

**INDIVIDUAL AND GROUP COGNITIVE-BEHAVIORAL THERAPY
FOR ADOLESCENTS WITH ADHD: TOWARD A DIFFERENTIATED
APPROACH TO TREATMENT FORMAT**

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Abstract: *This study examined individual and group cognitive-behavioral therapy (CBT) among adolescents with attention-deficit/hyperactivity disorder (ADHD), focusing on whether treatment format was associated with different patterns of symptom severity and functional impairment. The analysis was designed to move beyond a general comparison between receiving and not receiving CBT and to consider whether individual and group formats were linked to different outcomes.*

Method: *The study employed a quantitative, cross-sectional comparative design. The final sample included 105 adolescents aged 13–18 years ($M = 15.78$, $SD = 1.25$), all of whom reported a professional diagnosis of ADHD. Participants were equally divided into three groups: no CBT ($n = 35$), individual CBT ($n = 35$), and group CBT ($n = 35$). Outcomes included total ADHD symptom severity, inattention, hyperactivity, impulsivity, social-academic impairment, and functional quality-of-life impairment. Statistical analyses included independent-samples t -tests, one-way ANOVA with Tukey post hoc comparisons, Pearson correlation, and within-treatment gender comparisons.*

Results: *Adolescents who reported participation in CBT had lower total ADHD symptom severity than those who reported no CBT participation, $t(103) = 10.78$, $p < .001$, $d = 2.23$. Within the treated sample, adolescents in individual CBT reported lower inattention, hyperactivity, and impulsivity than adolescents in group CBT, with large effect sizes across all three symptom domains. Significant differences were also found among the three groups in social-academic impairment, $F(2, 102) = 84.004$, $p < .001$, $\eta^2 = .622$, and functional quality-of-life impairment, $F(2, 102) = 69.931$, $p < .001$, $\eta^2 = .578$. For both functional outcomes, the no-CBT group reported the highest impairment, the group-CBT condition showed intermediate levels, and the individual-CBT condition showed the lowest levels. Within group CBT,*

older age was associated with greater social-academic impairment. No significant gender differences were found within either CBT format.

Conclusion: *Treatment format was associated with meaningful differences in symptom and functional outcomes in this sample. Individual CBT was linked to the lowest levels of symptoms and impairment across the measures examined. These findings should be interpreted as between-group associations rather than evidence that individual CBT is causally superior, because the study did not include random assignment or pretreatment measurement. The results support further examination of treatment format as one element in matching CBT to adolescents' symptom profiles, functional difficulties, developmental characteristics, and treatment goals.*

Keywords: *ADHD, adolescents, cognitive-behavioral therapy, individual CBT, group CBT, treatment format, treatment matching, functional impairment.*

Literature Review

ADHD in Adolescence: Clinical Heterogeneity and the Need for Differentiated Treatment

ADHD during adolescence presents a particular clinical challenge because adolescents with the same diagnosis may experience their difficulties in very different ways. Inattention, hyperactivity, and impulsivity remain central features of the disorder, but their severity, combination, and functional consequences vary considerably across individuals (Drechsler et al., 2020). These differences become especially relevant during adolescence, when academic demands increase, social relationships become more complex, and young people are expected to manage more responsibilities independently.

The course of ADHD also changes across development. Some symptoms may become less prominent, while others remain stable or take on a different meaning as expectations change with age (Franke et al., 2018). Martel et al. (2021), in an eight-year longitudinal study of 836 children, found that difficulties with sustained attention and distractibility remained particularly central across developmental periods. At the same time, the strength and organization of symptom relationships varied according to context and informant. ADHD in adolescence should therefore be understood within a developmental framework in which the expression and impact of symptoms can shift over time.

The clinical burden of ADHD also extends well beyond symptom severity. Adolescents may struggle with academic performance, organization, task completion, peer relationships, emotional functioning, and quality of life. Social and emotional difficulties can interfere with relationships and reduce quality of life for adolescents and their families (Wehmeier et al., 2010). Academic functioning is closely linked to problems with attention, planning, organization, and self-management (Evans et al., 2018). For treatment planning, these functional difficulties are important because adolescents who meet the same diagnostic criteria may still require very different forms of support.

