The Impact of DSM-5 A-Criteria Changes on Parent Ratings of ADHD in Adolescents

Margaret H. Sibley1 and Carlos E. Yeguez2

Abstract
Objective: Diagnostic and Statistical Manual of Mental Disorders (5th ed.; DSM-5) A-criteria for ADHD were expanded to include new descriptors referencing adolescent and adult symptom manifestations. This study examines the effect of these changes on symptom endorsement in a sample of adolescents with ADHD (N = 259; age range = 10.72-16.70). Method: Parent ratings were collected and Diagnostic and Statistical Manual of Mental Disorders (4th ed., text rev.; DSM-IV-TR) and DSM-5 endorsement of ADHD symptoms were compared. Results: Under the DSM-5, there were significant increases in reported inattention, but not hyperactivity/impulsivity (H/I) symptoms, with specific elevations for certain symptoms. The average adolescent met criteria for less than one additional symptom under the DSM-5, but the correlation between ADHD symptoms and impairment was attenuated when using the DSM-5 items. Impulsivity items appeared to represent adolescent deficits better than hyperactivity items. Results were not moderated by demographic factors. Conclusion: In a sample of adolescents with well-diagnosed DSM-IV-TR ADHD, developmental symptom descriptors led parents to endorse slightly more symptoms of inattention, but this elevation is unlikely to be clinically meaningful. (J. of Att. Dis. XXXX; XX(X) XX-XX)

Keywords
DSM-5, adolescents, diagnosis

A chief concern with the Diagnostic and Statistical Manual of Mental Disorders (DSM) criteria for ADHD is the appropriateness of these symptoms for adolescents and adults. As individuals with ADHD move through the adolescent and adult years, their DSM symptom severity appears to diminish (Fischer, Barkley, Fletcher, & Smallish, 1993; Hart et al., 1995; Molina et al., 2009; Willoughby, 2003), despite often mounting functional impairments (Barkley, Murphy, & Fischer, 2008; Molina et al., 2009; Wolraich et al., 2005). For example, despite meeting criteria for fewer DSM symptoms of ADHD in adolescence and adulthood (Sibley, Pelham, Molina, Gnagy, Waschbusch, et al., 2012a; Sibley, Pelham, Molina, Gnagy, Waxmonsky, et al., 2012b), older individuals with ADHD are prone to serious problems with the law (Barbareis, 2008; Mannuzza, Klein, & Moulton, 2008), drug and alcohol addiction (Charach, Yeung, Climans, & Lillie, 2011; Lee, Humphreys, Flory, Liu, & Glass, 2011), significant academic and work-related impairments (Barbarei, Katusic, Colligan, Weaver, & Jacobsen, 2007; Kent et al., 2011; Kuriyan et al., 2013), and interpersonal difficulties (Bagwell, Molina, Pelham, & Hoza, 2001).

In the face of this contradiction, there is evidence that some ADHD symptoms may be developmentally inappropriate for older individuals (Conners, Sitarenios, Parker, & Epstein, 1998; Molina, Smith, & Pelham, 2001; Sibley, Pelham, Molina, Gnagy, Waschbusch, et al., 2012a; Sibley, Pelham, Molina, Gnagy, Waxmonsky, et al., 2012b). The Diagnostic and Statistical Manual of Mental Disorders (4th ed., text rev.; DSM-IV-TR; American Psychiatric Association [APA], 2000) predominantly describes childhood manifestations of the disorder (e.g., running about and climbing on furniture, leaving one’s seat in the classroom; APA, 2000), although some symptoms are developmentally ubiquitous (e.g., difficulty sustaining attention, avoiding tasks that require mental effort). It is likely that diagnostic informants sometimes fail to recognize impairing ADHD symptoms in adolescents and adults due to changes in symptom expression that are not specified in the DSM (Faraone, Biederman, & Spencer, 2010; Fedele, Hartung, Canu, & Wilkowsk, 2010).
we hypothesized that compared with hyperactivity DSM-5ularly for hyperactivity/impulsivity (H/I) items. However, increases in individual symptom endorsement rates, partic-
sized that the descriptors would lead to significant impairment than symptoms. We also hypothe-
sized that ADHD symptoms would relate more strongly to adolescent criteria and those of ADHD symptoms under the DSM-5 would meet criteria for a significantly greater number dimensional and item levels. We hypothesized that adoles-
5 = 259) and DSM-IV-TR ADHD (N = 259) who participated in federally funded research trials at a large university research clinic in urban South Florida. In both studies, participants were required to (a) meet DSM-IV-TR diagnostic criteria for ADHD (APA, 2000), (b) be enrolled in school, (c) have an estimated IQ of 80 or higher, and (d) have no history of an autism spectrum disorder. Both randomized controlled trials evaluated a psychosocial treatment for adolescents with ADHD (Summer Treatment Program-Adolescent; Sibley et al., 2011; Supporting Teens’ Academic Needs Daily, Sibley et al., 2013). Table 1 provides demographic and clinical characteristics of the combined samples.

