

Differential Diagnosis of ADHD and Bipolar Disorder: An Analogue Study

by

Sarah Yurinich

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Advisor: Dr. Laura Knouse

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Sarah Yurinic

University of Richmond

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Abstract

Bipolar disorder (BD) and attention deficit/hyperactivity disorder (ADHD) share an overlapping number of symptoms. These shared symptoms may result in the misdiagnosis or over diagnosis of these two disorders. The purpose of this study was to look at the diagnostic practices of clinicians and clinicians-in-training to see what diagnosis they would give to a hypothetical patient who presents with ambiguously ADHD and bipolar disorder symptoms. Clinicians and clinicians-in-training (N = 40) read two vignettes, one child and one adult, where the patient presented with both ADHD and BD overlapping symptoms, and then were asked to provide one primary DSM-IV diagnosis, rule-outs, and three follow up questions. The results show that the age of the client in the vignette significantly affected the diagnosis that the client received. Across vignettes, the child client was 2-6x more likely to receive a BD diagnosis and the adult was 2-4x more likely to receive an ADHD diagnosis. The diagnosis pattern in this study is opposite the relative prevalence rates, where adults are more likely to meet criteria for BD and children for ADHD. Additionally, almost two-thirds acknowledged that the diagnosis could be either ADHD or bipolar, but only about one-third asked follow-up questions that help in the differential diagnosis of ADHD and bipolar based on the overlapping symptoms included. These results suggest that clinicians should pay more attention to the chronic/episodic nature of symptoms and if they differ from the patient's normal state or if they are trait-like.

Differential Diagnosis of ADHD and Bipolar Disorder: An Analogue Study

Bipolar Disorder (BD) is a mood disorder characterized by states of depression as well as states of mania (American Psychological Association *Diagnostic and Statistical Manual of Mental Disorders*, 4th edition-TR). Both depression and mania can be severely impairing and debilitating for those affected by the disorder. The onset of symptoms for bipolar disorder is typically in late adolescence or early adulthood, but in recent years there has been a rapid increase in the number of pediatric bipolar cases diagnosed. Blader and Carlson (2007) found that of all of the psychiatric-related hospital discharges, that children diagnosed with BD represented 10% in 1996 and increased to 34.1% of all psychiatric discharges in 2004. The authors note that the rapid increase in children diagnosed with BD rapidly outpaced the adult population's increase in bipolar diagnoses within the same period, suggesting that bipolar children do not necessarily grow into bipolar adults. Moreover, childhood bipolar disorder presents itself differently from classic adult bipolar disorder. Pediatric BD is often seen as chronic irritable mood with ultra-rapid or ultradian cycling, whereas adult BD is an episodic presentation (Geller et al., 1998; Klassen et al., 2010).

What might account for this rapid rise in the diagnosis of pediatric bipolar disorder? Blader and Carlson (2007) posit that symptoms that clinicians use to diagnose mania in children might better be explained by one of the disruptive disorders, such as oppositional defiant disorder (ODD) or ADHD. Attention Deficit/Hyperactivity Disorder (ADHD) is a disorder classified by inattention, hyperactivity, and impulsivity. It presents itself in childhood, and in 2/3 of cases it persists into adulthood (Barkley, Murphy, & Fischer, 2008). One of the major issues surrounding the clinical descriptions of BD and ADHD is the symptom overlap that is present. Some of the

symptoms that are present in both disorders include inattentiveness, distractibility, increased motor activity, talkativeness, and emotional lability (Skirrow, Hosang, Farmer, & Asherson, 2012). Youngstrom, Arnold, and Frazier (2010) found that the lack of firm boundaries delineating those common symptoms as either “bipolar” or “ADHD” is problematic. They believe that the nonspecificity of symptom criteria for the two disorders leads to misdiagnosis or the artificial comorbidity of ADHD and bipolar disorder. Importantly, it is unlikely that there are shared genetic risk variants in BD and ADHD (Landaas et al., 2011). Additionally, researchers have referred to the symptom criteria for BD as “soft” as well as being in a “state of flux” (Katzow, Hsu, & Ghaemi, 2003; Angst et al., 2003). Therefore, it is crucial for clinicians to keep in mind that ADHD is chronic and trait-like and differs from behavioral norms while BD is episodic and refers to a change from the patient’s normal state (Youngstrom et al., 2010; Youngstrom, Birmaher, & Findling, 2008; Skirrow et al. 2012). Researchers have additionally pointed out that there is currently a lack of assessment tools for pediatric bipolar disorder that are appropriate for everyday clinical use, which could contribute to the increase in improper differential diagnosis of pediatric bipolar symptoms as well as the symptoms of disorders that share symptoms with BD, such as ADHD (Baldassano, 2005).

