



A product of the American Occupational Therapy Association's
Evidence-Based Literature Review Project

Reading used as therapeutic technique may reduce the intensity of oppositional behaviors in children with Attention Deficit/Hyperactivity Disorder (ADHD)

CITATION: Long, N., Rickert, V. I., & Ashcraft, E. W. (1993). Bibliotherapy as an adjunct to stimulant medication in the treatment of attention-deficit hyperactivity disorder. *Journal of Pediatric Health Care, 7*, 82–88.

LEVEL OF EVIDENCE: IA1a

RESEARCH OBJECTIVE/ QUESTION

To examine the effects of bibliotherapy, “reading used as a therapeutic technique as an adjunctive intervention to the use of stimulant medication in the management of children with ADHD.

DESIGN

	RCT		Single case		Case control
	Cohort	X	Before–after		Cross-sectional

RCT = randomized control trial

2 groups: Experimental and control

SAMPLING PROCEDURE

	Random		Consecutive
X	Controlled		Convenience

Age, diagnosis, child-prescribed methylphenidate, demographic questionnaire, pretest measures

SAMPLE

N = 32 families	M age = 6–11 years	Male = 26	Ethnicity = NR	Female = 6
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NR = Not reported.

17 families were assigned to the experimental group.

15 families were assigned to the control group.

PARTICIPANT CHARACTERISTICS

Not reported

MEDICAL DIAGNOSIS/CLINICAL DISORDER

ADHD

OT TREATMENT DIAGNOSIS

N/A

OUTCOMES

Measures	Reliability	Validity
Conner's Parent Rating Scale Hyperactivity Index (CPRS-HI)	Interrater reliability = 0.55 ($p < 0.001$)	Y, but no specific data reported
Eyberg Child Behavior Inventory (ECBI)	Test-retest = 0.88 for problem score, 0.86 for intensity; internal consistency coefficient = 0.98; split-half reliability = 0.90-0.94	"Has been established through factor analytic studies reporting adequate discrimination between children considered normal, children with conduct problems, neglected children and other children clinic referred."
Home Situations Questionnaire (HSQ)	Y, but no specific data reported	Y, but no specific data reported
Behavior Rating Profile-Teacher Rating Scale (BRP-T)	Test-retest = 0.91; internal consistency = 0.87-0.98	Not reported
Knowledge of Behavioral Principles as Applied to Children (KBPAC)-short version used in this study	No data exists for short version	No data exists for short version

Outcome—OT terminology

Performance components:

Psychosocial skills and psychological components (focusing mainly on the presence and intensity of behavior problems in different settings)

Outcome—ICIDH-2 terminology

Impairments

INTERVENTION

Bibliotherapy: Parents received self-help document on managing behavior in children with ADHD.

Experimental group: Standard treatment plus written behavior management protocol to take home

Control group: Standard treatment

Description

- Behavioral protocol written for this study (major techniques presented were attending, rewarding, ignoring, giving directions, using time-out, and using behavioral charts).
- 7th-grade reading level

Who delivered

Mailed questionnaires

Setting

Outpatient pediatric clinic

Frequency

1 visit (enrollment and pretest)

Duration

2 months after enrollment, questionnaires sent to teachers and families

Follow-up

N/A

RESULTS

- No significant differences were found for pretest variables.
- t Tests to assess treatment effects were performed on the data collected 2 months after enrollment in the study.
- Significant difference was noted on the KBPAC completed by parents [$t(20) = 2.08, p = 0.052$], indicating that parents in the experimental group tended to have a greater knowledge of behavior principles at follow-up.
- Significant differences were found on the ECBI intensity scores [$t(20) = -2.14, p < 0.05$] and the HSQ intensity scores [$t(21) = -2.48, p < 0.05$]. Oppositional behavior

problems in the experimental group were reported to be less intense than those in the control group.

- Statistically significant difference between groups was found on the BRP–T that was completed by teachers [$t(26) = 2.66, p < 0.05$]. This result indicates that teachers reported less intense behavior problems in the experimental group than in the control group. No significant difference was noted on the CPRS–HI [$t(21) = -1.68, p > 0.1$].

CONCLUSIONS

- The use of bibliotherapy in the primary care setting to assist patients with behavior management offers the advantages of minimal cost and easy dissemination.
- Bibliotherapy can have a positive impact on families with children with ADHD. Parental knowledge of behavioral principles related to child behavior can be increased through reading materials provided to parents during a clinic visit.
- Although behavior problems continued, the intensity of these problems appears to be significantly reduced as a result of the bibliotherapy intervention.
- Teachers who were blind to the study's purpose also rated the postintervention behavior problems of children in the experimental group as less intense than those of children in the control group. The finding of no significant postintervention difference between the experimental and control groups on the CPRS–HI is not surprising given that this scale primarily assesses impulsivity, attention, and activity levels.

LIMITATIONS

This study examines a simple, cost-effective intervention for children with ADHD (i.e., giving parents reading material on behavioral management strategies). Protocols that parents were given to read were rewritten and adapted specifically for this study, therefore, it is not clear how to determine whether it was the content that was beneficial. Sample size was small due to a 33% dropout rate. Numerous *t*-tests were performed on the posttreatment measures vs. more appropriate pre-post statistical analysis.

A weakness is the use of parent and teacher report measures as opposed to direct observational measures.

- Terminology used in this document is based on two systems of classification current at the time the evidence-based literature reviews were completed: *Uniform Terminology for Occupational Therapy Practice—Third Edition* (AOTA, 1994) and *International Classification of Functioning, Disability and Health (ICIDH-2)* (World Health Organization [WHO], 1999). More recently, the *Uniform Terminology* document was replaced by *Occupational Therapy Practice Framework: Domain and Process* (AOTA, 2002), and modifications to *ICIDH-2* were finalized in the *International Classification of Functioning, Disability and Health* (WHO, 2001).

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For more information about the Evidence-Based Literature Review Project, contact the Practice Department at the American Occupational Therapy Association, 301-652-6611, x 2040.

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