

# Parent Perceptions of Medication Treatment for Preschool Children with ADHD

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**Abstract** This study sought to examine parent perceptions of medication use for 151 preschool children ( $M_{age}=5.05$  years, 78% male, 82% Hispanic/Latino) with or at-risk for ADHD who were medication naive. Parents completed questionnaires regarding family background and perceptions of medication treatment. Parents and teachers completed ratings of child diagnostic symptomatology, behavioral functioning, and functional impairment. Results indicate that only 45% of parents were open to the possibility of medication. No associations were found between child demographics, severity of ADHD symptoms, or level of functional impairment and parental openness to medication. On the other hand, children of parents who were open to medication tended to have higher levels of oppositionality and aggression (as reported by parents but not teachers) compared with children of parents who were not open to medication. These findings are discussed in the context of early intervention given their implications for a variety of treatment providers.

**Keywords** Medication treatment · Parent perceptions · Preschool · ADHD

## Introduction

Attention-Deficit/Hyperactivity Disorder (ADHD) is a chronic medical condition that affects 3–7% of school-aged children, resulting in significant impairments in behavioral

functioning across home and school environments. Over the last decade, increased attention has been paid to the identification and treatment of this disorder in preschool-aged children. Studies in preschool community samples have found that the prevalence of ADHD ranges from 2 to 13% [1], with one in three children diagnosed with ADHD being identified in the preschool years [2]. With more children in the preschool age range coming to clinical attention for ADHD, it is important for medical professionals to understand parent perceptions of prescribed treatments, as this may be an important factor influencing treatment acceptance, treatment adherence, and treatment satisfaction.

There are three well-established evidence-based treatments for ADHD: behavior modification [3–5], medication with psychostimulants [6], and their combination. In practice, there appear to be some discrepancies in how these treatments are prescribed for the preschool age group. Importantly, prior to 2011, no American Academy of Pediatrics (AAP) guidelines existed to help pediatricians diagnose or treat ADHD among preschoolers. The current AAP guidelines, established in 2011, recommend that for preschool-aged children (children 4 and 5 years of age) with ADHD, the primary treatment is evidence-based behavioral parent training and/or behavioral teacher training [7]. The AAP guidelines go on to state that medication may be prescribed if behavior interventions do not provide significant improvement, but assert that medication is a secondary treatment for preschoolers due to the challenges in determining key symptoms in this age range [7]. These recommendations are consistent with current guidelines from the American Academy of Child and Adolescent Psychiatry for younger children [8].

Interestingly, national studies conducted after the release of these guidelines have demonstrated that approximately three-fourths of insured children aged 2–5 years receiving

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clinical care for ADHD receive medication, with only about half or fewer receiving any form of psychological services [9]. Similarly, a recent study [10] demonstrates that the rate of stimulant use in preschool children has remained constant. Although patterns in individual practices varied, the increasing preguideline trend in preschool ADHD diagnoses ended after the guideline release. Nonetheless, overall rates of stimulant medication prescription remained constant, suggesting that preschool children with ADHD continue to be treated with stimulant medication. Studies prior to the 2011 guidelines also showed increased rates of children (60%) under the age of 3 being prescribed psychotropic medication alone in Medicaid populations [11], suggesting socioeconomic disparities in access to appropriate treatments. Further, treatment sequencing studies in elementary-aged children with ADHD have shown that when medication is prescribed first, parents are less likely to attend behavioral parent training programs [12]. However, little is known about how parents of preschool children with ADHD perceive medication treatments.

### Parent Perceptions of Medication

Despite the fact that stimulant medication has, and continues to be, the treatment of choice for ADHD, even within the preschool population [13], there are few studies that examine parent perceptions of ADHD medication, all of which focus on elementary-age samples. DosReis and colleagues [14] surveyed mothers of children between the ages of 6 and 12 and found that 55% of parents were hesitant to use medication based on information from the media. McNeal et al. [15] assessed maternal and child perceptions about medication for ADHD in a small ( $n=31$ ) sample of children 7–15 years old, and found that mothers tended to view medication as more beneficial than their children did. For both parents and children, these findings appeared to vary by ADHD severity and its effects on perceived medication benefit as well as level of knowledge about medication treatment. Similarly, in a small ( $n=10$ ) qualitative study of parents of children ages 8–22 with ADHD, Hansen and Hansen [16] found that while parents considered medication desirable for the improvements seen in their child's behavior and functioning at home and school, they struggled to decide when to initiate and terminate medication treatment, as well as the implications of terminating medication treatment.