The way in which bipolar disorder and ADHD are treated becomes problematic when these disorders are misdiagnosed. This is of great concern for two prominent reasons. First, the stimulant medications used to treat ADHD could exacerbate a manic episode in a person with bipolar disorder. Manic episodes can be extremely debilitating and destructive for those who suffer from them. Second, the medications (Lithium and antipsychotics) used to treat bipolar disorder often have many negative physical side effects that could be especially dangerous for

children. Some of these severe side effects include weight gain and decreased thyroid function for Lithium and tardive dyskinesia for antipsychotics (Angst et al., 2003; Skirrow et al., 2012).

The issues outlined above point to a need for research investigating the factors that may lead to confusion in an ADHD vs. bipolar disorder diagnosis. Research on real-life diagnostic decision-making by clinicians would be ethically challenging to conduct but, fortunately, there is a precedent for the use of vignettes in such research. Bruchmuller, Margraf, and Schneider (2012) used an analogue study to assess practitioner diagnostic tendencies in children with ADHD-like symptom presentations. Bruchmuller et al. (2012) looked at whether or not a practitioner would diagnose a hypothetical child with ADHD based on whether or not the child fit his or her prototypical conception of ADHD. They found that therapists were twice as likely to diagnose a male child with ADHD than a female child, even when that male child did not fulfill ADHD criteria. This led them to conclude that some clinicians do not adhere to the criteria outlined in diagnostic manuals and have a tendency to be biased by their patient's gender, which can lead to the misdiagnosis of disorders such as ADHD (Bruchmuller et al., 2012). These results suggest that similar biases in diagnostic procedures may be operating in ADHD vs. bipolar disorder differential diagnosis and that these biases could be investigated using an analogue methodology.

Vignettes have also been used in other aspects of the social sciences as well as in medical decision-making. For example, Hughes and Huby (2001) used vignettes to assess beliefs, perceptions, and attitudes related to health care. Moreover, McKinlay, Potter and Feldman (1996) used vignettes as part of an analogue study to assess how non-medical factors impacted medical decision-making. Rutten et al. (2004) also used vignettes in a study that assessed medical guideline adherence among physiotherapists. Heverly, Fitt, and Newman (1984) found

that analogue studies give researchers the experimental control to see if differences in judgment are due to difference in clinical presentation. They additionally found that the professional characteristics of a clinician (theoretical orientation and years of experience) could impact his or her clinical decision-making (Heverly et al., 1984).

To our knowledge, there have been no studies that investigate the diagnostic processes clinicians use to assess patient symptoms of ADHD vs. bipolar disorder. Therefore, an analogue study will be used to simulate the conditions under which clinicians make diagnoses, especially when overlapping symptoms of ADHD and bipolar disorder are presented. In the current study, I created vignettes describing overlapping symptoms of ADHD and bipolar disorder and asked practicing clinicians to give most likely diagnoses and indicate follow-up questions they would ask to aid diagnosis. In particular, I was interested in examining the impact that the age of the client had on clinician decision-making, since bipolar disorder in childhood continues to be a controversial area.

This study addressed the following research questions:

- 1) Given identical descriptions of symptom presentation, will the age of the client (adult vs. child) impact the diagnosis (ADHD vs. bipolar disorder) given by clinicians?
- 2) Do clinicians consider ADHD a rule-out when they make a primary BPD diagnosis and vice versa?
- 3) What types of follow up questions will clinicians ask, and will these questions address issues that help to differentiate ADHD and bipolar disorder, such as the onset of symptoms, whether the symptoms are state-like or trait-like, or if these symptoms are episodic or chronic?

Method

Participants

Participants included 40 licensed mental health clinicians and students in clinical training programs that were recruited via email through networks of practicing clinicians. The sample was predominantly female, and of the 39 participants who reported their gender, 29 (72.5%) identified as female and 10 (25%) identified as male. Participants also tended to be white with 90% of the sample responding that they were White/Caucasian, 7.5% Asian/Pacific Islander, 5% Hispanic/Latino, and 5% Other (participants could select more than one option). The clinicians' and clinicians'-in-training mean age was 34.28 years ($SD = 11.81$), ranging from 22 to 66 years. All but 11 (27.5%) participants were mental health professionals, and those who were not currently clinicians were enrolled as Ph.D. candidates in clinical psychology or clinical science programs. Professional participants reported an average of 11.02 years ($SD = 12.64$) of experience. Of the participants who reported working frequently with specific populations, 10 (25%) reported working with preschoolers, 23 (57.5%) reported working with school age individuals, 23 (57.5%) with adolescents, and 23 (57.5%) with adults (again, participants could select more than one option). Additionally, 77.5% of participants reported their theoretical orientation as cognitive-behavioral, while 30% reported a theoretical orientation of "other" (e.g. biopsychosocial, eclectic, psychodynamic, etc.). The most common specialty areas of practice were ADHD (35%), mood disorders (12.5%), and anxiety (12.5%); however, other specialty areas of practice were also listed at lower frequencies (e.g. disruptive behavior disorders, substance use disorders, trauma, etc.).

