23,066), other professional (*Mdn* = 29,240) and no qualifications (35,542), but the differences were not significant, $H(3) = 3.753$, $p = .289$.

A Kruskal-Wallis H test was conducted to determine if there were differences in the number of views on reels between groups that differed in their credentials. The following groups were compared: “no qualification" (*n* = 121), “mental health professionals" (*n* = 10), “other professionals" (*n* = 12) and "coaches" (*n* = 10). Distributions of views were similar for all groups, as assessed by visual inspection of a boxplot. Median of likes increased from other professionals (*Mdn* = 290,000), mental health professionals (*Mdn* = 362,450), coaches (*Mdn* = 569,450) and no qualifications (748800), but the differences were not significant, $H(3) = 3.244$, $p = .356$.

A Kruskal-Wallis H test was conducted to determine if there were differences in the number of followers between groups that differed in their credentials: the “no qualification" (*n* = 155), “mental health professionals" (*n* = 11), “other professionals" (*n* = 15) and "coaches" (*n* = 19). Distributions of views were similar for all groups, as assessed by visual inspection of a boxplot. Median of followers were significantly different across groups, $H(3) = 12.811$, $p = .005$. Pairwise comparisons were performed using Dunn's (1964) procedure with a Bonferroni correction for multiple comparisons. Adjusted *p*-values are presented. This post hoc analysis revealed statistically significant differences in followers between coaches (*Mdn* = 99,000) and the no qualification group (*Mdn* = 343,400) (p = 0.002), but not between coaches and mental health professionals (*Mdn* = 185,000*)* (p = 0.491*),* coaches and other professionals (*Mdn* = 221,000*)* (p = 0.184*),* other professionals and mental health professionals (*Mdn* = 185,000*)* (p = 1.000), mental health professionals and no qualifications (p = 1.000), and other professionals and no-qualifications (p = 1.000).

Credentials and Misleading Information

A chi-square test for association was conducted between credentials and misleading information. Three cells (37.5%) had expected count less than five, thus the assumptions for the chi-square test were not met. The credentials categories were therefore collapsed from 4 to 2 (mental health professionals and others). When running the test with these categories, only 1 cell (25%) had an expected count less than five. As such, assumptions were met. There was no statistically significant association between credentials (mental health professionals, others) and sharing misleading information, $\chi^2(1) = 0.004$, $p = 1.00$.

Credentials and Platform

A chi-square test for association was conducted between credentials and platform. All expected cell frequencies were greater than five. There was a statistically significant association between platform and credentials, $\chi^2(1) = 9.00$, $p = .029$. In particular, Instagram had a higher frequency of mental health professionals (8%), other professionals (9%) and coaches (14%), compared to TikTok, which overall had a smaller percentage of mental health professionals (3%), other professionals (6%) and coaches (5%). On the other hand, TikTok held a higher percentage of posts by accounts with no qualifications (86%) compared to Instagram (69%).

Platform and Misleading Information

A chi-square test for association was conducted between platform and misleading information. All expected cell frequencies were greater than five. There was no statistically significant association between platform and misleading information, $\chi^2(1) = 0.35$, $p = .852$.

Platform and Source Citation

A chi-square test for association was conducted between platform and source citation. All expected cell frequencies were greater than five. There was no statistically significant association between platform and study citation, $\chi^2(1) = 3.046$, $p = .081$.

Platform and Financial Gain

A chi-square test for association was conducted between the platform and financial gain. All expected cell frequencies were greater than five. There was no statistically significant association between platform and financial gain, $\chi^2(1) = .954$, $p = .329$.

4. Discussion

The primary aim of this study is to assess the prevalence of misleading information in posts about ADHD signs, symptoms, and traits on Instagram and TikTok. The results reveal that a significant majority of posts examined contained misleading information. While the finding that 82.5% of analysed posts were misleading supports the research hypothesis, this rate is considerably higher than those observed in prior studies (Yeung et al., 2022; Wang et al., 2019). This discrepancy may be attributed to the focus on symptomatology and the rigorous comparison of ADHD posts against the DSM and ICD manuals in this study. Despite the subtle differences between the DSM and ICD diagnostic criteria (Gomez et al., 2023), there were no instances in which any of the analysed posts aligned with one diagnostic manual but not the other. Another likely reason for the difference in findings is that this study focuses on 'misleading information' rather than 'misinformation' only. Misleading posts can contain some elements of truth, but are often presented in ways that can lead to misunderstanding or confusion. In many posts, there were signs/symptoms/traits of ADHD that could theoretically be linked to a DSM or ICD symptom, but were not thus presented in the content. An example of this is 'financial difficulties', which appeared in 3% (n = 6) of posts. Someone with ADHD may struggle to hold down a job due to issues with attention, focus, and productivity. As a result, they may become unemployed and thus experience financial difficulties. However, many content creators do not explain the link between the broader signs/symptoms/traits shared and the DSM/ICD criteria. Thus, sharing 'financial difficulties' as a general sign of ADHD without linking it to a diagnostic symptom of ADHD is misleading and implies that anyone struggling with financial difficulties might have ADHD.

