Chapter Six

Resilience & Early Intervention

Symposium

Promoting Resiliency in Families: Innovative Program in Schools, Courts, Child Welfare, and Mental Health

Chair
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Symposium Introduction

Kay Hodges

One of the recommendations of The President's New Freedom Commission on Mental Health is to accelerate research to promote recovery in adults and resilience in children. This symposium summary describes four programs aimed at promoting resilience in youths and their caregivers, as well as the innovative measures used by these programs to assess resilience. Two of the programs are housed in schools, one in juvenile court, and another in child welfare. Rosas reports on the results of a cluster analysis conducted on the Child and Adolescent Functional Assessment Scale (CAFAS; Hodges 2000) for elementary school-aged children who received school-based prevention services. Outcomes for these different groups of children, some of whom were pervasively impaired, are presented. Timmons-Mitchell and her colleagues describe an innovative program in which Multi-Systemic Therapy (MST) was delivered within a school-based program. They report impressive outcomes on the CAFAS for these high school students with conduct-disorder. Hull and colleague describe a resiliency-based approach to working with parents receiving reunification services in a child welfare setting (i.e., treatment after children have been returned to the parents' home subsequent to temporary removal by the court for abuse or neglect). The Caregiver Wish List (Hodges, 2004), which is a strengths-based tool for assessing parental perceptions of their own parenting skills, is used to promote a collaborative, skill-building orientation to treatment that appears to enhance the therapeutic alliance and engagement in treatment. A court-sponsored program for screening truant youths in a large, urban city is described by Smith. The Juvenile Inventory for Functioning (Hodges, 2003), which is a screening tool based on the CAFAS, was used to determine the needs of the youths and the families. Based on this screening, interviewers informed about the formal and informal resources available within the local community helped caregivers identify programs (e.g., after-school, tutoring, recreational) that could foster resiliency in these youths.

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Functional Impairment Outcomes for Children Served by a School-based Preventive Intervention

Scott Rosas

Introduction

The State of Delaware's child mental health system includes a comprehensive school-based preventive intervention focused on the amelioration of behavioral and social problems. The approach is flexible and combines social skill development, problem-solving skills training, individual and class-wide behavior management components, and parent skills training and support. The approach is similar to other school-based interventions designed to reduce inappropriate and aggressive behaviors, improve prosocial behaviors, academic engagement and behavioral compliance, and reduce parent aversive behavior during problem-solving situations (e.g. Nelson, Martella, & Marchand-Martella, 2002; Kamps, Kravits, Stolze, & Swaggart, 1999; Reid, Eddy, Fetrow, & Stoolmiller, 2000).

The school-based intervention to which children in this study were referred represented the front end of the services continuum and for some was the first contact with the mental health system. Previous work found a range of functional problems among children referred for these services with varying degrees of successful outcome (Rosas, 2004). To determine whether different groups of children referred to the intervention could be supported to improve functioning within the school setting, this study examined outcomes at six months using several criteria.

Method

This study included 569 children, across 54 Delaware elementary schools, referred by teachers and staff for emotional and/or behavioral problems that interfered with learning. The sample was predominantly African American (51.7%) and Caucasian (39.9%). Sixty-eight percent were male, and children ranged in age from 5 to 12 years (M = 7.9 years; SD = 1.25). More than 73% of the sample lived in single-parent households and slightly more than 26% were from two-parent households. Teachers referred more than one-third of the children for primarily aggressive/disruptive behaviors. The percentages of children identified as academically at-risk or performing unsatisfactorily in math and reading were 41% and 45%, respectively.

Upon referral to the intervention, children's impairment level was assessed at intake and then again at six months. The Child and Adolescent Functional Assessment Scale (CAFAS: Hodges, 2000) was used to determine functional impairment in eight psychosocial domains and two caregiver domains. Children receive a rating of 0 = *Minimal* or *No Impairment*, 10 = *Mild Impairment*, 20 = *Moderate Impairment*, or 30 = *Severe Impairment*. A cluster analysis was conducted to group children based on their problematic behavior in school and home, difficulty with interpersonal interactions, or anxious or depressed mood. Outcomes were examined for the entire group of children and for each of the clusters.

Results

For the entire sample, improvement was examined several ways. First, a paired samples t-test was conducted and revealed significant overall change in mean score from initial to six month CAFAS, $t(568) = 9.19$, $p < .000$. Second, a criterion of $\geq$ 20 point improvement from initial to six month CAFAS was set and represented a clinically meaningful reduction in impairment. Overall 35% (n = 199) of children experienced a reduction in total CAFAS score of 20 points or more. Finally, an outcome of no moderate or severe rating on the School, Home, Behavior Toward Others, and Moods/Emotions subscales was set, with 62.4% of the children achieving this criterion after six months. Thus, the overall proportion of children with a moderate to severe rating at six months was significantly smaller than at intake, $\chi^2(1, N = 569) = 58.40$, $p < .000$.

A K-means cluster analysis revealed the presence of four homogeneous groups. A four-cluster solution was chosen for interpretation and meaningfulness following the examination of a three- and five-cluster solution. The percentages of level of impairment for the four relevant CAFAS subscales for each of the four clusters is represented on Table 1 and provide the basis for labeling each of the clusters. Cluster 1, School Problems, contained 32.2% of the total sample. The majority of these children were rated moderate to severe on the School subscale and mild to moderate on the Behavior Toward Others subscale. Cluster 2, Pervasive Problems with Mood, had the highest initial mean scores (M = 94.3) and accounted for 13.4% of the total sample. A majority of these children were rated moderate to severe on the School, Home, Behavior Toward Others, and Mood subscales. Cluster 3, School and Home Problems contained 14.6% of the total sample. The majority of these children were rated moderate to severe on the School, Home, and Behavior Toward Others subscales. Cluster 4, Mild Behavior/Mood Problems, contained 39.9% of the total sample and had the lowest mean score at entry (M = 23.3). Few children in this group were rated moderate or severe on any of the four subscales. Descriptive characteristics for each cluster are represented in Table 2.

Table 1
Frequency and Percentage of Level of Impairment for Selected CAFAS Youth Subscales by Cluster

	Impairment level							
	None (0)		*Mild (10)*		*Moderate (20)*		*Severe (30)*	
CAFAS Subscale	*n*	*%*	*n*	*%*	*n*	*%*	*n*	*%*
Total Sample								
School/work	104	18.3	220	38.7	177	31.1	68	12.0
Home	216	38.0	262	46.0	70	12.3	21	3.7
Behavior Toward Others	158	27.8	238	41.8	147	25.8	26	4.6
Mood/Emotions	230	40.4	238	41.8	87	15.3	14	2.5
Cluster 1: School problems								
School/work	–	–	57	31.1	101	55.2	25	13.7
Home	89	48.6	92	50.3	2	1.1	–	–
Behavior Toward Others	29	15.8	120	65.6	34	18.6	–	–
Mood/Emotions	126	68.9	55	30.1	2	1.1	–	–
Cluster 2: Pervasive problems with mood								
School/work	–	–	2	2.6	31	40.8	43	56.6
Home	7	9.2	23	30.3	32	42.1	14	18.4
Behavior Toward Others	1	1.3	5	5.6	50	65.8	20	26.3
Mood/Emotions	–	–	11	14.5	51	67.1	14	18.4
Cluster 3: School and Home problems								
School/work	4	4.8	35	42.2	44	53.0	–	–
Home	3	3.6	39	47.0	35	42.2	6	7.2
Behavior Toward Others	–	–	15	18.1	62	74.7	6	7.2
Mood/Emotions	21	25.3	50	60.2	12	14.5	–	–
Cluster 4: Mild behavior/mood problems								
School/work	100	44.1	126	55.5	1	.4	–	–
Home	117	51.5	108	47.6	1	.4	1	.4
Behavior Toward Others	128	56.4	98	43.2	1	.4	–	–
Mood/Emotions	83	36.6	122	53.7	22	9.7	–	–

Table 2
Descriptive Characteristics by Cluster

Characteristic	*Cluster 1: School problems*	*Cluster 2: Pervasive problems with mood*	*Cluster 3: School and Home problems*	*Cluster 4: Mild behavior/mood problems*
Age (*M*)	7.97	8.02	7.64	7.86
Male (%)	75.4	82.9	71.1	56.8
Caucasian (%)	31.8	37.8	43.2	48.4
Single parent headed household (%)	74.6	68.1	71.8	74.7
Caregiver resourcefulness Severe or moderate impairment at intake on CAFAS (%)	10.4	14.5	9.6	10.6
Unsatisfactory or at-risk performance in reading (%)	50.8	56.6	39.0	39.4
Unsatisfactory or at-risk performance in math (%)	45.3	52.6	35.4	35.3

To determine improvement across clusters, separate paired *t*-tests were conducted for each cluster. Significant differences were detected for the School Problems, $t(182) = 3.47$, $p < .001$, the Pervasive Problems with Mood, $t(75) = 7.55$, $p < .000$, and School and Home Problems clusters, $t(82) = 8.17$, $p < .000$. In terms of clinically significant change, 31.7% of children achieved this outcome in the School Problems cluster, 64.5% in the Pervasive Problems with Mood cluster, 61.4% in the School and Home Problems cluster, and 18.1% in the Mild Behavior/Mood Problems cluster. The proportion of children

with a moderate or severe rating at six months was significantly smaller than at intake in the School Problems, $\chi^2(1, N = 183) = 25.8$, $p < .000$, Pervasive Problems with Mood, $\chi^2(1, N = 76) = 21.1$, $p < .000$, and School and Home Problems clusters, $\chi^2(1, N = 83) = 53.6$, $p < .000$. In addition, for children in each cluster that had moderate to severe impairment at intake, 43.1% reduced impairment to mild or none at six months in the School cluster, 27.6% in the Pervasive Problems with Mood cluster, 50.6% in the School and Home Problems cluster, and 60.0% in the Mild Behavior/Mood Problems cluster.

Discussion

This study's findings revealed (a) the presence of subgroups based on functional impairment patterns, and (b) that children who received this school-based intervention showed improvement in day-to-day functioning over six months. These results are noteworthy given that day-to-day functioning was assessed rather than just symptoms. Moreover, several outcome criteria were used, including a clinically meaningful and reliable amount of change. Overall, each of the subgroups demonstrated success in terms of the reduction of impairment. These results provide preliminary evidence that different groups of children could be supported by a comprehensive behavioral intervention within the school setting. Intervention research has demonstrated that such approaches can be effective in curbing disruptive behaviors and increasing competencies and, with subclinical populations, appear as effective as psychotherapy (Durlak & Wells, 1998).

Surprisingly, children in the Pervasive Problems with Mood cluster demonstrated success across several of the criteria. Research has shown that children who fit this particular profile are more resistant to change relative to other types (Hodges, Xue, Wotring, 2004). However, success in this cluster may be linked to several factors. First, a low proportion of children in this cluster had a moderate to severely impaired caregiver environments. Second, the intervention addresses several risk factors across multiple domains and as such, is more likely to result in positive outcomes than approaches that focus on single risk factors (Kaufmann & Dodge, 1997). Finally, children in the intervention lacked many of the high-risk behaviors typically found in children served in traditional mental health systems of care, such as runaway behavior or harm to self or others. It is plausible that higher levels of caregiver resourcefulness, coupled with the comprehensive focus within the school setting and absence of severe pathology, contributed to children's functional improvements.

With some outcome indicators, lower rates of improvement for the Mild Behavior/Mood problems cluster were found when outcomes were examined across the whole group. Children in this cluster may have experienced a floor effect, as they were not rated as highly at intake. However, it is also possible that some children did not benefit because they were involved in activities within the intervention with children with more extensive and severe problems. Evidence is accumulating that interventions that aggregate children and adolescents involved in problem behavior may under some conditions produce iatrogenic effects. In contrast, children in this group who had moderate to severe problems at intake improved at a higher rate than similarly impaired children in the other groups. The absence of more severe functional problems across multiple domains may have enabled the more impaired children in this cluster to maximize the benefits of the intervention.

The results of the cluster analysis revealed that the school-based intervention program served children along a continuum of functioning. Some primarily had school problems, while others had problems both in school and at home. In addition to these two groups, there were children who had only mild problems as well as those who were pervasively impaired (i.e., across settings and with both behavioral and emotional components). Each group showed substantial improvement in either the absolute change from pre- to post-assessment or in the proportion of youths whose problems were reduced to no more than mild. For the children with a fairly high level of impairment, further specification of which of these youths can be successfully treated with school-based interventions remains an empirical question that warrants further investigation.

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The Child and Adolescent Functional Assessment Scale (CAFAS), Multi-Systemic Therapy (MST), and Safe Schools Healthy Students: Resilience in Action

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Acknowledgement: This research was supported by the U. S. Department of Education, Safe Schools Healthy Students grant to the Cleveland Heights-University Heights City School District.

Introduction

The Child and Adolescent Functional Assessment Scale (CAFAS; Hodges, 2000) is used to measure treatment progress for youth with externalizing behavioral issues as part of the Cleveland Heights-University Heights City Schools Safe Schools Healthy Students initiative in Ohio. During the first year, 75 youth were referred. Outcome information using the CAFAS is presented for the first 64 youth discharged, demonstrating the resilience of the sample (i.e., CAFAS improvement greater than twenty points on Total score). An issue in expanding Multisystemic Therapy (MST; Henggeler, Schoenwald, Borduin, Rowland, & Cunningham, 1998) into schools has been whether the severity of youth referred justifies a treatment option as intensive as MST. Using the CAFAS to assess initial level of functioning, the present sample meets criteria for severity. The Safe Schools Healthy Students initiative in Cleveland Heights is described; MST is used as the primary mental health intervention and serves as an anchor for a continuum of services ranging from primary prevention through tertiary intervention.