The severity of a child's behavioral functioning, as well as parent knowledge about ADHD medication [17], may also impact parents' perceptions of medication treatment. Regarding parent knowledge about ADHD medication, one study [18] found that 74% of parents perceived psychotropic medication as dangerous. However, parental opinions varied according to the age of their child. Specifically, as the child's

age increased, parents' reported positive attitudes toward medication increased. Regarding severity of child's behavioral functioning, one study [19] found that medication satisfaction in parents with children diagnosed with ADHD (ages 6–17) was significantly predicted by ADHD symptom severity and/or functional impairment. Other studies have similarly demonstrated that greater baseline severity of inattention, hyperactive, and impulsive symptoms, as well as more severe comorbid conditions, are associated with prolonged use of stimulants [20]. Finally, several patient-, therapy-, and SES-related factors have been found to be related to medication adherence in youth with ADHD [20]. However, no studies to our knowledge have examined the impact of these factors on initial treatment perceptions of parents in preschool-aged populations.

### The Current Study

Overall, there are only a few studies that have examined parent's perceptions of medication treatment, and none, to our knowledge, have examined perceptions of medication treatment for preschool aged children. Therefore, given the lack of research in this area, the current study set out to examine parents' perceptions of ADHD medication for their preschool aged children prior to enrollment in an intensive psychosocial intervention that included behavioral parent training.

The first aim of the study was to examine preschool parents' perceptions and openness to medication treatment. The second aim of the study was to examine the degree to which family background, child age, or child gender was related to medication openness. The third aim of the study was to assess the degree to which diagnostic symptoms, behavioral functioning, and functional impairment predicted openness to medication treatment. For the first aim, we hypothesized that the majority of parents would not be open to medication treatment for their preschool aged children. For the second aim, no specific hypotheses were formulated regarding the degree to which family background, child age, or gender was related to medication openness, although there is some evidence suggesting that parents of minority children are more hesitant to utilize treatment [21]. For the third aim, we hypothesized that parents of children displaying greater diagnostic symptomatology, greater levels of behavioral dysfunction, and greater overall impairment as reported by parents and teachers would be more open to medication.

## Method

### Participants and Recruitment

The study took place in a university in a large urban southeastern city in the United States with a large Hispanic/

Latino population. Children and their caregivers, primarily mothers (87%), were recruited from local preschools and mental health agencies to participate in an intensive behavioral summer treatment program (see Graziano et al. [22]; Graziano & Hart [23] for a full program description). In order to qualify, participants were required to (a) have an externalizing problems composite  $t$  score of 60 or above on the parent ( $M=66.12$ ,  $SD=12.30$ ) or teacher ( $M=66.19$ ,  $SD=13.59$ ) Behavior Assessment System for Children (BASC-2) [24], (b) be enrolled in preschool during the previous year, (c) have an estimated IQ of 65 or higher ( $M=91.11$ ,  $SD=15.48$ ) on the Wechsler Preschool and Primary Scale of Intelligence 3rd (WPPSI-III) [25] or 4th Edition (WPPSI-IV) [26], (d) have no history of a primary diagnosis of an Autism Spectrum Disorder (ASD) or Psychotic Disorder, and (e) be able to attend a daily 8-week summer program prior to the start of kindergarten or pre-kindergarten. Children participated in an intake assessment at baseline to test for inclusion criteria.

The final participating sample consisted of 151 preschool children ( $M_{\text{age}} = 5.05$ , 78% male, 82% Hispanic/Latino) with at-risk or clinically elevated levels of externalizing behavior problems. The current study sample was taken from a larger study sample ( $n=209$ ) of children whose parents provided consent to participate in either an open trial [22] or a randomized trial [23] of the Summer Treatment Program for Pre-Kindergartners (STP-PreK). Only families for whom data on parental medication perception were available were included in the current study. Families included in the current study sample did not differ significantly from families missing medication perception data from the larger sample on any demographic variables (e.g., child sex, age, ethnicity, and family SES) or any variables examined in the current study.

All consenting caregivers were administered one of two structured diagnostic interviews including either the Kiddie-Disruptive Behavior Disorder Schedule for preschool children (K-DBDS) [27] or the NIMH Diagnostic Interview Schedule for Children Version IV (C-DISC) [28]. Of the children, 48% met criteria for both ADHD and Oppositional Defiant Disorder (ODD), while 25% met criteria for ADHD alone, and an additional 15% met criteria for ODD alone. Demographic information provided by parents (i.e., parental educational level, occupation, marital status, and sex) was also utilized to calculate a Hollingshead Four Factor Index of Social Status as a measure of socioeconomic status (SES) [29]. Hollingshead SES scores were in the lower to middle class range ( $M=44.17$ ,  $SD=11.52$ ). Only four children from the larger sample were currently taking psychotropic medication and were not included in the current study as it was assumed their parents were open to medication treatment.

