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POV - You have ADHD: Examining Predictors of Self-Diagnosis of ADHD on TikTok

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POV - You have ADHD: Examining Predictors of Self-Diagnosis of ADHD on TikTok

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Abstract

Online self-diagnosis refers to an individual using the internet and applying their own knowledge to diagnose themself with a disorder without the input of a professional (Farnood, 2021). Social media platforms, such as TikTok, have created an environment full of mental health related information that may not always be correct. Individuals on this app may believe the videos they watch and which may ultimately lead to self-diagnosis. There has been a trend of popular mental health disorders on appearing TikTok, such as ADHD. The present study sought to examine potential predictors of self-diagnosis of ADHD through TikTok. This study examined how cyberchondria, mental health anxiety, gullibility, self-handicapping, and time spent on TikTok influence the number of reported ADHD symptoms. It was expected that greater scores of cyberchondria, mental health anxiety, gullibility, and self-handicapping would predict higher numbers of self-reported erroneous ADHD symptoms. Additionally, it was expected that time spent on TikTok would be the largest predictor of self-reported erroneous ADHD symptoms. Data from 87 participants who did not have an official ADHD diagnosis were examined. Results indicated that there were significant correlations between the following: mental health anxiety, cyberchondria, self-handicapping, erroneous ADHD symptoms, and clinical ADHD symptoms. Additionally, results indicated that self-handicapping was a better predictor for reporting both erroneous and clinical ADHD symptoms than any of the other predictors.

Keywords: self-diagnosis, TikTok, ADHD, attention-deficit/hyperactivity disorder, cyberchondria, self-handicapping, mental health anxiety, gullibility

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Chapter 1: Review of the Literature

TikTok, a video service currently used by 20.83% of the world's internet users and over 1 billion user created videos, has now become a platform for people to share their mental health struggles (Ruby, 2022; Yeung et al., 2022). These videos are a combination of informational symptom checklists, idiosyncratic challenges, and misinformation (Yeung et al., 2022). The *trend* of talking about disorders, such as ADHD, has created a wave of children and young adults looking for answers through social media (Milton et al., 2023). As of February 2023, the trending hashtag (#ADHD) had over 21.6 billion views on TikTok, with other related hashtags trailing behind with billions or millions of views. Attention-deficit/hyperactivity disorder (ADHD) is a disorder characterized by developmentally inappropriate levels of inattention, hyperactivity, and/or impulsivity that interfere with an individual's development or functioning. ADHD is related to difficulties in school performance, work performance, and social rejection (APA, 2013). According to the Diagnostic and Statistical Manual for Mental Disorders, 5th Edition (DSM-V), ADHD symptoms begin in childhood and must be present before the age of 12 to receive a diagnosis. The symptoms must also cause distress or interfere in more than one setting (e.g. home, work, school).

People rely heavily on the internet for a variety of things, one of those being researching symptoms for whatever ails them (Robertson et al., 2014). Online self-diagnosis occurs when an individual uses the internet to apply their own knowledge to generate a medical diagnosis (Farnood, 2021). When browsing the web, individuals often rely on their own skills and knowledge to produce a medical diagnosis without the involvement of a healthcare professional, which can lead to misdiagnosis (Robertson et al., 2014).

It has been argued recently that there has been a shift from de-stigmatizing mental health to glorifying mental health problems (Yeung et al., 2022). A phenomenon called *beautiful suffering* describes the glorification and romanticization of mental illnesses in the media. This phenomenon describes certain mental illnesses as "cool" and "aesthetic" (Williams, 2019). This can be seen in popular television shows, such as *13 Reasons Why*, which portrays various mental illnesses, such as depression, to a targeted audience of teens and young adults. A recent study conducted by Jadayel and colleagues (2018) stated that young adults describe mental disorders as normal, relatable, and even desirable. The results of a national population survey suggest that there was an increase in the prevalence of ADHD from 6.1% to 10.2% from 1997 to 2016 (Xu et al., 2018).

TikTok is a popular social media platform where individuals make videos speaking about their symptoms and mental health struggles (Yeung et al., 2022). Many individuals today, especially teenagers and young adults, turn to TikTok for a variety of information, including health-related information (Yeung et al., 2022). TikTok's algorithm works similarly to websites which are rated in search results. The more an individual interacts with a certain type of video (e.g. liking, commenting, sharing, etc.), the more frequently a video of the same type is shown on the individual's feed (Yeung et al., 2022). For example, an individual may watch and like a video of a creator explaining their personal symptoms of ADHD, because of this, similar videos will appear on the individual's feed.

Since the Covid-19 pandemic, there has been an uprise in mental health related videos (Yeung et al., 2022). The videos that have gained popularity have in turn created what is being coined as "trendy" diagnoses (Yeung et al., 2022, p. 904). One example of a trendy diagnosis is ADHD. Yeung and colleagues (2022) reviewed videos on TikTok with the hashtag ADHD to

investigate the quality of the information being posted online. The researchers used the top 100 ADHD videos and put them into three categories: personal experience, useful, or misleading. Videos included in the *personal experience* category described an individual's own personal symptoms and/or treatment of ADHD (e.g. "day-in-the-life" with ADHD). Videos included in the *useful* category contained scientifically/clinically correct information about ADHD, such as symptoms, treatment, or other information (e.g. school difficulties, sleep difficulties, a recommendation to seek professional help). Finally, videos included in the *misleading* category contained information that is lacking scientific/clinical evidence or contained incorrect information relating to ADHD (e.g. random noise making, being competitive, and shivers as symptoms of anxiety). They found that over half of the videos reviewed were misleading. Importantly, the personal experience videos had the highest engagement (i.e. more views and/or likes). This suggests that individuals on TikTok may be seeing more videos about ADHD that are misleading. That is, individuals may come to believe they have ADHD symptoms, or even wrongly self-diagnose ADHD, because they fail to realize most of these videos present misleading information.