Variation in clinical presentation naturally raises questions about treatment selection. Boyer et al. (2016) found that anxiety and depressive symptoms were associated with different response trajectories to two CBT approaches during follow-up. Although the study did not identify a simple rule for assigning adolescents to one treatment, it showed that emotional characteristics may influence how treatment effects develop over time. Meyer et al. (2022) identified a different pattern: higher baseline hyperactivity and impulsivity, conduct problems, and emotional dysregulation were associated with greater self-reported benefit from structured skills training relative to psychoeducation. The characteristics associated with response differed between the studies, suggesting that treatment response cannot be explained by one clinical factor alone.

Treatment format may form part of this variation. Hanes et al. (2026) reported differences in treatment response according to gender, internalizing symptoms, and CBT format. Among girls, improvement was found in both individual and group CBT, but the change was greater in the individual format. The study does not provide a general rule for choosing one format over another, but it adds support to the idea that treatment format may interact with individual clinical characteristics.

The question, then, is not only whether CBT is effective for adolescents with ADHD. A more specific issue is whether different forms of CBT are equally suitable for adolescents with different symptom profiles, functional difficulties, developmental needs, and emotional characteristics. This perspective provides the basis for examining individual and group CBT as clinically distinct treatment contexts.

Cognitive-Behavioral Therapy for Adolescents with ADHD: Individual and Group Formats

CBT for adolescents with ADHD typically focuses on practical difficulties that interfere with everyday functioning. Common targets include organization, planning, distractibility, procrastination, and behavioral self-management. During adolescence, these areas become increasingly important because responsibilities that may previously have been managed by parents or teachers are gradually transferred to the young person.

Individual CBT provides one setting in which these difficulties can be addressed in a highly focused way. Sprich et al. (2016) evaluated a 12-session program for medication-treated adolescents aged 14–18 years. The intervention included psychoeducation, organization and planning, management of distractibility, adaptive thinking, procrastination, and relapse prevention, together with parental involvement aimed at supporting the use of skills outside therapy. In the randomized controlled trial, adolescents receiving CBT showed lower ADHD symptom severity and lower global clinical severity than those in the wait-list condition.

One advantage of individual treatment is the possibility of linking therapeutic work closely to problems encountered in the adolescent's own daily life. Difficulties with assignments, time management, distractions, or delayed task completion can be discussed in relation to specific situations that arise between sessions. This feature does not establish that individual CBT is generally more effective than other formats, but it does allow treatment content to be adjusted closely to the needs of one adolescent. The application of CBT in childhood requires developmental adaptation, including attention to children's cognitive and emotional capacities and the integration of behavioral techniques and social skills training (Krusteva-Ivanova M, 2021).

Group CBT offers a different treatment environment. Vidal et al. (2015) studied adolescents who continued to experience ADHD symptoms while receiving pharmacological treatment. Participants assigned to 12 sessions of manualized group CBT showed greater reductions in ADHD symptoms than those in the waiting-list condition, based on adolescent, parent, and clinician ratings. Improvements were also found in parent-rated functional impairment and in global functioning assessed by blinded evaluators.

The group setting adds therapeutic experiences that are less central to individual treatment. Adolescents can observe how others manage similar difficulties, compare strategies, discuss shared experiences, and practice skills in the presence of

peers. Andersen et al. (2022) examined these aspects in a feasibility and satisfaction study involving 48 adolescents aged 14–18 years who completed group CBT. Satisfaction and attendance were high, and participants particularly valued being with other adolescents and learning from peers. Older adolescents reported greater satisfaction with the program, indicating that acceptability may also vary within the adolescent age range.

Evidence for group CBT is not uniform. Haugan et al. (2022) studied 100 adolescents aged 14–18 years with ADHD or subthreshold ADHD who had already received psychoeducation and pharmacological treatment. Adding a 12-week group CBT program did not produce significant between-group differences from baseline to post-treatment in the primary ADHD symptom measures. Significant differences were also absent in functional impairment, executive functioning, emotional symptoms, self-efficacy, and self-esteem.