There were many misleading signs, symptoms, and traits shared in these posts that occurred multiple times. Figure 5 shows the distribution of the frequency of the top 20 signs/symptoms/traits shared that were categorised as 'misleading.'

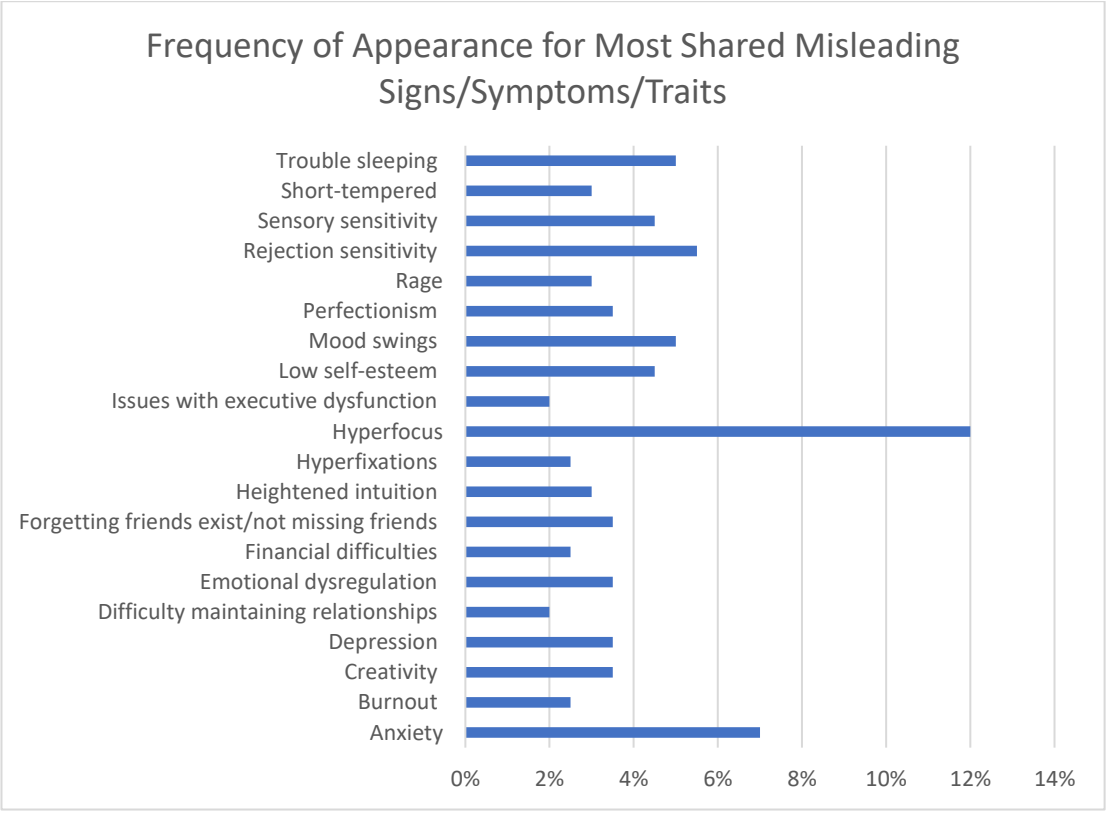

Figure 5. Frequency (%) of the most commonly shared misleading signs/traits/symptoms of ADHD in all social media posts (n = 200)