## Study Design and Procedures

The study was approved by the university's Institutional Review Board. Results of an open trial and a randomized trial of the STP-PreK are reported elsewhere [22, 23]. For the current study only pre-treatment data collected from consenting caregivers and preschool teachers were utilized to examine the role of child behavioral functioning on parental openness to medication.

## Measures

### *Parental Perceptions of Medication*

Children's medication status was inquired during the clinical interview as part of the psychoeducational assessment. Parents also filled out a demographic sheet that asked them to list their child's current medications. If their child was not currently taking medication, parents were asked to select from one of five options regarding whether their child's healthcare provider had recommended medication and their openness to the possibility. The options were as follows: "Never suggested medication, but open to the possibility," "Never suggested medication, not open to the possibility," "Has suggested medication but chose against that option," "Has taken medication in the past but is not anymore because he/she is doing better," and "Has taken medication in past but is no longer due to side effects." Given that no families chose the options indicating having taken medication in the past, families that chose "Never suggested medication, but open to the possibility" were coded as "open to medication" and families that either chose either "Never suggested medication, not open to the possibility" or "Has suggested medication but chose against that option" were coded as "not open to medication." These options have been successfully used in past work documenting parental perceptions of medications among older children and adolescents with ADHD [30]. See Table 1 for further descriptive statistics on parental openness to medication.

### *Child Diagnostic Symptomatology*

Parents and teachers were asked to complete the Disruptive Behavior Disorder Rating Scale (DBD) [31]. Each symptom of ADHD and ODD on the DBD rating scale is rated on a four-point scale with respect to the frequency of occurrence ("not at all," "just a little," "pretty much," or "very much"). For the purposes of this study the mean rating for ADHD symptoms (hyperactivity/impulsivity and inattention;  $\alpha=0.91$ – $0.92$ ) and ODD symptoms ( $\alpha=0.83$ – $0.89$ ) was used.

**Table 1** Descriptive statistics: openness to medication

| Item                                                                               | Percentage in sample | <i>n</i> |
|------------------------------------------------------------------------------------|----------------------|----------|
| Open to medication                                                                 | 45                   | 68       |
| Never suggested medication, but open to the possibility                            | 45.0                 | 68       |
| Not open to medication                                                             | 55                   | 83       |
| Never suggested medication, not open to the possibility                            | 47.7                 | 72       |
| Has suggested medication but chose against that option                             | 7.3                  | 11       |
| Has taken medication in the past but is not anymore because he/she is doing better | 0.0                  | 0        |
| Has taken medication in past but is no longer due to side effects                  | 0.0                  | 0        |

### Child Behavioral Functioning

To assess children's behavioral functioning parents and preschool teachers were asked to complete the Behavior Assessment System for Children, 2nd Edition (BASC-2) [24] at the pre-treatment assessment. The BASC-2 has well established internal consistency, reliability and validity [24]. Items on the BASC-2 are rated on a four point scale ("never," "sometimes," "often," "almost always") and yield scores on broad internalizing, externalizing, adaptive and social functioning domains. The aggression, attention problems, and hyperactivity subscales were examined as indicators of children's behavioral functioning. Gender and age normed t-scores were examined.

### Child Functional Impairment

In order to assess children's functioning across domains, parents and teachers completed the Impairment Rating Scale (IRS) [32]. The IRS measures the severity of children's impairment in multiple domains on a seven-point Likert scale ranging from "No impairment" to "Extreme impairment." Areas of impairment rated include academic functioning, classroom functioning, self-esteem, relationships with peers/teachers/family, and overall functioning. The IRS has well-established internal consistency, cross-informant reliability, and convergent and divergent validity with other measures of impairment [32]. For the purposes of the current study, the extent to which children's behavior problems were impairing their overall functioning and warranted need for treatment was examined.