The CAFAS is a versatile system for measuring children's behavior in the key domains that comprise their social and interpersonal lives. The CAFAS has been used extensively to determine needed levels of care for children and youth presenting to the public mental health system. In the present application, the CAFAS is one measure of treatment success for youth exhibiting behavioral issues in schools. Youth in the present study received MST as part of a Safe Schools Healthy Students initiative; the CAFAS was used to measure treatment progress.

Background

The Cleveland Heights-University Heights City School District Safe Schools Healthy Students initiative began in August 2003 with three years of federal funding from the U.S. Department of Education and the Substance Abuse and Mental Health Services Administration. The Safe Schools Healthy Students initiative employs three evidence-based practices: Botvin's Life Skills Training to address student drug use; Second Step to prevent violence among preschool through ninth graders; and MST to address mental health, behavioral and family functioning needs among students who are displaying disruptive behavior at school. Other aspects of the initiative include promoting community collaboration; increasing the number of trained mental health professionals in the schools (social workers and nurses); providing psychiatric consultation; linking families with persons in the schools in order to prevent truancy; and conducting an independent evaluation of the program.

Method

The Safe Schools Healthy Students initiative aims to serve 100 youth and families per year using MST. During the first year, 75 students and families were referred; services were delayed due to implementation issues during the first year. At the time of the current presentation (March, 2005), 64 participants had concluded treatment, and closing CAFAS had been administered,. Each youth is administered the CAFAS at the time of enrollment in MST and at the conclusion of MST. The school database tracks disciplinary referrals and academic progress (these analyses are not currently available). In addition, families enrolled in MST are contacted monthly and administered a telephone interview measuring adherence to the MST model (Therapist Adherence Measure; Henggeler & Schoenwald, 1999).

Results

The 64 youth referred by the schools were primarily high school students. Most were African-American, and about two-thirds were male. At the time of referral, CAFAS scores for the MST youth averaged 81 for the total score based on eight scales. This compares with an average of 88 for a juvenile justice sample in the validation study (Walrath, Sharp, Zuber & Leaf, 2001).

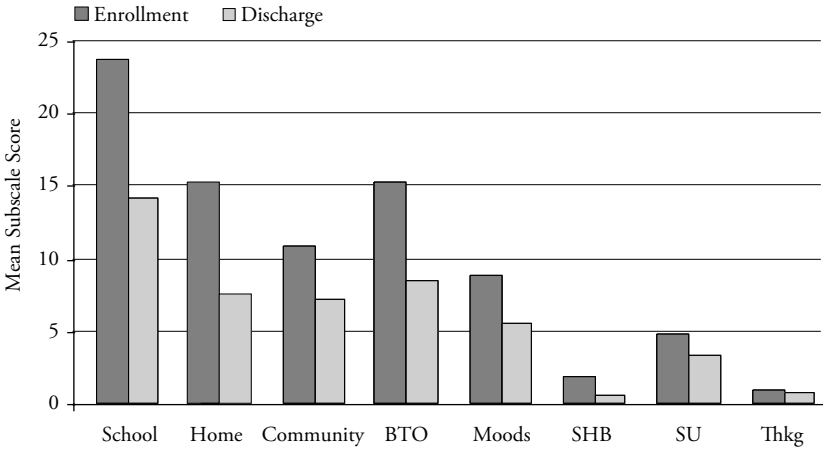
CAFAS subscale scores at referral and at the conclusion of treatment are presented below (see Table 1). The results of paired-sample *t*-tests suggest that all enrollment-discharge comparisons are significantly different except Thinking, which is endorsed infrequently for the sample. However, since multiple tests are made on the same data, alpha was set at .0055 (i.e. the Bonferroni adjustment to alpha was made by dividing alpha = .05 by number of analyses = 9). Using the adjusted alpha, the enrollment-discharge comparisons remained significantly different for the School/Work subscale; the Home subscale; the Community subscale; the Behavior Toward Others subscale; the Moods/Emotion subscale and the Total score (see Figure 1).

Table 1
Means for CAFAS Subscale Scores & Total Scores at Enrollment & Discharge

Subscale	*Enrollment (M)*	*Discharge (M)*	*df*	*t*	*p*
School	23.75	14.22	63	7.76	< .001***
Home	15.16	7.5	63	8.16	< .001***
Community	10.94	7.19	63	3.55	= .001**
Behavior Toward Others	15.16	8.44	63	8.05	< .001***
Moods	8.75	5.47	63	3.8	< .001***
Self-harm	1.88	0.47	63	2.01	= .049*
Substance Use	4.69	3.44	63	2.39	= .02*
Thinking	0.94	0.78	63	1.0	= .321
Total	81.41	46.88	63	9.93	< .001***

*≤.05; **≤ .01; ***≤ .001

Figure 1
Comparison of CAFAS Subscale Scores at Enrollment & Discharge (*N* = 64)



Hodges, Xue, and Wotring (2004) suggested that an overall change of 20 points on the CAFAS, or about one-half standard deviation, represents clinically relevant change to delineate whether improvement did or did not occur during a particular timeframe. Using the twenty point decrease in total scores criterion, two-thirds of the individual participants met the criterion while one-third did not. Using the criterion for improvement of a decrease from an initial score of 20 or 30 to a score of 10 or 0, 75% of subscales that were rated as 20 to 30 at enrollment decreased to 0 or 10 at discharge. Most of the participants were referred due to concern about their behavior at school. On the School/Work subscale, 41% of participants decreased from a moderate or severe level of impairment to a mild or none level.

The results of Adherence are tabulated by the MST Institute Enhanced Website. To date, adherence for the participant families is 0.404 (target = 0.4), and all of the sub-scale targets for the adherence measure are met. During the first year of Safe Schools, the average length of MST treatment was 139.64 days (target range: 90-150 days). The successful completion rate was 77.4% (target: 75%). Ultimate outcomes at the conclusion of treatment include:

- 78% of youth living at home in the community at discharge;
- 78% of youth in school or working at discharge (according to school-approved plan);
- 83% of youth have no new arrests during treatment; and
- 81% of families have an improved network of social supports.

In the second year analysis, referred youth whose families declined MST will be compared with youth who participated in MST, and the school database will be used for longer term tracking.

Discussion

MST appears to be successful in helping the group of youth referred for school behavior to make functional improvement. The CAFAS shows that the youth referred improve as a group; many of them improve in the School domain. The CAFAS has proven to be a useful tool in documenting functional improvement with mental health treatment in a school-based setting.

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Partnering with Caregivers to Improve Parenting Skills within a Child Welfare Setting

Barbara A. Hull & Sherry Love

Introduction

Over the past 20 years, the efficacy of various evidenced-based treatments has been demonstrated in university settings. Studies of conventional treatments delivered in clinics have demonstrated much weaker effects (Weisz & Weiss, 1993). Wiesz (2000) pointed out that this model for developing effective treatments may not be well suited to real world settings because many variables, considered nuisance variables, have been ruled out or clinically controlled in the research studies. These nuisance variables are the daily fare for families in child welfare, including co-occurring disorders, parent substance abuse or pathology, life stresses that lead to early termination or no shows, or therapists too overburdened to learn new treatment protocols.

The National Institute for Mental Health's Blueprint for Change report (The National Advisory Mental Health Council Workgroup, 2001) suggests that factors relevant to the eventual deployment of an intervention (e.g., provider attitudes and skills, implementation processes, and barriers to intervention adoption) should inform both intervention development and research on intervention testing. The availability of evidence-based treatments allows those in the field to work at the combined challenge of bringing evidence-based interventions to families while problem solving the real life family and system barriers to success.

Background

KVC Behavioral Health Care is a not-for-profit contractor, in Kansas' privatized social service system, providing foster care and reintegration services for families and children referred by the state. Serving an eight county region, KVC learned an important lesson early; barriers are challenges to be resolved—not endured. KVC is addressing the skill deficits (parenting, coping, interaction, life skills, etc.) and "nuisance" challenges of this welfare population head-on by teaching staff core strategies necessary to help parents and children develop skills essential to healthy, safe and effective family functioning. KVC is utilizing evidence-based treatments and measurement tools to support this implementation, ensuring that family members develop stronger skills from every interaction they have with child welfare professionals.

KVC initiated the project described in this summary with families in the Aftercare program, which includes families reunified following 60 or more days of court-ordered, out-of-home placement of children. Agency data for out-of-home days during Aftercare suggested that when supervision emphasized parent management training (PMT) techniques, as opposed to a traditional perspective, there were fewer out-of-home days. PMT is a treatment modality that is supported by extensive research and is readily available in the marketplace (Barkley, 1997; Forehand & Long, 2002; Patterson & Forgatch, 1987; Webster-Stratton, 1992). Training in PMT was developed and implemented by KVC for frontline child welfare workers.

The Caregiver Wish List (Hodges, 2004) was utilized to identify family-driven goals and guide the skill-building work of professionals implementing PMT. It was hypothesized that using this tool would facilitate engagement (Chamberlain, 1998) and the development of a collaborative relationship (Deblinger & Heflin, 1996). Additionally, it was anticipated that through identification of strengths and parents' perceptions of their current functioning, practitioners would engage in a balance of teaching and supportive interactions (Barkley, 1997).

This study is a preliminary step in a long-term agenda to examine the impact of PMT on parents' perceptions of their effectiveness in managing their children's difficult behaviors. The role of the

measurement tool was integral to the PMT intervention. KVC began by administering the Caregiver Wish List at enrollment into Aftercare and quarterly thereafter. This measure was revised several times as a result of use in the field with these families and other psychometric studies. Consequently, this report is restricted to data collected to-date on the most recent version of the measure. Thus, the sample consisted of 40 caregivers who provided perceptions of their skills at enrollment.

Method

Participants. All caregivers who were served subsequent to the introduction of the most recent version of the Caregiver Wish List and who had at least one child who was two years or older were included in the sample ($N = 40$). The age range of these children was 2 to 17, with an average age of eight years old. Most of the children (82.5%) were younger than 13 years old, were male (65%), and were from lower income, single parent families. The average length of out-of-home care for youth in the Aftercare program is 23 months, ranging from a low of 61 days to more than two years.

Measures. The Caregiver Wish List, which assesses strengths-based skills, includes 50 questions, each with a 5-point response option (Hodges, 2004). It has two sections: (a) Skill Wish List for Your Child and (b) Skill Wish List for You. The items in both sections were designed to tap skills in one of six areas: Providing Direction and Following Up, Encouraging Good Behavior, Discouraging Undesirable Behavior, Monitoring Activities, Connecting Positively with the Youth, and Problem Solving Orientation. The results are used to generate a "wish list" for skills that the caregiver would like to improve. The caregiver is given a copy of this wish list.

Procedures. The Caregiver Wish List was implemented within 14 days post-reunification. The measure was repeated at 90-day intervals. The therapist read the questions to the parent, who then marked the response options on his or her own copy. Parents were encouraged to share stories about raising their children throughout the interactions with the tool. Upon completion, the parents were asked to identify three skills that they would be most interested in addressing for change.

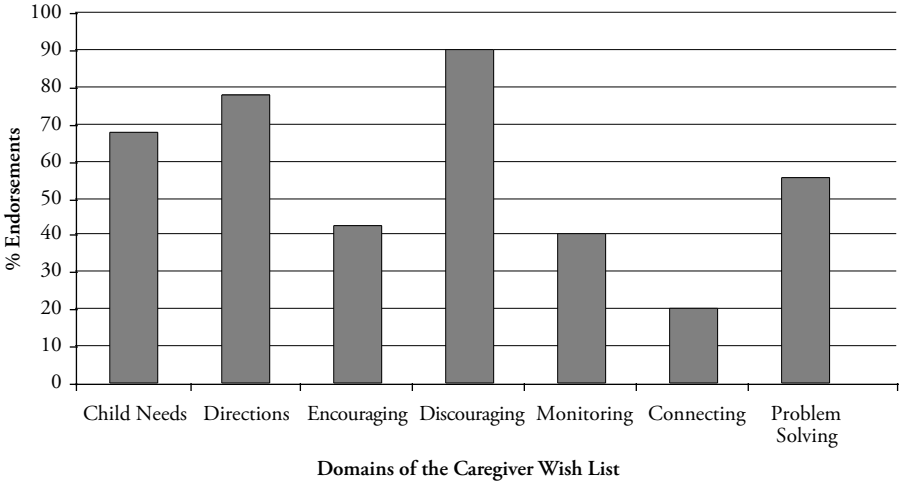
PMT interventions were supported through regular supervisory sessions. Family sessions occurred in the home, one to two times per week for the first month, weekly for the second and third months, and finally decreasing to monthly when the family stabilized with the integration of the new skills. Practitioners initiated frequent phone contacts with families, were available 24/7 for consultation or crisis management, and were able to increase the frequency of contact (face-to-face and by phone) as needed.

Results and Discussion

Figure 1 presents the percent of caregivers who endorsed at least one item in the domain at the mid-point or below (adjusted for directionality of scoring), indicating a need for skill development. The first bar summarizes the results for the section, Skill Wish List for Your Child. Approximately two-thirds of the parents (67.5%) scored their children as not responding well to their parenting efforts in at least one of the six domains. Thus, most parents were feeling challenged by their child's behavior. In terms of their own skill level, an overwhelming majority of the parents (90%) perceived that their greatest need for skill development was in discouraging their child's undesirable behavior. The next most urgent area in need of skill development was in providing clear commands or requests to the child and following up to determine whether the youth was compliant, with 77.5% reporting difficulty. Additionally, 55.3% of the parents reported a need for skill development in problem solving. In comparison, most parents perceived themselves as having relative strengths in encouraging good behavior, monitoring activities, and in connecting positively with their children.