The different results reported by Vidal et al. (2015) and Haugan et al. (2022) suggest that group CBT should not be treated as a single, uniform intervention. Programs can differ in content, intensity, opportunities for practice, parental involvement, participant characteristics, and the treatment context in which CBT is provided. Delivery format is therefore only one element of the intervention adolescents actually receive.

The same complexity appears when researchers attempt to identify which adolescents benefit most from particular psychosocial approaches. Boyer et al. (2016) compared planning-focused and solution-focused CBT and did not identify one pretreatment characteristic that could provide a general allocation rule. During follow-up, however, anxiety and depressive symptoms were associated with different treatment trajectories. Meyer et al. (2022) identified another set of relevant characteristics: higher baseline hyperactivity and impulsivity, conduct problems, and emotional dysregulation were associated with greater self-reported benefit from structured skills training relative to psychoeducation, while age, sex, inattention, anxiety, and depression did not show the same moderating pattern. Together, these studies indicate that characteristics related to treatment response may vary according to the intervention and the outcome being examined.

This variability has also encouraged the development of more individualized approaches to adolescent ADHD treatment. The Individualised Modular Treatment Programme developed within the ESCAadol project was designed around

heterogeneity in clinical presentation (Geissler et al., 2018). Treatment modules could be selected according to ADHD symptoms, organizational difficulties, emotion regulation, self-confidence, family functioning, comorbid conditions, and barriers to treatment engagement. The program reflects an approach in which adolescents with the same diagnosis may require different combinations of therapeutic components.

A similar direction can be seen in the broader discussion of precision medicine in ADHD. Buitelaar et al. (2022) emphasized the substantial variability in treatment response and the difficulty of developing reliable methods for matching treatment to individual clinical characteristics. Individualized treatment is therefore an important clinical and research objective, although current evidence does not yet provide a fully established system for assigning adolescents to particular interventions.

Against this background, the distinction between individual and group CBT warrants direct examination. Individual CBT has shown favorable outcomes in controlled research (Sprich et al., 2016), while studies of group CBT have reported both positive and null findings (Vidal et al., 2015; Haugan et al., 2022). More recent work also suggests that treatment response may differ according to participant characteristics and treatment format (Hanes et al., 2026). Relatively little research, however, has compared individual and group formats across several symptom and functional domains within the same study.

The present study addresses this question by comparing adolescents who reported no CBT, individual CBT, or group CBT. The analyses examine total ADHD symptom severity, inattention, hyperactivity, impulsivity, social-academic impairment, and functional quality-of-life impairment. Age and gender are included as exploratory demographic variables. The aim is to examine whether treatment format is associated with different patterns of symptoms and functioning and whether it may represent one clinically relevant dimension in a more differentiated approach to CBT for adolescents with ADHD.

Method

The present study employed a quantitative, cross-sectional comparative design based on questionnaire data collected at a single measurement point. The final analytic sample consisted of 105 adolescents aged 13–18 years ($M = 15.78$, $SD = 1.25$), all of whom reported having received an ADHD diagnosis from a qualified professional. The sample included 44 boys (41.9%) and 61 girls (58.1%). Participants

were classified according to reported CBT participation into three equal groups: no CBT ($n = 35$), individual CBT ($n = 35$), and group CBT ($n = 35$).

The questionnaire-based assessment included the total ADHD-RS-IV score and measures of inattention, hyperactivity, and impulsivity. Scores were expressed on a 0–3 scale, with higher scores indicating greater symptom severity or impairment. Two broader functional outcomes were also examined: social-academic impairment, representing a composite of academic and social difficulties, and functional quality-of-life impairment, representing broader difficulties in everyday functioning. The full questionnaire demonstrated very high internal consistency (Cronbach's $\alpha = .988$), and the component measures showed satisfactory to high internal consistency.

