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Are ADHD Screeners Safe to Use?

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Abstract

Objective: To investigate whether administration of a common ADHD screener followed by generic feedback would affect college students' subsequent symptom reports and cognitive performance. **Method:** Participants were 157 college students randomly assigned to an experimental group—which completed the World Health Organization Adult ADHD Self-Report Scale screener and received standard generic feedback—or a control group. All participants then completed a battery of cognitive tasks and a long-form symptom rating scale. **Results:** The experimental and control groups did not differ significantly in terms of their subsequent symptom reports or their performance on any cognitive tasks. These null results remained after considering possibilities such as unequal group variances and interactions between screening effects and gender. **Conclusion:** When administered judiciously alongside generic feedback in a group setting, this common ADHD screener does not appear to affect college students' self-perceptions or cognitive abilities. *(J. of Att. Dis. 2019; 23(10) 1210-1216)*

Keywords
screening, diagnosis, experiment

ADHD diagnoses in young adults are rising, with about 5% of first-year college students having a diagnosis (Pryor, Hurtado, DeAngelo, Blake, & Tran, 2010). In the absence of any consensus about how best to identify ADHD in adults (Sibley et al., 2012), self-report of symptoms is the most commonly used method (Wender, Wolf, & Wasserstein, 2001). Self-reports of ADHD symptoms, however, are notably inaccurate compared with informant reports, especially in college students (Dvorsky, Langberg, Molitor, & Bourchtein, 2016). For example, people without ADHD tend to over-report symptoms (Sibley et al., 2010), and in a study comparing self-reported symptoms among students with and without ADHD diagnoses, symptoms were relatively common among students without ADHD diagnoses (Lewandowski, Lovett, Codding, & Gordon, 2008). Moreover, in the latter study, even though students with ADHD diagnoses reported having more symptoms, on average, than students without diagnoses, none of the individual *Diagnostic and Statistical Manual of Mental Disorders* (4th ed.; *DSM-IV*; American Psychiatric Association, 1994) symptoms of ADHD was both sensitive and specific to the diagnosis (Lewandowski et al., 2008). In clinical settings, self-reports of high symptom levels may also stem from a conscious desire for a stimulant medication prescription, as many college students without ADHD use the medication either recreationally or as a study aid (Benson, Flory, Humphreys, & Lee, 2015).

Despite these problems, the diagnosis of ADHD in college students often begins with a self-report screener. To develop evidence-based guidelines for ADHD screening, its benefits must be weighed against its harms (DeFrank et al., 2014). Unfortunately, in psychology, as in medicine more broadly, less attention has been paid to the potential harms of screening compared with its advantages. Screeners for various maladies can impose a psychological, physical, or financial burden before administration of the screener, after completing the screener but before results are received, or after a positive result (DeFrank et al., 2015; Harris et al., 2014; Woolf & Harris, 2012). For instance, up to 3 years after a mammography, women who received a false-positive result showed worse psychosocial outcomes (e.g., anxiety) compared with those with negative results (Brodersen & Siersma, 2013). Screening for mental disorders has considerable risks as well; depression screening in particular yields very high rates of false positives (Thombs et al., 2012), leading to costly prescriptions of medications whose side effects outweigh any benefits in nondepressed individuals. We designed the present study to investigate the potential negative effects of administering an ADHD screener in a college population. Specifically, we were interested in whether ADHD screening might alter students' perceptions of their symptoms and thereby interfere with their subsequent

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reporting on a full ADHD symptom inventory, or affect their ability to demonstrate skills (i.e., harm performance) on cognitive tasks requiring attention.

ADHD screening may affect subsequent self-reports of symptoms by increasing students' attention to their experiences of subtle problems consistent with ADHD symptomatology. After receiving screening results suggesting that they have some symptoms of ADHD or are in the clinical range, students may entertain the possibility that they have the disorder and become more attuned to ordinary attention lapses and other experiences they have had that are consistent with their understanding of the features characterizing ADHD (cf. Suhr & Wei, 2017). This increased self-attention may then affect the students' reports of symptoms during a comprehensive ADHD evaluation.