Collective Illnesses

Mass Hysteria is a term used to describe unexplained outbreaks of subjective complaints among people who have no etiological, physical, or biological cause (Zhao et al., 2021). These outbreaks tend to occur in vulnerable groups of individuals in a shared environment, such as a high school. Known under various other terms, such as stress reaction, collective hysteria, epidemic hysteria, mass sociogenic illness, and mass psychogenic illness, these outbreaks have been recorded across history in different sociocultural settings, including villages, schools, workplaces, and homes (Zhao et al., 2021). An example of this was recorded in the 1940s when

an Illinois resident was convinced that someone broke into her house and sprayed her with poisonous gas, causing her to become sick. Other people in the community soon began reporting the same thing after the local newspaper reported on it. However, after investigation, there was no evidence of a mysterious gasser. As the news stopped or became skeptical of the events, the reports quit all together and no symptoms were reported (Johnson, 1945).

These unexplained outbreaks spread through auditory and visual contact and young girls appear to be the most vulnerable (Zhao et al., 2021). It was previously thought that mass sociogenic illness must be spread through face-to-face contact, but newer studies suggest this may not be the case. A new, more specific, term *mass social media induced illness* (MSMIS) has emerged (Fremer et al., 2022). Over the past several years, videos posted on social media platforms, such as TikTok and YouTube, highlighted people claiming to have Tourette syndrome. These videos show individuals experiencing a range of symptoms including vocal and motor tics. One of these YouTube accounts, in particular, became popular and was spread throughout social media. This YouTuber suffers from a mild form of Tourette syndrome and shows a variety of vocalizations, movements, and bizarre behaviors that he claims are tics. Following this, an increased number of young individuals have been referred to Tourette outpatient clinics presenting with nearly identical symptoms as the behaviors seen in the videos (Müller-Vahl et al., 2021). The tik-like behaviors seen across YouTube and TikTok, which were then exhibited by teenagers, may show the impact that social media has on an individual's behavior (Yeung et al., 2022; Müller-Vahl et al., 2021).

In terms of ADHD, several symptoms can be magnified or contagious, through peer influence, such as excessive talking and fighting (Aronson, 2016). Although these symptoms are part of the diagnostic criteria for the disorder, they can also be learned through social

interactions. An individual with friends that have been diagnosed with ADHD and behave impulsively may eventually mimic or normalize those behaviors. This could lead to over reporting of these symptoms to mental health professionals, or perhaps lead to incorrect diagnose (Aronson, 2016).

MSMIS is an important factor to consider in evaluating the current new uptick in ADHD self-diagnosis trend. This phenomenon has previously been studied with YouTube (Müller-Vahl et al., 2021), but not with the more recent social media platforms, such as TikTok. Videos from different content creators showing symptoms of disorders may appear repeatedly on an individual's phone. The number of *clicks,* or views, a website gets determines the ranking of the particular result, which makes it appear toward the top of the search results (Starcevic & Berle, 2013). For example, young adults seeking an ADHD assessment may be presenting with nearly identical symptoms to someone seen on TikTok, but they may not have had any of these symptoms previously.

Potential Predictors

(Mental) Health Anxiety

Hypochondria is defined as a disorder associated with an individual's tendency to have unsupported medical worries (White & Hortivz, 2009). This term is now outdated with the update of the DSM-V, where it has been replaced with somatic symptom disorder (SSD) and illness anxiety disorder (IAD; Bailer et al., 2015). SSD involves a presence of at least one distressing somatic symptom and excessive thoughts, feelings, or behaviors about the somatic symptom. IAD involves a preoccupation with having or acquiring an illness, mild or no somatic symptoms, high anxiety about one's health, and excessive health-related behaviors. There are two main subtypes of IAD, care-seeking type or care-avoidant type. An individual who is care-

seeking will seek out medical care and partake in frequent testing, whereas an individual who is care-avoidant rarely seeks out medical care (APA, 2013). Both of these disorders share a common criterion of elevated anxiety about one's health (Bailer et al., 2015).

It has been suggested that health anxiety is not limited to physical illness, but also to mental illness, as well. Because excessive worry about one's mental health can cause distress, the definition of health anxiety was widened to include fear of mental illnesses (Commons et al., 2016). Examples of mental health anxiety include fear of losing one's mind, fear of becoming mentally ill, and fear of being institutionalized (Commons et al., 2016).

Cyberchondria is derived from the words *cyber* and *hypochondria*, suggesting that it is a specific type of hypochondriasis related specifically to Internet use. It is characterized by an individual excessively or repeatedly researching health-related topics on the Internet, which is associated with heightened anxiety and distress (Starcevic & Berle, 2013), as well as an element of compulsiveness (McElroy & Shevlin, 2014). This differentiates cyberchondria from the occasional looking online for health-related information, which is driven by curiosity, not anxiety (Starcevic & Berle, 2013).

Individuals who are searching for health-related information on the internet, despite their level of health anxiety, tend to select results that appear interesting, exciting, or even frightening (Starcevic & Berle, 2013). Joachims and colleagues (2005) conducted a study that shows that individuals are more likely to click on the top-ranked search results, meaning the information may be popular, but not necessarily the correct disease or diagnosis (Starcevic & Berle, 2013). Additionally, this means a more serious disease may be more highly considered than the likely, less serious disease. This may contribute to increased anxiety about an individual's health, which will then lead them to continue searching the Internet for explanations (Starcevic & Berle, 2013).

TikTok shows users a variety of videos, one type being mental health related videos (Yeung et al., 2022). These videos could contain symptoms that the user relates to, which may cause the individual with a feeling of anxiety related to their mental health. Once on the app, the user can search additional information about the disorder, leading to an endless list of videos about a given topic. Individuals with heightened anxiety are at a greater risk of excessive and repeated searches, perhaps exacerbating cyberchondria (Starcevic & Berle, 2013).

Gullibility

Gullibility can be defined as an individual's tendency to believe ideas presented by others even when there are signs of dishonesty (Teunisse, 2019). One source of that gullibility is acceptance bias, which is the tendency for individuals to accept incoming information rather than rejecting it. Evidence suggests that humans are born to be natural believers, and new information is naturally coded as true (Forgas & Baumeister, 2019).