Statistical analyses were conducted in SPSS. An independent-samples *t*-test compared adolescents who reported any form of CBT participation ($n = 70$) with those who reported no CBT participation ($n = 35$) on total ADHD symptom severity. Within the treated sample, independent-samples *t*-tests compared individual CBT ($n = 35$) and group CBT ($n = 35$) on inattention, hyperactivity, and impulsivity; unequal-variance estimates were used where appropriate. Differences in social-academic impairment and functional quality-of-life impairment across the three study groups were examined using one-way ANOVA followed by Tukey post hoc comparisons.

Age and gender were examined as additional demographic variables. Within the group-CBT condition, Pearson's correlation was used to examine the association between age and social-academic impairment. Gender differences were examined separately within the individual- and group-CBT conditions for total ADHD symptom severity, social-academic impairment, and functional quality-of-life impairment. These analyses were interpreted as exploratory within-group associations rather than formal moderation analyses because treatment-by-age and treatment-by-gender interaction terms were not tested. Because the study did not include pretreatment baseline measurement or random assignment, the findings were interpreted as between-group associations rather than evidence of treatment-induced change.

CBT Participation and Total ADHD Symptom Severity

The first analysis examined whether adolescents who reported participation in any form of CBT differed in overall ADHD symptom severity from adolescents who reported no CBT participation. The combined CBT group included 70 participants, comprising 35 adolescents who reported individual CBT and 35 who reported group

CBT, whereas the no-CBT group included 35 participants. Adolescents in the no-CBT group reported substantially higher total ADHD-RS-IV scores ($M = 2.01$, $SD = 0.44$) than adolescents in the combined CBT group ($M = 0.98$, $SD = 0.47$). This difference was statistically significant, $t(103) = 10.78$, $p < .001$, with a mean difference of 1.02 points and a very large effect size, Cohen's $d = 2.23$. Thus, reported participation in CBT was associated with lower total ADHD symptom severity in the present sample. Because the study compared groups at a single measurement point and did not include baseline measurement or random assignment, this result represents a between-group association rather than evidence of treatment-induced symptom change.

Individual and Group CBT Across Symptom and Functional Outcomes

The comparison between individual and group CBT revealed a consistent pattern across the three ADHD symptom domains. Adolescents who reported individual CBT had lower inattention scores ($M = 0.78$, $SD = 0.42$) than those who reported group CBT ($M = 1.24$, $SD = 0.46$), and the difference was statistically significant, $t(68) = -4.38$, $p < .001$, Cohen's $d = -1.05$. The mean difference of approximately 0.46 points represented a large between-group effect.

The same direction emerged for hyperactivity. Participants in individual CBT reported lower hyperactivity scores ($M = 0.71$, $SD = 0.33$) than participants in group CBT ($M = 1.22$, $SD = 0.50$). Because the assumption of equal variances was not met, the unequal-variances estimate was used. The difference was significant, $t(59.36) = -5.03$, $p < .001$, with a large effect size, Cohen's $d = -1.20$. Impulsivity showed an almost identical pattern: the individual-CBT group reported a mean of 0.69 ($SD = 0.35$), compared with 1.19 ($SD = 0.46$) in the group-CBT condition. Again, unequal variances were taken into account, and the difference was significant, $t(63.97) = -5.10$, $p < .001$, Cohen's $d = -1.22$. Thus, individual CBT was associated with lower reported levels of inattention, hyperactivity, and impulsivity within the treated sample.

The comparison was then extended from core ADHD symptoms to broader functioning. Significant differences among the no-CBT, individual-CBT, and group-CBT conditions were found for social-academic impairment, $F(2, 102) = 84.004$, $p < .001$, $\eta^2 = .622$. Participants who reported no CBT had the highest level of social-academic impairment ($M = 2.04$), followed by participants in group CBT ($M = 1.22$), whereas participants in individual CBT reported the lowest impairment ($M = 0.78$). Tukey post hoc comparisons indicated that all three pairwise differences were statistically significant. Accordingly, both CBT groups reported less impairment than

the no-CBT group, while the individual-CBT group also reported significantly less impairment than the group-CBT condition.