Method

Participants

The current study combines data from two samples of adolescents diagnosed with DSM-IV-TR ADHD (N = 259) who participated in federally funded research trials at a large university research clinic in urban South Florida. In both studies, participants were required to (a) meet DSM-IV-TR diagnostic criteria for ADHD (APA, 2000), (b) be enrolled in school, (c) have an estimated IQ of 80 or higher, and (d) have no history of an autism spectrum disorder. Both randomized controlled trials evaluated a psychosocial treatment for adolescents with ADHD (Summer Treatment Program-Adolescent; Sibley et al., 2011; Supporting Teens’ Academic Needs Daily, Sibley et al., 2013). Table 1 provides demographic and clinical characteristics of the combined samples.

Procedures

Recruitment and intake procedures were similar in both studies. Study participants were recruited through direct school mailings and parent inquiries at the university research clinic. For all potential participants, the primary caretaker was administered a brief phone screen containing the DSM-IV-TR ADHD symptoms and questions about functional impairment. Families were invited to an intake assessment to determine study eligibility if the parent endorsed on the phone screen: (a) a previous diagnosis of ADHD or six or more symptoms of either inattention or H/I (APA, 2000) and (b) clinically significant problems in daily life functioning (at least a “3” on a “0-6” impairment scale; Fabiano et al., 2006).

At an intake assessment, informed parental consent and youth assent were obtained. The primary caretaker participated in the assessment, but when available, other parents were encouraged to provide supplemental information. During the assessment, ADHD diagnosis was assessed through a combination of parent structured interview (Computerized Diagnostic Interview Schedule for Children; Shaffer, Fisher, Lucas, Dulcan, & Schwab-Stone, 2000) and Parent and Teacher Rating Scales (Pelham, Gnagy, Greenslade, & Milich, 1992), as is the standard and recom-
mended practice in the field (Pelham, Fabiano, & Massetti, 2005). In addition, the clinician administered a brief
Table 1. Demographic and Diagnostic Characteristics of the Sample.