In order to avoid gullibility, an individual must put in the extra time and effort to discredit information. If people do not take this extra step, they are putting themselves at risk of believing the information they first heard as true, whether it is or not (Forgas & Baumeister, 2019). Dishonesty cues can vary from overt (e.g. receiving a call promising a free vacation) to subtle (e.g. products being offered at an all time low). These cues may seem too good to be true, often because they are. However, many individuals may not always be able to detect the subtle cues that the information is false for a variety of reasons, such as fatigue, emotional state, cognitive load, or divided attention. Individuals who are chronically unable to detect dishonest cues may experience low social intelligence, which refers to an individual's ability to understand their own and other's internal states and in turn use that information in social settings (Tenuisse, 2019).

Individuals who are gullible are at a higher risk of believing false information and being tricked or manipulated (Forgas & Baumeister, 2019). These individuals tend to overestimate positive qualities of people, fall for elaborate financial schemes, and support odd causes they know little about (Hoffman, 2021). The consequence of being gullible may include making poor financial, social, or civic decisions. Individuals who are gullible may also believe content they see online, this may increase the individual's tendency to self-diagnose or believe information from content creators.

Self-Handicapping

Self-handicapping is a behavior where an individual unconsciously creates impediments to their performance in an attempt to protect their self-esteem (Schwinger et al., 2014; Berglas & Jones, 1978). This type of behavior can be seen in a variety of settings such as a golfer that refuses to practice at the driving range and subsequently plays badly at the tournament, or the college student that fails a test because they did not study (Leary & Shepperd, 1986; Schwinger et al., 2014). In the event of a performance failure, the handicap allows the individual to switch from an attribution of low performance due to low ability (e.g. "I failed the test because I am not smart") to the created or claimed handicap (e.g. "I failed the test because I did not get a lot of sleep last night"; Schwinger et al., 2014).

There are two types of self-handicapping: behavioral and self-reported. The reason for the behaviors is the same, but the action itself is different. Behavioral self-handicapping occurs when an individual performs an action that creates a handicap to their performance, leading to possible failure. This can be seen when an athlete takes debilitating drugs before a game, such as drinking large quantities of alcohol the night before the Superbowl. When thinking about this

type of self-handicapping from an academic perspective, it can be seen when a student stays up all night before taking a test (Leary & Shepperd, 1986).

The other type is self-reported handicapping. This occurs when an individual uses a verbal claim that suggests they have a handicap that will interfere with their performance on a task, leading to possible failure. This can be seen when an individual claims to be sick or anxious (e.g., test-anxiety) as an excuse for poor performance (Leary & Shepperd, 1986).

According to research, children with ADHD are more likely to engage in self-handicapping behaviors than children without ADHD (Waschbush et al., 2006). Research suggests that children and adolescents with ADHD experience difficulties with academics and peer rejection, which may lead to lower self-esteem in these individuals. However, studies conducted by Hoza and colleagues (1993; 2002; 2004) have shown that children with ADHD have comparable, if not higher, reports of self-esteem and competencies when compared to children without ADHD, even when they are underperforming. Children with ADHD utilize this technique to protect their self-esteem (Waschbush et al., 2006).

Screen Time

It is clear that screen time does not *cause* ADHD, but there is a relationship between the two. Exposure to screens, such as a phone or television, during childhood has been linked to difficulties inattention, executive functions, as well as symptoms of ADHD (Corkin et al., 2021). Foster and Watkins (2010) found that children were only at risk of developing ADHD symptoms when their screen time exceeded seven hours a day. This suggests that children who are not exposed to very high screen time may not be at risk for developing these symptoms.

Symptoms associated with ADHD include impulsivity, inattention, distractibility, and poor time management. Meanwhile, social media and the internet provides individuals with

content created by algorithms specifically designed to keep the viewers' attention, endless scrollable content, and split screens for dual entertainment (Hovde, 2022). While individuals with ADHD may have difficulty with delayed gratification, social media provides them with more frequent and consistent gratification (Fruchter, 2020). Recent research found that TikTok users spend an average of 95 minutes a day on the app (Aslam, 2023).

Chapter 2: The Current Project

The purpose of the present study was to examine potential predictors of self-diagnosis of ADHD through TikTok. Specifically, this study intended to examine the impact of how the amount of time spent on TikTok may relate to an individual believing they have ADHD. Individuals may be more likely to self-diagnose themselves as they become aware of a specific diagnosis of interest. When this happens, they may begin to feel anxious and research symptoms, which may amplify their anxiety. Many people today get information from popular social media platforms, such as TikTok, that do not always contain accurate information.

Overall, the current study sought to highlight potential predictors of self-reporting ADHD symptoms, despite an official diagnosis, and including symptomatology that are erroneous in the actual diagnosis of ADHD (e.g., bad handwriting).

It was expected that higher scores representing cyberchondria, mental health anxiety, gullibility, self-handicapping, and time spent on TikTok would positively predict the score of self-reported ADHD symptoms, in individuals who do not have an "official" ADHD diagnosis, as well as self-reported erroneous ADHD symptoms.

Further, this study examined which of the previously mentioned predictors is the largest predictor of self-reported ADHD symptoms, as well as erroneous symptoms in individuals who do not have an "official" ADHD diagnosis. It was expected that time spent on TikTok would be the largest predictor of self-reported ADHD symptoms.

Chapter 3: Methodology

Participants

Participants (N = 103) were recruited from a convenience sample to complete an online survey. A brief description and the link to the survey were posted on online venues (e.g., Facebook, emails, listservs, etc.) The research study was listed under the headline of "Personality and Health."