Although some symptoms highlighted on social media are supported by a limited evidence base, they are not included in the core diagnostic criteria of the DSM-5 or ICD-11 due to a lack of sufficient research. One such example is the cognitive-behavioural construct 'rejection sensitivity,' which is a phenomenon that is considered by some to be widespread but under-studied in the context of ADHD symptoms (Müller et al., 2024). As shown in Figure 5, rejection sensitivity occurred in 5.5%% of posts (n = 11) in this study. Downey & Feldman (1996) describe rejection sensitivity as the phenomenon of individuals anxiously expecting, readily perceiving, and overreacting to rejection. They went on to study the correlation between rejection sensitivity and traumatic childhood experiences, finding that rejection sensitivity might be linked to early relational trauma (Downey et al. 1997). Other research has studied the link between ADHD and rejection sensitivity, suggesting that people who meet criteria for ADHD have higher rates of rejection sensitivity (Hussain, 2024). Dodson (2016) is credited by several ADHD charities as coining the phrase 'Rejection Sensitive Dysphoria' (RSD) in a paper published by CHADD (Children and Adults with Attention-Deficit/Hyperactivity Disorder), in which he states that RSD is rejection sensitivity that is unbearable and can look like instantaneously triggered major depression (Purcell, 2024). This article stated that about a third of adolescents and adults list RSD as the most impairing aspect of their ADHD (Dodson, 2016), although no evidence was cited. He also states that RSD is genetic and neurological and cannot be treated with therapy (Dodson, 2016), which contradicts earlier ideas about rejection sensitivity that suggest it could be linked to relational trauma and previous rejection (Downey et al. 1997). While there are conflicting ideas about rejection sensitivity/Rejection Sensitive Dysphoria and the role they may play in ADHD presentations, both terms were shared as confident indicators of ADHD in posts analysed in this study. A similar phenomenon occurs with the term 'hyperfocus', which is also poorly defined in the literature (Ashinoff & Abu-Akel, 2021) and is not included in diagnostic manuals at this time. It seems that content creators are suggesting certain traits may indicate potential ADHD despite insufficient research to confirm whether these symptoms truly implicate the condition.

This theme also illustrates the issue of differential diagnosis when it comes to online posts about ADHD symptomatology. Many symptoms and traits shared online could be the result of external factors or other mental health conditions which would need to be ruled out during a diagnostic evaluation. Some researchers believe that ADHD and PTSD can present similarly and are concerned that ADHD is being misdiagnosed in individuals with PTSD/traumatic exposure (Brown et al., 2017; Szymanski et al., 2011). The need for differential diagnosis and excluding trauma and other factors is generally not discussed in online posts, which we hypothesise is generating further fallacies and misconceptions about the diagnosis.

This study assessed whether misleading content led to higher rates of engagement than non-misleading content. The Mann-Whitney U test revealed that while rates of likes and views on misleading posts were higher, there was no statistical significance. This did not align with our hypothesis that there would be a significant difference and differs from other findings that misinformation typically receives much higher rates of engagement (Wang et al., 2019). This indicates that viewers may not be more inclined to engage with misleading information about ADHD symptoms than accurate information. This trend could stem from the sheer prevalence of social media posts that contain misleading information available today.

We hypothesised that accounts with no qualifications would be more common than accounts with mental health or other qualifications. This was found to be true as 78% of the posts were created by accounts with no known qualifications. It is notable that 9.5% of posts were shared by coaches who may or may not have formal registration and training. This study also explored whether mental health professionals were less likely to post misleading information. A chi-square test for association found that mental health professionals are not less likely to post misinformation, which was not consistent with the hypothesis. However, it is important to highlight that only 5% (n = 10) of the content creators were mental health professionals, so the sample size for that category of content creator was small. While the low rates of posts by healthcare providers overall align with other findings, the high rate of misinformation among mental health professionals' posts differs from a previous study's finding that only 27% of healthcare providers posted misinformation TikTok (Yeung, et al., 2022).

This study also examined whether rates of misleading information differed between Instagram and TikTok. The chi-square test showed that there was no statistically significant difference between rates of misleading information on the two platforms, and the rates of misleading posts closely resembled each other: 82% on Instagram and 83% on TikTok. While this did not align with our hypothesis that there would be a difference, it is noteworthy as this appears to be the first study to directly compare ADHD misinformation rates across platforms and the rate of misleading information between Instagram and TikTok was almost identical.

When the prevalence of the various credentials was compared to the platform, it was found with statistical significance that Instagram had a higher frequency of mental health professionals, other professionals, and coaches than TikTok. This study found that 86% of TikTok posts were by content creators with no known credentials while 69% of Instagram posts were by content creators with no known credentials. This aligns with our hypothesis and with previous studies that have found the majority of posts on TikTok are posted by non-professionals (Yeung, et al., 2022). While this suggests that there are more professionals posting on Instagram than on TikTok, it appears that this does not result in a difference in the amount of misleading information between the two platforms.