Furthermore, of the 40 caregivers included in this report, 100% completed the PMT intervention. While this study could not determine the mediating variables, it was anticipated that three mechanisms would promote treatment completion: (a) the collaborative, interactive process between the practitioner and the caregiver while working together on completing the Wish List, (b) the caregiver's specification

Figure 1
Percent of Caregivers Endorsing Items Indicating Need for Skill Development



of skills to target for development (i.e., done as the last step in completing the Caregiver Wish List), which resulted in family-driven and "custom-fit" goals, and (c) the balance of teaching and supportive interactions during the PMT intervention. In fact, staff who had previously resisted implementation expressed excitement over their new power to help parents and how this in turn helped them in their professional role of advocating for the family with the court.

In-home observations of the practitioners by the PMT trainer provided an opportunity to elicit parents' comments about the Caregiver Wish List. Parents reported that they liked the process with the Wish List and expressed pride in the ways they had learned to manage their parenting challenges. Some parents indicated that they liked redoing the list so they could see what changed over time. In contrast to the expectation that parents would under-report problems, parents identified significant needs for improvement and welcomed the intervention at a time in their lives when taking a defensive posture would have been understandable (i.e., after their children had been removed and recently returned).

While not restricted to the sample in this report, it is noteworthy that during this time period, the agency overall performed well above state target goals on performance indicators required by the Kansas Department of Social and Rehabilitation Services. The percent of children who did not re-enter out-of-home placement within 12 months post reunification was 91.1% for fiscal year 2004 and 97.5% for the first quarter of fiscal year 2005, which compares favorably to the state target goal of 90%. The percent of children who did not experience confirmed abuse or neglect within 12 months post reunification was 93.8% for fiscal year 2004 and 100% for the first quarter of fiscal year 2005, which exceeded the state target goal of 80%.

Conclusions

The early indications and comments from parents and staff members have encouraged the dedication of further resources to support implementation of this program, including the training in PMT and the use of the Caregiver Wish List. The common language, common knowledge base, and the collaborative, skill-building approach with families appear to contribute to the promotion of safe and timely permanencies. Additional studies are needed to identify mediating variables that may be responsible for any successful outcomes observed.

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Preventing Penetration of Truant Youth into the Juvenile Justice System Via Community-based Screening Procedures

Cynthia Smith

Acknowledgement: This work is a collaborative endeavor of the following: Juvenile Assessment Center, the Wayne County Prosecutor's Office, The Third Circuit Court, the Robert Wood Johnson Foundation, the Detroit School System and Kay Hodges, PhD.

Introduction

Everyday, over 9% of the enrolled students are recorded as truant from Detroit Schools. In 1999, 63,000 students in Detroit missed at least five weeks of school (School or Else, 2005). The negative outcome of chronic school absence on future achievement includes being at risk for criminal behavior, substance use, lower income, likelihood of being on welfare, and adult mental health and interpersonal problems (Prevatt & Kelly, 2003). Despite the importance of this issue, there is a paucity of empirical studies on interventions to prevent school dropout. Of the 259 studies on dropout prevention and intervention identified in a review by Prevatt and Kelly (2003), only 6.9% of the studies involved an empirical evaluation of a program and less than 2% had a comparison or control group.

This summary describes a preliminary study of the Erase Truancy Program, initiated to improve school attendance in the Detroit Public School System. The program holds caretakers accountable for the school truancy of their children. Youths who have not improved school attendance after intervention are petitioned in court by the Prosecutor's Office for adjudication as a juvenile delinquent.

In the first step of the Erase Truancy process, a brochure is sent from the Prosecutor's Office to the caregiver of a truant student. The brochure explains the law and requires the caregiver to report to the Court House to attend a "truancy hearing" with their child. Approximately 100 families receive the letters to attend the monthly hearings. The Juvenile Assessment Center provides an interview with the truant students and their families attending the Erase Truancy hearings. The purpose of the structured interview is to identify the barriers to attendance and connect the families with resources within the community. Funds from the Robert Wood Johnson Foundation have supported the development of programs to provide after-school programming, including "Mayor's Time," sports and recreation, tutoring resources, and church youth programs. If an interviewer identifies a need for immediate attention or evaluation based on the screening interview, the Juvenile Assessment Center is able to provide and connect the needed resources. This study reports on the preliminary findings of the families and youth who were interviewed the first three months of this program.

Method

Participants. The participants were 111 youths, determined as chronically truant by the school system. The caretakers and youth voluntarily agreed to be interviewed. The mean age was 13.46 years old (range 6 to 15), with 63.1% male students from over 35 different schools. The caregivers interviewed were 60.3% mothers, 9% fathers, 1% both mothers and fathers, and the remaining were relatives, foster parent and guardians. Two bachelors-level case managers from the Juvenile Assessment Center and 17 trained volunteer interviewers conducted the interviews.

Measures. The measure was the Juvenile Inventory for Functioning (JIFF; Hodges, 2003; 2005), which takes about 20 minutes to administer. The JIFF is a structured interview in which the caregiver is asked about 10 domains of functioning: School, Home, Community, Behavior Toward Others, Moods/Emotions, Self-Harmful Behavior, Substance Use, Thinking, Family Life, and Child's Health. Questions from the first eight domains were based in part on the Child and Adolescent Functional Assessment Scale (CAFAS: Hodges, 2000; 2004a). Thus, the JIFF can be considered a screening tool for the CAFAS, although it does not replace the CAFAS nor can it be considered a professional or comprehensive evaluation.

For each of the 10 domains, the caregiver is asked approximately five questions about the child's strengths and functioning. At the end of each domain, the caregiver is asked to rate the extent to which the child needs help in the specific domain (e.g., school) on a 0 to 5 rating scale, where 0 represents *no help needed* and 5 represents *help very needed*. At the end of the interview, the interviewer also gives a rating for each of the domains. The questions are designed to engage the caregiver and to identify factors that have impeded the youth from school attendance during the truancy. At the interview completion, the caregiver is given a copy of a JIFF summary with relevant community resources provided (e.g., Domestic Violence Shelter, crisis support phone numbers for caregivers who indicated that this is a problem on the Family Life questions).

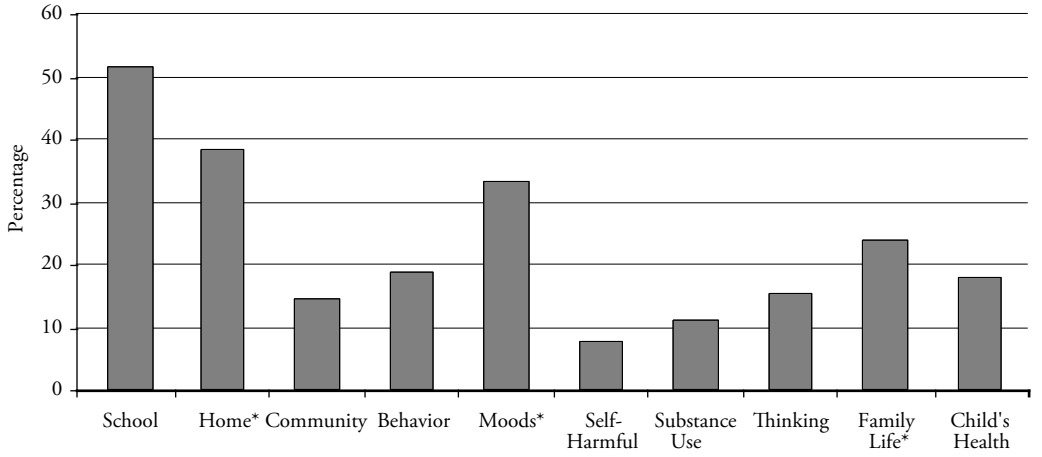
Procedures. Training for the interviewers consisted of viewing a set of slides in Microsoft PowerPoint® format (Hodges, 2004b) and supervised role-play of interviewing families. Prior to the interview the caregivers sign a consent form agreeing to the interview.

Results

The data from the interviewers suggested that most of these truants were resilient youths who had a variety of strengths: 71.2% had no threatening behavior at school; 74% were not intimidating in the home; 67% were characterized by none, or only mild, noncompliance in the home; 73% were not involved in delinquent activities; and 77.5% were free of self-harmful behavior or ideation. In addition, 40% had adequate academic grades.

These findings were consistent with ratings given by caregivers, indicating the extent to which the youth or family needed help. The percent of caregivers giving a rating of 4 or 5, on the 0 to 5 rating scale, are presented in Figure 1. The correlations between the ratings given by the caregivers and the interviewers were significant ($p < .001$) for each domain. The correlation between the sum of ratings for caregivers and interviewers was also significant, $r = .905$, $p < .0001$.

Figure 1
Percent of Caregivers Giving Ratings of 4 or 5, Indicating Definite Need for Help (on a Rating Scale of 0 to 5)



* 38.2% indicated need for help with noncompliance in the home;
33.3% felt the children had indications of sadness, anxiety, or distress due to trauma;
23.9% wanted help with family issues other than truancy.

An examination of the endorsements for specific items revealed that 23.4% of the caregivers thought that their child needed assistance with decision making about sexual issues; 21.6% reported violent, threatening behavior by family members in the home (other than the truant); 12.6% needed help with child care to provide better supervision by an adult; and 10.8% reported that persons in the home (other than the truant) had problems with substance use. In addition, in response to a question about whether the youth had *ever* experienced a traumatic event (e.g., witnessing violence, abuse), 40.5% answered affirmatively, and 27% of the caregivers who endorsed this item thought that their children were still bothered by the event.

Discussion

The results of this pilot project determined that almost a quarter of the caregivers (23.9%) expressed a desire for help with family problems, including child care, substance use, and violent or threatening behavior by household members (other than the truant). Not being able to respond to the expressed needs of these families would be extraordinarily unfortunate and potentially costly if the youth penetrates the juvenile justice system. Caregivers reported definitively needing help with managing their youth's noncompliance in the home (38.2%). One-fourth to one-third thought that their children needed help with emotional problems or with managing the emotional after-effects of a difficult trauma. There are evidence-based treatments for these problems that could be offered to these youths even though the generalizability of these treatments to youths living in demoralizing poverty may not have been demonstrated.

This pilot project found that caregivers of chronically truant youth were willing to be interviewed and wanted resources to help their children. In a newspaper feature on the Erase Truancy Program, a mother reported welcoming help to get her 12 year old daughter back into school, as she leaves at 6:30 a.m. for her job and is not at home when it is time to go to school (School or Else, 2005). The screening interview identified that the girl had experienced a significant assault in the recent months and was unable to focus at school though she was reporting that she "did not like math." With the help of the case manager, she received counseling, tutoring and support to return to school and to complete the semester successfully.

There are a variety of reasons why youth are truant, and the truancy rapidly reduces the youth's ability to be consistent in school participation. Once the regularity of attendance is impaired, inability to keep up with learning may overcome the youth and produces school failure. The screening interviewers stated that they "try to find the root of the child's truancy problem and offer solutions, such as after-school programs, tutoring services, a mentor program or substance abuse therapy…family counseling…drug screens …extracurricular activities" (School or Else, 2005). The impetus for conducting the screening interviews was to keep youth out of the juvenile justice system by identifying the primary issues for lack of school attendance before an adjudication results. Having an interviewer who is culturally competent, able to engage each participant and is knowledgeable about the resources in the community was seen as critical. The screening process provided a standardized means to engage and measure critical areas of life functioning. The long-term goal is to study the effectiveness of this program and to identify predictors of successfully getting youth back into school.

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Symposium
Innovations in Early Identification and Service Access

Chair
D. Russell Lyman

Authors
D. Russell Lyman
John A. Lippitt

Discussant
Mimi Graham

Symposium Introduction

D. Russell Lyman

We know that the needs of many vulnerable children are not identified soon enough, and that significant numbers end up becoming consumers of intensive wraparound services later in development. A recent survey of parents of children in mental health services in Massachusetts indicates that 48% knew there were mental health problems by age four, yet nearly half of parents reported that their child's pediatric provider never or rarely asked about mental health problems; a third did not receive the services they needed because they didn't know where to find them, and a third waited more than a year before getting all the services they needed (Frank, Greenberg & Lambert, 2002). The President's New Freedom Commission on Mental Health (2003) calls for periodic mental health screening for children in primary care, yet this clearly is not happening. How can we best find these children as early as possible in life? In pediatric practice? Child care? Social services? What tools should we use to identify these children? This symposium describes three Massachusetts pilots in early detection and service access for very young children as well as adolescents. The incidence of identified developmental and mental health problems is investigated, as are opportunities and obstacles for early identification and treatment in current systems of care.

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Building Bridges in Early Childhood Mental Health —Screening in Pediatrics and Child Care

D. Russell Lyman

Acknowledgements: This research was funded by the Blue Cross and Blue Shield of Massachusetts Foundation.

Introduction

This research, conducted by the Guidance Center, Inc. in Cambridge, Massachusetts, investigates ways to best conduct universal screening and service access for early childhood developmental and mental health problems with parents and children in different settings. This is of critical importance, because though national analyses indicate that 20% of American children have diagnosable mental health issues, most of them do not get the services they need. For very young children, if parents and providers wait until they reach school age, a critical period of intervention for rapidly developing brains, personalities and behavior patterns is lost. Less than half of children with developmental and behavioral problems are identified before they enter school (Glascoe, 2000). Both in Glascoe's work and in our study, parents report that often their children's doctors advise them to wait, in hopes that their child will "grow out of it." This study is a beginning step toward bringing field experience and incidence data to bear upon establishing best practices and needed public policy change aimed at ensuring that our youngest and most vulnerable citizens receive the help they need at the earliest possible moments in life.