Demographically, the participants primarily identified as women (86.4%, n = 89), with the remainder of the sample identifying as men (13.6%, n = 14). Participant age ranged from 18 to 77 years (M = 31.36, SD =13.50). The sample's racial/ethnic background was predominantly Caucasian (n = 97). Other racial groups represented in the sample included Asian/Pacific Islander (n = 2), Native American (n = 1), Hispanic (n = 1), Bi-racial (n = 1), and "Mixes" (n = 1). When asked about highest level of completed education, 2.9% reported completing high school, 18.4% reported completing some college, 8.7% reported obtaining their associate degree, 48.5% reported obtaining their bachelor's degree, 13.6% reported obtaining their master's degree, and 7.8% reported obtaining their doctoral degree. For the purpose of this study, 16 participants were deleted from the study due to having a formal ADHD diagnosis, leaving the final sample of 87 for analyses.

Materials and Procedures

Upon choosing to participate in the current study, participants were first presented with an informed consent form. Upon consent, participants were instructed to complete an online survey containing the following measures*:*

Demographics

This included questions such as age, biological sex, gender, race/ethnicity, past diagnoses, social media use, and education level. The participants completed these demographic questions after completing the measures. The participants were presented with the following measures in random order:

Mental Health Anxiety Inventory (Commons et al., 2016; Appendix A)

This scale consists of 18 items measuring participants' anxiety pertaining to their mental health in the past six months. Participants were asked to select the answer that best describes them on a multiple-choice measure that is numerically recoded (i.e. A = 0, D = 3), with higher scores meaning greater mental health anxiety. This scale is a modified version of the Salkovskis Health Anxiety Inventory, where the wording of questions was modified from physical health to mental health (e.g. "I do not worry about my mental health."). This scale demonstrates excellent internal consistency (.92) and acceptable test-retest reliability (.77; Commons et al., 2016). A final score was calculated by taking the sum of all the answers, where scores can range from 0 to 54.

Cyberchondria Severity Scale (McElroy, 2019; Appendix B)

This scale is the short form of the original Cyberchondria Severity Scale, consisting of 12 items measuring the participants' anxiety about their health pertaining to internet searches of the symptoms. Participants were asked to rate each of the items on a five-point Likert scale (1 = *never*, 5 = *always*), with higher scores indicating greater cyberchondria. The scale consists of four factors: Excessiveness (e.g. "If I notice an unexplained bodily sensation I will search for it on the internet."), Distress (e.g. "I start to panic when I read online that a symptom I have is found in a rare/serious condition."), Reassurance (e.g. "Researching symptoms or perceived medical conditions online leads me to consult with my general practitioner."), and Compulsion

(e.g. " Researching symptoms or perceived medical conditions online distracts me from reading news/sports/entertainment articles online.") This scale demonstrates high internal consistency (.94), as well as good concurrent and convergent validity (McElroy & Shevlin, 2014). A final score was calculated by taking the sum of all the answers.

Gullibility (Teunisse, 2019; Appendix C)

This scale consists of 12 items measuring participants' gullibility. Participants were asked to rate each item on a seven-point Likert scale (1 = *strongly disagree*, 7 = *strongly agree*), with higher scores meaning greater gullibility. This scale consists of two factors: Persuadability, which is an individual's belief about their susceptibility to persuasion (e.g. "I guess I am more gullible than the average person") and Insensitivity, which is an individual's ability to detect untrustworthy cues (e.g. "I'm not that good at reading the signs that someone is trying to manipulate me"). The items are split equally between the two subscales. A final score was calculated by taking the sum of all the answers, where scores can range from 12 to 84. Scores can be calculated and examined for each subfactor if necessary.

Self-Handicapping Scale (Jones & Rhodewalt, 1982; Appendix D)

This scale consists of 25 items measuring the participants' tendency to perform self-handicapping behaviors. Participants were asked to rate each item on a six-point Likert scale (0 = *disagree very much* to 5 = *agree very much*), with high scores meaning greater self-handicapping. This scale consists of two factors: an individual's tendency to make excuses (e.g. "When I do something wrong, my first impulse is to blame the circumstances") and an individual's concern about motivation or effort (e.g. "I tend to put things off until the last minute.") This scale has demonstrated good internal consistency (.78), as well temporally stable (.74 test-retest across one month). Additionally this scale demonstrates good construct and

predictive validity (Rhodewalt et al., 1984). A final score was calculated by taking the sum of all the answers, where scores range from 0 to 125, with a median score of 60.

Adult ADHD Self-Report Scale (ASRS-v1.1) Symptom Checklist (Kessler et al., 2005: Appendix E)

This scale consists of 18 items measuring ADHD symptoms over the past six months. Participants were asked to rate each item on a five-point Likert scale (1 = *never* to 5 = *very often*), with higher scores meaning more reported ADHD symptoms, as well as a greater frequency in the reported symptoms. This scale consists of two factors: Inattention (e.g. "loses things necessary for tasks or activities") and Hyperactivity (e.g. "fidget or squirm with hands or feet.") This scale has demonstrated excellent specificity (98.3%) and adequate sensitivity (56.3%). Additionally, this scale demonstrates high internal consistency (0.84) and validity (.83; Adler et al., 2006). For the purposes of this study, a list of 10 erroneous ADHD symptoms were tacked onto the end of this measure and formatted in similar wording. The erroneous symptoms taken from popular TikTok videos regarding ADHD include bad handwriting, playing video games, constantly tired, etc. (See Appendix E). A final score for clinical ADHD symptoms, TikTok ADHD symptoms, and overall symptoms was calculated by taking the sum of all the answers in each subsection, as well as the entire measure. Scores can range from 18 to 90 on the clinical ADHD subscale, 10 to 50 on the TikTok ADHD subscale, and 28 to 140 on overall symptoms.

Chapter 4: Results

There were 16 participants that reported being previously formally diagnosed with ADHD. An independent sample t-test indicated that there was a significant difference in clinical ADHD symptom scores between individuals diagnosed with ADHD (M = 59.67, SD = 12.24) and those without a diagnosis (M = 50.19, SD = 13.30) , $t_{(93)}$ = -2.72, p = 0.008. An independent sample t-test indicated that there was also a significant different in erroneous ADHD symptoms scores between individuals diagnosed with ADHD (M = 32.87, SD = 5.15) and those without a diagnosis (M = 28.89, SD = 5.49) , $t_{(93)}$ = -2.60, p = 0.011.