Experimental evidence indicates that simply being instructed to pay attention to one's thoughts, feelings, and sensations can increase college students' reports of psychological symptoms such as depressed mood and anxiety (Williams, Lees-Haley, & Price, 1998). Moreover, when individuals with a history of mild head injuries were told that a study was evaluating the effects of head injuries on cognitive functioning, they self-reported more cognitive problems in everyday life compared with control participants who also had a history of head injuries (Ozen & Fernandes, 2011), suggesting that the belief that one may be at risk for a particular set of problems could lead to attentional shifts that increase reports of those very problems. Extending this idea to the ADHD diagnosis, Privitera, Agnello, Walters, and Bender (2015) gave college students an ADHD screener. One week later, the students who had scored below the clinical threshold were then randomly assigned to receive honest feedback, no feedback, or dishonest feedback (i.e., that they had screened positive for ADHD). All students were then asked to complete the screener again (with the items re-ordered). The students who had been given dishonest feedback endorsed more ADHD symptoms (especially inattentive symptoms) on the second screening, with about half scoring in the clinical range. In contrast, participants who were given no feedback or negative feedback scored about the same on the second as on the first screener.

Privitera et al. (2015) had shown that deceiving students about their ADHD status could cause them to report symptoms consistent with the inaccurate information. While the effect was large and striking, it obviously has limited ecological validity; in real-world settings, clinicians do not (knowingly) provide inaccurate feedback based on ADHD screenings. However, because ADHD symptoms are common even in individuals without ADHD, we hypothesized that simply providing *accurate* feedback about ADHD screener results to people without ADHD diagnoses (e.g., "The more of these symptoms you endorsed, the greater the risk that you might have ADHD . . .")—representative of the feedback individuals receive in real-world screening situations—may be sufficient to increase individuals' attention to their possible ADHD symptoms and increase their self-report of symptoms on a subsequent inventory. Privitera et al. (2015) had not been able to explore such an effect in their pioneering study, as no group was given feedback like this. In addition, their participant groups were very small ($n = 18$ in each group), making it difficult to detect all possible effects.

Screening results indicating that a student has symptoms consistent with ADHD could also potentially affect subsequent cognitive performance. When college students are surveyed regarding their perceptions of peers, having ADHD is stereotypically associated with lower academic performance (Canu, Newman, Morrow, & Pope, 2008; Chew, Jensen, & Rosén, 2009; Jussim, Palumbo, Chatman, Madon, & Smith, 2000), and ADHD is in fact related to academic underachievement (e.g., Daley & Birchwood, 2010). Reminders of having or potentially having a disorder that is associated stereotypically with poor performance on certain tasks can induce "diagnosis threat" and create negative expectations for oneself and associated anxiety and working memory interference, impairing performance on those very tasks (Kit, Tuokko, & Mateer, 2008; Suhr & Gunstad, 2002; Suhr & Wei, 2013). For example, patients who reported multiple chemical sensitivity performed worse on neuropsychological tests of attention, processing speed, and memory when they believed they had been exposed to an allergen they were sensitive to, regardless of whether it was the actual allergen or a placebo (Smith & Sullivan, 2003). Recent research indicates that diagnosis threat effects extend to ADHD. In one study, participants who had ADHD and were reminded of the ADHD stereotype performed worse on a quantitative Graduate Record Examination (GRE)-like test than those who were not reminded (Foy, 2018). In another study, participants with ADHD who were reminded of their diagnosis performed worse on attention, memory, and intelligence tests compared with individuals with ADHD who were not reminded of their diagnostic status (Madathil, 2014).