<table>
<thead>
<tr>
<th>Characteristic</th>
<th>M (SD)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age</td>
<td>12.85 (1.36)</td>
</tr>
<tr>
<td>Sex (%)</td>
<td></td>
</tr>
<tr>
<td>Male</td>
<td>69.5</td>
</tr>
<tr>
<td>Female</td>
<td>30.5</td>
</tr>
<tr>
<td>Race/ethnicity (%)</td>
<td></td>
</tr>
<tr>
<td>Non-Hispanic White</td>
<td>7.4</td>
</tr>
<tr>
<td>Hispanic Any Race</td>
<td>77.8</td>
</tr>
<tr>
<td>Black</td>
<td>11.3</td>
</tr>
<tr>
<td>Mixed Race</td>
<td>3.5</td>
</tr>
<tr>
<td>Highest parent education level (%)</td>
<td></td>
</tr>
<tr>
<td>High school or less</td>
<td>20.8</td>
</tr>
<tr>
<td>Some college or technical training</td>
<td>22.0</td>
</tr>
<tr>
<td>Bachelor’s degree</td>
<td>36.0</td>
</tr>
<tr>
<td>Master’s degree or higher</td>
<td>21.2</td>
</tr>
<tr>
<td>Single parent household (%)</td>
<td>38.6</td>
</tr>
<tr>
<td>Diagnostic</td>
<td></td>
</tr>
<tr>
<td>Estimated Full Scale IQ, M (SD)</td>
<td>97.63 (12.24)</td>
</tr>
<tr>
<td>Reading Achievement Standard Score, M (SD)</td>
<td>99.62 (13.35)</td>
</tr>
<tr>
<td>Math Achievement Standard Score, M (SD)</td>
<td>96.75 (16.52)</td>
</tr>
<tr>
<td>DSM-IV-TR ADHD diagnosis (%)</td>
<td></td>
</tr>
<tr>
<td>ADHD-PI</td>
<td>37.5</td>
</tr>
<tr>
<td>ADHD-C</td>
<td>62.1</td>
</tr>
<tr>
<td>ADHD-PHI</td>
<td>0.40</td>
</tr>
<tr>
<td>LD (%)</td>
<td>16.1</td>
</tr>
<tr>
<td>ODD (%)</td>
<td>39.8</td>
</tr>
<tr>
<td>CD (%)</td>
<td>9.0</td>
</tr>
<tr>
<td>Current ADHD medication (%)</td>
<td>39.4</td>
</tr>
</tbody>
</table>

Note. DSM-IV-TR = Diagnostic and Statistical Manual of Mental Disorders (4th ed., text rev.); ODD = Oppositional Defiant Disorder; CD = Conduct Disorder; ADHD-PI = ADHD- Predominantly Inattentive Type; ADHD-C = ADHD Combined Type; ADHD-PHI = ADHD Predominantly Hyperactive/Impulsive Type.

Measures

DSM-IV-TR ADHD symptoms. Parent report of the adolescent’s DSM-IV-TR ADHD symptoms was obtained using the DBD Rating Scale (DBD; Pelham et al., 1992). The DBD lists the DSM-IV-TR symptoms of ADHD, Oppositional Defiant Disorder (ODD), and Conduct Disorder (CD). Parents were asked to provide ratings of (0) not at all, (1) just a little, (2) pretty much, or (3) very much for each symptom on the scale. The psychometric properties of the DBD Rating Scale are very good in both child and adolescent samples, with empirical support for distinguishing inattention, H/I, ODD, and CD factors, and internally consistent subscales with alphas above .95 (Evans et al., 2013; Molina et al., 2001; Pelham et al., 1992; Sibley, Pelham, Molina, Gnagy, Waschbusch, et al., 2012a). A symptom was considered to be present if it was rated as (2) pretty much or (3) very much. Inattention and H/I symptom counts were calculated by adding the total number of symptoms endorsed by the parent on each index.

DSM-5 ADHD symptoms. To measure DSM-5 ADHD symptoms, the DSM-5 ADHD Rating Scale was administered to parents (developed for the purpose of this study). This measure includes a listing of each of the 18 DSM-5 ADHD symptoms, as they were listed on the dsm5.org website prior to DSM-5 publication (www.dsm5.org; APA, 2013). In addition, this measure included four impulsivity items that were proposed for the DSM-5, but not published in the final version (www.dsm5.org). Items included age-specific symptom descriptors when present (APA, 2013). Responses on the DSM-5 ADHD Rating Scale were on the same 0 to 3 scale as the DBD: (0) not at all, (1) just a little, (2) pretty much, or (3) very much. As with the DBD, a symptom was counted as present if the respondent endorsed (2) pretty much or (3) very much. Inattention and H/I symptom counts were calculated using the same procedure as the DBD.