Method

Parents of 240 children ages birth through five years were administered the Parents Evaluation of Developmental Status tool (PEDS; Glascoe, 2000) to screen children under six years of age in three Cambridge settings. These settings were: (a) a busy health clinic of a large urban hospital (Windsor Street Health Center of the Cambridge Hospital); (b) the local Women, Infants and Children (WIC) program (a nutritional program for low-income mothers), and; (c) five urban city-run preschool child care classrooms. The project was implemented in a largely immigrant, Spanish speaking low-income neighborhood in order to target families that are most likely to experience barriers to care.

Use of the PEDS has been shown to identify 74% to 84% of children with disabilities and can be completed in five minutes (Glascoe, 2000). The American Academy of Pediatrics has named the PEDS as one of four instruments considered to be effective, brief mental health screening tools. Parents indicating significant concerns about their child on the 10-item PEDS survey were contacted by project staff and offered counseling and referral services. These referrals were tracked, and follow-up information was provided to their pediatricians. Community provider meetings were also conducted on a regular basis to examine the data and refine appropriate pathways to identification and treatment. A community early childhood resource guide for mental health and other services was also developed and disseminated, with a handy pocket version for pediatricians.

PEDS results were analyzed across 10 areas of concern that included global/cognitive, expressive and receptive language, fine and gross motor, school, self-help, behavior and social emotional (both of which were flagged in the study as mental health concerns), and "other." Retrospective baseline analysis of incidence and referral, and baseline survey of provider screening and referral patterns were conducted. Three Parent focus groups with Haitian Head Start parents, Spanish speaking consumers in WIC, and consumers of Early Intervention and mental health services were conducted, targeting parent perspectives on the strengths and weaknesses of the current identification, referral and service systems in mental health and pediatric practice.

Results

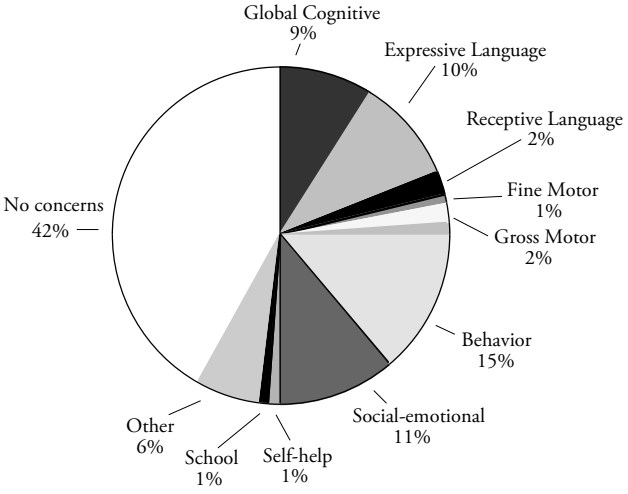
In the baseline study, parents articulated significant language and reimbursement barriers to service access. Non-English speaking parents, especially Haitian parents, articulated a strong need for services, resource information and advocacy in their native language. They pointed to particular difficulties in describing problems their child might be having in brief pediatric appointments, in which both language and cultural differences in understanding child behavior were barriers. All parent groups identified the need for more time with pediatric service providers, and consumers of developmental and mental health services clearly articulated difficulties in dealing with health insurance systems. Most parents appeared to be receptive to being asked, especially by pediatricians, about how their children were doing developmentally and psychologically, though some culturally bound wariness was also evident among Haitian speakers. With regard to services, parents conveyed that referrals for mental health services for children under six years (and particularly for those from birth to three years of age) were discouraged.

Results of a total of 17 provider survey questionnaires indicate that many pediatricians and child care providers conduct informal screenings. However, the use of formal screening tools is inconsistent, especially in screening for mental health (69% of respondents do not use them). Only 31% of providers screen parents informally for parent mental health issues, and no providers reported using a parent mental health screening tool. The use of formal developmental screening tools was reported by 75% of providers; however none of these were pediatricians. Many using tools were childcare providers who were required to conduct screening by their funding sources. Less than 25% of those children screened are referred for services. Major barriers to successful referral were identified as: language or culture match, lack of agency follow-up (more than half of those referring receive follow-up calls never or rarely), and family hesitation. Helpful aids included: knowing one person to contact as an agency early childhood

liaison, receiving follow-up regularly and having a quick and easy list of updated resources. Other identified needs included training of parents and providers, improved cross-cultural staffing, flexible scheduling, and on-site mental health providers.

Our studies indicate that 31% to 39% of parents report at least one significant concern on the PEDS, with relatively consistent patterns across settings. In Windsor, 31% of parents reported at least one significant concern. Of parents reporting any concern, 26% of these concerns were mental health concerns (a combination of behavioral and social-emotional concerns; see Figure 1). In WIC, 32% of parents reported significant concerns, and 31% of parents reporting any concern were concerned about mental health. In preschool, 39% of parents reported significant concerns, and 39% of parents reporting any concern were concerned about mental health. We noted that some of the preschool settings had a significant Asian population, which appeared to elevate concerns, both in the areas of language and in culturally bound concepts of what is normal in development.

Figure 1
Windsor Street Pediatrics
Pilot I* and Pilot II PEDS Areas of Concern**

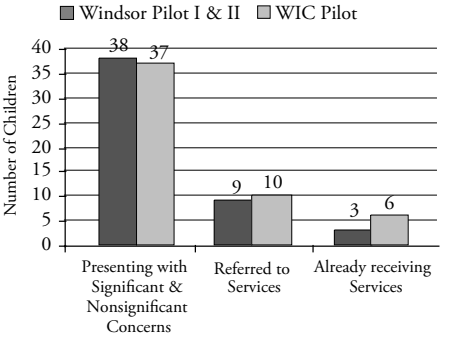


N = 71 Total Concerns
(Some children presented with multiple concerns)
* Pilot I: six weeks
** Pilot II: 12 weeks

Preliminary cluster analysis indicates that when parents reported more than one concern, concerns about behavior were most often reported in tandem with concerns about language. This area will benefit from further investigation, particularly when and if we are able to increase our sample sizes.

Comparison to retrospective baseline of referral patterns during a similar time period revealed that referrals were dramatically increased, but still remained surprisingly low for an *N* of 188 (see Figure 2). Referrals in pediatrics quadrupled, from 2 to 9, and referrals in WIC increased from zero to 10. City preschools, which are relatively well resourced and purchase mental health consultation, appeared to have already implemented necessary referrals with variable success, especially in Special Education referrals. Many of our interventions amounted to brief counseling toward establishing that some concerns fell within normal ranges (e.g., gaining access to community resources such as nutrition or housing support, or dealing with issues such as obesity, eating habits or sleep disturbance).

Figure 2
Referral Outcomes for Windsor Pilot I & II, WIC
(Total Sample = 188; With Concerns = 75)



*According to the PEDS protocol not all positive screens require a referral. No referrals at baseline in WIC; 2 in Windsor.

Paradoxically, perhaps the greatest value in our study has been in identifying the barriers to implementation of sustainable universal

screening and referral. For example, WIC nutritionists are not trained in any form of mental health counseling, even to facilitate a referral, and the State, in their Institutional Review Board process, prohibited them from doing any mental health counseling in this pilot. This suggests that WIC, though fertile ground for screening, needs better training and a mandate to implement screening on its own.

Pediatricians also report that they do not have time or proper reimbursement to conduct screening and follow-up, and some are not convinced that formal tools are needed. Third party reimbursement for routine pediatric visits appears to incentivize a large number of brief visits in a day (since generally the longer one spends with a patient the less revenue per hour one generates), rather than the time it takes to follow up on mental health concerns. We have discovered that in order to make the process reimbursable, an ideal staffing pattern would be to have a licensed social worker on staff at the pediatric practice, with the ability to bill against both mental health and pediatric billing codes. Structure and support staffing in the pediatric clinic were also found to be insufficient to support the identification of young children and the implementation and tracking of the screening tool on an ongoing basis. Preschool teachers lack the training, support and resource information to make referrals, and their most common referrals are for Special Education services, which are often denied.

Conclusion

This study has identified many challenges, as well as reasons for hope. There is a need for increased awareness of infant and early childhood mental health as a prominent health issue. Pediatricians, child care providers, WIC counselors and others most likely to have contact with very young children need training on what to look for, what tools to use, and how and what to do next for young children and their parents across systems of care. More work needs to be done on the development of appropriate screening tools, with a clearer sense of which to use with children of specific ages in different settings. We are also in need of more trained early childhood mental health providers, so that pediatricians, as they described to us, are not left diagnosing mental health problems for which there is no treatment.

A reason for hope is that there is growing recognition that starting early matters. We have also found that even a tool as brief as the PEDS can reliably identify mental health concerns in very young children. The system needs a clear mandate to perform regular screening, along with the necessary training, consultation and established payer streams for screening and follow-up. This is especially true in pediatric practice, where most children are seen on a regular basis. Field research on how to do this and what we find has potential for paving the way toward systemic change.

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Building Linkages for Early Childhood Mental Health

John A. Lippitt

Acknowledgements: This research was funded by the U.S. Department of Health and Human Services, Administration for Children and Families, Children's Bureau; The A. L. Mailman Family Foundation; The Annie E. Casey Foundation; and The Frank and Theresa Caplan Endowment for Early Childhood and Parenting Education. The findings and conclusions presented are those of the author alone and do not necessarily reflect the opinions of these organizations.

Introduction

Children who have been abused or neglected (or who are in homes where child abuse or neglect has occurred) are at considerable risk for a range of early childhood mental health, behavioral, and developmental difficulties (National Research Council, 2000). The Early Intervention (EI) system, which was created by Part C of the Individuals with Disabilities Education Act (IDEA), entitles children under three years of age to developmental evaluations and appropriate services if they are found to be eligible. However, the child welfare system has not routinely referred children to Part C Early Intervention. Reauthorizations of both the Child Abuse Prevention and Treatment Act and IDEA now require states to develop procedures for referring to Part C EI children under age three involved in substantiated cases of abuse or neglect.

The Massachusetts Early Childhood Linkage Initiative (MECLI) piloted these referrals at three pilot sites from November 2002 through December 2004. This demonstration project identified benefits, challenges, and success strategies for implementing these referrals. It tracked the results of the referrals to determine whether referred children were eligible for EI, under which eligibility criteria, what services they received, and at what cost.

Methods

A partnership among the Massachusetts Department of Social Services (DSS, the state's child welfare agency), the Department of Public Health (DPH, the lead agency for Part C EI), the state's 65 independent, certified EI providers, and The Heller School at Brandeis University was established to pilot referrals from child welfare to Early Intervention. Three DSS Area Offices (out of 28) were selected as pilot sites along with the six EI Programs (EIPs) serving the same catchment areas.

The DSS personnel asked parents of children under age three who were involved in newly substantiated abuse or neglect cases if they would accept a referral to an EIP. If they agreed and signed a release, a referral form was completed and delivered to EI. The EIP then contacted the family to schedule an evaluation to determine whether the child was eligible. If eligible, the EIP worked with the family to develop an Individualized Family Service Plan (IFSP) and deliver therapeutic services.

The implementation of these referrals was tracked through data collection forms completed by DSS and the EIPs. Electronic, administrative EI data were obtained from DPH. Data were captured on the rates at which referrals were offered and accepted at DSS. The EIPs captured data on the rates at which they successfully engaged referred families and conducted eligibility evaluations of children. In addition, EI data from DPH were analyzed to determine the rate at which the children were eligible for EI, the eligibility criteria met, and the resulting EI services and costs. In addition, the referral implementation process was documented to identify challenges and success strategies, in order to facilitate effective replication of these referrals at other locations.

Results

DSS reported offering the EI referral for 494 children and that 71% of the families accepted the referral. Seventeen percent declined the referral, 8% indicated the child was already involved with EI, and 5% had other or unknown results. The EIPs received 372 referred children. Eligibility evaluations

have been completed on 43% of them, while 29% are in process; 21% have failed to engage with EI and another 8% have indicated that the child was already involved in EI (see Figure 1). The EIPs reported on 158 children who had completed EI eligibility evaluations and 64% were found eligible for EI services (see Figure 2).

Figure 1
EI Results from Referrals
(local data forms, *n* = 372)

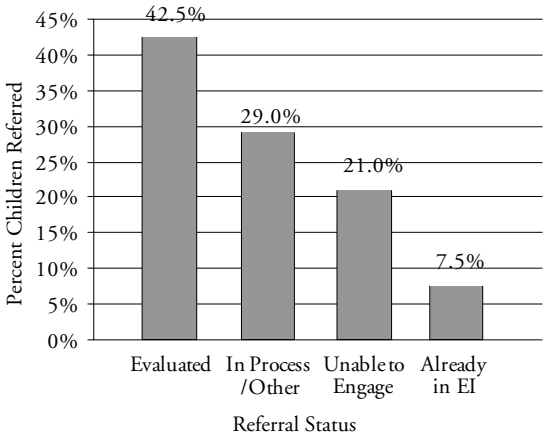
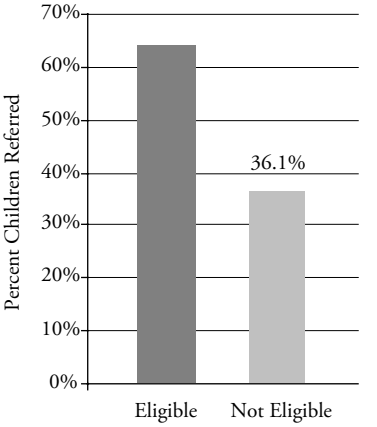


Figure 2
EI Eligibility Results
(Local data forms, *n* = 158)



The electronic, administrative data from DPH lagged somewhat behind the EIPs' reporting. These data included 207 MECLI-referred children. Of these children, 66% had been evaluated and 75% of them had been found eligible for EI: 54% had eligible developmental delays, an additional 15% met the Massachusetts at-risk criterion, and 6% were eligible based on clinical judgment, an established condition, or for an unknown reason.