Extending this body of research to individuals without ADHD diagnoses, Wei and Suhr (2015) administered an attention and working memory task—either described as diagnostic of ADHD or without any such potentially threatening description—to a selected sample of college students who scored in the upper half on an ADHD screener (but had no ADHD diagnosis) and who reported being highly concerned about having ADHD symptoms. Students who reported a greater number of ADHD symptoms on the screener (within this sample already selected for high scores on the screener) performed worse on the cognitive task when it was described as diagnostic of ADHD, compared with similar students who completed the task without the suggestion that performance on it might be related to having ADHD. However, because all students in this study had completed an ADHD screener (and, indeed, all were also highly concerned about their possible symptoms), the results do not permit inferences about whether *completing the screening itself* might have impaired performance, regardless of how the cognitive tasks were described. Nonetheless, based on the diagnosis-threat literature, we hypothesized that completing an ADHD screener and receiving accurate feedback would—by drawing participants' attention to their possible ADHD symptoms, raising anxiety about the possibility of attentional impairment, and creating negative performance expectancies—decrease performance on cognitive tasks that required controlled attention.

The Present Study

To test the hypotheses that administering an ADHD screener and providing standard interpretive information about the results would (Hypothesis 1 [H1]) amplify individuals' subsequent reporting of ADHD symptoms and (Hypothesis 2 [H2]) impair their performance on tasks demanding attention, we ran a controlled study in college students without ADHD diagnoses. The students in the experimental condition first completed a commonly used ADHD screening measure and were given the actual interpretive feedback associated with the measure. Control participants did not complete an ADHD screener. All students then completed both a full ADHD self-report symptom inventory and a series of tasks measuring processing speed and cognitive efficiency, areas in which individuals with ADHD often show performance deficits.

Method

Participants

Analyses were based on data from 157 students in sections of an introductory psychology course at a mid-sized public university in the Northeastern United States. Data from 13 additional students were discarded, due either to the participants' reporting having ADHD (n = 10) or due to extreme scores on performance measures suggesting extremely low effort (n = 3). Participants received a small amount of additional course credit (equivalent to less than 2% of their final course grade in introductory psychology) for their help with the study. The sample size used for analyses (n = 157) allowed for high power (88%) to detect medium-size (d = 0.5) differences between the experimental and control groups (according to analyses conducted with G*Power; Faul, Erdfelder, Lang, & Buchner, 2007).

Most of the participants were either first-year (52.9%) or second-year (33.1%) students, most (73.2%) were women, and most (77.1%) identified as Caucasian. A small number reported a history or current diagnosis of various disabilities or disorders other than ADHD: learning disabilities (n = 1), anxiety (n = 16), depression (n = 9), and traumatic brain injury (n = 5). Finally, almost identical numbers of participants were randomly assigned to experimental (n = 79) or control (n = 78) sessions. Chi-square tests found no significant relationships between experimental group assignment and class year (p = .22), ethnicity (p = .72), or gender (p = .44)

Materials

ADHD screening measure. The six-item screener ("Part A") from the Adult ADHD Self-Report Scale (ASRS; Kessler et al., 2005) was used to screen participants in the experimental group for ADHD. Each of the six items concerns a different symptom of ADHD (e.g., problems remembering appointments or obligations), and participants rated the frequency (on a 5-point scale, from *never* to *very often*) with which they had experienced each of the symptoms over the previous 6 months. Each of the six items has a threshold associated with clinical significance (at least a rating of *sometimes* for three of the items, and at least a rating of *often* for the other three items), and rating four or more items above the threshold indicates substantially increased risk for having adult ADHD. The ASRS has good reliability and classification accuracy (Kessler et al., 2005).

Comprehensive ADHD self-report measure. The long-form self-report version of the Conners Adult ADHD Rating Scale (CAARS-S:L; Conners, Erhardt, & Sparrow, 1999) was used to assess different areas of ADHD symptoms. The CAARS-S: L has 66 items, each asking about how frequently (on a 4-point Likert-type scale) the rater has exhibited a particular behavior or had a particular experience "recently." The measure yields eight T-scores (M = 50, SD = 10, approximately), labeled "A" though "H." Scores A, B, and C measure inattention/memory problems, hyperactivity/restlessness, and impulsivity/emotional lability, respectively. Score D measures self-concept, not an area of ADHD symptoms. Scores E, F, and G are keyed to the *DSM* inattentive symptoms, *DSM* hyperactive/impulsive symptoms, and *DSM* total symptoms. Finally score H, the "ADHD Index" is based on responses to the items that best discriminated empirically between ADHD and non-ADHD groups. The CAARS-S: L scores have good reliability (e.g., internal consistency reliability coefficients generally between .80 and .90) as well as a variety of supportive validity evidence (Conners et al., 1999).

