

## DOCUMENT RESUME

ED 464 461

EC 308 973

AUTHOR Friedman, Karen; Damare, Michelle Miller; Leone, Peter  
TITLE Relationship of School-Based Mental Health Services to  
Assessment of Student Behavior.  
INSTITUTION University of South Florida, Tampa. Research and Training  
Center for Children's Mental Health.  
SPONS AGENCY National Inst. on Disability and Rehabilitation Research  
(ED/OSERS), Washington, DC.  
PUB DATE 2000-00-00  
NOTE 5p.; In: A System of Care for Children's Mental Health:  
Expanding the Research Base. Proceedings of the Annual  
Research Conference (13th, Tampa, FL, March 5-8, 2000).  
CONTRACT H133B90022  
AVAILABLE FROM For full text: [http://rtckids.fmhi.usf.edu/  
conference\\_proceedings.htm](http://rtckids.fmhi.usf.edu/conference_proceedings.htm).  
PUB TYPE Reports - Research (143) -- Speeches/Meeting Papers (150)  
EDRS PRICE MF01/PC01 Plus Postage.  
DESCRIPTORS \*Behavior Problems; Delivery Systems; Elementary Education;  
\*Emotional Problems; Integrated Services; \*Intervention;  
\*Mental Health Programs; Models; Parent Attitudes; Program  
Effectiveness; Student Attitudes; Teacher Attitudes  
IDENTIFIERS \*Montgomery County Public Schools MD

## ABSTRACT

This study evaluated the effectiveness of the Linkages to Learning (LTL) model of service delivery on the behavior of 119 students, 73 in a school receiving LTL services and the remainder attending a matched control school in Montgomery County, Maryland. LTL is a model for collaborative, school-based delivery of an array of mental health, social service, and educational services. Program highlights included the development of a series of early intervention social skills groups for children, acculturation workshops for parents, a comprehensive mental health assessment protocol, individual and group therapy for children and/or families, English classes for parents, and a therapeutic summer camp program. Data were collected from teachers, parents, and the children themselves. Analysis indicated positive outcomes for children and families in behavioral and emotional domains. Teacher-reported negative behaviors and children's self-reported emotional distress symptoms increased at the control school but not at the experimental school. Parents who received direct LTL services reported positive gains. (DB)

## **Relationship of School-Based Mental Health Services to Assessment of Student Behavior**

**Karen Friedman  
Michelle Miller Damare  
Peter Leone**

### **Introduction**

Linkages to Learning (LTL) is a model for collaborative, school-based delivery of an array of mental health, social service and educational services to children and their families. It was developed in Montgomery County, Maryland to address the needs of an increasingly diverse, transient, and impoverished population. Its purpose is to increase parental knowledge and awareness of the full range of health and human services available to them and to their children and to assist them in receiving these services.

LTL staff included a program coordinator, case managers, mental health therapists, community service aides, school community health nurses, and health room technicians. Program highlights were the development of a series of early intervention social skills groups for children, acculturation workshops for parents, a comprehensive mental health assessment protocol, individual and group therapy for children and/or families, English classes for parents, and a therapeutic summer camp program.

The purpose of this study was to evaluate the effectiveness of LTL on students' behaviors by comparing the socio-emotional and behavioral functioning of children within an experimental LTL school and a control school without LTL services. To obtain multiple perspectives, information was obtained from parents, teachers, and children.

### **Method**

Data were collected over a 3-year period from 119 children ( $N = 119$ ), their teachers, and their parents in two schools: one receiving LTL services ( $n = 73$ ), the other a matched control school ( $n = 46$ ) selected from the same school system. Subjects were selected from an original population of 213 children based on parents who consented to participate. Within the experimental school, there was considerable variability in the number and variety of services received; however, 61% of the families received Linkages services at some time. An analysis of ethnicity and other demographic factors indicated that there were few differences between Linkages service users and the general school population.

Within both schools, all children had the same data collected during the Spring prior to the start of LTL services and each subsequent Spring. Measures were obtained from teachers on the Teacher-Child Rating Scale (T-CRS; Hightower, et al., 1986), from parents on the Child Behavior Checklist (CBCL; Achenbach, 1991), and from the children themselves on the Levonn Scale of Child Distress (Richters, Martinez, & Valla, 1990).