Functional quality-of-life impairment followed the same ordering. The overall group effect was statistically significant, $F(2, 102) = 69.931$, $p < .001$, $\eta^2 = .578$. Adolescents who reported no CBT showed the highest impairment ($M = 2.00$, $SD = 0.48$), those who reported group CBT showed an intermediate level ($M = 1.26$, $SD = 0.49$), and those who reported individual CBT showed the lowest impairment ($M = 0.73$, $SD = 0.38$). Tukey post hoc comparisons indicated that all pairwise differences were statistically significant. The consistency of this ordering across ADHD symptoms, social-academic functioning, and functional quality of life constitutes the principal empirical pattern of the study.

Age and Gender in Treatment-Format Outcomes

Age was examined within the group-CBT condition in relation to social-academic impairment. A significant positive correlation was found between age and impairment, $r = .362$, $p = .033$. Older adolescents in the group-CBT condition therefore reported higher levels of social-academic impairment. This direction was contrary to the original expectation that older age would be associated with more favorable functioning in the group format. Because the analysis was conducted only within the group-CBT condition and did not test a treatment-by-age interaction, the finding represents an age-related association rather than evidence that age moderated the effect of treatment format.

Gender comparisons were conducted separately within the individual- and group-CBT conditions. In the individual-CBT group, which included 26 boys and 9 girls, no significant gender difference was found in total ADHD symptom severity, $t(33) = -0.199$, $p = .844$; social-academic impairment, $t(33) = -0.106$, $p = .916$; or functional quality-of-life impairment, $t(33) = -0.318$, $p = .753$. In the group-CBT condition, which included 11 boys and 24 girls, gender differences were likewise nonsignificant for total ADHD symptoms, $t(33) = 0.842$, $p = .406$; social-academic impairment, $t(33) = 0.350$, $p = .728$; and functional quality-of-life impairment, $t(33) = 1.187$, $p = .244$. The present data therefore did not show significant gender differences in the measured outcomes within either CBT format.

Discussion

Discussion

The findings point to two related issues in the treatment of adolescents with ADHD. First, adolescents who reported receiving either individual or group CBT had lower overall ADHD symptom severity than those who reported no CBT. Second, differences also appeared within the treated sample: adolescents who reported individual CBT had lower levels of inattention, hyperactivity, and impulsivity than those who reported group CBT. A similar ordering was found in the functional outcomes.

The association between CBT participation and lower symptom severity is consistent with previous research showing that ADHD-focused CBT can be useful when it addresses concrete problems such as planning, organization, distractibility, procrastination, and behavioral self-management (Sprich et al., 2016; Evans et al., 2018). In the present sample, the distinction between receiving and not receiving CBT was also visible outside a randomized trial setting. Because participants were assessed at a single point in time, however, the study cannot determine whether CBT produced the lower symptom scores or whether the groups differed in other ways before treatment.

The comparison between individual and group CBT raises a different set of questions. Lower scores in the individual-CBT group were found across all three symptom domains, suggesting that the pattern was not limited to one aspect of ADHD. One possible explanation concerns the degree of tailoring available in individual treatment. Sessions can be organized around difficulties that are especially relevant to one adolescent, such as missed assignments, poor time management, distractibility during homework, procrastination, or problems with behavioral regulation. The protocol evaluated by Sprich et al. (2016) provides an example of this kind of structured and individualized work.

Personalization, however, was not measured directly in the current study. Information about the actual content, duration, intensity, and quality of the interventions was not available. Differences between the groups may therefore reflect features other than treatment format itself, including variation in treatment intensity, therapist practice, participant selection, or other clinical characteristics. Tailoring should be considered a possible explanation for the observed pattern rather than a demonstrated mechanism.

Group CBT also requires a cautious interpretation. Controlled studies have shown that group-based treatment can be beneficial for adolescents with ADHD.

Vidal et al. (2015) reported reductions in symptoms and functional impairment following manualized group CBT compared with a waiting-list condition. Haugan et al. (2022), in contrast, found no significant additional benefit when group CBT was added after psychoeducation and pharmacological treatment. The difference between these studies suggests that outcomes may depend substantially on how group treatment is designed and implemented.