Performance measures. Three tasks from the Woodcock–Johnson IV Tests of Cognitive Abilities (WJ-IV; Schrank, McGrew, & Mather, 2014) were used to assess participants' processing speed and cognitive efficiency more generally: Letter-Pattern Matching (LPM), Number-Pattern Matching

(NPM), and Pair Cancelation (PC). The LPM task required participants to quickly identify two of the same alphabet letter within a larger set of stimuli; the NPM task did the same thing with numerical stimuli. The PC task required participants to circle instances of a particular picture sequence within a large set of different pictures. All three tasks yield scores with good-to-excellent reliability (test–retest reliability coefficients between .88 and .95) and considerable validity evidence (McGrew, LaForte, & Schrank, 2014).

The WJ-IV tasks were chosen because all three involve complex, visually "busy" stimuli and require participants to sustain attention in the face of distraction (Decker, Davis, Eason, Bridges, & Vasel, 2016). Many individuals with ADHD have trouble on processing speed tasks (Calhoun & Mayes, 2005), and the tasks also have face validity for measuring attention, so that participants who *expected* to have trouble with attention might also expect to do poorly on the tasks.

In addition to the WJ-IV tasks, a math calculation task was devised by the researchers to further assess cognitive efficiency. The task was chosen to be one that all participants would be able to do (3 × 4-digit addition problems—for example, 475 + 759 + 283 + 820) but where the time constraint (5 min) would yield variability in performance. Such a task requires working memory as well as processing speed (when under time-pressure), and individuals with ADHD often show deficits on speeded mathematics tests (e.g., Lewandowski, Lovett, Parolin, Gordon, & Codding, 2007).

Procedure

Participants were tested in groups of five to 10 students at a time, in a quiet classroom. Each testing session was randomly chosen to be an *experimental* session or a *control* session. Both types of sessions started with a sign-in (to allow for awarding participation credit), an informed consent procedure, and then the CAARS, WJ-IV measures, and math calculation task in a counterbalanced order, followed by a demographic information form that included an item asking students to rate their level of concern over possibly having ADHD on a scale from 1 to 10.

In the experimental sessions, after the informed consent, participants were given the ASRS screener and then the official interpretation of the measure, that (a) if four or more items were rated above the clinical cutoffs, "that indicates that you have symptoms highly consistent with ADHD in adults" (see, for example, Surman, 2013) and even if that standard was not met, (b) "the more frequently that you reported having the experiences described in the items, the more likely it is that you would meet criteria for ADHD." The experimental sessions also concluded with a debriefing in which participants were reminded that their score on the ASRS was not the same as a diagnosis of ADHD, and participants were encouraged to speak to a health care professional if concerned about their symptoms. The control participants never completed the ASRS screener and never received any feedback regarding their responses or performance on the battery.

Results

To test our two hypotheses (see above) about the effect of ADHD screenings, we conducted a series of t tests on two sets of dependent variables. The first set consisted of eight scores from the CAARS self-report scale, testing whether screenings amplified participants' subsequent self-perceptions regarding their ADHD symptoms (H1). The second set of dependent variables consisted of scores from performance measures of processing speed, cognitive efficiency, and mathematical skill, testing whether screenings would impair cognitive performance (H2). In addition, we added one more dependent variable: participants' self-reported concern that they might have ADHD; although we know of no research that has so far examined this, we were curious as to whether screenings might simply increase concern.

Table 1 presents the two groups' means and standard deviations on all dependent measures, along with the inferential statistics for the group comparisons. With regard to the descriptive statistics, means and standard deviations were well within expected ranges, based on theory and prior research. On the CAARS, where T-scores are expected to have a distribution of approximately $M = 50$ and $SD = 10$, both of our groups showed such a distribution. On the WJ-IV subtests, means were centered on age and grade expectations (according to interpretations for raw scores in the WJ-IV administration booklet).