Of the children with measurable delays, the type of delay varied from 46% who had a language delay to 25% who had a gross motor delay. Twenty-six percent had an eligible social-emotional delay, despite the fact that the eligibility tool was weak in the social-emotional domain.

In terms of risk factors, in addition to abuse or neglect, families self-reported other factors that are indicative of significant developmental and early childhood mental health risks: 20% reported a chronic parental illness or disability (which includes parental mental health problems), 19% multiple traumatic events or losses for the child, 18% parental substance abuse, and 10% domestic violence.

The services indicated on the Individualized Family Service Plans that were developed for eligible children were also analyzed by the discipline of the service provider identified as needed by the child. A developmental specialist was the most common provider type and was identified for 24% of the children. A social worker was identified as needed in 22% of the cases and a counselor or psychiatrist in 3% of the cases.

Analyses of services actually delivered showed that children in child welfare-involved families received fewer hours of services and cost less to serve than children in non-child welfare-involved families. These referrals benefited referred children and families by connecting them with EI when otherwise they would not have been or would have been later in the child's life. As a result, children received developmental evaluations and children and families received EI services that presumably were helpful for them. DSS and EI benefited from the collaboration.

Three key obstacles to the implementation of these referrals were identified: (a) the need for resources—specifically money, time, and expertise; (b) challenges to EI's ability to engage and effectively serve these children and families; and (c) barriers to building a collaboration between these two agencies.

A variety of success strategies for overcoming these challenges were identified. They included up-front planning; possible avenues for obtaining financial resources; professional development for personnel, especially on early childhood mental health; and building local relationships through regular, face-to-face meetings.

Conclusions

The results of this demonstration project indicate that young children in families involved with the child welfare system should be evaluated by Part C Early Intervention for developmental and early childhood mental health problems, as many of them will need and be eligible for EI services. EI will be challenged by the difficulties of engaging and working with these families who often have multiple issues and are involved with multiple service providers. Addressing the social, emotional, and behavioral issues of these young children will probably require enhanced capacity on early childhood mental health in the EI system.

Implementing referrals between child welfare and EI will not be easy, but strategies are available that will enhance the success of such efforts. Many young children, known to state social and human service systems such as the child welfare system, are at high risk for serious mental health and developmental problems, but too often do not receive appropriate assessments or services. These children, their families, and the service systems all stand to benefit from the implementation of referrals and linkages between child welfare and Part C Early Intervention.

Reference

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Symposium Discussion

Mimi Graham

These summaries represent important work in the State of Massachusetts. It is important to note that in both of these studies, striking numbers of children screened or assessed were found to have significant concerns or a need for further services such as Early Intervention or mental health treatment. It is also important to note that a concerning number of families either never completed the assessment process, or did not follow recommendations for further services when children were found to have concerns. We know that we have much work to do to ensure that we provide appropriate follow-up support so that families will make use of treatment.

The results of these studies are consistent with our experience in Florida, where we have targeted services for families in child welfare services. We have experienced similar challenges in engaging and maintaining working alliances with families in child protective services, as well as strong gains in the families that were able to make use of our array of services.

Florida has a statewide Strategic Plan for Infant Mental Health, yet our colleagues from Massachusetts should not be discouraged. Florida's plan is being implemented in only three cities, and has a long way to go before our services are universal. In the meantime, Massachusetts is showing a leadership role in investigating how we can best identify developmental and mental health issues on a regular basis. The Massachusetts Early Childhood Linkage Initiative is demonstrating to other states, many of which are nowhere near as well prepared, that the nation's new Child Abuse Prevention and Treatment Act, despite clear challenges, can and should be implemented. It is our job now to share our knowledge to improve early identification and service access for all children.

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Symposium

The Inter-American Consortium for Applied Research on Children and Communities: Translating Research into Action with Children and Adolescents in Medellín, Colombia

Chair
Linda Callejas

Authors
Yolanda Torres de Galvis et al.
Luis Fernando Duque et al.

Symposium Introduction

Linda M. Callejas

This symposium discusses findings from evaluation projects concerned with issues of drug use and family violence affecting children and youth in Medellín, Colombia. The papers, which address issues of national relevance to child mental health policy, highlight studies identifying some of the neighborhood and family conditions that provide the context for the daily lives of children in one of the largest metropolitan areas of Colombia. The author of the first summary discusses findings related to a study conducted with students in 6th through 11th grade to determine risk and protective factors related to adolescent drug use. The project relied on a mixed method case study design with logistic regression analysis applied to data collected. The main protective factors identified through the study include a sense of spirituality and belief in God, healthy lifestyle, family cohesion, and support networks. The main risk factors identified include the use of legal drugs, violent or aggressive behavior, a history of domestic or sexual abuse, and family dysfunction.

The second paper discusses the evaluation of the initial phase of a widespread program aimed at preventing and reducing violent behavior in local children and youth. The program focuses on training parents and teachers in more positive techniques for handling children exhibiting aggressive behaviors at home and at school. The study found that high levels of violence in a given neighborhood were positively correlated to aggression in children. The research findings presented here provide insight into the role that the family and social networks can play in ensuring positive social development in children and adolescents, despite a number of risk factors that have been exacerbated by continued violence and other social problems found in some of Medellín's neighborhoods. Such findings can enrich the repertoire of systems of care research and practice by highlighting the centrality of the family and community in the lives of children.

Risk and Protective Factors for Past-Year Drug Use in Adolescents: Main Results from Logistic Regression Models - Medellín Colombia 2004

Yolanda Torres de Galvis, José Miguel Cotes Torres, & Liliana Patricia Montoya Vélez

Introduction

Research over the past two decades has tried to determine how drug abuse begins and how it progresses. Many factors can add to a person's risk for drug abuse. Risk factors can increase a person's chances for drug abuse, while protective factors can reduce the risk. However, most individuals at risk for drug abuse do not start using drugs or become addicted. Also, a risk factor for one person may not be the same for another.

Prevention programs should enhance protective factors and reverse or reduce risk factors. The risk of becoming a drug abuser involves the relationship between the number and type of risk factors (e.g., deviant attitudes and behaviors) and protective factors (e.g., parental support). Further, the potential impact of specific risk and protective factors changes with age. For example, risk factors within the family have greater impact on a younger child, while association with drug-abusing peers may be a more significant risk factor for an adolescent. Early intervention with risk factors (e.g., aggressive behavior and poor self-control) often has a greater impact than later intervention by changing a child's life path (trajectory) away from problems and toward positive behaviors. Thus, while risk and protective factors can affect people of all groups, these factors can have a different effect depending upon a person's age, gender, ethnicity, culture, and environment.

Risk and protective factors refer to variables in youths' neighborhoods, families, school, and peer groups, as well as to factors within the individual, that increase or decrease the likelihood of problem behaviors. Risk factors for substance use typically are associated with an increased likelihood of substance use, whereas protective factors for substance use are related to a decreased likelihood of substance use.

The knowledge of the factors of risk for drug consumption has much preventive importance for students; identification of risk factors and preventive strategies with the purpose to stop drug use can diminish drug consumption. Knowledge of the protective factors is equally important due to its capacity to promote better conditions for the development of the person and to reduce the probability of high-risk behaviors. The present study contributes to the measurement of the problem of drug use in student populations and their possible relationship to risk factors and protective factors.

Objectives

This study addresses the following:

- The relative importance of each risk and protective factor in predicting past year drug use;
- The importance of the gender variable combined with the full set of risk and protective factors in explaining the variation in past year substance use; and
- The usefulness of modeling techniques using Logistic Regression Models in explaining the variation in past-year drug use.

Methods

In more than 15 years of research on drug abuse in Colombia, we have identified important principles for prevention programs targeting the entire family, along with individuals and their peers, by using descriptive statistics and simple odds ratios.

This report presents the main findings on the strength of the relationship between risk and protective factors and past-year drug use in a sample of 3,927 students, aged 12 to 19 years, using data from the 2004 Metropolitan Medellín Area High School Survey on Drug Use. The study relied on multiple logistic regression models to determine the importance of individual predictor variables by testing whether these factors account for a statistically significant amount of variation in the dependent variable after controlling for other predictor variables included in the model.

Model Information

The regression analysis performed used the LOGISTIC procedure in the SAS program included: (a) Response Levels: (b) model: binary logit, (c) Optimization Technique Newton-Raphson and (d) Step by step Backward Elimination Procedure.

The study examined 25 risk and protective factors that had been associated with results in the bivariate analysis. Some of these factors were measured using multiple-items scales, others using simple items. When more than one item was used to measure a factor, the responses from all the items were combined into a single score. All scales were coded such that higher scale scores for risk factors indicated that a respondent was at a higher risk for substance use. Higher scores for protective factors indicated that a respondent scored high on variables that indicated a lower risk for substance use.

The multivariate model was constructed in separated form for legal and illegal substances, in each case under the hypothesis of different behaviors related to risk and protective factors, differentiated by gender.

Results

The results of these models are presented in Tables 1 and 2, for each model, respectively. These tables present the regression coefficient, odds ratio (OR) and 95% confident intervals (CI) and significance test for each predictor. The OR is easier to understand than the regression coefficient; both are measures that describe the strength and direction of the relationship between the predictors and past year substance use. For example in Table 1, the OR for males indicates that the odds of past-year legal substance use was 1.24 times higher for males than for females, after controlling for other variables. The *p* value for this is less than 0.05, indicating that gender is a significant variable in the model.

Table 1
Results of Logistic Regression Model Predicting Past-Year Cigarettes and Alcohol Use and Risk and Protective Factors

Factor	β	*Factors*	*OR*	*95% CI*		*p value*
				Lower	*Higher*	
Intercept: SUSBLEGAL=1	-0.1163					0.5487
Violent behavior scale	0.7729	Risk	2.17	1.837	2.554	<.0001
Academic problems scale	0.5037	Risk	1.66	1.367	2.003	<.0001
Verbal aggression against women	0.3110	Risk	1.37	1.141	1.632	0.0007
Verbal abuse of children	0.2519	Risk	1.29	1.088	1.521	0.0032
Gender - males vs. female	0.2125	Risk	1.24	1.078	1.419	0.0024
Physical punís	0.1881	Risk	1.21	1.004	1.452	0.0457
Healthy lifestyle	-0.4471	Protective	0.64	0.479	0.853	0.0024
Self-esteem scale	-0.7979	Protective	0.45	0.346	0.585	<.0001
Good communication with teacher	-0.2680	Protective	0.76	0.659	0.887	0.0004
Regular exercise	-0.2438	Protective	0.78	0.670	0.916	0.0022
Social support scale	-0.0568	Protective	0.95	0.929	0.960	<.0001
Among Males						
Violent behavior scale	0.5848	Risk	1.79	1.457	2.210	<.0001
Academic problems scale	0.5624	Risk	1.75	1.329	2.317	<.0001
Verbal aggression against women	0.3428	Risk	1.41	1.108	1.792	0.0052
Physical punishment	0.2680	Risk	1.31	1.008	1.695	0.0433
Verbal abuse of children	0.2526	Risk	1.29	1.017	1.630	0.0357
Irritability scale	0.1987	Risk	1.22	1.006	1.480	0.0437
Healthy lifestyle	-0.8153	Protective	0.44	0.297	0.660	<.0001
Self-esteem scale	-0.6220	Protective	0.54	0.360	0.802	0.0024
Regular exercise	-0.2787	Protective	0.76	0.623	0.919	0.0050
Social support scale	-0.0837	Protective	0.92	0.899	0.941	<.0001
Among Females						
Sexual abuse of women	0.4869	Risk	1.63	1.060	2.498	0.0259
Violent behavior scale	1.1076	Risk	3.027	2.292	3.998	<.0001
Academic problems scale	0.4622	Risk	1.59	1.218	2.069	0.0006
Verbal abuse of women	0.3422	Risk	1.41	1.065	1.861	0.0163
Irritability scale	0.2621	Risk	1.30	1.058	1.596	0.0124
Child abuse	0.2438	Risk	1.28	1.004	1.621	0.0459
Self-esteem scale	-0.8935	Protective	0.41	0.289	0.580	<.0001
Good communication with teacher	-0.4177	Protective	0.66	0.531	0.817	0.0001
Social Support scale	-0.0273	Protective	0.97	0.950	0.997	0.0276

Table 2
Results of Logistic Regression Model Predicting Past -Year
Marijuana and others Illegal Substances Use and Risk and Protective Factors

Factor	β	*Factors*	*OR*	*95% CI*		*p value*
				Lower	*Higher*	
Intercept: SUB. ILLEGAL=1	-4.4885					<.0001
Past year cigarette	1.8055	Risk	6.08	4.407	8.396	<.0001
Violent behavior scale	1.4170	Risk	4.12	2.065	8.237	<.0001
Past year alcohol consumption until getting drunk	1.3829	Risk	3.99	2.930	5.424	<.0001
Verbal abuse of children	0.4687	Risk	1.60	1.201	2.125	0.0013
Academic problems scale	0.4411	Risk	1.55	1.145	2.109	0.0046
Belief in God	-0.8473	Protective	0.43	0.272	0.675	0.0003
Healthy lifestyle	-0.4241	Protective	0.65	0.433	0.988	0.0439
Among Males						
Past year cigarette use	2.3323	Risk	10.301	6.047	17.550	<.0001
Violent behavior scale	1.2104	Risk	3.355	1.408	7.996	0.0063
Past year alcohol consumption until getting drunk	1.0644	Risk	2.899	1.796	4.680	<.0001
Academic problems scale	0.7452	Risk	2.107	1.299	3.417	0.0025
Psychological abuse	0.6446	Risk	1.905	1.145	3.170	0.0131
To practice exercise	-0.7555	Protective	0.470	0.298	0.740	0.0011
Among Females						
Past year alcohol consumption until getting drunk	1.5708	Risk	4.81	3.197	7.238	<.0001
Violent behavior scale	1.5680	Risk	4.80	1.471	15.645	0.0093
Past year use of cigarettes	1.4146	Risk	4.11	2.734	6.192	<.0001
Verbal abuse of children	0.5931	Risk	1.81	1.257	2.605	0.0014
Irritability scale	0.3964	Risk	1.49	1.026	2.153	0.0359
Belief in God	-0.8765	Protective	0.42	0.243	0.712	0.0014

A total of 22 factors were entered for the legal substances model. The logistic regression analysis for the total sample, without differentiating by gender, identifies a significant variable comprised of 12 factors to explain the rate of consumption, of which seven are risk factors and five are protective factors (Table 1). In the model for males, the number of factors was reduced to 10, with six of these being risk factors and four protective. For females, the number of factors with statistical significance was nine: six risk factors and three protective factors.