The chi-square test also revealed no statistically significant difference between the two platforms in terms of the prevalence of accounts promoting products. This did not align with the hypothesis that a difference would be observed. However, the hypothesis was met that accounts promoting products or services would be more frequent than accounts with no evidence of financial gain. Considering that 84.5% of content creators were promoting ADHD-related products or services alongside their posts, it seems that posting about ADHD could lead to financial profit. While there may be a genuine desire to offer support, these accounts appear to profit from individuals believing they need help to manage symptoms of ADHD regardless of if they have the condition. Because ADHD is trending on Instagram and TikTok, posting about it can also help influencers attract more views and followers, which may increase their earning potential.

This study also investigated the relationship between engagement rates (likes, views, and followers) and the credentials of content creators categorised into four groups: mental health professionals, coaches, other professionals, and those with no known credentials. The Kruskal-Wallis H test revealed that influencers lacking any credentials received more likes and views compared to the other groups; however, the differences in likes and views among the four categories were not statistically significant. A Kruskal-Wallis H test found that accounts with no known credentials had the most followers overall, while coaches had the least. There was a statistically significant difference between the coaches and non-credentialed groups, but not between any of the others. Overall, these findings partially aligned with our hypothesis that there would be a statistically significant difference in engagement between each of the credential groups. These results do replicate other findings that content uploaded by non-healthcare providers is more popular than content by healthcare providers (Yeung et al., 2022).

Most of these social media posts originated from the United States, Canada, Australia, New Zealand, and the UK. Overall, we assume that most content creators have access to healthcare, diagnostic services, and pharmaceutical care based on the information they shared. Some posts included a disclaimer advising viewers to consult their GP if they suspect they might have ADHD. However, it is likely that some viewers lack access to healthcare providers or ADHD assessment services due to limited resources. For instance, in the UK, certain areas do not offer NHS ADHD assessment services, and others have waiting lists of two to six years or more (ADHD UK, 2023). Private assessments are available but typically cost an average of £1267 for adults in the UK (Steele, 2024). In other countries like the USA, the absence of a national healthcare system results in reduced access to publicly funded ADHD care. While influencers may aim to raise awareness to help, their lack of clinical training and the limited global access to mental healthcare raises ethical concerns. If viewers encounter content suggesting they might have ADHD but lack access to proper resources due to geographic or financial barriers, it could cause undue stress. Additionally, ADHD awareness videos might encourage people to join waitlists for assessments, increasing pressure on existing services. If misleading posts prompt individuals to self-refer for assessment who do not qualify for a diagnosis, it could create unnecessary obstacles to accessing appropriate care. More research is needed to understand the relationship between misleading social media content about ADHD and inappropriate diagnosis-seeking.

Emerging research suggests that increased exposure to technology and social media heightens ADHD symptoms, interferes with emotional and social intelligence, can lead to addictive behaviours, increases social isolation, and interferes with brain development and sleep (Small et al., 2020). One study found a positive relationship between ADHD symptoms and internet addiction, suggesting that spending large quantities of time on social media could disrupt attention and focus skills (Panagiotidi & Overton, 2018). This means that excessive time spent on the platforms where ADHD content is shared could be leading to or exacerbating ADHD symptoms, even if one does not have ADHD.

The Barnum Effect, also known as the Forer Effect, is the phenomenon whereby individuals believe that a vague or broad personality description applies more specifically to themselves than to others (Vohs, 2024). Studies have suggested that people tend to accept the accuracy of vague or general personality interpretations even when they are not tailored to the individual (Forer, 1949; Snyder et al., 1977). Viewers might be positioned

to feel they are described in broad but relatable descriptions of ADHD, regardless of accuracy. Some of the influencers in the analysed posts stated that they are trying to make content relatable to viewers, and this may lead them to inadvertently create content that is relatable to even those who do not qualify for an ADHD diagnosis. More evidence is needed to explore the Barnum/Forer Effect and online posts about mental health and ADHD.