### **Results**

#### **Parent Perceptions**

The CBCL was used to assess parent perceptions of children's emotional and behavioral difficulties. The overall ANOVA results and simple effects at baseline and again at the end of the third year indicated no significant differences between the two schools on either the externalizing or internalizing subscales. There was a significant decrease in the mean problem behaviors on both subscales over time. As shown in Figure 1, there was a significant Time x School interaction for the externalizing ( $F(2,66) = 13.43, p < .001$ ) subscale. An almost identical significant interaction pattern was shown for the internalizing subscale ( $F(1,67) = 6.38, p < .014$ ).

Post hoc comparisons explain these interactions further. Children from the comparison school showed no significant change over time on either the externalizing scale ( $t(36) = .22, p = .823$ ) or the internalizing scale ( $t(36) = .14, p = .893$ ). In contrast, the scores for the children from the LTL school

showed a significant decrease on both subscales (externalizing,  $t(31) = 4.45, p < .001$ ; and internalizing,  $t(31) = 3.78, p < .001$ ). This suggests that LTL is having a school-wide positive impact on reducing problem behaviors reported by parents.

Changes in the CBCL also were examined by evaluating differences between children at the comparison school and children who were receiving services or were not receiving services from LTL. In this ANOVA, significant interactions were found between the three groups on both the externalizing ( $F(2,66) = 7.06, p = .002$ ) and internalizing subscales ( $F(2,66) = 4.72, p = .012$ ).

At baseline, children receiving services had higher externalizing scores than children who did not receive services. By the end of the study, scores for children in both groups at the experimental school improved significantly over time and were quite close or were lower than those of the children in the comparison school. However, there were significant differences between the two groups at the experimental school and children in the comparison school.

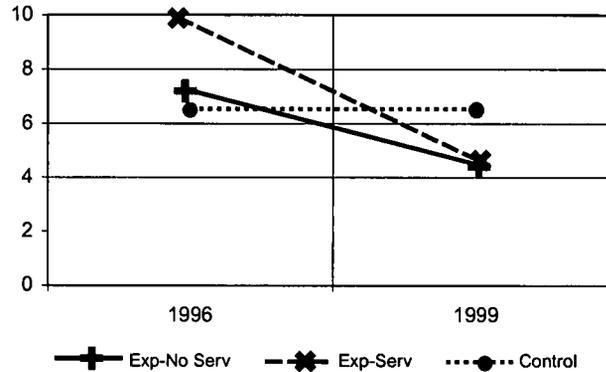
### Teacher's Perceptions

Data regarding both negative and positive child behaviors in the classroom were collected from teachers using the T-CRS. While the School x Time interaction for negative behaviors was not statistically significant ( $F(1,93) = 3.58, p = .062$ ), the trends (See Figure 2) indicated a positive effect at the experimental school.

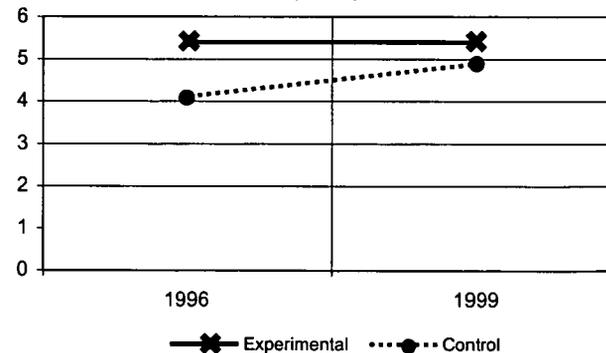
At baseline, teachers at the experimental school reported children as having significantly more negative behaviors ( $t(98) = 3.85, p < .001$ ) and significantly fewer positive behaviors ( $t(98) = -2.10, p = .038$ ) than teachers reported for children at the comparison school. At the end of the third year, the schools were no longer significantly different from each other on the negative subscale ( $t(111) = 1.62, p = .108$ ). Teachers reported children at the comparison school showing increasing behavior problems. This trend was true for both groups of children at the experimental school. The children at the comparison school had an increase in negative behaviors over the 3 years, while the children at the experimental school did not show a similar trend. Like parents, teachers reported that children receiving services were most in need of services.

No differences were exhibited in positive teacher-reported behaviors between children in the three groups. However, teachers are not often asked to evaluate strengths.