Materials

Vignettes. Four vignettes were created that described a patient's presenting symptoms and contained symptoms that overlap within ADHD and bipolar disorder. These consisted of child and adult versions of each of two different sets of symptom descriptions in male clients (see Appendix). For each pair of vignettes the only difference between the child and adult versions was the stated age of the client, whether events occurred at work or at school, and whether the collateral reporters were the clients mother/teacher or wife/work supervisor. Length of vignettes was controlled such that each vignette was approximately 190 words long. A fifth vignette, to be used as a "warm up" to the other vignettes, was created that described a male with an anxiety disorder (see Appendix).

Survey. A survey was also created that asked participants to provide a primary diagnosis, list rule outs, as well as list three follow up questions (see Appendix). Participants were also asked to provide demographic information as well as to answer questions related to their professional experiences. The vignettes and surveys were then programmed into an online survey program, Qualtrics, and participants were randomly assigned to which set of vignettes they would read and answer questions about. Clinicians clicked a link to the survey, which sent them to a portal website that randomly sent them to one of four versions of the survey. The surveys differed by the age of participant in the vignette and the order of the vignettes. For example, one participant would have seen Vignette A-Child Version presented first and Vignette B-Adult Version presented second, while another participant would have seen Vignette B-Child Version followed by Vignette A-Adult Version. The four surveys that were created included every combination of Child Version-Adult Version and Vignette A-Vignette B so that participants saw

one vignette with a child as the patient and one vignette with an adult as the patient as well as both Vignette A and Vignette B.

Procedure

All procedures in the study were reviewed and approved by the Institutional Review Board at the University of Richmond. Participants received an email that invited them to participate in the study, which included a link that redirected them to the experiment. The study was completed on the participants' computer, and was done using Qualtrics Survey Software, which stored all data in the HIPPA-compliant, secure database. Participants read an IRB-approved consent form and consent was given by the participant clicking 'Yes' to the statement, "I have read and understood the above consent form and desire of my own free will to participate in this study." The participant was then given a warm-up vignette about a hypothetical individual with an anxiety disorder, asked to read the vignette, and then asked, "If you had to, based on the information given, please choose the one most likely principal DSM-IV diagnosis for this patient," "Please list any rule outs," and "If you could only ask three follow up questions to help you diagnose this client, what would they be?" The participant was then given a second vignette about either a child or an adult with ambiguous symptoms that might indicate bipolar disorder or ADHD. The participant was then asked to answer the same follow up questions. The participant then read a third vignette about either a child or an adult (adult if they previously read about a child, and child if they previously read about an adult), and asked the same three questions a final time. The participant was then asked about their demographic information such as age, gender, and race/ethnicity as well as to report their professional characteristics such as years of experience, degree, specialty, and theoretical orientation. The

participant was then thanked, debriefed, and given the opportunity (optional) to submit his or her email address to be entered for a drawing to win an iPad.

Results

Initial analyses were run to address whether or not the order of presentation of the vignettes and vignette (A vs. B) had an impact on the participants' diagnoses. Diagnoses did not differ significantly based on the order of the vignettes, $\chi^2(2, N = 40) = 1.58, p = .453$. Overall, the patient in Vignette A received a bipolar diagnosis more often than an ADHD diagnosis (two times more bipolar diagnoses than ADHD diagnoses) and the patient in Vignette B more ADHD diagnoses (over three times more ADHD diagnoses than bipolar). These differences in diagnosis can be viewed in Table 1.

Effect of Client Age Group on Diagnosis

For Vignette A, the child client received more bipolar disorder diagnoses than ADHD diagnoses. The adult client in the vignettes received more ADHD diagnoses than bipolar disorder diagnoses. Diagnoses for the different versions of the case differed significantly, $\chi^2(2, N = 40) = 9.76, p = .008$. The different rates of diagnosis can be viewed in Table 2.

For Vignette B, the adult patient again received more ADHD diagnoses than bipolar disorder diagnoses. The child patient received more bipolar disorder diagnoses than ADHD diagnoses. Diagnoses for the adult and child versions of the case differed significantly, $\chi^2(2, N = 40) = 10.19, p = .006$. The differences in diagnosis between child and adult versions of the vignette can be seen in Table 3. Thus, for both vignettes, clinicians were more likely to give a bipolar diagnosis when the client was a child and to give an ADHD diagnoses when the client was an adult.