We also computed correlation matrices between all dependent variables for each of the two groups and found expected relationships between variables. The different WJ-IV processing speed measures showed significant, consistent intercorrelations with each other (all p values < .001), as did the CAARS subscales (all p values < .01)—with the exception of the Self-Concept subscale (which is not expected to be substantially related to ADHD symptoms, and is included on the CAARS to screen for secondary low self-regard).

We computed t tests for each of the dependent variables: the three WJ-IV subtests, the math test, the level of concern over possibly having ADHD, and the eight CAARS subscales. None of the t tests showed a significant difference between the experimental and control groups, even at the $p < .05$ level without correcting for familywise Type I error. This consistent null finding was not due to unequal variances between the groups; all but one of the variables showed equal variances (according to Levene tests that were conducted), and the t test statistics were not significant whether or not equal variances were assumed. The null findings were also apparently not due to interactions between gender and the independent variable; we ran t tests

Table 1. Group Comparisons on Dependent Variables.

	Control group (n = 79)		Experimental group (n = 78)			
	M	*SD*	*M*	*SD*	*t*	*d*
WJ-IV Letter-Pattern Matching	58.89	5.99	59.80	6.27	−0.91	−0.15
WJ-IV Number-Pattern Matching	58.61	6.83	59.87	5.78	−1.24	−0.20
WJ-IV Pair Cancelation	88.85	13.93	88.82	13.33	0.01	0.00
Mathematics Test	9.57	4.80	10.29	4.08	−1.00	−0.15
Concern over possibly having ADHD	2.85	2.32	3.55	2.66	−1.77	−0.28
CAARS Inattention/Memory	51.23	9.35	49.38	9.02	1.25	0.20
CAARS Hyperactivity	53.59	8.41	51.68	8.87	1.38	0.22
CAARS Impulsivity/Emotional Lability	48.46	10.02	49.35	11.09	−0.53	−0.08
CAARS Self-Concept	51.16	9.32	50.10	9.87	0.69	0.11
CAARS *DSM* Inattentive Symptoms	56.38	11.36	54.03	13.07	1.20	0.19
CAARS *DSM* Hyperactive/Impulsive Symptoms	51.70	8.52	50.30	10.68	0.90	0.14
CAARS *DSM* Total Symptoms	55.28	10.04	53.22	12.85	1.12	0.18
CAARS ADHD Index	52.51	8.93	50.41	9.30	1.44	0.23

Note. WJ-IV = Woodcock–Johnson IV Tests of Cognitive Abilities; CAARS = Conners Adult ADHD Rating Scale; *DSM* = *Diagnostic and Statistical Manual of Mental Disorders*.
*p < .05.

separately for male and female participants, and of the 26 resulting test statistics, only three yielded p values below .05, and none yielded values below .025 (an α value that would still be far too liberal to correct for the familywise Type I error from running so many tests). In addition, inspection of the effect sizes for the group comparisons shows d values ranging from zero to what are generally considered small effect sizes (Cohen, 1992), with inconsistent direction (even within groupings of measures that are scored in the same direction).

Finally, we calculated the proportion of the participants in the experimental condition who received a positive screening result on the ASRS: 25.6% (20 of the 78 participants in that condition) endorsed at least four of the six ASRS items above the relevant thresholds. Supplemental t tests found that experimental participants who screened positive went on to earn significantly higher CAARS scores than those who screened negative, but of course that is unlikely to be due to the feedback. It is possible that a positive screening affects self-perceptions or subsequent performance, but because participants in the control condition never completed the ASRS, we did not have a valid comparison group for the 20 positive-screened experimental participants. Moreover, the feedback included a statement to the effect that even if the screening threshold was not met, endorsing more items was associated with a higher likelihood of having ADHD.

