ADHD Assessment and Treatment Practices
Among Local Primary Care Physicians
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Abstract

Forty-eight Spartanburg County pediatric and family practice physicians (56%) responded to a questionnaire about diagnostic and treatment practices for ADHD. Contrary to the hypotheses, there was no difference between the two types of physicians in type of measure used for assessment, criteria used for assessment, or type of treatment. However, physicians who reported using the DSM or a validated scale placed greater emphasis on actual DSM criteria for diagnosis; physicians who reported not using the DSM or a validated scale reported emphasis on comorbid problems that are not actually among the DSM criteria for ADHD. Also, these latter physicians were significantly less likely to use behavioral treatment, which can lower the dosage of stimulant medication that is needed for effective treatment. All of the pediatricians reported using the DSM or a validated scale, and about 60% of the family practice physicians did so. Overall, the respondents reported using stimulant medication twice as much as behavioral treatment. They reported barriers such as time and cost to the family, as well as unavailability of treatment, in referring patients for behavioral therapy.
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The purpose of this study was to investigate the local assessment and treatment practices for ADHD. We surveyed family practice and pediatric physicians about their diagnostic criteria and treatment preferences. We anticipate that this study will promote awareness about the severity of this disorder and encourage further research in assessment and treatment practices of ADHD. We hypothesized that pediatricians would rely more on the DSM-IV-TR diagnostic criteria and validated scales, spend more time making a diagnosis, rely more on external (such as school) sources of information, and use more behavioral treatment than family practice physicians. Additionally, we hypothesized that family practice physicians would place less emphasis on hyperactivity than on attention deficit and other problems and would rely more on the patient’s self-report as an information source because of the greater age span of their predicted patients. We also hypothesized that physicians who use DSM-IV-TR criteria or validated scales would be more likely to emphasize the three primary ADHD criteria and to use behavior modification in treatment. Furthermore, we predicted that physicians with higher patient loads would spend less time with each patient in diagnosis. We expected that all physicians would report greater use of stimulant medication than behavioral modification. We also predicted that the earlier the physician completed residency the more likely the physician would be to recommend dietary treatments for ADHD.

Method

Participants

Ninety-five family physicians and pediatricians from Spartanburg County were surveyed in this study; 48 responses were received. Thirty-four of the responders were family physicians and 14 were pediatricians. Eleven were women and 37 were men. Two surveys were returned by the postal office due to insufficient address and therefore were excluded from the study. Five surveys were returned incomplete because the person did not treat patients with ADHD.

Procedures

The list of Spartanburg County family physicians and pediatricians was obtained through a specialized directory and survey with 14 items. Our questionnaire included inquiries about type of practice, year
of residency, number and age of patient(s), referral for diagnosis, scale use, importance of symptoms (hyperactivity, impulsivity, inattentiveness, learning disabilities, behavioral problems, and social problems), importance of external sources of information, time needed to make a diagnosis, percentage of treatment use, and method of follow-up. Our survey criteria were based on previous studies that assessed pediatric and family practice diagnosis and treatment of ADHD (Copeland, Wolraich, Lindgren, Milich, & Woolson, 1987; Wolraich, Lindgren, Stromquist, Milich, Davis, & Watson, 1990). The survey featured two interval scales (with values ranging from 0 to 5; 0 being insignificant, 3 being moderately important, and 5 being crucial), 5 nominal scales, and 7 open-ended questions. For each of the nominal and open-ended questions, we assigned a numeric value to the answers for the purposes of data analysis. For example, for the sex question the answer “male” was assigned a value of “1,” whereas the answer “female,” was assigned a value of “2.” For question 14, which asked how often the patient was seen after diagnosis, we converted the answer to how many times a year the patient was seen, so the answer “quarterly” received the numeric value of “3.”

Results

With respect to the assessment and treatment differences between family practice and pediatric physicians, a t-test was conducted with an overall t(47) = 0.11, n.s. For our second hypothesis, that there would be a greater emphasis on hyperactivity among family practice physicians, the pediatricians average M = 4.00 with regard to the importance of hyperactivity in a diagnosis, whereas the family practice physicians averaged M = 3.26. The difference in these means was not statistically significant but followed a trend in the predicted direction. With regard to our third hypothesis on the use of validated scales and its effect on the emphasis of “big 3” and use of behavioral treatment, we found a significant interaction between use of validated scales and prescription of behavioral treatment with t(46) = 3.06, p < 0.05. However, we found no significant interaction between use of validated sales and the emphasis on the core criteria of ADHD, though the results followed the predicted trend.

In terms of patient load and time spent in diagnosis, we found no significant interaction between the two values t(42) = 1.24, n.s. and an extremely weak correlation (r = .231).