Preliminary correlational analyses were conducted to determine associations between all variables of interest. Results of Pearson's correlations indicated that participants who scored higher on mental health anxiety, cyberchondria, and self-handicapping were significantly more likely to report erroneous TikTok ADHD symptoms. See Table 1 for the correlation coefficients and the descriptive information for each of the relevant variables.

Table 1

Variable	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**
1. Mental Health Anxiety Sum	---							
2. Cyberchondria Sum	0.40***	---						
3. Gullibility Sum	0.18	0.14	---					
4.Self-Handicapping Sum	0.51***	0.47***	0.26*	---				
5. Minutes on TikTok	0.06	0.22*	0.03	0.27*	---			
6. TikTok ADHD Symptom Sum	0.36***	0.36***	0.05	0.57***	0.16	---		
7. Clinical ADHD Symptom Sum	0.31**	0.25*	0.19	0.66***	0.11	0.57***	---	
8. Overall Symptom Sum	0.36***	0.32**	0.16	0.70***	0.14	0.78***	0.96***	---
M	12.92	23.86	31.12	60.43	312.99	28.68	50.02	78.70
SD	8.45	8.61	12.25	10.83	337.44	5.57	11.71	15.56

* $p < .05$, ** $p < .01$, ***$p < .001$

In an attempt to test the second hypothesis, that investigates which of the five predictors (i.e., mental health anxiety, cyberchondria, gullibility, self-handicapping, and time spent on TikTok) is the best predictor of self-reporting erroneous TikTok symptoms, a multiple regression was conducted. The results indicate that the overall model was significant, F (5, 74) = 8.69, $p <$ .001, $R^2 = 0.37$, Adjusted $R^2 = 0.33$. Specifically, self-handicapping ($B = 0.53$, $p < .001$) was a better predictor than any of the other predictors. Mental health anxiety ($B = 0.13$, $p = 0.237$), cyberchondria ($B = .08$, $p = 0.490$), gullibility ($B = -0.15$, $p = 0.144$), and time spent on TikTok ($B = -0.00$, $p = 0.965$) were not significant predictors.

An additional multiple regression was conducted to investigate which of the five predictors is the best predictor of self-reporting clinical ADHD symptoms. The results indicate

that the overall model was significant, F (5,74) = 12.05, $p < .001$, $R^2 = 0.46$, Adjusted $R^2 = 0.42$. Specifically, self-handicapping ($B = 0.74$, $p < .001$) was a better predictor than any other the other predictors. Again, mental health anxiety ($B = -0.01$, $p = 0.931$), cyberchondria ($B = -0.11$, $p = 0.297$), gullibility ($B = 0.01$, $p = 0.945$), and time spent on TikTok ($B = -0.07$, $p = 0.460$) were not significant predictors.

Although time spent on TikTok did not predict self-reporting erroneous ADHD symptoms, 30 participants (34.48%) reported that a TikTok video has made them believe they had ADHD. Additionally, 30 participants (34.48%) reported that an internet video has made them believe they had ADHD, and 35 participants (40.32%) reported that a social media video has made them believe they had ADHD.

Chapter 5: Discussion and Limitations

TikTok is a popular social media platform that is filled with short videos ranging from funny dances to mental health information. Previous research suggests that many of these videos explaining mental health tend to be sharing misinformation, rather than helpful, correct information (Yeung et al., 2022). Due to these findings, it is important to consider the impact that these videos may have on individuals, especially when it comes to questioning one's own mental health. As previously mentioned, ADHD is one particular mental disorder that has become popular among TikTok viewers. The present study contributed to the small body or research that is just beginning for the influence that TikTok may present in the prevalence and education of this disorder.

It was hypothesized that individuals who scored higher on select predictors (i.e., cyberchondria, mental health anxiety, gullibility, self-handicapping, and time spent on TikTok) would have a higher number of self-reported erroneous ADHD symptoms. The results of Pearson's correlations suggested that participants who scored higher on these predictors were significantly more likely to claim experiencing erroneous ADHD TikTok symptoms. These findings support previous research by Waschbush and colleagues (2006), stating that individuals with ADHD exhibit more self-handicapping behaviors as a protective factor for their self-esteem. Individuals are not being convinced that they have ADHD, but rather they are looking for an excuse for their actions or searching for an answer to protect their self-esteem.

It was also hypothesized that time spent on TikTok would be the largest predictor of self-reported erroneous ADHD symptoms. However, the results of a multiple regression suggest that self-handicapping was the largest predictor. This indicates that even after controlling for the participant's anxiety and personality, one's need to self-handicap was a greater predictor of

endorsing or claiming ADHD symptoms, whether real or erroneous, than anything else. This self-handicapping behavior takes the blame off of the individual and blames ADHD as an excuse. For example, an individual with ADHD may consistently allow or create distractions in their study environment, which in turn negatively affects their grade. However, the label of ADHD allows the individual to avoid holding themselves accountable for the poor grade. The findings of this study further the literature beyond Waschbush and colleagues (2006) by showing the same relationship, but inversely timed. The results from this study found that individuals that exhibit more self-handicapping behaviors subsequently report more clinical and erroneous ADHD symptoms.

Limitations and Future Directions

Limitations of the current study include not being able to control where TikTok videos are viewed online. Although participants stated that they do not have TikTok and report zero hours spent on TikTok each week, these videos are reposted across all social media platforms. Individuals may be viewing these TikTok videos, without even having the app downloaded on their phone. It is possible that this may have influenced the current results, because "time spent on TikTok" was a predictor being researched. These individuals may still be viewing TikTok videos on a daily basis, but not directly from the TikTok app.

There are also some limitations in the current study in relation to the sample of the participants. One limitation was the relatively small sample size. This means that the results could have been skewed more easily due to having limited power. Additionally, the participants were not collected randomly which is important to consider when attempting to apply the findings to the broader population.