Rule-Out Diagnoses and Follow-Up Questions

Rule-outs and follow up questions were coded and analyzed. The rule-outs were coded for the inclusion of the opposite disorder of the diagnosis (e.g. if bipolar was the primary diagnosis and ADHD was included in the rule-outs, and vice-versa), and the follow up questions were coded for the presence of questions that asked if the patient's symptoms were chronic or episodic, what the onset of the symptoms was, and if the symptoms were trait-like or if they differed from the patient's normal state. Participant responses that were coded as addressing the periodic or chronic nature of the symptoms included "Periodic or episodic occurrence of symptoms," "Is the presentation episodic," and "Are these difficulties episodic, or do they occur fairly consistently?" Questions that assessed the onset of symptoms included responses like "When did these symptoms first emerge (childhood or adulthood?)," "When did symptoms onset," and "When did these difficulties begin?" Questions that assessed whether the symptoms were trait-like or if they differed from the patient's normal state included responses such as "Do these symptoms represent a distinct change from prior behavior," "Do people say you are different from your normal self when you have these symptoms," and "How long has this high level of energy, including pacing and irritability been present - is it a change from baseline?"

For Vignette A, 11 (27.5%) participants did not include the opposite diagnosis in the rule-outs while 28 (70%) did. For the follow up questions, 21 (52.5%) participants did not ask if the symptoms were chronic/episodic and 18 (45%) did, 16 (40%) did not ask about the onset of symptoms and 23 (57.5%) did, and 29 (72.5%) of participants did not ask if the symptoms were trait-like or if they differed from the patient's normal state while 10 (25%) did. Out of all of the participants, 25% did not ask any of these types of questions. Figure 1 shows these differences.

For Vignette B, 6 (15%) participants did not include the opposite diagnosis in the rule-outs and 28 (70%) did. As for the follow up questions, 25 (62.5%) did not ask if the symptoms were chronic or episodic and 11 (27.5%) did, 19 (47.5%) did not ask about the onset of symptoms while 17 (42.5%) did, and 28 (70%) of participants did not ask if the symptoms differed from the patient's normal state or if they were trait-like and 11 (27.5%) did. Of all of the participants, 45% did not ask any of the above questions regarding the patient's symptoms for Vignette B. Figure 2 shows these differences.

Discussion

The first research question was answered in that the age of the client in the vignette significantly affected the diagnosis that the client received. In Vignette A the participants were five times more likely to diagnose a child with bipolar disorder than with ADHD, and four times more likely to be diagnosed with bipolar disorder than the adult version of the vignette, who displayed the same exact presenting symptoms. Vignette B functioned differently, in that the adult patient was 12 times more likely to be diagnosed with ADHD than with bipolar disorder, and almost four times more likely to be diagnosed with ADHD than the child version of the vignette. The pattern of results does not differ across vignettes, in that in both vignettes the child was more likely to be diagnosed with bipolar disorder and the adult was more likely to be diagnosed with ADHD.

These results are striking, for several reasons. One of these reasons is that ADHD is largely considered a childhood disorder and is more prevalent in children, with the symptoms developing during childhood and affecting development. It is interesting that in a vignette that combined symptoms of ADHD and bipolar disorder that the adult would be more frequently diagnosed with ADHD than the child who presented with the exact same symptoms. The other

glaring reason is related to the first, in that bipolar disorder is more prevalent in adult populations. While depressive episodes often precede manic episodes, these manic episodes tend not to begin until late adolescence or early adulthood. This raises the question, why are these clinicians five times more likely to diagnose the child in the vignette with bipolar disorder than to diagnose him with ADHD, and why was this same child four times more likely to be diagnosed with bipolar than an adult presenting with the same symptoms? What aspects of the diagnostic procedure that these clinicians are using are resulting in these unexpected trends in diagnosis? Perhaps clinicians are being swayed by the representation of pediatric bipolar disorder in the media and in popular culture, or some of the clinicians considered a 46-year-old patient to be too old to experience their first manic episode. It appears, overall, that clinicians are neglecting the base rates of occurrence of these disorders and this may be why this diagnostic bias is occurring within these vignettes.

Additionally, the findings of this research indicate that while some mental health professionals ask the right questions to differentially diagnose ADHD and bipolar disorder (chronic/episodic nature of the patient's symptoms and whether or not these symptoms are trait-like or state-like), the majority of clinicians may not. Although in this sample across both vignettes, an average of 65% of the clinicians surveyed included ADHD as a rule-out if their primary diagnosis was bipolar and vice-versa, only 36.25% asked if the symptoms were episodic/chronic, 50% asked about the onset of the symptoms, and 26.25% asked if the symptoms were trait-like or differed from the patient's normal state. Almost two-thirds of the clinicians considered that the symptoms the patient presented in the vignette could be attributed to both ADHD and bipolar disorder, and yet fewer asked key follow up questions that would allow them to tease apart whether these overlapping symptoms were attributable to ADHD or to

bipolar disorder (Youngstrom et al., 2010). These results are striking, and point to a need to educate clinicians on the necessity of asking the right questions to allow themselves to differentially diagnose bipolar disorder and ADHD. These results support the findings of previous research, that clinicians can be biased by a number of factors, including age and gender of clients. In addition, these biases can be studied cost-effectively through the use of analogue measures such as vignette studies.