For DSM-5 analyses, an index of impulsivity was represented by three impulsivity items included in the DSM-5 and four additional impulsivity symptoms that were proposed for, but not included, in the published DSM-5. For comparison purposes, an index of DSM-5 hyperactivity consisted of the six published DSM-5 hyperactivity symptoms, the six published hyperactivity symptoms, comparison purposes, an index of symptoms better explained by another mental disorder (n = 1). All data for the current study were obtained as part of each trial’s standard rating scale battery. The Disruptive Behavior Disorders (DBD) and the DSM-5 scales were administered to parents in the same sitting. The DSM-IV-TR rating scale appeared prior to the DSM-5 rating scale in the assessment battery.
Functional impairment. To measure an adolescent’s level of functional impairment, the Impairment Rating Scale (IRS) was administered to parents (Fabiano et al., 2006). Parents indicated the adolescent’s impairment severity in seven domains by marking an X on a line representing the continuum from “no problem” to “extreme problem.” Responses were coded 0 (no impairment) to 6 (extreme impairment). The overall impairment item (“the overall severity of this child’s problems in functioning and overall need for additional treatment”) served as a measure of global impairment in correlational analyses. The IRS demonstrates strong psychometrics and accurately identifies impairment in children and adolescents with ADHD across settings and informants (Evans et al., 2013; Fabiano et al., 2006).

Analytic Plan

All analyses were performed in SPSS Version 20. Using the general linear model (GLM), we evaluated whether the new DSM-5 symptom descriptors increased the total number of ADHD symptoms endorsed by parents. Separate models were evaluated for inattention and H/I. The within-subject variable was DSM edition (DSM-IV-TR vs. DSM-5). Total changes in symptom endorsement were also examined categorically. A second GLM was conducted to assess whether demographic factors (age, sex, race/ethnicity, parent education level) were associated with changes in symptom endorsement when developmental descriptors were added. In this model, total ADHD symptom count was the dependent measure, the within-subjects factor was DSM edition (DSM-IV-TR vs. DSM-5), and the independent variables were age, sex (0 = female, 1 = male), race/ethnicity (0 = Hispanic, 1 = White/Non-Hispanic, 2 = African American, 3 = Mixed Race), and parent education level (1 = high school or less, 2 = some college or technical training, 3 = bachelor’s degree, 4 = graduate or professional degree). Pearson’s bivariate correlations were obtained between overall functional impairment and the DSM-5 hyperactivity and impulsivity indices. A two-tailed Hotelling’s t test was employed to ascertain the extent to which hyperactivity symptoms versus impulsivity symptoms more strongly correlated with functional impairment.

Results

Overall Symptom Endorsement

Compared with the DSM-IV-TR criteria (M = 5.81, SD = 3.03), parents of adolescents with ADHD reported significantly more symptoms of inattention using the revised DSM-5 symptoms, M = 6.38, SD = 3.12, F(1, 239) = 21.87, p < .001, d = .19. There was no significant difference in parental symptom endorsement for H/I; DSM-IV, M = 3.05, SD = 2.70; DSM-5, M = 3.18, SD = 3.14, F(1, 240) = 1.77, p = .19, d = .05. Overall, the DSM-5 developmental descriptors increased parents’ symptom endorsement by an approximate average of .5 symptoms per adolescent. Under the DSM-5, 4.2% of adolescents met criteria for 4+ fewer symptoms, 22.9% for 1 to 3 fewer symptoms, 19.6% for equal symptoms, 43.3% for 1 to 3 additional symptoms, and 10.0% for 4+ additional symptoms. Based on parent reports alone, there were six individuals (2.3% of the sample) who met symptom criteria for ADHD under the DSM-IV-TR but not the DSM-5. There were an additional 28 individuals (10.8% of the sample) who did not meet symptom criteria under the DSM-IV-TR using parent reports alone, but did under the DSM-5.

Demographic Predictors of Symptom Endorsement Changes

In the demographic prediction model, the interaction terms for DSM edition by age, F(1, 219) = .03, p = .87, sex, F(1, 219) = .06, p = .80, race/ethnicity, F(1, 219) = 1.40, p = .24, and parent education level, F(1, 219) = 1.85, p = .14, were non-significant, indicating that changes in symptom endorsement when adding the developmental descriptors were not associated with any demographic variable.