**Figure 1**  
Parent-Reported Child Externalizing Behaviors  
( $n = 69$ )



**Figure 2**  
Teacher-Reported Child Negative Behaviors  
( $n = 95$ )



### Children's Perceptions

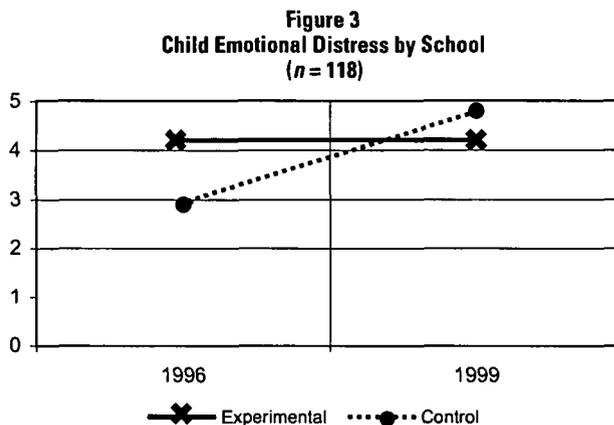
The Levonn Scale was used to assess the child's own perception of distress. Within the ANOVA results, there was a significant School x Time interaction ( $F(2,116) = 6.80, p = .010$ ). As can be seen in Figure 3, at baseline, the two schools were significantly different from each other ( $t(116) = 2.56, p = .012$ ) with children at the comparison school having significantly lower distress scores. The levels of distress for children at the experimental school remained stable over the 3-year period of time. However, the scores for the children the comparison school increased significantly ( $t(43) = 3.41, p = .001$ ) and surpassed scores for children at the experimental school. It is possible that the presence of the LTL program may be serving as a protective factor.

The influence of LTL services may not only be in terms of direct services provided to students, but may also be the result of programs directed at entire classes, at teachers, and at parents (e.g., activities that sought to increase awareness of emotional distress and teach the community strategies to help children in distress learn to cope and problem-solve effectively).

### Discussion

Data from multiple sources indicated positive outcomes for children and families in behavioral and emotional domains. In some areas, functioning of children and parents in the experimental school improved over time, while outcomes in the control school were stable. Teacher-reported negative behaviors and children's self reported emotional distress symptoms increased at the control school but not at the experimental school. Even more compelling are the findings from the parents' perspective that demonstrated particularly positive gains among children and families who received direct services through the Linkages to Learning program.

Future research is needed to assess whether these outcomes can be sustained. In particular, we need to understand whether or not children maintain positive gains as they move into middle and high school, and whether such changes make a difference in these children becoming self-sufficient, well adjusted and productive members of society.



## References

- Achenbach, T. (1991). *Manual for the Child Behavior Checklist/4-18 and 1991 Profile*. Burlington, VT: University of Vermont Department of Psychiatry.
- Hightower, A. D., Work, W. C., Cowen, E. L., Lotyczewski, B. S., Spinell, A. P., Guare, J. J., & Rohrbeck, C. A. (1986). The Teacher-Child Rating Scale: A brief objective measure of elementary children's school problem behaviors and competencies. *School Psychology Review, 15*, 393-409.
- Richters, J. E., Martinez, P., & Valla, J. P. (1990). *Levonn: A cartoon-based structured interview for assessing young children's distress symptoms*. Rockville, MD: National Institute of Mental Health.

---

## CONTRIBUTING AUTHORS

### **Karen Friedman**

University of Maryland, Dept. of Special Education, Benjamin Bldg, College Park, MD 20742, Phone: 301/384-2754 Fax: 301-384-0826, E-mail: Gbs311@aol.com

### **Michelle Miller Damare**

University of Maryland, Dept. of Special Education, Benjamin Bldg, College Park, MD 20742, Phone: 202/363-7488, E-mail: damare@erols.com

### **Peter Leone**

University of Maryland, Dept. of Special Education, Benjamin Bldg, College Park, MD 20742, Phone: 301/405-6489, Fax: 301/314-5757, E-mail: leonep@wam.umd.edu



**U.S. Department of Education**  
Office of Educational Research and Improvement (OERI)  
National Library of Education (NLE)  
Educational Resources Information Center (ERIC)



## NOTICE

### REPRODUCTION BASIS



This document is covered by a signed "Reproduction Release (Blanket) form (on file within the ERIC system), encompassing all or classes of documents from its source organization and, therefore, does not require a "Specific Document" Release form.



This document is Federally-funded, or carries its own permission to reproduce, or is otherwise in the public domain and, therefore, may be reproduced by ERIC without a signed Reproduction Release form (either "Specific Document" or "Blanket").