### Data Analytical Plan

All analyses were conducted using the Statistical Package for the Social Sciences version 23.0 (SPSS 23). There were no missing data for parental medication perception and there was only one participant missing data on parent reports. However 15 participants were missing data on teacher reports. According to Little's Missing Completely at Random Test there was no evidence to suggest that the

data were not missing at random ( $\chi^2(39) = 51.76, p > .05$ ). All available data were used for each analysis. Descriptive analyses were conducted to examine the rates of openness to medication. Preliminary data analyses were conducted to examine the extent to which demographic variables were associated with parental openness to medication. Logistic regressions were conducted to determine whether child sex, age, ethnicity, or family SES predicted likelihood of parental openness to medication. Lastly, a Univariate Analysis of Variance (ANOVA) was conducted to examine the extent to which children of parents who were open to medication differed from children of parents who were not open to medication in terms of severity of behavioral problems, ADHD/ODD symptomatology, and functional impairment Cohen's *d* effect size estimates were calculated for all analyses.

## Results

### Preliminary Analyses

As seen in Table 1, results indicated that only 45% of parents were open to the possibility of medication. As seen in Table 2, neither child sex, age, ethnicity, nor family SES predicted parental likelihood of being open to medication.

### Child Outcomes

#### Diagnostic Symptomatology

As presented in Table 3, parents who were open to medication tended to report higher levels of ODD symptoms ( $M = 1.09, SD = 0.67$ ) than parents who were not open to medication,  $M = 0.87, SD = 0.54, F(1, 149) = 5.02, p < 0.05$ . However, parents who were open to medication reported only marginally higher levels of ADHD symptoms ( $M = 1.61, SD = 0.66$ ) than parents who were not open to medication,  $M = 1.43, SD = 0.59, F(1, 149) = 3.02, p = 0.08$ . Of note, no differences were noted on teacher ratings of ADHD or ODD symptoms.

**Table 2** Openness to medication and demographic variables

|                        | B     | Wald | OR   | OR 95% CI   | Model R <sup>2</sup> | Model $\chi^2$ |
|------------------------|-------|------|------|-------------|----------------------|----------------|
| Openness to medication |       |      |      |             |                      |                |
| Child gender           | −0.36 | 0.82 | 0.70 | [.32, 1.52] | 0.01                 | 0.83           |
| Child age              | −0.37 | 1.59 | 0.69 | [.39, 1.23] | 0.01                 | 1.62           |
| Child ethnicity        | −0.03 | 0.01 | 0.97 | [.42, 2.24] | 0.00                 | 0.01           |
| Family SES             | 0.01  | 0.60 | 1.01 | [.98, 1.04] | 0.02                 | 0.27           |

Results are based on logistic regression. Child gender was dummy coded, females=0 (female  $n=33$  male  $n=118$ ). Ethnicity was dummy coded, Hispanic/Latino=0 (Hispanic/Latino  $n=124$ , not Hispanic/Latino  $n=27$ )

**Table 3** Openness to medication and child outcomes

| Child outcome                    | Openness to medication       |                                  | F score           | Cohen's d |
|----------------------------------|------------------------------|----------------------------------|-------------------|-----------|
|                                  | Open to medication mean (SD) | Not open to medication mean (SD) |                   |           |
| BASC-2 aggression T score (P)    | 63.75 (15.53)                | 57.72 (11.45)                    | 7.47**            | 0.44      |
| BASC-2 aggression T score (T)    | 64.40 (15.82)                | 63.39 (13.17)                    | 0.17              | 0.07      |
| BASC-2 hyperactivity T score (P) | 70.34 (12.37)                | 68.55 (1.42)                     | 1.50              | 0.20      |
| Basc-2 hyperactivity T score (T) | 65.75 (12.68)                | 66.61 (11.79)                    | 0.17              | 0.07      |
| BASC-2 attention problems (P)    | 65.44 (7.65)                 | 63.67 (7.49)                     | 2.04              | 0.23      |
| BASC-2 attention problems (T)    | 60.70 (8.39)                 | 59.92 (7.55)                     | 0.33              | 0.10      |
| DBD ADHD symptoms (P)            | 1.61 (0.66)                  | 1.43 (0.59)                      | 3.02 <sup>+</sup> | 0.29      |
| DBD ADHD symptoms (T)            | 1.54 (0.66)                  | 1.52 (0.66)                      | 0.038             | 0.08      |
| DBD ODD symptoms (P)             | 1.09 (0.67)                  | 0.87 (0.54)                      | 5.02*             | 0.36      |
| DBD ODD symptoms (T)             | 1.14 (0.84)                  | 0.99 (0.72)                      | 1.19              | 0.19      |
| IRS overall impairment (P)       | 4.63 (1.18)                  | 4.31 (1.16)                      | 2.66              | 0.27      |
| IRS overall impairment (T)       | 4.73 (1.40)                  | 4.72 (1.27)                      | 0.004             | 0.01      |