The term "group CBT" can therefore refer to interventions that differ in meaningful ways. Programs may vary in session structure, number of treatment components, opportunities for practice, parental involvement, therapist expertise, and the extent to which individual difficulties can be addressed within the group. Haugan et al. (2022) noted several such factors when discussing their findings, including limited opportunities for practice and the absence of parent involvement. These differences make it difficult to attribute outcomes to format alone.

At the same time, group treatment offers therapeutic experiences that individual treatment cannot fully reproduce. Adolescents can observe peers who face similar difficulties, compare strategies, receive feedback, and discuss shared experiences. Andersen et al. (2022) reported high satisfaction and positive evaluations of peer participation and peer learning among adolescents who completed group CBT. These outcomes are relevant because they reflect aspects of treatment that are not captured by symptom scores alone.

The measures used in the present study did not assess belonging, peer support, communication, interpersonal confidence, or normalization. As a result, the lower symptom and impairment scores found in the individual-CBT group do not represent all possible outcomes of group treatment. A comparison based mainly on symptom severity and broad functional impairment may overlook benefits that are specific to the group setting.

The demands of the group environment may also help explain why treatment format does not affect all adolescents in the same way. Group participation requires sustained listening, waiting for others to speak, shifting attention between speakers, following shared rules, and remaining engaged in a socially stimulating setting. These demands overlap with some of the difficulties associated with ADHD. For one adolescent, the group may create useful opportunities to practice regulation and social interaction. For another, the same environment may make it harder to concentrate on

treatment content. This difference supports examining treatment format in relation to individual symptom and functional profiles.

The functional findings add weight to this interpretation. The same general ordering seen in ADHD symptoms also appeared in social-academic impairment and functional quality-of-life impairment. Adolescents who reported individual CBT showed the lowest impairment, the group-CBT condition occupied an intermediate position, and the no-CBT group showed the highest impairment. This pattern is clinically relevant because ADHD affects much more than symptom frequency. Difficulties with schoolwork, planning, relationships, self-management, and everyday functioning contribute substantially to the burden experienced by adolescents (Wehmeier et al., 2010; Evans et al., 2018).

The social-academic measure should still be interpreted carefully because it combines two domains that may respond differently to treatment. Academic difficulties may involve organization, deadlines, sustained attention, and task completion, while social difficulties may involve peer relationships, communication, belonging, or conflict. The lower composite score in the individual-CBT group therefore does not show whether the difference was driven mainly by academic functioning, social functioning, or both. Future studies should separate these domains, particularly because group CBT may plausibly have different effects on academic organization and interpersonal functioning.

Existing research on treatment matching also suggests that no single characteristic is likely to explain who benefits most from a particular intervention. Boyer et al. (2016) found that anxiety and depressive symptoms were related to different treatment trajectories during follow-up, but did not identify a general rule for treatment allocation. Meyer et al. (2022) found that hyperactivity/impulsivity, conduct problems, and emotional dysregulation were associated with differential response, while several other characteristics were not. Hanes et al. (2026) further reported differences associated with gender, internalizing symptoms, and treatment format. Together, these studies indicate that treatment response is likely to depend on a combination of clinical and developmental factors rather than on a single variable.

A treatment-matching perspective therefore requires attention to several dimensions at once, including symptom profile, emotional difficulties, self-regulation, functional problems, developmental stage, and treatment goals. Treatment format can be considered one part of this broader clinical picture rather than an isolated choice.

The age finding adds a developmental dimension to the results. Within the group-CBT condition, older adolescents reported greater social-academic impairment. This was contrary to the original expectation that older age would be associated with more favorable functioning in the group setting. One possible explanation is that the demands placed on adolescents increase with age. Older adolescents are generally expected to manage more complex academic tasks, longer-term assignments, schedules, social responsibilities, and greater independence. These demands may make existing difficulties more visible or more consequential (Drechsler et al., 2020).

The age result remains tentative. Age was examined only within the group-CBT condition, and no treatment-by-age interaction was tested. The finding therefore reflects an association within one subgroup rather than evidence that age changes the effect of group treatment. A longitudinal design would be needed to determine whether treatment needs change systematically across adolescence.