Discussion

In a controlled, well-powered study of college students without ADHD diagnoses, we found that administering an ADHD screener and providing standard interpretive feedback had no significant effects on (a) students' subsequent reporting of ADHD symptoms and (b) their performance on cognitive tasks. These results build upon those of Privitera et al. (2015); when post-screening feedback accurately indicated that an individual may have some ADHD symptoms, this was not sufficient to inflate reporting of such symptoms on a full ADHD self-report inventory among students without ADHD diagnoses. Our results also suggest a boundary on Madathil's (2014) finding that reminding individuals with ADHD of their diagnostic status hurts their performance on cognitive tasks; in our study, in individuals *without* ADHD diagnoses, feedback that they may have endorsed some ADHD symptoms on a screener was not sufficient to affect subsequent cognitive performance. Although Wei and Suhr (2015) found that a subsample of students without ADHD diagnoses—those who scored especially high on an ADHD screener and who were especially concerned about their possible ADHD symptoms—performed worse on cognitive tasks when the tasks were described as diagnostic of ADHD, our findings indicate that this effect may be quite circumscribed, and should not be generalized to suggest that simply completing an ADHD screener would interfere with subsequent cognitive performance for individuals without ADHD.

Four potential limitations in our experimental design point to worthwhile directions for future research. First, the experimental intervention was weaker than what is the case in some real-world screening situations, insofar as students were merely read standardized official feedback to help them interpret their responses on the ADHD screener. Of course, this is exactly the type of feedback that some students receive during, for example, mental health screening days at universities, but we cannot infer from the current study whether our null effects would hold if students were instead to receive detailed, individualized feedback from a treating health care professional. Second, because we did not establish equivalency between the experimental and control groups in their levels of ADHD symptoms prior to the intervention, it is possible that our random assignment nonetheless led to non-equivalent groups, obscuring effects of the screening. Third, although we found no effects of gender in our analyses, three quarters of our participants were women (a distribution consistent with recent research showing that most new adult ADHD diagnoses in the United States are in women; for example, Anderson et al., 2018), leaving relatively few men in our sample; future research with even greater statistical power might better identify any potential gender differences in responses to the interpersonal dynamics of ADHD screenings. Finally, as participants in the experimental group completed the battery of dependent measures immediately after receiving feedback on the screener, it was not possible to detect any effects that come from letting the feedback "sink in." Future research should extend these results to examine the effects of one-on-one testing and feedback, allowing time between feedback and subsequent assessment as well.

Conclusion

Screening tests for medical and psychological conditions are no longer assumed to be benign. Indeed, researchers have increasingly argued that screening certain populations for conditions as diverse as prostate cancer (Moyer, 2012) and depression (Thombs & Ziegelstein, 2017) may entail more harm than benefit. Although replication and extension to other samples and screening contexts will be necessary to establish the generalizability of our results, the present study provides preliminary evidence that screening for ADHD in healthy college students does not significantly distort subsequent reporting on a full ADHD symptom inventory or contaminate performance on tasks demanding attentional resources. To the extent that ADHD screeners do not affect self-report of symptoms or cognitive task performance within a specified population, they are less likely to lead to over-identification and over-treatment of ADHD, and can thus be considered safe to use as an initial step in determining whether a diagnostic evaluation is warranted.

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References

American Psychiatric Association. (1994). *Diagnostic and statistical manual of mental disorders* (4th ed.). Washington, DC: Author.

Anderson, K. N., Ailes, E. C., Danielson, M., Lind, J. N., Farr, S. L., Broussard, C. S., & Tinker, S. C. (2018). Attention-deficit/hyperactivity disorder medication prescription claims among privately insured women aged 15-44 years—United States, 2003-2015. *Morbidity and Mortality Weekly Report*, *67*(2), 66-70.

Benson, K., Flory, K., Humphreys, K. L., & Lee, S. S. (2015). Misuse of stimulant medication among college students: A comprehensive review and meta-analysis. *Clinical Child and Family Psychology Review*, *18*, 50-76.

Brodersen, J., & Siersma, V. D. (2013). Long-term psychosocial consequences of false-positive screening mammography. *The Annals of Family Medicine*, *11*, 106-115.

Calhoun, S. L., & Mayes, S. D. (2005). Processing speed in children with clinical disorders. *Psychology in the Schools*, *42*, 333-343.

Canu, W. H., Newman, M. L., Morrow, T. L., & Pope, D. L. W. (2008). Social appraisal of adult ADHD. *Journal of Attention Disorders*, *11*, 700-710.