Relationship With Functional Impairment

The DSM-IV-TR inattention symptoms possessed a significantly stronger relationship with overall impairment (r = .46) than the DSM-5 inattention symptoms (r = .39, t = 2.06,
The DSM-IV-TR ($r = .24$) and DSM-5 H/I symptoms ($r = .27$) did not differ significantly in the strength of their relationship with overall impairment ($t = .95, p > .25$).

### Symptom-Level Endorsement Rates

Tables 2 and 3 present the symptom endorsement rates for each of the DSM-5 ADHD symptoms, compared with the DSM-IV-TR symptoms. After correcting for multiple comparisons ($p < .003$), two inattention symptoms were endorsed at significantly higher rates when the DSM-5 developmental descriptors were added: (a) difficulty sustaining attention and (b) avoiding tasks that require sustained mental effort. Three additional symptoms possessed marginally significant ($p < .05$) endorsement differences between the DSM-IV-TR and DSM-5 items: (a) not seeming to listen when spoken to, (b) not following through on instructions, and (c) frequently losing objects. Similarly, one H/I symptom was endorsed at a significantly ($p < .003$) higher rate using the DSM-5 descriptors: difficulty remaining seated. Another symptom (is often excessively loud) was marginally significant ($p < .05$). No symptoms were endorsed at significantly lower rates using the DSM-5 criteria.

### DSM-5 Hyperactivity Versus Impulsivity Symptoms

Compared with the hyperactivity symptoms ($M = .34, SD = .36$), the impulsivity symptoms were endorsed at significantly higher rates by parents of adolescents with ADHD, $M = .41, SD = .37, F(1, 239) = 17.14, p < .001, d = .19$. The impulsivity symptoms possessed a marginally stronger relationship with overall impairment ($r = .29$) than the hyperactivity symptoms ($r = .21, t = 1.94, p = .06$).

### Discussion

When the DSM-5 descriptors were included, our data suggested that a slim majority of adolescents with DSM-IV-TR diagnosed ADHD (53.3%) experienced an increase in the number of symptoms endorsed by their parents. More specifically, these findings demonstrated (a) a statistically significant increase in total number of reported inattention, but...
Table 3. DSM-5 Hyperactivity/Impulsivity Symptom Endorsement Rates Compared With DSM-IV-TR.

<table>
<thead>
<tr>
<th>Symptom Description</th>
<th>DSM-5 (%)</th>
<th>DSM-IV (%)</th>
<th>χ²</th>
<th>OR</th>
</tr>
</thead>
<tbody>
<tr>
<td>Often fidgets or taps hands or feet or squirms in seat.</td>
<td>46.9</td>
<td>48.5</td>
<td>0.76</td>
<td>0.96</td>
</tr>
<tr>
<td>Is often restless during activities when others are seated (may leave his or her place in the classroom, office, or other workplace, or in other situations that require remaining seated).</td>
<td>38.4</td>
<td>29.1</td>
<td>11.26(^a)</td>
<td>2.92</td>
</tr>
<tr>
<td>Often runs about or climbs on furniture and moves excessively in inappropriate situations. In adolescents or adults, may be limited to feeling restless or confined.</td>
<td>18.4</td>
<td>15.1</td>
<td>2.13</td>
<td>1.73</td>
</tr>
<tr>
<td>Is often excessively loud or noisy during play, leisure, or social activities.</td>
<td>28.5</td>
<td>21.8</td>
<td>4.92(^*)</td>
<td>1.89</td>
</tr>
<tr>
<td>Is often “on the go,” acting as if “driven by a motor.” Is uncomfortable being still for an extended time, as in restaurants, meetings, and so on. Seen by others as being restless and difficult to keep up with.</td>
<td>27.8</td>
<td>27.8</td>
<td>0.00</td>
<td>1.00</td>
</tr>
<tr>
<td>Often talks excessively.</td>
<td>42.1</td>
<td>44.2</td>
<td>0.71</td>
<td>0.75</td>
</tr>
<tr>
<td>Often blurts out an answer before a question has been completed. Older adolescents or adults may complete people’s sentences and “jump the gun” in conversations.</td>
<td>40.6</td>
<td>40.6</td>
<td>0.00</td>
<td>1.00</td>
</tr>
<tr>
<td>Has difficulty waiting his or her turn or waiting in line.</td>
<td>30.3</td>
<td>30.7</td>
<td>0.03</td>
<td>0.94</td>
</tr>
<tr>
<td>Often interrupts or intrudes on others (frequently butts into conversations, games, or activities; may start using other people’s things without asking or receiving permission, adolescents or adults may intrude into or take over what others are doing).</td>
<td>46.2</td>
<td>50.0</td>
<td>1.80</td>
<td>0.67</td>
</tr>
</tbody>
</table>