Although the results of this research were interesting, they need to be considered in the context of the limitations of this study. The sample of this study has a number of limitations associated with it. To begin, there was a low response rate among the number of clinicians that this survey most likely reached. This low response rate means that there was likely a self-selection bias at play, which could have biased the results. Additionally, the sample was predominantly female, white, and young, and tended to have a cognitive-behavioral theoretical orientation and work with individuals who have ADHD, anxiety, or a mood disorder. These clinicians, then, are not likely representative of the clinician population as a whole, which makes these results difficult to generalize.

Limitations also existed within the context of the methodology. Within the instructions, it was not specified that participants could use a diagnostic manual, which could have led to some participants consulting it and others believing that they could not. If, however, the participants who normally would consult a diagnostic tool did not do so during the study because it was not specified that they could, then their participation in the study was not genuinely reflective of their real-world diagnostic practices. As this was an analogue study, and was investigating the way clinicians make diagnoses in “real world” settings, it would have been beneficial to clarify that participants were welcome to utilize any outside reference material if that is what they

would have done in practice. Additionally, the use of vignettes can be seen as problematic. While the vignettes that were developed for the study appear to be biased, as one was much more likely to receive a bipolar diagnosis and the other was much more likely to receive an ADHD diagnosis, I did attempt to make the vignettes seem “balanced.” It is notable, however, that the effect of client age on diagnosis was consistent across both vignettes. These brief cases in the vignettes lack the richness and complexity of a real-life clinician-patient interaction. Moreover, they might not contain sufficient information for the clinician to comfortably make a diagnosis. Vignettes such as this do, however, allow for the researcher to manipulate certain variables (such as age) while keeping others constant. Lastly, some limitations arose from the results of this research. One such limitation is that I was the only individual who coded the qualitative data. This means that interrater reliability cannot be established, and that errors in my coding may have occurred. Furthermore, some participants did not provide primary diagnoses, rule-outs, or follow up questions, and the missing data from these participants makes it difficult to draw conclusions.

There are many future directions that this line of research could take. Future research using vignette studies as well as directly surveying clinicians on their beliefs, knowledge, and diagnostic practices could be beneficial. Within the realm of vignette studies, one simple direction would be to vary the age of the client in the vignettes more. By including a younger child, an adolescent, an emerging adult, and an adult as the clients within otherwise identical vignettes could reveal a more detailed pattern of clinician diagnoses based on age. Another possible direction would be to include gender as a variable within the different vignettes. Gender bias has been shown to affect diagnoses of other disorders, and it is possible that gender could play a role in the differential diagnosis of ADHD and bipolar disorder (Eubanks-Carter &

Goldfried, 2006; Crosby & Sprock, 2004). Different sampling techniques could also be beneficial to allow for a more representative sample to be collected, in order to be able to draw more conclusions from the data. In addition, comparing clinicians who primarily deal with mood disorders and ADHD with other clinician subspecialties may also reveal certain diagnostic biases that these specialists may be more or less prone to having. Additionally, it might be interesting to more heavily survey clinicians-in-training to see if their diagnostic tendencies or practices differ from those with varying levels of professional experience. Lastly, it might be interesting to see how the inclusion of Disruptive Mood Dysregulation Disorder in the DSM-5 will affect the diagnosis of pediatric bipolar disorder in years to come.

The results of this study point to the idea that clinicians can be biased in the ways they differentially diagnose ADHD and bipolar disorder, but why these biases occur is still unclear. It is important to be aware of these biases when diagnosing a child or an adult with a mental illness in order to ensure that the stigma attached to the disorder as well as any treatment plans do not cause any harm to the patient. These results also suggest that clinicians should be made aware of the need to assess for the chronic vs. episodic distinction when a patient presents with these overlapping symptoms of bipolar disorder and ADHD. Careful diagnostic practices and asking appropriate follow up questions are important for ensuring patient safety and positive treatment outcomes.

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Table 1

Overall differences in primary diagnosis of Vignette A and Vignette B assigned by participants

	Vignette A	Vignette B
ADHD	13	29
Bipolar Disorder	24	8
Other	2	1

Table 2

Differences in diagnosis based on whether or not the patient in the vignette was an adult or a child for Vignette A

Vignette A	Child	Adult
ADHD	4 (16%)	9 (64%)
Bipolar Disorder	19 (76%)	5 (36%)
Other	2 (8%)	0 (0%)

*Significant difference in diagnoses assigned to the child and adult cases, $p = .008$

Table 3

Differences in diagnosis based on whether or not the patient in the vignette was an adult or a child for Vignette B

Vignette B	Child	Adult
ADHD	6 (46%)	23 (92%)
Bipolar Disorder	6 (46%)	2 (8%)
Other	1 (8%)	0 (0%)

*Significant difference in diagnoses assigned to the child and adult cases, $p = .006$