Gender showed a different pattern. No significant gender differences were found within either CBT format for the outcomes examined. In this sample, gender did not distinguish symptom severity or functional impairment within treatment conditions. Given the relatively small and uneven gender subgroups, the result should not be generalized into a broader conclusion about gender and CBT response. Research that examines gender together with internalizing symptoms and other clinical characteristics may provide a more informative picture (Hanes et al., 2026).

From a clinical perspective, the results suggest that treatment planning should consider not only whether CBT is appropriate, but also how it is delivered. Individual treatment may be especially useful when therapy needs to focus intensively on personally specific difficulties involving organization, planning, procrastination, distractibility, task completion, or self-regulation. Group treatment may be particularly relevant when goals include peer learning, shared experience, social practice, or normalization. The suitability of either format is likely to depend on how well its demands and opportunities fit the adolescent's needs.

Comparisons between treatment formats should also take treatment goals into account. If improvement is judged mainly through ADHD symptom scores, one pattern may emerge. If outcomes include peer support, interpersonal confidence, treatment satisfaction, belonging, or social learning, the picture may look different. Future studies should therefore include outcome measures that reflect the distinctive therapeutic opportunities offered by both individual and group CBT.

Several methodological limitations restrict the conclusions that can be drawn. Participants were not randomly assigned to treatment, and pretreatment scores were unavailable. Differences between the groups may therefore have existed before treatment began. The study also relied on adolescent self-report and did not include reports from parents, teachers, clinicians, or objective behavioral measures.

Information about the interventions themselves was limited as well. Treatment duration, session frequency, protocol content, therapist training, treatment fidelity, homework, parental involvement, medication status, and concurrent treatments were not documented in sufficient detail. For this reason, the observed differences cannot be attributed confidently to delivery format alone.

Future research should compare individual and group CBT prospectively, document the treatment received in greater detail, and test formal interactions between treatment format and participant characteristics. Social and academic functioning should be measured separately, and group-specific outcomes such as peer learning, belonging, interpersonal confidence, and treatment satisfaction should be included alongside symptom measures. This would allow future studies to move beyond broad format comparisons and examine which treatment context is most suitable for which adolescents.

Synthesis and Conclusion

The findings of this study suggest that treatment format deserves attention when CBT is considered for adolescents with ADHD. Across both symptom and functional measures, adolescents who reported individual CBT showed lower levels of difficulty than those who reported group CBT, while adolescents who reported no CBT generally showed the greatest impairment. The consistency of this pattern across several outcomes makes treatment format clinically relevant, even though the present design does not allow causal conclusions.

The study also shows why comparisons between individual and group CBT should not be reduced to a simple question of which format is better. The two formats create different therapeutic conditions. Individual CBT allows treatment to be closely adapted to the adolescent's own difficulties, while group CBT offers opportunities for shared experience, peer learning, and interpersonal practice. The measures used in the present study captured symptoms and broad functioning but did not assess several

outcomes that may be especially relevant to group treatment. This limits how far the observed differences can be interpreted.

From this perspective, the main contribution of the study is the identification of treatment format as a potentially meaningful part of treatment planning. The results do not support using one format as a general solution for all adolescents with ADHD. Instead, they point toward the need to consider how the demands and opportunities of each format fit the adolescent's particular difficulties and treatment goals.

The age finding adds a developmental dimension to this question. Older adolescents in the group-CBT condition reported greater social-academic impairment, although the study did not test whether age actually changed the effect of treatment format. No significant gender differences were found within either CBT condition. These findings should therefore be treated as exploratory and examined more directly in future research.

The conclusions are limited by the cross-sectional design, the absence of pretreatment measures and random assignment, and the lack of detailed information about the interventions participants received. Future studies should compare treatment formats prospectively, document treatment characteristics more closely, and include outcomes that reflect both symptom change and the specific benefits expected from individual and group treatment.

Overall, the study suggests that the way CBT is delivered may be relevant to treatment planning in adolescent ADHD. Treatment format may be most useful when considered alongside the adolescent's symptom pattern, functional difficulties, developmental stage, and treatment goals rather than as an isolated treatment decision.

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