Note. DSM-5 = Diagnostic and Statistical Manual of Mental Disorders (5th ed.); DSM-IV-TR = Diagnostic and Statistical Manual of Mental Disorders (4th ed., text rev.); OR = odds ratio.

\(^p < .05, \ ^*p < .003\)

not H/I, symptoms (b) that DSM-IV-TR inattention symptoms were more closely related to overall functional impairment than DSM-5 inattention symptoms, (c) that compared with hyperactivity items, impulsivity items were endorsed at higher rates by parents and related more closely to adolescent impairment, and (d) that there were statistically significant item level increases in endorsement of three individual symptoms (difficulty sustaining attention, avoiding tasks that require sustained mental effort, and difficulty remaining seated). Overall, the average adolescent met criteria for less than one additional ADHD symptom under the DSM-5 wording. Thus, for the average adolescent with DSM-IV-TR diagnosed ADHD, adding age-appropriate descriptors to the DSM criteria did not lead to clinically meaningful increases in symptom endorsement.

Surprisingly, the slight elevation in symptom endorsement arose from the inattention factor—H/I symptom endorsement was generally unchanged when symptom descriptors were added. Previous work suggests that DSM inattention symptoms are psychometrically sound for adolescents, while H/I symptoms may function problematically (Conners et al., 1998; Molina et al., 2001; Sibley, Pelham, Molina, Gnagy, Waschbusch, et al., 2012a). In our study, the developmental descriptors did not improve parents’ overall ability to recognize additional H/I symptoms in their adolescent children. Although hyperactivity items compose the majority of the H/I symptom criteria (6 out of 9), some evidence suggests that ADHD is more frequently characterized by impulsivity in adolescence (Wolraich et al., 2005). Thus, it is possible that endorsement rates did not increase because hyperactivity symptoms truly decline in adolescence, regardless of how they are described. Our investigation of proposed DSM-5 impulsivity items further supports a recession of hyperactivity symptoms in adolescence. Compared with impulsivity symptoms, hyperactivity symptoms were less likely to be endorsed by parents and were not as strongly related to adolescent impairment.

Despite meager changes in overall symptom endorsement, 53.3% of adolescents displayed increased endorsement of at least one ADHD symptom, compared with 27.1% who exhibited decreased endorsement. Diagnostic prevalence of ADHD is associated with demographic factors such as age, gender, race/ethnicity, and socioeconomic status (Centers for Disease Control, 2013; Gaub & Carlson, 1997; Hart et al., 1995), signaling the possibility that DSM symptoms are differentially endorsed by individuals with certain characteristics. However, none of these demographic variables was associated with increased endorsement in the presence of the DSM-5 developmental descriptors. Thus, the associated small increases when developmental descriptors were added may be generic to adolescence and reflect qualitative changes in symptom presentation after the start...
of puberty. Conversely, increased symptom endorsement using the DSM-5 descriptors may not be specific to adolescence; it may be the case that these new labels uniformly increase symptom prevalence in children, adolescents, and adults. Further work is needed to understand whether the slight symptom increases documented in this article are global or affect certain populations differentially.