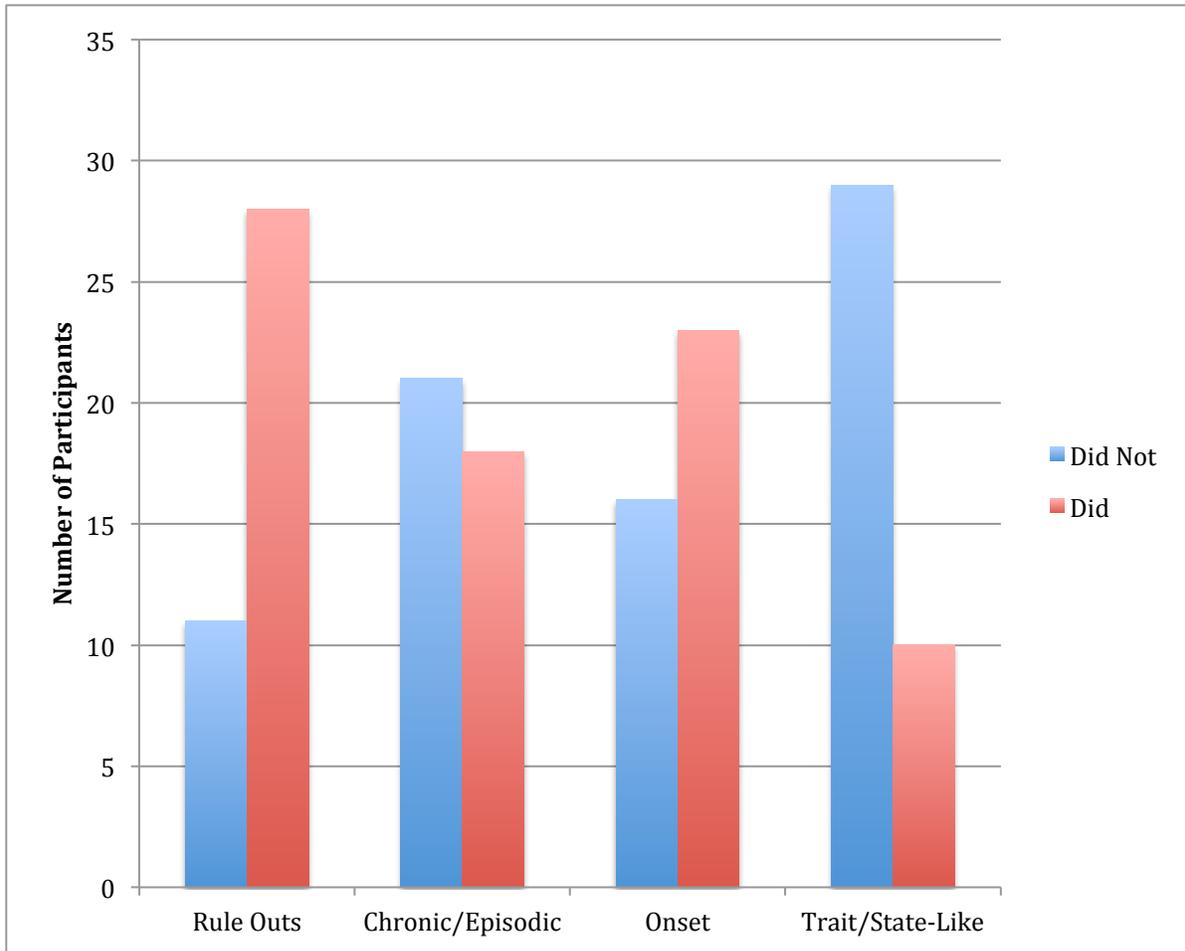


Figure 1. Analyses of rule-outs and follow up questions for Vignette A. This figure shows the frequency of participants including the opposite diagnosis from their primary diagnosis in their rule-outs (Rule-Outs), including questions that addressed if the patient’s symptoms were chronic or episodic (Chronic/Episodic), asking about the onset of the symptoms (Onset), and including questions that addressed whether the patient’s symptoms were trait-like or if they differed from his normal state.