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Treatment options yielded a highly significant result; stimulant medication (M = 86.13) was used nearly twice as often as behavioral modification (M = 48.77) with t(46) = 5.99, p < 0.05. The
interaction between year of residency completion and use of dietary treatment yielded an extremely low correlation ($r = .043$) and $t(45)=1.94$, n.s.

Discussion

We hypothesized that pediatricians would rely more heavily on the DSM diagnostic criteria and validated scales for a diagnosis of ADHD. However, our results indicated that there was not a significant difference between pediatricians and family practice physicians who used the DSM criteria and validated scales.

We presumed that pediatricians would use more behavioral treatment than family practice physicians. The results of this hypothesis were not supported by our data. According to our surveys, many physicians indicated a desire for more behavioral treatment options, but believed that time, cost, and availability were all barriers interfering with the practicality of this treatment suggestion.

We predicted that family practice physicians would resort to placing less emphasis on hyperactivity because of the greater age range in clientele. There was not a significant difference found between the two types of physicians. However, the mean rating of hyperactivity by family practice physicians was less than that of the pediatricians’. There was a great amount of variability for this symptom among family practice doctors, which could have influenced our results.

It was hypothesized that family practice physicians would rely more on the patient’s self-report as an information source. This result was not indicated by our data. However, it is likely that because of the more extensive age range of the clientele of family practice physicians this hypothesis is likely to be true.

We believed that physicians who used the DSM criteria or a validated scale are more likely to emphasize the ADHD criteria than those who did not. None of the central three criteria were significantly different between these two groups. However, there was a trend for inattention and hyperactivity to be emphasized more with those who used validated scales. Impulsivity was the only one of the central three criteria that did not follow the same trend. Also, behavioral
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problems were found to be emphasized significantly more with non-validated or no scale use versus the use of the DSM or a validated scale. Although behavioral problems are often correlated with an ADHD diagnosis, they are not indicated as a direct symptom of ADHD and should not be used solely in making a diagnosis.

We also thought that behavior modification would be incorporated more commonly into the treatment of those physicians who use the DSM or a validated scale. This hypothesis was found to be significant as those who use the DSM or a validated scale when making a diagnosis prescribe behavioral treatment to their patients 58.85% of the time, compared to those who use a non-validated or no scale (prescribing behavioral treatment only 25.0% of the time). We believe that the physicians using the DSM or a validated scale are more aware of not only the physiological symptoms of ADHD but also the enduring problems that this disorder can produce socially and academically.

It also was hypothesized that physicians with higher patient loads, defined in our study by the number of patients with ADHD, would spend less time with each patient. This hypothesis was not supported by our data, because our survey based patient load specifically on number of patients being treated with ADHD. Therefore, we were unaware of the actual patient load of each responding physician and could not draw accurate conclusions.

Our fifth hypothesis on the use ratio of stimulant medication to behavior modification yielded expected results in that stimulant medications are used twice as much. It has been widely known that stimulant medications are the treatment of choice among both family physicians and pediatricians and, though researchers like Pelham (2005) have accentuated the benefits of behavioral treatment, it continues to be neglected as an option. This large difference is likely due to the various benefits of using stimulant medication, such as cost benefits, time efficiency, and the ease of implementation and maintenance. While insurance covers prescription medicine, it may not cover visits to a psychologist for a child with ADHD. Also, although the long-term benefits are vast, behavior treatment is a large time commitment that is hard to sustain.

Interestingly enough, when asked what treatment options they would like to explore, many of our participants expressed desire to use behavioral treatment, but felt that certain barriers prevented them from implementing this treatment. Specifically, they mentioned a lack of availability of psychologists for behavioral modification and the financial inconvenience of using this type of treatment.
We analyzed the connection between year of residency completion and use of dietary restrictions as treatment. We did not find a significant statistical interaction or a correlation. We attribute this to the lack of variability in years of completion. Most of our participants completed their residencies after 1999, whereas very few completed their residencies before 1980. Therefore, most of these doctors would have been more informed about the myths of sugar or other food substances causing hyperactivity or ADHD.

A need exists in treatment of ADHD for parents and teachers to be actively involved in treating children with this disorder. Many parent skills training programs have been researched and found effective. Molina et al. (2005) found that family-based interventions through a child’s school are the most effective. These researchers also found that educating parents about the disorder itself yields a more successful treatment (Molina et al., 2005). Other researchers have found that teacher training also enhances the effects of a child’s existing treatment for ADHD (Miranda et al., 2006; van der Oord et al., 2008).

Our findings suggest that the use of validated scales are the most important factor in a good diagnosis of ADHD, more so than time spent in diagnosis, type of practice, or year of residency completion. Making a proper diagnosis is crucial to providing a child with the appropriate treatment. There also is a clear need for additional treatment options.
References