P parent report measure, T teacher report measure. BASC-2 behavior assessment scale for children, IRS impairment rating scale, DBD disruptive behavior disorder rating scale

\*\* $p < 0.01$ ; \* $p < 0.05$ ; + $p < 0.10$

### Behavioral Functioning

As presented in Table 3, according to the BASC-2, parents who were open to medication tended to report higher levels of aggression ( $M=63.75$ ,  $SD=15.53$ ) than parents who were not open to medication,  $M=57.72$ ,  $SD=11.45$ ,  $F(1, 149)=7.47$ ,  $p < 0.01$ . However, levels of parent rated hyperactivity and attention problems were not significantly different between children of parents who were open to medication and children of parents who were not open to medication. Of note, no differences were noted on teacher ratings of behavioral functioning on the BASC-2.

### Functional Impairment

Levels of overall teacher and parent rated functional impairment were not significantly different between children of parents who were open to medication and children of parents who were not open to medication. See Table 3 for results.

### Discussion

The present study yields a novel contribution to the literature with its focus on medication perceptions of parents of preschool-aged children with ADHD. Overall, the results of this study indicate that, as predicted, the majority of parents of preschool children with or at-risk for ADHD were not open to the possibility of medication. This finding was in line with our hypothesis and is consistent with previous findings from studies in elementary samples suggesting that parents are initially hesitant to use medication [14] and struggle with the decision to medicate their child with ADHD [16, 33, 34].

Consistent with our hypothesis, it appears that higher rates of aggression and ODD symptoms (as reported by parents) significantly predict parents' openness to medication. Contrary to our hypothesis, we found that parents' and teachers' report of overall impairment, as well as teachers' report of externalizing behavior problems, and ADHD and ODD symptoms did not predict parents' openness to



medication. This may suggest that teacher ratings of child behavior symptoms do not affect parents' perceptions of medication treatment usage for their child. This is somewhat inconsistent with previous literature documenting that comorbid ODD in elementary-aged populations is associated with poor medication adherence in children with ADHD [20]. However, previous findings are related to adherence to medication treatment and not to initial perceptions and openness to medication. Similarly, these results are somewhat inconsistent with the treatment satisfaction literature demonstrating that parent satisfaction with medication treatment is predicted by ADHD symptom severity and functional impairment [19]. Similarly, these previous findings are limited in that they have been focused on elementary populations. This may suggest a unique quality to parent perceptions in preschool populations. For example, ADHD symptoms may have less of an impact on parents' perceptions in preschool because developmentally these symptoms may not be as impairing at that time, given the lack of academic demands in preschool compared to elementary school. Specifically, ADHD symptoms may not be as impairing as more overt ODD and aggression symptoms.

Although no specific hypotheses were formulated, child ethnicity, child gender, child age, and family SES, were not predictors of medication openness. One previous study found that white parents viewed medication treatments more positively than nonwhite parents [14]. Although our sample was predominately Hispanic/Latino (82%) in a restricted age range with predominantly boys, power analyses conducted in G\*power demonstrated adequate power to detect differences between ethnic groups and between boys and girls in terms of parents' medication openness (G\*power estimate based on a medium effect size = 0.85 and 0.80, respectively). Additionally, this may be considered a strength of this study as Hispanic/Latino children represent the fastest growing group in the U.S [35], and understanding the perspective of Hispanic/Latino parents is very important for understanding how to enhance parental engagement in early intervention and treatment for their preschool-aged children with ADHD.

### Limitations and Future Directions

The results of this study need to be viewed in light of several limitations. First, the current sample did not include children currently on medication because the structured questions were only asked for only parents of children who had never taken psychotropic medication. This was due in part to the assumption that parents who have children currently on medication were open to that treatment. Even so, only four children in the sample were currently taking psychotropic medication, therefore it would not have been possible to draw any significant conclusions on parents'

perceptions of medication for children taking medication. This low rate of children on medication in our sample may also be telling for treatment providers working with Hispanic/Latino families in clinical care. As highlighted in the introduction, studies have shown that three-fourths of insured preschool-aged children receiving clinical care for ADHD are receiving medication [9]. It is perhaps unique to this population of families that we did not have more children already on medication, possibly indicating a general unwillingness of Hispanic/Latino parents to start their children on medication and to instead first seek out behavioral intervention. Future studies should explore this relationship more fully in order to improve our understanding of the perspectives of this growing population of families.