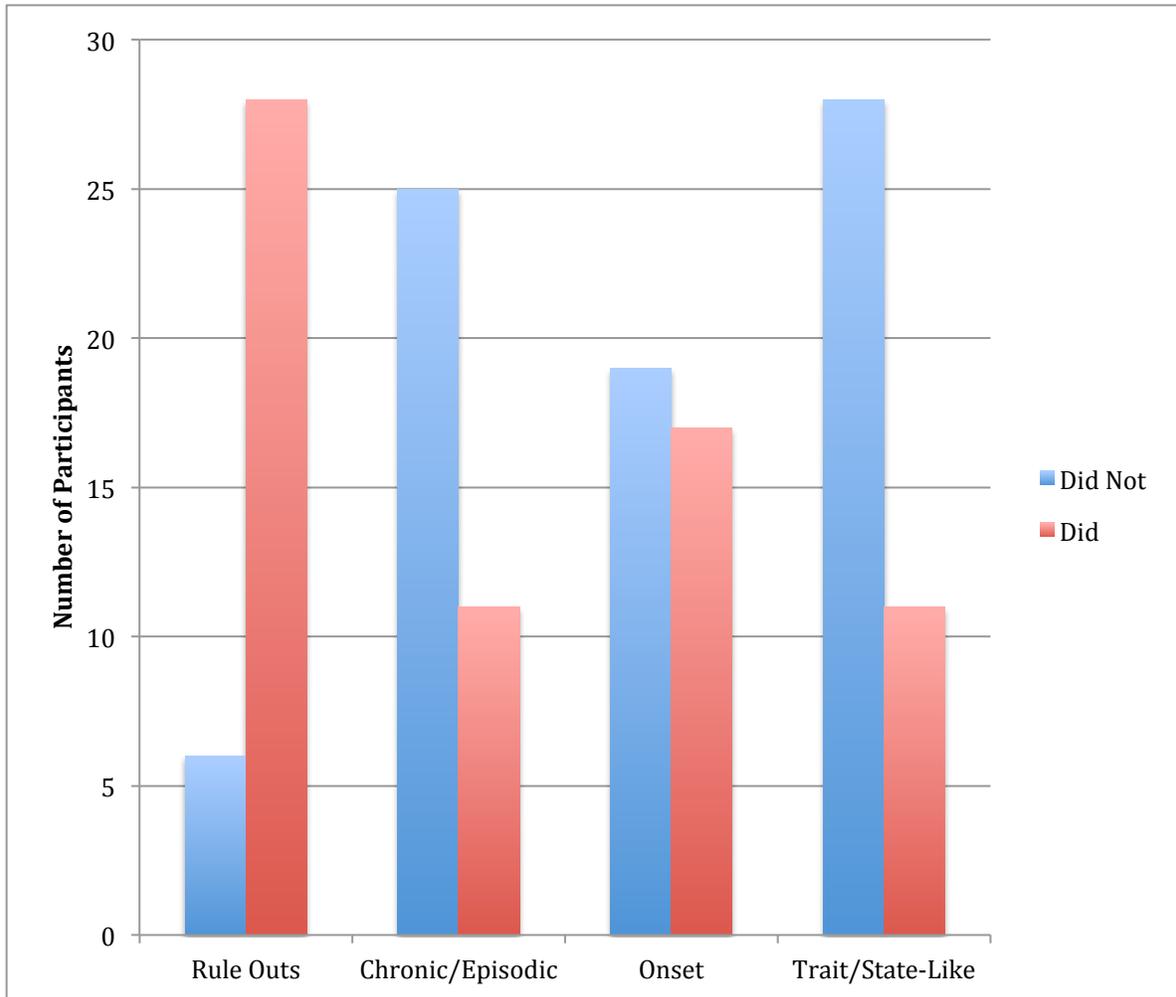


Figure 2. Analyses of rule-outs and follow up questions for Vignette B. This figure shows the frequency of participants including the opposite diagnosis from their primary diagnosis in their rule-outs (Rule-Outs), including questions that addressed if the patient’s symptoms were chronic or episodic (Chronic/Episodic), asking about the onset of the symptoms (Onset), and including questions that addressed whether the patient’s symptoms were trait-like or if they differed from his normal state.

Appendix

Vignettes

“Practice” Vignette:

Dave Brown is a 36-year-old male who was referred to you by his primary care physician because of recurring panic attacks that are severely impacting his ability to function at work. Mr. Brown reports that he only has these ‘episodes’ when he is at work. During these ‘episodes,’ Mr. Brown reports feeling as though his heart is racing uncontrollably, that he is about to faint, and that he experiences intense trembling, as well as profuse sweating. He says that the panic attacks began approximately 8 months ago, with approximately one panic attack every other week. He reports that within the last two months, the attacks have been occurring with greater frequency, up to four times a week. Mr. Brown states that the attacks are most likely to occur when he has to give a presentation or attend a board meeting. He also says that he has been calling into work sick lately because he fears having a panic attack at work, but is afraid that with all of his ‘sick days’ he will fall behind on his work and his job will be in jeopardy. Mr. Brown denied suicidal ideation, homicidal ideation, and psychotic symptoms.

Vignette A-Adult Version:

Matt Jones is a 46-year-old male who was referred to you by his primary care physician because of severe difficulties functioning at work. Mr. Jones is unable to sit still at his desk, follow through on his assignments and projects, frequently interrupts his boss and coworkers during meetings, and is easily distracted. Additionally, Mr. Jones reports that he has trouble preventing himself from interrupting others because his thoughts are racing and they “just have to come out.” During our initial interview, Mr. Jones’ speech appeared to be more rapid than what would be expected, especially in comparison to an adult his age. Over the past 6 months, Mr. Jones has had frequent emotional outbursts at work. These outbursts and work difficulties are putting Mr. Jones in danger of being fired from his job. His wife reports that his behavior at work is consistent with his behavior at home, and that his frequent outbursts and constant irritability are putting a lot of emotional strain on their family. Mr. Jones denied suicidal ideation, homicidal ideation, and psychotic symptoms.