There are some demographic characteristics of the sample that may impact the generalizability of the current results, including ethnicity/race, gender, and age. Regarding ethnicity/race, almost all of the participants identified as Caucasian, and as the single largest demographic group of the sample, the results may be more representative of self-reporting erroneous ADHD symptoms of people belonging to that group. The small number of participants belonging to other ethnicities/races does not provide true diversity in a sample. Future studies may want to consider purposive sampling of participants from a wide range of ethnicities/races to achieve a more diverse, representative sample.

For gender, a large majority of the participants identified as female. As such, the current results are more representative of self-reporting erroneous ADHD symptoms among women. This demographic does not accurately represent the distribution of ADHD in the general population, with ADHD being more common in males (APA, 2013). Future research should aim to collect samples from both males and females to fully understand self-reporting erroneous ADHD symptoms.

Finally, regarding age, although there was a wide distribution of age, the mean age was 31 years. Since the current study is focusing on TikTok use, data from younger participants is more beneficial, considering that the younger age groups are those who frequently use the social media app. However, because of the wide age range, the current results are thought to be more generalizable. Future social media studies seeking data from younger participants may want to seek out participants on platforms that these individuals frequently use.

The data were also collected using a snowball convenience sample, which may also have led to the lack of variety in the sample, making it difficult to be able to generalize the results.

Future studies should consider collecting data for a longer period of time, and over several different mediums (e.g. social media platforms, websites, in person survey).

Future studies may want to examine if these findings are seen with other disorders. This type of self-handicapping behavior could explain why individuals seek out other diagnoses, such as autism. If these results are found across multiple diagnoses, it may possibly change the way professionals test for certain diagnoses. Professionals may start measuring an individual's self-handicapping behaviors and keep that score in mind when doing further testing. Future studies could examine if there is a correlation between self-handicapping behaviors and malingering behaviors.

Conclusions

The current study sought to examine the potential predictors of self-diagnosis of ADHD on TikTok. More specifically examining cyberchondria, mental health anxiety, gullibility, self-handicapping, and time spent on TikTok. Findings suggest that individuals with high scores of self-handicapping are more likely to believe that they have ADHD. It was hypothesized that time spent on TikTok would be the biggest predictor of individuals reported erroneous ADHD symptoms, but the results did not support that hypothesis. However, the results showed that a portion of individuals reported having watched a TikTok or videos online that made them believe they had ADHD. This suggests that watching TikTok videos and other videos online in correlated with individuals believing they have ADHD, but they are not reporting a significant number of erroneous symptoms. This is interesting because individuals are watching videos explaining these symptoms but are not reporting them. This raises the question, if individuals believe they have ADHD because of videos, what symptoms do they believe they have?

The findings of this study did suggest that individuals who partake in more self-handicapping activities reported more clinical and erroneous ADHD symptoms, so why are self-handicapping behaviors a greater predictor for erroneous ADHD symptoms? These behaviors can act as an excuse when individuals are underperforming (Schwinger et al., 2014). Thus, individuals may be reporting more erroneous ADHD symptoms as a self-handicapping behavior. Individuals may want a diagnosis of ADHD for several reasons that could benefit them and protect their self-esteem, such as academic accommodations, medication, or just a buffer for failure. The "benefits" to the diagnosis may be very sought after for young adults.

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Appendix A: Mental Health Anxiety Inventory

Each question in this section consists of a group of four statements. Please read each group of statements carefully and then select the one which best describes your feelings about your mental well-being over the past 6 months. Identify the statement by ringing the letter next to it, i.e. if you think that statement (a) is correct, ring statement (a); *it may be that more than one statement applies, in which case, please ring any that are applicable*. PLEASE ANSWER *ALL* QUESTIONS.

Please be aware that for the purpose of this survey the terms "mental" and "psychological" mean the same thing.

1. (a) I do not worry about my mental health.

(b) I occasionally worry about my mental health.

(c) I spend much of my time worrying about my mental health.

(d) I spend most of my time worrying about my mental health.

2. (a) I notice unusual changes in my mental state less than most other people (of my age).

(b) I notice unusual changes in my mental state as much as most other people (of my age).

(c) I notice unusual changes in my mental state more than most other people (of my age).

(d) I am aware of unusual changes in my mental state all the time.

3. (a) As a rule I am not aware of unusual things happening in my mind.

(b) Sometimes I am aware of unusual things happening in my mind.

(c) I am often aware of unusual things happening in my mind.

(d) I am constantly aware of unusual things happening in my mind.

4. (a) Resisting thoughts of mental illness is never a problem.

(b) Most of the time I can resist thoughts of mental illness.

(c) I try to resist thoughts of mental illness but am often unable to do so.

(d) Thoughts of mental illness are so strong that I no longer even try to resist them.

5. (a) As a rule I am not afraid that I have a serious mental illness.

(b) I am sometimes afraid that I have a serious mental illness.

(c) I am often afraid that I have a serious mental illness.

(d) I am always afraid that I have a serious mental illness.

6. (a) I do not have images (mental pictures) of myself being mentally ill.

(b) I occasionally have images of myself being mentally ill.

(c) I frequently have images of myself being mentally ill.

(d) I constantly have images of myself being mentally ill.

7. (a) I do not have any difficulty taking my mind off thoughts about my mental health.

(b) I sometimes have difficulty taking my mind off thoughts about my mental health.

(c) I often have difficulty in taking my mind off thoughts about my mental health.

(d) Nothing can take my mind off thoughts about my mental health.

8. (a) I am lastingly relieved if my doctor or mental health professional tells me there is nothing wrong.

(b) I am initially relieved but the worries sometimes return later.

(c) I am initially relieved but the worries always return later.

(d) I am not relieved if my doctor or mental health professional tells me there is nothing wrong.

9. (a) If I hear about a mental illness I never think I have it myself.

(b) If I hear about a mental illness I sometimes think I have it myself.

(c) If I hear about a mental illness I often think I have it myself.

(d) If I hear about a mental illness I always think I have it myself.

10. (a) If I experience an unexpected mental event I rarely wonder what it means.

(b) If I experience an unexpected mental event I often wonder what it means.

(c) If I experience an unexpected mental event I always wonder what it means.