The Prevalence Inflation Hypothesis is a term coined to describe the theory that increased mental health awareness efforts have led to over-interpretation of everyday psychological experiences, which has contributed to the rise of mental health problems (Foulkes & Andrews, 2023). Foulkes & Andrews (2023) posit that while mental health awareness efforts have led to some positive benefits for society, misunderstandings and overinterpretation are likely to be a simultaneous disadvantage. In addition, the BBC Loneliness Experiment found that young people seem to be the loneliest demographic, followed by middle-aged people and then older people (Barreto et al., 2021). It is possible that high rates of loneliness in young and middle-aged groups may encourage them to turn to social media for a sense of community. Viewers might feel seen and understood when seeing influencers describe the ADHD experience, which often involves consistent struggles and feeling a deficit of belonging. More research is needed to explore if there is a link between loneliness and seeking a diagnosis of ADHD. Differentiation between helpful and unhelpful online material is impacted by health literacy, and more research is needed to explore links between social media health information and health literacy online.

Limitations

Because of Meta's privacy policies, Instagram does not allow social listening tools to access their data, so we had to use the search tool directly within Instagram to find posts related to ADHD. Since Instagram only grants access to its content through a logged-in account, we created a fake user with a name and date of birth. Although the account never liked or interacted with any content, Instagram still generated an algorithm based on the account's age, gender, and location. Meta did not respond to information requests, making it impossible to avoid this disruption in data collection. Due to the nature of social media, photo posts often receive more views than likes, as people may view without engaging. These views are not recorded, so it's hard to determine exactly how many people saw a post. Additionally, while we aimed to be as consistent and objective as possible when comparing the posts to the diagnostic manuals, it remained a subjective process because we had to make judgments to determine whether the listed traits appropriately fit the criteria in the DSM and ICD.

5. Conclusion

This study examined the accuracy of content related to ADHD on Instagram and TikTok, with a focus on symptomatology, content creator credentials, and potential financial motivations. The findings revealed that 82.5% of the 200 posts analysed were categorized as misleading, with 17.5% accurately aligning with the diagnostic criteria outlined in either the DSM-5 or ICD-11. While 78% of content creators have no known qualifications, there was no significant difference in the accuracy of posts between credentialed influencers and influencers without credentials. The vast majority of posts (84.5%) were created by accounts exhibiting financial gain, indicating a strong commercial influence. Individuals with no formal qualifications created a substantial majority of the posts (78%). Statistical analysis showed no significant difference in engagement (likes, views or shares) between accurate and misleading content. As such, it appears that misleading information are not likely to generate more traction, compared to accurate posts.

The study also found no significant relationship between platform type and the prevalence of misinformation, or between credentials and the likelihood of posting misleading content, indicating a similar amount of accurate and misleading information across platforms and credentials. However, TikTok had a higher percentage of creators without qualifications, whereas Instagram featured a slightly more diverse mix of professionals.

These results highlight that Instagram and TikTok are saturated with misleading ADHD content, often delivered by influencers who are selling ADHD-related products and services. This suggests that these influencers might profit from producing content that leads people to believe they might have ADHD. Even though misleading information did not appear to generate more traction, the prevalence of misleading information could lead to misunderstanding of ADHD symptoms, self-misdiagnosis, or scepticism about professional diagnoses. More research should be conducted to determine the impact of misleading posts on the individuals who see them.

Statement of Researchers

Researchers' contribution rate statement:

Brooke Hulsizer: Authorship, conceptualization, data curation, methodology, product administration, resources, software, writing – original draft, writing – review and editing. **Fabrizia Passaro:** Authorship, data curation, methodology, product administration, resources, software, writing – original draft, writing – review and editing.

Conflict statement:

No conflicts of interest.

Data Availability Statement:

The data supporting this study's findings are available from the corresponding author upon reasonable request.

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Ethical Considerations:

No subject research was completed in this study, which therefore negates the need for informed consent or board approval.

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6. Appendix

Signs, traits, and symptoms of ADHD categorised as 'misleading'