Chew, B. L., Jensen, S. A., & Rosén, L. A. (2009). College students' attitudes toward their ADHD peers. *Journal of Attention Disorders*, *13*, 271-276.

Cohen, J. (1992). A power primer. *Psychological Bulletin*, *112*, 155-159.

Conners, C. K., Erhardt, D., & Sparrow, E. (1999). *Conners' Adult ADHD Rating Scales: Technical manual*. North Tonawanda, NY: Multi-Health Systems.

Daley, D., & Birchwood, J. (2010). ADHD and academic performance: Why does ADHD impact on academic performance and what can be done to support ADHD children in the classroom? *Child: Care, Health, and Development*, *36*, 455-464.

Decker, S. L., Davis, A. S., Eason, M., Bridges, R., & Vasel, L. M. (2016). *Assessment of executive functions using the Woodcock-Johnson IV Tests of Cognitive Abilities (Woodcock-Johnson IV Assessment Service Bulletin No. 9)*. Itasca, IL: Houghton Mifflin Harcourt.

DeFrank, J. T., Barclay, C., Sheridan, S., Brewer, N. T., Gilliam, M., Moon, A. M., . . . Harris, R. (2015). The psychological harms of screening: The evidence we have versus the evidence we need. *Journal of General Internal Medicine*, *30*, 242-248.

Dvorsky, M. R., Langberg, J. M., Molitor, S. J., & Bourchtein, E. (2016). Clinical utility and predictive validity of parent and college student symptom ratings in predicting an ADHD diagnosis. *Journal of Clinical Psychology*, *72*, 401-418.

Faul, F., Erdfelder, E., Lang, A. G., & Buchner, A. (2007). G* Power 3: A flexible statistical power analysis program for the social, behavioral, and biomedical sciences. *Behavior Research Methods*, *39*, 175-191.

Foy, S. L. (2018). Challenges from and beyond symptomatology: Stereotype threat in young adults with ADHD. *Journal of Attention Disorders*, *22*, 309-320. doi:1087054715590159

Harris, R. P., Sheridan, S. L., Lewis, C. L., Barclay, C., Vu, M. B., Kistler, C. E., . . . Brewer, N. T. (2014). The harms of screening: A proposed taxonomy and application to lung cancer screening. *JAMA Internal Medicine*, *174*, 281-286.

Jussim, L., Palumbo, P., Chatman, C., Madon, S., & Smith, A. (2000). Stigma and self-fulfilling prophesies. In T. F. Heatherton, R. E. Kleck, M. R. Hebl, & J. G. Hull (Eds.), *The social psychology of stigma* (pp. 374-418). New York, NY: Guilford Press.

Kessler, R. C., Adler, L., Ames, M., Demler, O., Faraone, S., Hiripi, E. V. A., . . . Ustun, T. B. (2005). The World Health Organization Adult ADHD Self-Report Scale (ASRS): A short screening scale for use in the general population. *Psychological Medicine*, *35*, 245-256.

Kit, K. A., Tuokko, H. A., & Mateer, C. A. (2008). A review of the stereotype threat literature and its application in a neurological population. *Neuropsychology Review*, *18*, 132-148.

Lewandowski, L. J., Lovett, B. J., Codding, R. S., & Gordon, M. (2008). Symptoms of ADHD and academic concerns in college students with and without ADHD diagnoses. *Journal of Attention Disorders*, *12*, 156-161.

Lewandowski, L. J., Lovett, B. J., Parolin, R., Gordon, M., & Codding, R. S. (2007). Extended time accommodations and the mathematics performance of students with and without ADHD. *Journal of Psychoeducational Assessment*, *25*, 17-28.

Madathil, R. L. (2014). *Diagnosis threat in adults with attention deficit hyperactivity disorder* (Doctoral dissertation). University of Montana, Missoula.

McGrew, K. S., LaForte, E. M., & Schrank, F. A. (2014). *Woodcock-Johnson IV technical manual*. Rolling Meadows, IL: Riverside.

Moyer, V. A. (2012). Screening for prostate cancer: U.S. Preventive Services Task Force recommendation statement. *Annals of Internal Medicine*, *157*, 120-134.