(d) If I experience an unexpected mental event I must know what it means.

11. (a) I usually feel at very low risk for developing a serious mental illness.

(b) I usually feel at fairly low risk for developing a serious mental illness.

(c) I usually feel at moderate risk for developing a serious mental illness.

(d) I usually feel at high risk for developing a serious mental illness.

12. (a) I never think I have a serious mental illness.

(b) I sometimes think I have a serious mental illness.

(c) I often think I have a serious mental illness.

(d) I usually think that I am seriously mentally ill.

13. (a) If I notice an unexplained psychological sensation I don't find it difficult to think about other things.

(b) If I notice an unexplained psychological sensation I sometimes find it difficult to think about other things.

(c) If I notice an unexplained psychological sensation I often find it difficult to think about other things.

(d) If I notice an unexplained psychological sensation I always find it difficult to think about other things.

14. (a) My family and friends would say I do not worry enough about my mental health.

(b) My family and friends would say I have a normal attitude to my mental health.

(c) My family and friends would say I worry too much about my mental health.

(d) My family and friends would say I am a hypochondriac.

For the following questions, please think about what it might be like if you had a serious mental illness of a type which particularly concerns you (for e.g. schizophrenia, bi-polar, and so on). Obviously, you cannot know for definite what it would be like; please give your best estimate of what you think might happen, basing your estimate on what you know about yourself and serious mental illness in general.

15. (a) If I had a serious mental illness I would still be able to enjoy things in my life quite a lot.

(b) If I had a serious mental illness I would still be able to enjoy things in my life a little.

(c) If I had a serious mental illness I would be almost completely unable to enjoy things in my life.

(d) If I had a serious mental illness I would be completely unable to enjoy life at all.

16. (a) If I developed a serious mental illness there is a good chance that modern medicine would be able to cure me.

(b) If I developed a serious mental illness there is a moderate chance that modern medicine would be able to cure me.

(c) If I developed a serious mental illness there is a very small chance that modern medicine would be able to cure me.

(d) If I developed a serious mental illness there is no chance that modern medicine would be able to cure me.

17. (a) A serious mental illness would ruin some aspects of my life.

(b) A serious mental illness would ruin many aspects of my life.

(c) A serious mental illness would ruin almost every aspect of my life.

(d) A serious mental illness would ruin every aspect of my life.

18. (a) If I had a serious mental illness I would not feel that I had lost my dignity.

(b)If I had a serious mental illness I would feel that I had lost a little of my dignity.

(c) If I had a serious mental illness I would feel that I had lost quite a lot of my dignity.

(d) If I had a serious mental illness I would feel that I had totally lost my dignity.

Appendix B: Cyberchondria Severity Scale

Please read the following statements and indicate how they typically apply to you by selecting the appropriate number. Please note that this questionnaire relates to perceived medical conditions (i.e. conditions you think you might have) rather than conditions that have been diagnosed by a medical profession. 1 (Never) to 5 (Always)

1. If I notice an unexplained bodily sensation I will search for it on the internet.
2. Researching symptoms or perceived medical conditions online distracts me from reading news/sports/entertainment articles online.
3. I read different web pages about the same perceived condition.
4. I start to panic when I read online that a symptom I have is found in a rare/serious condition.
5. Researching symptoms or perceived medical conditions online leads me to consult with my general practitioner.
6. I enter the same symptoms into a web search on more than one occasion.
7. Researching symptoms or perceived medical conditions online interrupts my work (e.g. writing emails, working on word documents or spreadsheets.)
8. I think I am fine until I read about a serious condition online.
9. I feel more anxious or distressed after researching symptoms or perceived medical conditions online.
10. Researching symptoms of perceived medical conditions online interrupt my offline social activities (e.g. reduced time spent with friends/family.)
11. I suggest to my general practitioner/medical professional that I may need a diagnostic procedure that I read about online (e.g. biopsy/ a specific blood test.)

12. Researching symptoms or perceived medical conditions online leads me to consult with medical specialists (e.g. consultants.)

Appendix C: Gullibility

Please complete the following questionnaire on your beliefs and behaviors. Do not think too long about your responses. Read each question carefully and indicate how true these statements are of you on a scale of 1 (Strongly Disagree) to 7 (Strongly Agree).

Strongly Disagree 1 2 3 4 5 6 7 Strongly Agree

1. I'm pretty good at working out when someone is trying to fool me*
2. I'm usually quick to notice when someone is trying to cheat me*
3. I'm pretty poor at working out if someone is tricking me
4. I quickly realize when someone is pulling my leg*
5. It usually takes me a while to "catch on" when someone is deceiving me
6. I'm not that good at reading the signs that someone is trying to manipulate me
7. My family thinks I am an easy target for scammers
8. If anyone is likely to fall for a scam, it's me
9. My friends think I'm easily fooled
10. Overall, I'm pretty easy to manipulate
11. People think I'm a little naïve
12. I guess I am more gullible that the average person

*Denotes a reverse-scored item

Appendix D: Self-Handicapping Scale

Please indicate the degree to which you agree with each of the following statements as a description of the kind of person you think you are most of the time. Use the following scale.

0 = Disagree very much

1 = Disagree pretty much

2 = Disagree a little

3 = Agree a little

4 = Agree pretty much

5 = Agree very much

1. When I do something wrong, my first impulse is to blame circumstances.
2. I tend to put things off until the last moment.
3. I tend to over prepare when I have an exam or any kind of "performance." *
4. I suppose I feel "under the weather" more often than most people.
5. I always try to do my best, no matter what. *
6. Before I sign up for a course or engage in any important activity, I make sure I have the proper preparation or background. *
7. I tend to get very anxious before an exam or "performance."
8. I am easily distracted by noises or my own creative thoughts when I try to read.
9. I try not to get too intensely involved in competitive activities as it won't hurt too much if I lose or do poorly.
10. I would rather be respected for doing my best than admired for my potential. *
11. I would do a lot better if I tried harder.