For the analysis of illegal substance use, the use of alcohol and cigarettes were also included as risk factors. The model generated for the total sample included seven factors, five of them risk factors and two protection factors (Table 2). When differentiated by gender, both males and females exhibited five risk factors and one protective; however the factors explaining the model differed by gender.

Conclusions

The logistic regression models that explain the variation in the use of legal substances within the past year use are different from the models that explain the use of illegal substances.

The most important factors identified as contributing to the use of legal substances within the past year are:

- *Risk factors:* Violent behavior (OR 2.17), academic problems (OR 1.66), verbal abuse of women (OR 1.37), verbal abuse of children (OR 1.29), irritability (OR 1.25), and gender – males vs. female (OR 1.24).

- *Protective factors:* Self-esteem (OR 0.45), healthy lifestyle (OR 0.64), good communication with teacher (OR 0.76), regular exercise (OR 0.78) and social support (OR 0.95).

The most important factors contributing to the use of illegal substances within the past year are:

- *Risk factors:* Cigarette use (OR 6.08), violent behavior (4.12), alcohol consumption until getting drunk (OR 3.99), verbal abuse of children (1.60) and academic problems (OR 1.55).
- *Protective factors:* Belief in God (OR 0.43) and healthy lifestyle (OR 0.65).

Lessons from the Early Violence Prevention Program in the Municipality of Medellín, Colombia

Luis Fernando Duque, Juan de J. Sandoval, José Fernando Orduz, & Beatriz Caicedo

Acknowledgements: Research supported by Pan American Health Organization. The authors gratefully acknowledge the assistance and advice provided by Dr. Joanne Klevens (US CDC).

Introduction

The Early Aggression Prevention Program (the Program) of Medellin Municipality (Duque, 2000) is based on two fundamental strategies: (a) the teaching of pro-social skills in the classroom and the contingent, consistent and non-violent handling of the child at school on the part of the teachers; and (b) the contingent, consistent and non-violent handling of children with behavioral problems on the part of their parents.

The original design of the Program included two components: teacher training and support to families. There were 10 sessions for teacher training and a manual was developed. Support to families included two home visits to families with children with severe aggressive symptoms; home visits also were available to others upon request. Support to families included six workshops, two sessions of family counseling, and the development of a family manual.

From 2001 to 2005, the Program has targeted the following populations, as reported by the entities responsible for its implementation: (a) 349 schools and day-care centers, (b) 2,738 teachers or day-care givers, (c) 41,936 children, and (d) 25,314 families of these children. The first stage of the Program (2001) targeted 57 schools and day-care centers, 361 teachers and day-care givers, 7,605 children, and 2,442 families of these children. The objective of this research was to assess the impact attributable to the initial phase of the Program.

Family adherence to Program was defined as:

- *High adherence* (at least one of the parents attended 9 or 10 of the 10 training sessions) 22% (*n* = 531)
- *Acceptable adherence* (at least one of the parents attended 6, 7 or 8 of the 10 training sessions) 21% (*n* = 513)
- *Very low adherence* (at least one of the parents attended five or less of the 10 training sessions) 57% (*n* = 1.398)

Materials and Methods

Types of Analysis

Two analyses were conducted. The first analysis compared data from 2001 and 2004 (pre- and post-analysis), among children who participated in the program in 2001, consisting of a non-probabilistic sample of 339 children from 57 schools and 310 of their parents who agreed to participate in the study.

Second, a quasi-experimental analysis was conducted to compare in 2004 the same group of children who had benefited from the program, with a group of children who had not received the Program (control group). The members of the control group were randomly selected among children from 15 schools in

neighborhoods of an adjacent municipality and were matched by gender and age (more or less one year of age). We selected 339 control children, and 254 of their parents agreed to participate in the study.

Variables

Two types of variables were taken into account: those that were expected to be modified by the Program and, secondly, the variables that might affect the Program outcomes. The variables that were expected to be modified by the program were:

- direct aggression
- indirect aggression
- hyperactivity and attention deficit
- pro-social behavior
- school dropping-out
- performance at school
- use of psychoactive substances
- anti-social and delinquent behavior
- cognitive deficiency in the perception of aggression (in children aged 11 or less) and deficiency in self-control of aggression (in children aged 12 or more)
- family patterns of education and upbringing

The variables that can affect the impact of the Program , or outcomes, that we studied were:

- adherence to the Program
- family violence
- criminal and violent antecedents in the family
- perception of the degree of violence in the neighborhood
- socio-economic stratum

We used summary variables created by factorial punctuation (Linting & Groenen, 2002). Once the qualitative variables had been quantified through optimal scaling, we used factorial exploratory analysis (Hair, Anderson, Tatham & Black, 1999; Jonson, 2000), with orthogonal rotation using the Varimax technique (Mardia, Kent & Bibby, 1979). Factorial punctuations were estimated through the regression technique (Johnson & Wickern, 1992), and internal consistency was evaluated to determine data replicability (Martinez, 1996).

Although the children of both groups belong to the lowest socio-economic strata, the children of the control group are poorer than those who participated in the Program, and in their neighborhoods there is a greater awareness of violence. Among children who participated in the Program there is significantly more family violence at the present time, as well as antecedents of verbal and unarmed physical violence in the families. There were no differences between the two groups regarding antecedents of violence and criminality in the families, nor in the level of aggression between siblings (p = 0,861). Nor were there any differences in terms of gender (p = 0,789) and age (p = 0,642), an indication that matching was adequate.

Analysis

We used conditional logistic regression for the multivariate analysis (Hosmer & Lemeshow, 2000; Londoño, 2004), and the methodology for matching samples to estimate the odds ratios and their statistical significance (Campbell & Stanley, 1963). The variables with p-values below 0.25 were introduced in the conditional logistic regression models.

Results

Evaluation: Pre- (2001) and post- (2004)

The results of the general pre- and post- conditional logistic regression model show the following significant statistical differences: a 19% decrease of symptoms of direct aggression in 2004 ($p = 0.043 < 0.05$); a 38.5% decrease of indirect aggression in comparison with 2001 ($p < 0.001$); an increase of 47% in pro-social behavior ($p < 0.001$); and a 66% decrease in academic performance, in comparison with those of the same age ($p < 0.05$).

To estimate whether these changes are related to the Program or not, we analyzed them according to Program adherence. There was an association between the Program and an increase of pro-social behavior and a decrease of indirect aggression. Decrease of direct aggression does not appear to be attributable to the Program , since there was significant association in the two groups that were analyzed ($p < 0.05$). Data show a negative impact attributable to the program on superior academic performance, given that the differences found were significant between high adherence children, but not in low adherence ones.

Quasi-Experimental Evaluation

A multivariate conditional logistic regression analysis was used to estimate the effect of the Program on the aspects it was meant to modify. The intervention group presented a higher probability than the control group for direct aggression ($p < 0.05$), good academic performance ($p < 0.05$), and lower probability to be punctual and to respect directives given ($p < 0.001$). The parents of the children who participated in the Program reported that they had applied a greater degree of supervision and care in terms of directives given and compliance with school homework of their children, compared with those who had not participated in the Program ($p = 0.014$). Parents increased the use of upbringing and disciplinary strategies based on dialogue and reasoning, in comparison with the control group ($p = 0.012$), and they had made less use of disciplinary strategies involving threatening and physical punishment ($p = 0.024$). Parents of children who participated in the Program generally displayed more severe carelessness in the supervision of their children ("I was so drunk or drugged that I could not take care of him/her and I could not take him/her to the doctor or hospital when he/she required it."; $p < 0.05$). No effect of the Program on indirect aggression, pro-social behavior or use of psychoactive substances could be observed.

For observation of the effect that external variables might have, these were introduced one by one into the logistical regression model. Neither the current situation of family violence, nor the antecedents of verbal and unarmed physical aggression or family delinquency, nor the socio-economic stratum, presented any modifications of the results of the Program. The contrary occurred with the variable perception of degree of threats, robberies and homicides in the neighborhood and its interaction with direct aggression. When these variables were introduced into the model they cancelled out the effect of the Program on the supervision and care of homework and permission to leave home ($p = 0.106 > 0.05$), on the patterns of upbringing and disciplinary strategies using threats and physical punishments ($p = 0.372 > 0.05$) and good academic performance ($p = 0.090 > 0.05$). Statistically significant interaction between the symptoms of direct aggression and antecedents of threats, robberies and homicides in the neighborhood ($p < 0.05$) also causes the disappearance of the association between the Program and the increased direct aggression among the children in the intervention group ($p > 0.05$). The probability that children who participated in the Program improved their academic performance, which is at statistical significance limit ($p = 0{,}047$), was cancelled by introducing into the model the following variables: family antecedents of verbal and unarmed physical aggression, family antecedents of delinquency, and brawls or fights among neighbors. It is important to note that statistical significance values are very close to the significance limit ($p = 0.050 – 0.055$). The variable antecedents of threats, robbery and homicides in the neighborhood and its interaction with direct violence cancel out the effect of the Program on academic performance ($p = 0.090 > 0.05$).

Discussion

There were encouraging results from this initial Program evaluation, including: good academic performance, greater degree of supervision by parents and care in terms of directives given and compliance with school homework, increased use of upbringing and disciplinary strategies based on dialogue and reasoning, and less use of disciplinary strategies involving threatening and physical punishment. Higher direct aggression among the intervention group than the control group can be due to the fact that the intervention group has had a greater proportion of aggressive children from the beginning of the Program.

In its initial phase (2001) the Program suffered several modifications via a change in orientation from a developmental perspective to a psychodynamic one, along with a decrease in the number of activities offered. Qualitative analyses of field diaries suggested that teachers had changed their ways of thinking about children's aggressive behavior and had clear ideas of how to intervene in conflict situations, but their actions remained unchanged. We believe it is possible that, given the psychodynamic orientation of the revised intervention, trainers could spend a great deal of time promoting "insight" or awareness of inappropriate teaching practices, but did not model or practice the specific skills that were to be implemented as part of the original Project design. Even if teachers had wanted to conduct the intervention in the ways intended, they might not have gained the skills needed to do so during their training (Duque, Klevins, Ungar & Lee, 2005).

The decrease in the number of activities originally programmed (Montoya, Montoya, Pardo & Alvarez, 2003) may also have led to the fact that the Program had paradoxical effects. The importance of having an adequate "dose" of interventions has been highlighted by various authors (Center for the Study of Prevention and Violence, n.d.). Low adherence to the Program is another element that may well be associated with the results obtained.

The results obtained by this study are congruent with the relationship between high levels of violence in the neighborhood and aggression in children, which cause deterioration of the social capital (Sampson, Raudenbush & Earls, 1997) and in the quality of the supervision capacity of parents over their children (Loeber & Stouthamer-Loeber, 1986). It has also been reported that a highly violent environment creates a paradoxical state of de-sensitization or "normalization" in the face of continuous acts of violence (Ng-Mak, Salzinger, Feldman & Stueve, 2002).

The follow-up of the cohorts will be continued for another two years, which will allow for measurement of the continuity (or lack thereof) of the effects and, as the children reach age 12, will allow us to determine whether there are any effects on their sexual activities.

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Rethinking Female Adolescent Depression in the Context of Poverty

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Acknowledgements: Participants in this study were part of a larger project funded by the Florida Agency for Health Care Administration (Contract #M0107) assessing the impact of welfare reform on the well-being and future aspirations of adolescent girls.