Ozen, L. J., & Fernandes, M. A. (2011). Effects of “diagnosis threat” on cognitive and affective functioning long after mild head injury. *Journal of the International Neuropsychological Society*, *17*, 219-229.

Privitera, G. J., Agnello, J. E., Walters, S. A., & Bender, S. L. (2015). Randomized feedback about diagnosis influences statistical and clinical significance of self-report ADHD assessment in adults. *Journal of Attention Disorders*, *19*, 447-451.

Pryor, J. H., Hurtado, S., DeAngelo, L., Blake, L. P., & Tran, S. (2010). *The American freshman: National norms 2010*. Los Angeles: Higher Education Research Institute, University of California, Los Angeles.

Schrank, F. A., McGrew, K. S., & Mather, N. (2014). *Woodcock-Johnson IV Tests of Cognitive Abilities*. Rolling Meadows, IL: Riverside.

Sibley, M. H., Pelham, W. E., Jr., Molina, B. S., Gnagy, E. M., Waxmonsky, J. G., Waschbusch, D. A., . . . Kuriyan, A. B. (2012). When diagnosing ADHD in young adults emphasize informant reports, DSM items, and impairment. *Journal of Consulting and Clinical Psychology*, *80*, 1052-1061.

Sibley, M. H., Pelham, W. E., Jr., Molina, B. S., Waschbusch, D. A., Gnagy, E. M., Babinski, D. E., & Biswas, A. (2010). Inconsistent self-report of delinquency by adolescents and young adults with ADHD. *Journal of Abnormal Child Psychology*, *38*, 645-656.

Smith, S., & Sullivan, K. (2003). Examining the influence of biological and psychological factors on cognitive performance in chronic fatigue syndrome: A randomized, double-blind, placebo-controlled, crossover study. *International Journal of Behavioral Medicine*, *10*, 162-173.

Suhr, J. A., & Gunstad, J. (2002). “Diagnosis threat”: The effect of negative expectations on cognitive performance in head injury. *Journal of Clinical and Experimental Neuropsychology*, *24*, 448-457.

Suhr, J. A., & Wei, C. (2013). Response expectancies and their potential influence in neuropsychological evaluation. In P. A. Arnett (Ed.), *Secondary influences on neuropsychological test performance* (pp. 182-200). New York, NY: Oxford University Press.

Suhr, J. A., & Wei, C. (2017). Attention deficit/hyperactivity disorder as an illness identity: Implications for neuropsychological practice. In K. B. Boone (Ed.), *Neuropsychological evaluation of somatoform and other functional somatic conditions: Assessment primer* (pp. 251-273). New York, NY: Oxford University Press.

Surman, C. B. H. (2013). Clinical assessment of ADHD in adults. In C. B. H. Surman (Ed.), *ADHD in adults: A practical guide to evaluation and management* (pp. 19-44). New York, NY: Springer.

Thombs, B. D., Coyne, J. C., Cuijpers, P., De Jonge, P., Gilbody, S., Ioannidis, J. P., . . . Ziegelstein, R. C. (2012). Rethinking recommendations for screening for depression in primary care. *Canadian Medical Association Journal*, *184*, 413-418.

Thombs, B. D., & Ziegelstein, R. C. (2017). Primary care doctors should not screen their patients for depression. *Expert Review of Neurotherapeutics*, *17*, 645-647.

Wei, C., & Suhr, J. A. (2015). Examination of the role of expectancies on task performance in college students concerned about ADHD. *Applied Neuropsychology: Adult*, *22*, 204-208.

Wender, P. H., Wolf, L. E., & Wasserstein, J. (2001). Adults with ADHD. *Annals of the New York Academy of Sciences*, *931*, 1-16.

Williams, C. W., Lees-Haley, P. R., & Price, J. R. (1998). Self-attention and reported symptoms: Implications for forensic assessment. *Professional Psychology: Research and Practice*, *29*, 125-129.

Woolf, S. H., & Harris, R. (2012). The harms of screening: New attention to an old concern. *Journal of the American Medical Association*, *307*, 565-566.

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