12. I prefer small pleasures in the present to larger pleasures in the dim future.

13. I generally hate to be in any condition but “at my best.” *

14. Someday I might “get it all together.”

15. I sometimes enjoy being mildly ill for a day or two because it takes off the pressure.

16. I would do much better if I did not let my emotions get in the way.

17. When I do poorly at one kind of thing, I often console myself by remembering I am good at other things.

18. I admit that I am tempted to rationalize when I don’t live up to other’s expectations.

19. I often think I have more than my share of bad luck in sports, card games, and other measures of talent.

20. I would rather not take any drug that interfered with my ability to think clearly and do the right thing. *

21. I overindulge in food and drink more often than I should.

22. When something important is coming up, like an exam or a job interview, I try to get as much sleep as possible the night before. *

23. I never let emotional problems in one part of my life interfere with other things in my life. *

24. Usually, when I get anxious about doing well, I end up doing better.

25. Sometimes I get so depressed that even easy tasks become difficult.

*Denotes a reversed-scored item

Appendix E: ADHD Scale

Please answer the questions below, rating yourself on a scale of 1 (never) through 5 (always) on each of the criteria. As you answer each question in a way that describes how you have felt and conducted yourself in the past 6 months.

1. How often do you have trouble wrapping up the final details of a project, once the challenging parts have been done?
2. How often do you have difficulty getting things done in order when you have to do a task that requires organization?
3. How often do you have problems remembering appointments or obligations?
4. When you have a task that requires a lot of thought, how often do you avoid or delay getting started?
5. How often do you fidget or squirm with your hands or feet when you have to sit down for a long time?
6. How often do you feel overly active and compelled to do things, like you were driven by a motor?
7. How often do you make careless mistakes when you have to work on a boring or difficult project?
8. How often do you have difficulty keeping your attention when you are doing boring or repetitive work?
9. How often do you have difficulty concentrating on what people say to you, even when they are speaking directly to you?
10. How often do you misplace or have difficulty finding things at home or at work?

11. How often are you distracted by activity or noise around you?
12. How often do you leave your seat in meetings or other situations in which you are expected to remain seated?
13. How often do you feel restless or fidgety?
14. How often do you have difficulty unwinding and relaxing when you have time to yourself?
15. How often do you find yourself talking too much when you are in social situations?
16. When you are in a conversation, how often do you find yourself finishing the sentences of the people you are talking to, before they can finish them themselves?
17. How often do you have difficulty waiting your turn in situations when turn taking is required?
18. How often do you interrupt others when they are busy?

    Beginning of *TikTok* symptoms

19. How often do you feel the need to create social media content (e.g. videos, posts)?
20. How often do you find yourself feeling tired, even after you may have slept well?
21. How often do you find yourself randomly dancing to songs that no one else hears?
22. How often do you find yourself listening to the same song multiple times in a row?
23. How often do you feel the need to check your phone for new incoming text messages, social media content, or phone calls?
24. How often have you been told by teachers, family, or friends that you have bad handwriting?
25. How often do you find yourself dissatisfied with your physical appearance?

26. How often do you find yourself excessively playing video games (e.g. multiple hours at a time)?
27. How often do you feel the need to drink large amount of caffeine?
28. How often do you find yourself with an urge to learn or teach yourself new things (e.g. how to build something, a new language)?

Appendix F: Demographics

Age: _____

Biological sex assigned at birth: Male Female

Gender:

Male Female Transgender Nonbinary

Prefer not to say Other (please specify) _____

Highest level of completed education:

High School Some College Associate Degree

Bachelor's Degree Master's Degree Doctoral Degree

Ethnicity/Race:

Caucasian African American Native American

Asian/Pacific Islander Hispanic Bi-racial Other (please specify) _____

Have you ever been formally diagnosed with a mental disorder by a medical professional (e.g. psychologist, psychiatrist, primary care provider)? If so, what diagnosis?:

Do you believe you have ADHD?: Yes No

How many hours per week do you spend on TikTok?:

Instructions for screen time:

Apple:	Android:
1. Settings	1. Settings
2. Screen Time	2. Digital Wellbeing and Parental Controls
3. See All Activity	3. Dashboard
4. TikTok	4. Screen Time
	5. TikTok

Has a video on TikTok ever made you believe you might have ADHD?: Yes No

Has any internet video made you believe that you might have ADHD?: Yes No

Has any social media video ever made you believe that you might have ADHD?: Yes No

Where did you find access to this study (e.g. Facebook, a friend, etc.)?:

Appendix F: IRB Approval Letter

MURRAY STATE UNIVERSITY

Institutional Review Board

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TO: Jana Hackathorn, Psychology

FROM: Jonathan Baskin, IRB Coordinator

DATE: 5/12/2023

RE: Human Subjects Protocol I.D. – IRB # 23-184

The IRB has completed its review of your student's Level 1 protocol entitled *Personality and Health*. After review and consideration, the IRB has determined that the research, as described in the protocol form, will be conducted in compliance with Murray State University guidelines for the protection of human participants.

The forms and materials that have been approved for use in this research study are attached to the email containing this letter. These are the forms and materials that must be presented to the subjects. Use of any process or forms other than those approved by the IRB will be considered misconduct in research as stated in the MSU IRB Procedures and Guidelines section 20.3.

Your stated data collection period is from 5/12/2023 to 5/11/2024.

If data collection extends beyond this period, please submit an Amendment to an Approved Protocol form detailing the new data collection period and the reason for the change.

This Level 1 approval is valid until 5/11/2024.

If data collection and analysis extends beyond this date, the research project must be reviewed as a continuation project by the IRB prior to the end of the approval period, 5/11/2024. You must reapply for IRB approval by submitting a Project Update and Closure form (available at murraystate.edu/irb). You must allow ample time for IRB processing and decision prior to your expiration date, or your research must stop until such time that IRB approval is received. If the research project is completed by the end of the approval period, then a Project Update and Closure form must be submitted for IRB review so that your protocol may be closed. It is your responsibility to submit the appropriate paperwork in a timely manner.

The protocol is approved. You may begin data collection now.