Second, the data regarding parents' openness to medication treatment was collected at only one time point, before any intervention was administered. Similarly, parents were presenting for an intensive behavioral treatment program in a university clinic, so the results may not generalize to parents presenting in a pediatric or psychiatry setting who may not already be seeking behavioral treatment services. There is new evidence that parents' perceptions of medication change over the course of care, with parents prioritizing medication treatments less in the first 2 years of diagnosis [14].

Third, the medication perceptions questionnaire administered is limited in that it was only one item. Using a standardized measure like the ADHD Knowledge and Opinion Scale (AKOS) may give a better perception of parents' outlook on ADHD treatments more generally [36], although it does not ask specifically about parents' openness to medication treatment. Alternatively, some studies have used Best–Worst Scaling methodology to assess treatment preferences [14]. Further, the questionnaire did not ask about the use of a specific medication for ADHD (e.g., stimulant, nonstimulant). There are some data from the adherence literature suggesting it is likely that parents' perceptions of alternative medications may differ from their perceptions of stimulant medications due to differences in side effects and possible public opinion regarding classes of medications [37]. Unfortunately, we are not able to tease this apart.

A fourth limitation is the homogeneity of the sample. Although the sample size was large ( $n=151$ ), it was predominately Hispanic/Latino (82%) and boys (78%). However, as discussed above, Hispanic/Latino children represent the fastest growing group in the U.S. [35], so this may be considered a strength of this study. Further, as it has been demonstrated that boys are more likely to be referred to treatment for ADHD than girls [38, 39], the gender homogeneity of our sample is not surprising and is therefore reflective of clinical practice. In addition, study questionnaires were primarily filled out by mothers, so we cannot infer how these findings would change when fathers

or other caregivers are the raters. There is some qualitative data to suggest that fathers of school age boys have a diversity of perspectives on the diagnosis and treatment of their son's ADHD [33]. Future studies should evaluate the extent to which perceptions toward medication change over time, the extent to which there are differences in caregiver perceptions, and the degree to which these perceptions affect the rate of medication use for children for whom medication treatment is clinically indicated.

### Clinical Implications

The preliminary findings of this study are important for physicians, psychiatrists, psychologists and other health and mental health providers to consider, as more children are coming to clinical attention for ADHD in the preschool years. ADHD is a chronic health condition requiring long-term adherence to treatment. If the majority of parents are not open to medication, and their treatment provider prescribes medication for ADHD instead of prescribing behavior therapy, then it is possible that parent adherence to treatment may be impacted. The findings support the use of AAP guidelines when treating preschool aged children with ADHD. This includes recommending to parents behavior modification first, with medication only considered after behavior modification is not effective alone in treating symptoms [7].

Our findings also suggest that it is important to consider a child's level of behavior problems. Parents of children with more externalizing behavior problems (e.g., aggression, oppositionality) may be more open to medication treatment for their preschool aged child, but again should only be recommended medication treatment after behavior modification has been shown to not be effective [40, 41]. These findings should be taken into consideration by physicians and mental health professionals when discussing the child's treatment options with parents. Developing an awareness of parents' perception of medication treatment for their preschool-age children is important for all treatment providers of children in this age range. Similar to Hansen and Hansen's [16] recommendations, parents of preschoolers with ADHD may greatly appreciate the ongoing opportunity (i.e., not just at the initial treatment visit, but also at treatment follow-up visits) to share their thoughts and experiences about medication treatments with their clinician in order to maximize the adherence to recommended treatments and ultimately lead to an improved quality of care for these families.

### Summary

The present study sought to examine parent perceptions of medication use for preschool children with or at-risk

for ADHD who were medication naive. Parents completed questionnaires regarding family background and perceptions of medication treatment. Parents and teachers also completed ratings of child diagnostic symptomatology, behavioral functioning, and functional impairment. Results indicate that only 45% of parents were open to the possibility of medication. No associations were found between child demographics, severity of ADHD symptoms, or level of functional impairment and parental openness to medication. On the other hand, children of parents who were open to medication tended to have higher levels of oppositionality and aggression (as reported by parents but not teachers) compared with children of parents who were not open to medication. The preliminary findings of this study are important for physicians, psychiatrists, psychologists and other health and mental health providers to consider, as more children are coming to clinical attention for ADHD in the preschool years. However, future research is needed evaluate the extent to which perceptions toward medication change over time, the extent to which there are differences in caregiver perceptions, and the degree to which these perceptions affect the rate of medication use for children for whom medication treatment is clinically indicated.

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