Introduction

Growing up poor is significantly associated with poorer health outcomes (Boothroyd, & Olufokunbi, 2001; Boushey & Gundersen, 2001; Lichter & Crowley, 2000), a greater likelihood of dropping out of school (Haveman & Wolfe, 1995), an increased probability of teenage pregnancy (Kirby, 1997), and an increased likelihood of substance involvement (Fraser, 1997). Psychological distress disproportionately affects those with low socioeconomic positions as evidenced by the growing literature on low-income mothers and high rates of depression (Belle, 1990; Muntaner, Eaton, Miech, & O'Campo, 2004; Ritchey, Gory, Fitzpatrick, & Mullis, 1990). The gravity of this disparity is that depression is ranked as the fourth most disabling disease in the world (World Health Organization [WHO], 2001) with the economic impact exceeding $63 billion per year in the United States (U.S. Department of Health and Human Services [USDHHS], 1999). It is estimated that among adolescents (i.e., 14-19 years of age), lifetime prevalence rates for any depressive disorder is approximately 20%, impacting nearly six million young people (USDHHS, 1999; Friedman, et al., 2004; Tsuang & Tohen, 2002). Despite evidence that female adolescents experience depression at twice the rate of males, there is limited empirical research seeking to understand these differences (Hazler & Mellin, 2004). Further investigation of the causes and correlates of female adolescent depression is justified in light of the potential consequences of untreated depression: a 12-fold risk factor for suicide in females, co-occurring disorders (USDHHS, 1999), and circumscribed lifetime opportunities and lower rates of employment due to depressive symptoms (Kalil, Born, Knuz, & Cuadill, 2001).

Correlates of Depression. A plethora of research has emerged tracing the association of victimization and witnessing violence to a magnitude of health problems, including: depression, suicidality, substance abuse, hospitalizations, post-traumatic stress disorder, violence, teen pregnancy and risky sexual behaviors (Howard, Feigelman, Li, Cross, & Rachuba, 2002; Jong, Mulham, & Kam, 2000; Kendall-Tackett, Williams & Finkelhor, 1993; Spat Widom, 1999; Stevens, Murphy, & McKnight, 2003). In a recent study of residential mobility in families leaving Temporary Assistance to Needy Families (TANF), 42% moved within a six-month period (approximately 8% of the general population moves in a six-month period; Sard, 2002). Multiple moves are generally assumed to be a risk factor for psychological distress as they are a life event that potentially impacts well being by interrupting work schedules, jeopardizing employment, and adversely affecting a youth's educational progress with changes in peer groups and loss of connections (Magdol, 2002).

The current study. The primary goal of this longitudinal study is to monitor the status and well being of a cohort of adolescent girls growing up in families receiving welfare. This sub-study examined within this cohort the prevalence of depression at three points in time and the association and potential contribution of four hypothesized risk factors: (a) adolescents' pregnancy, (b) self-reported victimization, (c) witnessing community violence, and (d) residential mobility.

Methods

Participants. A sample of 125 mothers currently receiving TANF and their adolescent daughters were identified from the 2000-2001 Florida Medicaid eligibility data using the family identifier and other matching variables (such as gender, address, and last name). Study eligibility criteria included mothers currently receiving TANF with a daughter 13-18 years of age living at home and residing within a five

county area in west central Florida. Approximately 1,000 mother and daughter pairs who seemingly met these criteria were identified in the Medicaid data and 873 recruitment letters were mailed. Although some families contacted did not meet the eligibility requirements, 125 eligible daughter/mother pairs were recruited for participation.

Interview protocols. In addition to respondent demographic and family characteristics, both the mother and daughter protocols included a number of frequently used, psychometrically tested, self-report health, mental health and substance abuse status measures. The Center for Epidemiologic Studies Depression Scale (CES-D; Radloff, 1977) was utilized as measure of depression. The commonly accepted cut-off score for "clinical caseness" of depression is a score of 16 or above (Kalil, et al., 2001). Additional questions focused on a broad range of issues concerning risk and protective factors associated with the daughters, perceived social supports, self-esteem, engagement in high-risk behaviors, and their hopes and aspirations for the future.

Procedures. This mixed-method study includes two phases. Phase 1 involved face-to-face interviews using various standardized measures with 125 mothers who were receiving TANF in 2002 and their daughters, while Phase 2 included in-depth qualitative interviews with a random sample of 20 adolescent girls participating in Phase 1. Administrative data provided system utilization across three segments: (a) criminal justice utilization, (b) substance abuse services and, (c) mental and physical health services (i.e., mental health Medicaid claims). All procedures and protocols were reviewed and approved by the University's Institutional Review Board prior to initiating the study.

Analysis. Univariate and bivariate analyses were utilized to estimate the prevalence and determine the relationships of the four selected risk factors and adolescent depression. In addition, a logistic regression analysis was conducted to assess the relative contribution of these risk factors to the likelihood of scoring above the criterion score for clinical depression.

Findings

Characteristics of both mothers and daughters are summarized in Table 1. Two notable trends found within this year of the study included dramatic increases in depressive symptoms among the daughters, as well as increases in teen pregnancies. Compared to the 2002 findings in which 30.4% of the adolescent girls exceeded the criterion score on the CES-D, this increased to 40.5% in 2003 and jumped to a dramatic 45% in 2004. By 2005 there was a reduction in overall depressions scores for the girls to 38.3%. Given that approximately 10%-15% of youth in the general population at any point in time will suffer from symptoms of depression (DHHS, 1999), the rates of clinical depression obtained among these Medicaid enrollees exceeds national estimates by nearly 35%. The results of daughters' level of depression and their self-perceived need for and use of mental health services are summarized in Figure 1. Another critical finding, in light of the increase in depression (38.3%), is that only 4.4% in 2004 received a Medicaid reimbursed mental health service during the past year.

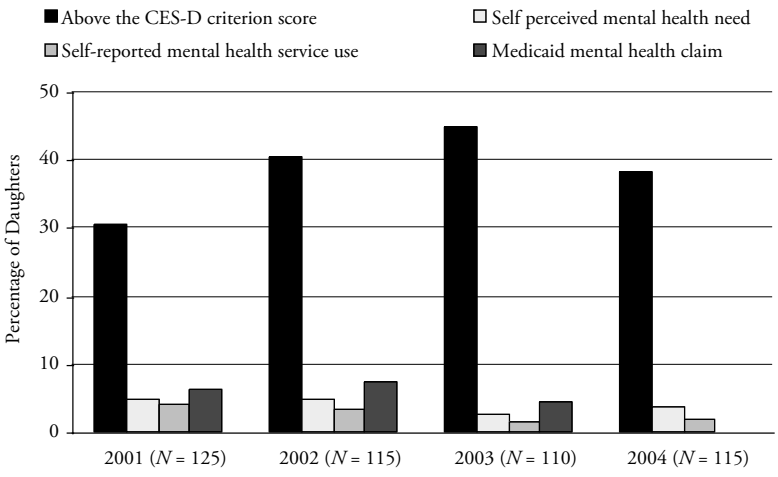
By year 3 of the study, 35% of the girls became pregnant; a figure substantially higher than the national rate (4.9%). Although a statistically significant relationship was observed for pregnancies occurring by the first year of the study and depression scores in year 3 (χ^2 (1, N = 55) = 3.81, p = .051), no further relationship has been found. Adolescents exceeding the threshold on the CES-D were 1.6 times more likely to reported having been pregnant compared to adolescents who were not depressed (χ^2 (1, N = 88) = 1.26, p = .26).

Personal exposure to maltreatment was reported by 37% (n = 41) of the girls, with 22% (n = 24) of these girls reporting being sexually assaulted, five of them within the past year. Personal exposure to any victimization at any time during the four year study was reported by 76% (n = 96), with 21% (n = 24) of these girls reporting being sexually assaulted; two of the girls reporting assaults within the last year. The relationship between personal exposure to victimization and adolescents' level of depression in 2002 was significant at r = .24, (p < .01). As well in 2003 the relationship between victimization and

Table 1
Characteristics of Mothers and Daughters from 2002-2004

Characteristics	*Mothers 200 (n =125)*	*Mothers 2003 (n =113)*	*Mothers 2004 (n =107)*	*Daughters 2002 (n =125)*	*Daughters 2003 (n =116)*	*Daughters 2004 (n =111)*
Gender:						
Female	100%	100%	100%	100%	100%	100%
Age:						
Mean	38.4	39.7	40.7	15.5	16.5	17.5
SD	4.99	5.05	5.03	.99	.99	.96
Range	30 - 53	31 – 53	32-54	13 - 17	14-18	15-19
Race/Ethnicity:						
White	40.7%	39.8%	40.5%	33.6%	32.2%	34.5%
Black/African American	38.2%	38.9%	37.8%	40.8%	41.7%	40.7%
Hispanic	21.1%	21.2%	21.6%	25.6%	26.1%	24.8%
Marital status:						
Married or living as married	12.8%	12.6%	19.6%	0%	.9%	4.5%
Divorced, Separated, or Widowed	54.4%	50.5%	45.8%	0%	0%	.9%
Never married	32.8%	36.9%	34.6%	100%	99.1%	94.6%
Education:						
Dropped out of school	50.4%	49.6%	42.5%	28.0%	28.7%	33.6%
Completed high school/GED	49.6%	50.4%	57.5%	NA	5.2%	22.1%
Length of time on TANF:						
Less than 6 months	15.4%	5.5%	6.2%	None of the girls received TANF	1.7%	6.2%
Six months to 1 year	18.7%	8.2%	0%		9.6%	5.3%
Over 1 year	65.9%	40.9%	26.6%		0%	15.0%
Not on TANF	0%	45.5%	67.3%		88.7%	71.7%
Housing arrangement:						
Private or public house or apartment	84.0%	73.0%	85.9%	All of the girls were living at home	8.9%	10.6%
Private house or apartment shared with friends or family	12.8%	22.6%	15.1%		2.7%	19.5%
Other	3.2%	4.4%	0%		0%	0%

Figure 2
Depression, Perceived Need, and Mental Health Service Use



depression scores was significant at $r = .30$, ($p < .01$) level. In subsequent years the association weakened but remained significant; 2004 $r = .21$ and year 2005 $r = .19$, ($p < .05$). Adolescents reporting personal victimization in year four were 2.6 times more likely to exceed the threshold for depression at any point during the study compared to adolescents who had not been exposed.

Reports of witnessing or knowing someone bullied, beaten up, robbed, sexually assaulted, shot at, shot, stabbed, or killed were utilized to construct two exposure to community violence variables. The first with (3) low severity items, the second with (5) high severity of violence items. Over the entire length of the study, 93% reported exposure to the low severity of violence, with 90.4% reporting exposure to high severity of violence. Twenty five of the girls (19.8%) reported witnessing someone sexually assaulted. Thirty nine (31%) of the girls reported witnessing someone shot; (20.7%), 26 witnessing someone being killed, and 34 (27%) witnessing a stabbing. A significant relationship was found between exposure to community violence in year 2 of the study and adolescents' level of depression $\chi^2(1, N = 116) = 14.04$, $p < .001$. These adolescents were 4.4 times more likely to exceed the threshold on the CES-D compared to adolescents who had not been exposed in that year. In year 3 of the study significant relationships with exposure to violence and depression were also found; $\chi^2(1, N = 111) = 4.65$, $p = .031$ and in year 4, $\chi^2(1, N = 115) = 4.97$, $p = .026$.

In tracking the number of moves by daughters from 2000 to 2004, 35% of daughters ($n = 41$) reported moving at least once during the four-year period while 28% ($n = 52$) reported three or more moves. During this four-year period, the number of moves among these daughters ranged from 1 to 13, averaging 2.9 moves. A significant relationship was not found between the numbers of moves an adolescent experienced and their level of depression. However, adolescents exceeding the threshold on the CES-D moved an average of 3.12 ($SD = 2.4$) times during the previous four years while adolescents below the threshold on the CES-D moved an average of 2.51 times, $SD = 1.54$.

The logistic regression analysis demonstrated that the four variable model was not significant, accounting for only 13% of the variance associated with the daughters' depression. However, examination of the individual variables within the model confirmed a statistically significant association of personal victimization with depression ($p = .01$). Moreover, those experiencing victimization were 4.4 times more likely to score above the threshold for depression at any point during the study. Examination of the individual variables within the model confirmed the significant association of the total number of moves with depression.

Discussion & Conclusion

In summary, the findings regarding the increased prevalence of depression over time are not surprising, when considering the evidence of previous studies on the role of socioeconomic position on depression (Lorant, Deliege, Eaton, Robert, Philippot, & Ansseau, 2003). However, it is surprising that only one of the four predictors was found to be significantly associated with adolescent depression given the dominant findings in the literature. Irrespective of the lack of statistical significance there is still evidence, as shown in Figure 1, that there is a substantial unmet mental health need among these adolescents given the high prevalence rate of depressive symptoms among these girls.

Recently, studies have documented that only half of the people who need mental health services receive treatment (Kessler et al., 2001). Access to mental health care may present an even greater dilemma for adolescents due to lack of appropriate services, fragmented services, missed diagnoses, and stigma that may cause reluctance in seeking help.

The results of this study suggest that an increase in psychological distress due to teen pregnancy, a history of victimization, and multiple moves contributes to depression. Even though a relatively small proportion of the variance has been explained, these variables remain important to consider when attempting to map the developmental pathway of depression in females.

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Initiatives Supporting Children with Emotional or Behavioral Challenges in Child Care Settings

Acknowledgements: This research and the preparation of this paper were supported by the Research and Training Center on Family Support and Children's Mental Health, Portland State University through NIDRR Grants H133B990025 and H133B040038.

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Introduction

Part of an emerging vision of children's mental health is the provision of comprehensive, community-based services assuring that children and their families can "live, work, and thrive in their communities" (Huang & Mayberg, 2003, p. 1). The attainment of this vision would result in children with emotional disorders being fully integrated into their child care settings. However, there is great variation from state to state in the ways in which children's mental health is addressed and promoted (Knitzer, 2004), how supports are put into place, and how systems of care are built around vulnerable young children (Simpson, Jivanjee, Koroloff, Doerfler, & Garcia, 2001).