Compared with DSM-IV-TR symptoms, the DSM-5 symptoms of inattention (but not H/I) were not as strongly related to an adolescent’s overall functional impairment (difference \( r = -.07 \)). Accordingly, the DSM-5 symptom descriptors may reference less pathological behaviors, attenuating the relationship between symptom and impairment severity. This finding is similar to a previous one (Sibley, Pelham, Molina, Gnagy, Waxmonsky, et al., 2012b) suggesting that impairment indices correlate more strongly with DSM-IV-TR ADHD symptoms than novel adult-specific ADHD items. Both of these studies highlight a critical issue in the characterization of adolescent and adult ADHD: without empirical item testing, symptom descriptors may reference behaviors that are not core elements of the disorder. As such, our data highlight the importance of evaluating the DSM-5 symptom wording with a sample of adolescents without DSM-IV-TR diagnosed ADHD, to better understand how these descriptors may function in subclinical and typically developing populations.

Although the DSM-5 symptom descriptors were not associated with marked overall symptom elevation, isolated symptoms increased in prevalence. The largest increase in symptom endorsement occurred for the symptom “difficulty sustaining attention” (19.2% increase; see Table 2). Whereas the DSM-IV-TR symptom offered no behavioral examples, the DSM-5 descriptor specified that focus might be lost in during reading, lectures, and conversations. It may be the case that these examples were needed to clarify the symptom’s meaning for some parents. Five additional symptoms, most notably, “avoids sustained mental effort” and “difficulty remaining seated” also displayed noteworthy increases in endorsement using the descriptors (5.4%–9.3% increase; see Tables 2 and 3). These data highlight that under certain circumstances, these developmental examples may influence endorsement rates in adolescents.

There are several important limitations to the current study. First, there were semantic changes to the wording of the DSM-5 symptoms between the dsm5.org listed criteria and the published DSM-5 (see Tables 2 and 3; APA, 2013). Although these differences do not appear to affect the meaning of the descriptors (e.g., substituting the term “frequently” with “often” or “reading lengthy writings” with “lengthy readings”), it is possible that these modifications influenced a parent’s symptom endorsement. Second, we did not counterbalance the order in which the DBD and DSM-5 scales were administered. There is some evidence to suggest that during structured interviews, endorsement diminishes for ADHD symptoms queried later in an interview (Jensen, Watanabe, & Richters, 1999). Although it is unclear if this order effect extends to rating scales, it is possible that DSM-5 endorsement rates may be consequently underestimated. In addition, our sample is treatment-referred and predominantly working and middle-class Hispanic. Thus, some of our findings may not generalize to the entire population of adolescents with ADHD. Similarly, our results most likely do not apply to adults, who display the vastest disparity in ADHD symptom endorsement from childhood.

There are important next steps in the validation of the DSM-5 symptom criteria for older individuals. First, the current analyses suggest that the DSM-5 items appropriately detect ADHD symptoms in adolescents with well-diagnosed DSM-IV-TR ADHD. It will also be necessary to further validate the DSM-5 symptoms using samples containing individuals who do not meet criteria for DSM-IV-TR ADHD. Our results also suggest that a greater emphasis on impulsivity items in the DSM may improve clinically significant symptom detection. However, more thorough analysis of this question is necessary, including comparative evaluation of impulsivity items in ADHD and non-ADHD samples. Most importantly, if future versions of the DSM include greater emphasis on impulsivity symptoms for older individuals, it is imperative that symptom thresholds are subsequently adjusted to address an increase in the number of DSM symptoms. In addition, the average age of the current sample was approximately 13 years old, requiring similar analyses to be conducted using older samples. Similarly, DSM-5 symptom endorsement rates should also be evaluated for teacher and self-report ratings, as the new descriptors may offer differential utility for these informants. Finally, the specificity of these items—their ability to discriminate ADHD and non-ADHD cases—remains untested.

Overall, these analyses suggest that developmental symptom descriptors possess only a slight influence on the diagnosis of ADHD in adolescents who meet criteria for the disorder under the DSM-IV-TR. However, it is possible that additional DSM-5 changes influence diagnostic prevalence rates. The diagnostic impact of DSM-5 changes to age of onset, impairment, and differential diagnosis criteria (APA, 2013) is yet to be evaluated. It is most crucial to understand the combined influence of all DSM-5 changes on diagnostic prevalence and symptom endorsement. It is our hope that continued work investigates the symptom presentation of ADHD in adolescence, to guide the development of age-appropriate assessment and treatment methods.

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References


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