'All or nothing' mentality	Fear of letting others down	Over-analyzing everything
Ability to hear two songs at once	Fear of over committing	Over-committing
Addiction	Fear of under committing	Overcompensating
Aggression	Feeling defensive/combative due to fear of rejection	Overexaggerative/disingenuous
Alexithymia	Feeling exhausted from doing nothing	Overthinking
Always tired	Feeling more intensely than others	Overwhelmed by food decisions
Anxiety	Feeling responsible for how others feel	Overwhelm deciding what to eat
Anthropomorphism	Feeling that every choice is 'big and important'	Panic
Appearing socially confident but internally being anxious	Feeling wired	Pattern recognition
Argumentative	Feeling apathetic when understimulated	People-pleasing
Attentive	Financial difficulties	Perceived as "nosy"
Auditory processing disorder	Finding new things overwhelming	Perfectionism
Auditory stimulation (making random noises)	Focusing on stimulating thoughts that include rejection, stress, anxiety, worry, depressive thoughts, self-doubt, guilt, shame	Performing endless research
Being a fun person	Food hyperfixation	Planning schedule in advance
Being lazy/unmotivated	Forgetting friends exist/not missing friends	Pre-planning tasks
Being quiet	Forgetting to breathe	Preferring songs without lyrics
Being unkind when over-stimulated	Frontal lobes don't develop until age 35	Pushy
Being very organized	Frequent car accidents	Rage
Benefit from social connection	Frequent emotional meltdowns	Really liking one's friends
Big energy fluctuations	Gets anxious in drive-thrus	Reckless driving
Binge eating	Getting irritated at noises	Reciprocating stories with stories to show understanding
Blacking out transition times	Getting more dopamine from thinking about doing something than actually doing it	Rejection sensitivity
Blurring vision on command	Goes the extra mile	Replaying arguments in mind
Body dysmorphia	Great in a crisis	Resilience
Breaking things all the time	Guilt	Restricting food
Burnout	Hate structure but can't function without it	'Roasting' friends
Buying loved ones thoughtful gifts	Hating being told what to do	Ruminating on every interaction
Calm	Hating windshield wiper settings	Sarcasm
Calm in a crisis but overwhelmed when a small thing goes wrong	Heightened intuition	Scratching oneself to mask ADHD
Can't do math		Seeking loud or fast music
Catastrophizing		Self-critical
Cleaning when overwhelmed		Self-doubt
Constantly seeking stimulation		Self-sabotaging relationships
		Sense of pride in abilities
		Sensory sensitivity
		Shame
		Shy

Conversation dissecting
Creativity
Craving stimulation but easily overstimulated
Decision paralysis
Deep cleaning home to professional standard
Defiance
Deliberately annoying people
Depression
Digestive issues/bad gut health
Difficulty controlling/managing emotions
Difficulty expressing emotions
Difficulty living in the moment
Difficulty maintaining friendships/relationships
Difficulty verbalizing feelings
Disappearing for months at a time
Dislikes small talk
Dislikes texting and phone calls
Disliking large spoons
Disliking short texts
Dissociation
Doing things 'full out'
Doomscrolling
Dreading showering
Dreading washing hair
Echolalia
Eating disorder
Eating nothing or way too much
Easily frustrated
Earned good grades in school but forget what was learned
Emotional dysregulation
Emotional Intensity
Emotional over-reaction
Emotional sensitivity
Emotional sensitivity and reactivity
Entrepreneurial
Fear of failure
High bursts of energy or lethargic low mood
High-functioning
Highly driven
Hoarding random objects
Hobby hopping
Hyperfixation on crushes
Hyperfixation on other people
Hyperfixations
Hyperfocus
Hypermobility
Ignoring hunger
Imposter syndrome
Inability to make dots disappear in optical illusion video
Inability to relax
Indecisiveness
Intense fear of letting others down
Isolation
Executive dysfunction
Irritability
Jumping to worst case scenario
Knowing what others feel even when they don't say it
Lack of motivation to get up after sitting down
Listening to same song and eating the same food over and over
Low energy
Low motivation
Low self-esteem
Low tolerance for frustration
Loving to fix things
Meltdowns when food order is messed up
Mirroring people's personalities
Mood swings
Multitasks well
Needy
No sense of accomplishment after completing a task
Not having the choice to do things due to lack of executive function
Not making eye contact when speaking to people
Not understanding object permanence
Noticing things that others don't
Often exhausted/overwhelmed
Over-achieving
Short-tempered
Singing
Sitting down and having no motivation to get back up due to a lack of dopamine
Sitting down for longer than planned
Sitting down on phone and not getting up for hours
Skin conditions like dermatitis, cystic acne, psoriasis, dandruff
Skin-picking
Sleepy during the day while hyperactive at night
Sleeping too late
Sleeping with T-rex arms
Social anxiety
Speaking incoherently
Speaking to animals
State of paralyzing anxiety
Stealing other peoples' food
Staying awake all night
Staying up late
Struggling to let things go
Struggling to like things casually
Struggling to verbalize feelings and opinions
Strong problem-solving
Strong sense of justice
Take everything personally
Takes risks
Testing people
Trauma
Trouble making friends
Trouble sleeping
Unable to sit up straight
Unresponsive
Wanting new experiences
Wearing sunglasses even when it's dark
Withdrawn
Workaholism
Yawning without being tired