State level child care administrators are in a position to build partnerships, lead planning efforts, obtain funding, and implement programs that support the successful inclusion of children with emotional or behavioral challenges in community child care. Therefore, we interviewed a sample of state administrators regarding the structures, initiatives, planning, training, consumer participation and outreach, and funding that enabled inclusive child care settings to flourish and to overcome barriers. This paper focuses on two principal research questions: (a) What training prepares child care providers to work with children with emotional or behavioral challenges, and to what extent are families involved in training? and (b) What initiatives have states taken to provide mental health supports for children with emotional or behavioral challenges in child care settings?

Method

The study used a cross-sectional survey design, with an interview schedule including both closed and open-ended questions. Of the 50 state child care administrators invited to participate in the research, 24 completed hour-long interviews. The majority of participants were female (87.5%) and European-American (83.3%). The age of respondents ranged from 32 to 63 years (M = 49.6, SD = 6.6), and length of employment in their current position ranged from 1 to 12 years (M = 5.2, SD = 3.3).

Items in the survey instrument were informed by: a qualitative study on inclusive child care (Brennan, Bradley, Ama, & Cawood, 2003); consultation with an advisory group consisting of child care researchers and practitioners, family members, and mental health experts; and a review of the inclusion and children's mental health literature. The question topics included demographic and job information, administrative structure of child care, planning and major child care initiatives, support for children with mental health challenges, standards, funding, training, and outreach. In addition, participants were asked, on a confidential basis, to report their perceptions of barriers to inclusion and any lessons learned from their own state's experience.

Researchers conducted 2 face-to-face and 22 telephone interviews. All interviews were recorded with permission, and transcripts were prepared. Quantitative data were subjected to descriptive analyses. Two members of the research team coded the qualitative data independently, and then discussed identified themes and developed the coding scheme (Morse, 1994). Any differences in interpretation were resolved by referring to the raw data, and consulting with a third researcher. The software package, NUD*IST (Qualitative Solutions and Research Pty Ltd, 1993), was used to apply the coding scheme to the data and to link data across interviews.

Results

Two major areas of initiatives regarding mental health supports emerged in our analysis: the training of child care staff, and the use of specialized consultation.

The majority of respondents reported that their states provided specific training on inclusion in child care settings (83%) and working with children with emotional or behavioral challenges (88%). About two-thirds of respondents (67%) reported that their states combined training in child development and children's mental health. Seventy-one percent reported state initiatives to educate providers about ADA requirements.

Although administrators reported that general training in caring for children with special needs was available, mental health disabilities were not always included. Qualitative data indicated that training for child care staff in children's mental health was often restricted to elective modules completed as part of other training programs. One administrator noted the challenge arising from the failure of some federally funded initiatives to "recognize the importance of the whole child" and the breadth of issues to be addressed in order "to get kids to be cognitively and academically successful."

Participants noted that providers needed appropriate knowledge, skills, and support if they were to respond appropriately to children who have complex needs. This is a challenge in the field since, unlike other providers such as Head Start staff, training is often not mandated for child care workers. The lack of trained personnel with this combination of skills concerned the participants. One administrator noted that, "the biggest void is mental health services and resources, and not having people who understand how to work with children in group settings who have behavioral issues."

Administrators were also asked if the parents, or other family members, of children with mental health needs contributed to state-supported training for child care staff. In this sample, approximately four out of ten states (44%) reported family involvement in training. Roles included training design (21%), training delivery (21%) and training evaluation (4%). Of the states in which parents were involved in training, only 25% of the respondents indicated that family members received payment for their input on the training of child care staff. Other notable examples of parent participation described by interview participants included conference presentations and participation in focus groups. Parents were also involved in outreach efforts through advocacy organizations, designed to prepare family members to take on advocacy roles, and to assist other parents to get more effective services for their children with mental health issues.

In addition to training, administrators discussed the importance of access to expertise that supported child care staff to work with specific children in the child care environment. When asked about the forms of technical assistance offered by the state to child care providers concerning care for children with mental health disorders, 92% of the states offered informational resources, 79% offered telephone consultation, and 79% had face-to-face consultation available. Four major types of consultants provided support for children with mental health challenges: mental health personnel, health consultants, consultants available through child care resource and referral agencies, and inclusion specialists.

The majority of states had mounted initiatives to provide mental health expertise to child care workers who without this support often are isolated; fully 58% of the states supported some form of mental health consultation. One respondent stated, "Providers…don't have the resources or knowledge to deal with some of the issues... [they are facing] with children that might have suffered some sort of abuse or have emotional or behavioral problems. [There is] an increasing need for this type of support." A few states had instituted screening processes that could identify children for early mental health supports, some focused on sending out mental health professionals for onsite direct work with providers, children, and families, and several states used their mental health experts to provide training, technical assistance, and program advice. An administrator talked about program-level consultation: "sometimes it is the situation and not the child. There are too many kids … or the way they are running their flow of the day interferes with how kids can cope… [The consultants'] hope is…they are building the capacity of the staff."

More frequently, assistance came from health consultants who were supported by 87.5% of the states; 58.3% of the states had health consultants who also addressed children's emotional or behavioral issues. Several states provided public health nurses who made on-site visits to child care facilities, provided direct consultation to providers and parents, conducted mental health training, and supplied telephone guidance for providers through "warm lines." Some health consultants had been given specialized mental health training so, "if the public health nurses need to make a referral, they will know the avenue to make the referral."

Seven of the state administrators talked about the provision of mental health supports through the venue of child care resource and referral agencies. These community-based agencies served as providers of training, as the contracting agency supplying technical assistance through staff nurses or mental health consultants, or as a center that connected families with a wide variety of resources, including mental health supports. "Providers come and take [special needs] training [through Child Care Resource and Referral], but… if there is an issue with a particular child and the provider is having a difficult time adjusting, they can call and we look at sending someone on-site."

A final source of supports for children with mental health needs was through inclusion specialists. For example one state funded more than 15 inclusion coordinators who were available statewide to assist child care providers and families with children with any type of special need. Also very notably Child Care Plus, through the University of Montana, supported inclusive child care through comprehensive training and consulting services for children with a variety of special needs.

Conclusion

In many child care settings, supports for children, families, and staff are absent, and children with mental health challenges are not successfully integrated into the care environment. Indeed, expulsion from care is a fact of life for many families (Emlen, 1997, Gilliam & Shahar, in press). The current study demonstrated that when states plan for and fund initiatives to provide mental health supports for children with challenges and training to child care providers, these children can successfully be included in community-based child care. Supports for children with emotional or behavioral difficulties were provided by consultation delivered by mental health providers, health consultants, child care resource and referral agency staff, and inclusion specialists. Additional research is needed to establish the evidence base for these supportive practices.

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Therapeutic Alliance in Pediatric Primary Care and Implications for Mental Health Interventions

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Acknowledgements: This research was funded by the National Institute of Mental Health (NIMH#K24MH0170).

Introduction

Therapeutic alliance (TA) between doctors and patients is related to treatment outcomes in psychotherapy settings (Martin, 2000; Krupnick et al., 1996). Similarly, TA between pediatricians and mothers may help explain successful outcomes when treating children's mental health problems within primary care. The research described in this summary demonstrates that TA can be reliably assessed in primary care settings and that the underlying constructs are similar to those found in psychotherapy. Therefore, TA may serve as a useful measure of child mental health interventions in primary care.

Methods

This research uses audio-taped interactions between mothers (n = 50) and doctors (n = 34) using the Vanderbilt Therapeutic Alliance Scale (VTAS; Hartley, 1983). A trained listener independently coded recorded interactions between mothers and doctors from an urban teaching hospital.

Following the visit mothers completed three measures: (a) the General Health Questionnaire (GHQ; Berwick, 1987) for emotional distress; (b) the Conflict Tactics Scale (CTS; Straus 1979) for exposure to family violence; and (c) the Multidimensional Anger Inventory (MAI; Siegel, 1986) for irritability. Mothers with GHQ scores greater than four were considered distressed. Scores above the mean on a seven-item subscale of the MAI indicated that mothers were easily angered. Mothers were considered to have been exposed to severe family violence if they answered on the CTS that at least once or twice in the past year they encountered several threatening situations.

Following the visit, mothers also reported on satisfaction with their child's doctor. Satisfaction questions included the mother's perception of whether or not the doctor knew the mother's agenda, encouraged the mother to talk about her worries and solicited her opinions, could be counted on to set the mother at ease, and whether the doctor clearly explained his/her treatment rationale.

The Roter Interaction Analysis System (RIAS; Roter, 1997) was also used to code interactions between doctors and mothers. RIAS codes classify utterances into categories including information giving, question asking, empathy, and partnership facilitation. RIAS codes were aggregated to develop measures of doctor patient-centeredness, parent participation, and doctor dominance of the conversation (Wissow, 2003).

Principal component factor analysis was used to compare therapeutic alliance among doctors and mothers with a previous VTAS application to youth in a psychotherapy setting: the National Institute of Mental Health Treatment of Depression Collaborative Research Program (TDCPR; Krupnick et al., 1996). Correlations were used to describe the relationship between VTAS scores and other measures. Generalized Estimating Equations (GEE), a form of regression that accounts for the non-independence of observations, was used to explore the construct validity between the VTAS and the RIAS, as well as the previously mentioned measures. The psychometric properties of the VTAS were assessed using Cronbach's alpha and correlations. The study was approved by the Committee on Human Research of Johns Hopkins Bloomberg School of Public Health.

Results

VTAS Characteristics

The VTAS consists of three subscales: doctor, patient, and interaction. The total score summing all 38 items had a possible range of 0-190. The scores ranged from 115-181 (M = 154, SD = 14.5). The VTAS demonstrated good consistency (α = .90) and test-retest reliability (r = .89). Principal component factor analysis revealed two dimensions which were named the *provider factor* and *patient and interaction factor* which jointly described 41% of the variance. This factor structure was extremely similar to that found in the TDCPR study, accounted for a similar amount of variance, and similar items loaded on each factors of the VTAS. This suggests that the underlying dynamics measured in psychotherapy are comparable to those measured in pediatric primary care.

Relationship between VTAS and RIAS

The RIAS measure of doctor patient-centeredness correlated most strongly (r = 0.46, p = .0007) with the doctor subscale of the VTAS and only slightly with the interaction subscale (r = .28, p = .05). The rapport-building component of patient-centeredness was most strongly associated with the VTAS doctor subscale (r = .42, p = .002).

The larger the doctors' proportion of talk in a visit, the lower was the VTAS patient subscale (r = -.45, p = .001). However, the ratio of doctor to mother talk was unrelated to both the doctor (r = -.03, p = .8) and interaction (r = -.25, p = .07) VTAS subscales.

Relationship between VTAS and Mother's Characteristics

There were no significant relationships between mother's age, educational level, or current emotional status with the VTAS scores. When controlling for race, VTAS scores were significantly lower for mothers who reported exposure to family violence and significantly lower among mothers who reported becoming easily angered. When controlling for mother's exposure to family violence and anger, VTAS scores were significantly lower for African-American mothers compared to Caucasian mothers.

The number of emotion statements mothers made was related to the VTAS scores among African-Americans, but doctors' patient centeredness and the relative amounts of doctor and mother talk was not. The opposite was true for Caucasian mothers: doctors' patient centeredness was associated with increased VTAS scores, and a greater amount of doctor talk relative to mother talk was associated with decreased VTAS scores.

Relationship of VTAS to Mother's Satisfaction

Mothers who strongly agreed that the doctor knew what they wanted to talk about and who felt that the doctor could ease their worries, had visits in which the VTAS total score was significantly higher when compared with less satisfied mothers. This relationship was true after accounting for mother's race.

Table 1 summarizes the difference in VTAS scores as a function of doctor and mother characteristics using GEE.

Table 1
Changes in VTAS Scores for African-American and Caucasian Mothers

Doctor and Mother Characteristics	*Change in VTAS Total Score*	*95% CI*
Doctor patient centeredness	0.016	-.01, .04
Mothers' emotion statements	0.118	.022, .213
Relative amount of doctor and mother talk	-3.09	-6.02, -.164
Mother reports family violence	-8.21	-12.9, -3.53
Mother reports being angered easily	-10.30	-15.5, -5.13
Doctor knew mothers' agenda	10.30	3.4, 17.3
Mother felt doctor could ease her worries	8.30	1.1, 15.6
Mother African-American	-9.19	-15.1, -3.34

Discussion

This research demonstrates that TA can be reliably and validly measured in pediatric primary care settings. The factor analysis results suggest the underlying construct that describes TA in psychotherapy settings also clearly exists in pediatric primary care. The VTAS may characterize provider and mother characteristics that are essential to eliciting and managing psychosocial problems in primary care. Mothers who are satisfied with their child's doctor and feel a strong alliance may be more likely to disclose psychosocial problems and participate in treatment within a primary care setting.

This study also demonstrated that within primary care, TA is related to the presence of family violence and mothers being easily angered. Research suggests that women exposed to domestic violence are guarded in their disclosures and may fear discussing family violence because of concern that doctors will suspect child abuse (Alpert, 1995). Individuals who feel that they are easily angered may also keep an emotional distance in clinical interactions and may require further probing to discover their psychosocial concerns. Clinicians and researchers must also consider the role of race in TA. These factors may impact the success of child mental health interventions in primary care and must be considered when designing and evaluating mental health interventions. TA may serve as a method to measure both the process and outcomes of mental health interventions that take place in the pediatric primary care setting.

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