Vignette A-Child Version:

Matt Jones is a 9-year-old male who was referred to you by his primary care physician because of severe difficulties functioning in a classroom setting at school. Matt is unable to sit still in class, follow through on his assignments, frequently interrupts his teachers and classmates, and is easily distracted. Additionally, Matt reports that he has trouble preventing himself from interrupting others because his thoughts are racing and they “just have to come out.” During our initial interview, Matt’s speech appeared to be more rapid than what would be expected, even of a child of his age. Over the past 6 months, Matt has had frequent emotional outbursts in his classroom. These outbursts and classroom difficulties are putting Matt in danger of being removed from his classroom, and potentially his school. His mother reports that his behavior at school is consistent with his behavior at home, and that his frequent outbursts and constant irritability are putting a lot of emotional strain on their family. Matt denied suicidal ideation, homicidal ideation, and psychotic symptoms.

Vignette B-Adult Version:

Joe Smith is a 46-year-old male who was referred to you by his primary care physician because of severe difficulties completing his duties at work as an insurance salesman. Mr. Smith appeared very irritable and was easily distracted during your initial interview. At work, he tells you that he spends as much time as possible out of his seat pacing his office due to his self-reported “energy that just needs to come out.” When asked about sleep, he reports only getting about 4 hours of sleep per night. For the past three months, Mr. Smith has been getting behind on his work, and has not been following through on his assignments. When recently confronted by his supervisor, Mr. Smith became extremely angry and began shouting at his boss. When asked about his recent performance at work, Mr. Smith replied, “I’m extremely good at my job, I’m the best salesman my company has ever seen.” This statement is incongruent with statements from his wife, who has expressed concern that he may lose his job, and that his poor performance at work is putting financial strain on their family and emotional strain on their relationship. Mr. Smith denied suicidal ideation, homicidal ideation, and psychotic symptoms.

Vignette B-Child Version:

Joe Smith is a 9-year-old male who was referred to you by his primary care physician because of severe difficulties completing his work at school. Joe appeared very irritable and was easily distracted during your initial interview. At school, he tells you that he spends as much time as possible out of his seat pacing the classroom due to his self-reported “energy that just needs to come out.” When asked about sleep, his mother reports that Joe only gets about 4 hours of sleep per night. For the past three months, Joe has been getting behind on his work, and has not been following through on his assignments. When recently sent to the principal’s office to discuss his recent progress in school with his teacher and guidance counselor, Joe became extremely angry and began shouting at the adults. When asked about his recent performance in school, Joe replied, “I’m really good at school, I’m the best student anyone has ever seen.” This statement is incongruent with statements from his mother, who has expressed concern that he may be removed from his school, and that his poor performance in class is putting emotional strain on their family. Joe denied suicidal ideation, homicidal ideation, and psychotic symptoms.

Questions

Based on the information given, please choose the ONE most likely principal DSM-IV diagnosis for this patient. (Please only list one diagnosis.)

Please list any rule-out diagnoses for this patient in order of their likelihood:

If you could only ask three follow-up questions to help diagnose this patient, what would they be?

Demographics:

What is your age?

___ years

What is your gender?

- Male
- Female
- Prefer not to answer

What is your race/ethnicity? (Check all that apply)

- Black/African American
- Asian/Pacific Islander
- Caucasian
- Hispanic/Latino
- Other

In what state(s) do you practice?

Professional Characteristics:

Are you a practicing mental health professional? (yes/no)

IF YES:

What type of mental health professional are you?

- Licensed Clinical Psychology
- Licensed Counseling Psychologist
- Licensed Mental Health Counselor
- Licensed Clinical Social Worker
- Psychiatrist
- Psychiatric Nurse Practitioner
- Other, specify: _____

How many years of professional experience do you have?

__ years

What degree(s) do you hold?

IF NO:

Are you currently in training to be a mental health professional? (yes/no)

IF YES:

What type of degree are you pursuing?

What type of mental health professional are training to be?

- Licensed Clinical Psychology
- Licensed Counseling Psychologist
- Licensed Mental Health Counselor
- Licensed Clinical Social Worker
- Psychiatrist
- Psychiatric Nurse Practitioner
- Other, specify: _____

How many years of clinical training have you had?

ALL PARTICIPANTS:

Do you have a specialty area of clinical practice? If so, what is it?

What is your clinical theoretical orientation?

Which populations do you most frequently work with (check all that apply)?

- Preschool
- School age
- Adolescent
- Adult