Chapter Seven

Early Intervention and Resilience

Improving Service Access for At-Risk Families with Young Children: SESS Integrated Services Model

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Introduction

The national Starting Early, Starting Smart Initiative (SESS) was funded and directed by a unique public-private partnership between the Substance Abuse and Mental Health Services Administration (SAMHSA) and Annie E. Casey Family Programs. The primary goal of this initiative was to develop and disseminate new knowledge and information about how best to integrate and provide needed behavioral health services (i.e., mental health, substance abuse, and parenting services) to young children and their families in settings that are family-friendly and child-focused.

SESS reflects the growing acknowledgment that it is important to focus on providing preventive interventions for very young children, since the infant and preschool years lay a critical foundation for later growth and development (Carnegie Task Force, 1994). To accomplish these goals, the SESS initiative integrated behavioral health prevention and treatment services within settings familiar to young children, including five pediatric primary care centers and seven early childhood education centers located in diverse geographic settings across the nation. Details of the national SESS initiative and results of the evaluation of service access in SESS primary care sites are reported elsewhere (Morrow, n.d.).

The current report examines the efficacy of the SESS model in providing access to integrated behavioral health services through the University of Miami's SESS/Healthy Start Program, serving at-risk caregivers with newborns within an inner-city community health care setting. It was hypothesized that provision of easily accessible parenting, mental health, and substance abuse services to caregivers within the context of a family-focused model of pediatric care would result in increased service utilization, particularly for caregivers with identified service needs. Our specific objectives were to measure program success in facilitating access to parenting, mental health and substance use services and in reducing reported barriers to mental health and substance use treatment.

Method

Participants

A total of 242 newborn infants (birth to 3 months) and their families were enrolled through the University of Miami's SESS/Healthy Start Program and were randomly assigned to the SESS Program (n = 121) or a Comparison group (community standard of care, n = 121). Infants and their families were eligible for enrollment if they met risk criteria related to substance abuse (53%), or mental health problems/parenting stress (47%). Families in the comparison group received standard community services, including linkage referrals for service needs identified through pediatric care or research evaluation visits and facilitated by a tracking case manager. Families in the intervention group received the SESS integrated services model.

The total sample was predominantly African American (58.7%) or Hispanic (27.3%). At baseline, the child's primary caregiver was usually the biological mother (94.9% of the time); 71.5% of caregivers were single; 42.6% had at least a high school education; 84.6% lived in households with incomes below

the poverty level. Treatment and comparison groups were equivalent on these and other key demographic characteristics. Of the 242 original participants, 236 (97.5%) completed at least one follow-up assessment and were included in this study.

Starting Early Starting Smart Integrated Services Model

The goal of the SESS model was to increase access to needed parenting, mental health, and substance abuse treatment services for at-risk families with young children by making services available within the frequently visited pediatric health care setting. Applying a one-stop-shopping approach, the pediatric care setting is utilized to enhance the range of services available to families either through direct on-site services or collaboration with other providers. Employing an on-site multidisciplinary team that included SESS intervention staff and Healthy Start nurses, participating families were offered SESS core services that included family-focused service planning, care coordination and home visits, and access to parenting support and education. Additional mental health and substance abuse services were provided to families as needed, either through streamlined referral processes with collaborating agencies, or directly by SESS program staff.

Data Collection Procedures

All data were collected in accordance with the guidelines established by the SESS National Steering Committee.[1] The data collection schedule included baseline/program enrollment, with follow-up assessments at 3, 6, 9, 12, 15, and 18 months. Data were collected through caregiver interviews using standardized procedures conducted by SESS research staff. Interviews were conducted in either English or Spanish.

Measures

SESS Baseline Psychosocial Interview. A standardized interview developed by the SESS Steering Committee was used to collect a wide range of baseline demographic data, as well as physical health and psychosocial risk factors (e.g., substance use and domestic violence).

Service Access and Utilization Interview (SAUS). The SAUS was developed by the SESS Steering Committee to measure service utilization (i.e., behavioral health, individual and group parenting, outpatient and inpatient mental health and substance abuse, and perceived barriers to services). For each service domain, respondents were asked to indicate their service utilization for the 3-month time period preceding the interview.

Statistical Methods

Generalized estimating equations (GEE; Diggle, Liang & Zeger, 1996) were used to estimate the strength of association between treatment group assignment and each outcome. GEE produces a summary estimate of the association between dependent and independent variables, taking into account the correlation of the repeated measurements through 18 months follow-up. For the analysis, six data records were included for each caregiver-child pair, one for each assessment (3, 6, 9, 12, 15, and 18 months). Each record contained the group assignment (treatment versus comparison), a composite measure of baseline family risk, and the outcomes at each respective assessment.

Results

Utilization of Behavior Health Services

The SESS program was successful in linking families to parenting support and behavioral health services (see Table 1). Caregivers assigned to the treatment group were more likely to take part in parenting educational sessions, *AOR* = 11.55; 95% *CI* = 7.20 - 18.52. Over the course of the study, 86.8% of SESS participants took part in at least one parenting session, compared to 23.1% of comparison families. Use of parenting services declined over time in both groups, but remained significantly higher in the SESS group throughout the follow-up period.

Table 1
Prevalence (%) and Odds Ratios* of Service Use
From Child's Birth Through Age 18 Months (*n* = 236),
Treatment Group Compared to Control Group

	Treatment (n = 119)	Control (n = 117)	Pooled OR (95% CI)	p value
Parenting education/counseling			11.55 (7.20 – 18.52)	<.001
Baseline[†]	34.5	33.3		
3 months	61.6	13.3		
6 months	70.5	14.3		
9 months	50.5	7.8		
12 months	42.3	6.7		
15 months	38.4	2.7		
18 months	36.6	8.2		
Total during program	86.8	23.1		
Mental Health – Outpatient			4.15 (2.42 – 7.12)	<.001
Baseline[†]	3.4	3.4		
3 months	11.6	6.7		
6 months	16.1	3.9		
9 months	14.4	0.0		
12 months	20.0	4.8		
15 months	17.9	6.4		
18 months	24.1	7.3		
Total during program	47.9	17.9		
Substance Use – Outpatient			1.56 (0.80 – 3.03)	.190
Baseline[†]	16.0	21.4		
3 months	18.8	18.1		
6 months	21.4	18.1		
9 months	13.5	13.6		
12 months	13.6	14.4		
15 months	8.9	10.0		
18 months	8.9	11.8		
Total during program	23.5	23.1		
Substance Use – Inpatient			1.02 (0.43 – 2.39)	.966
Baseline[†]	14.3	16.2		
3 months	9.8	11.4		
6 months	8.0	10.5		
9 months	6.3	6.8		
12 months	4.6	1.9		
15 months	3.6	0.9		
18 months	2.7	0.9		
Total during program	12.6	13.7		

[*]Pooled odds ratio from GEE analysis controlling for time of assessment and baseline risk.
[†]Baseline reported for equivalence comparison, controlled for in analysis.

SESS participants also were more likely to receive outpatient treatment for mental health problems, *AOR* = 4.15; 95% *CI* = 2.42 - 7.12. Over the course of the intervention, no one received inpatient mental health treatment. Use of outpatient mental health treatment increased over time, with 24.2% of SESS participants reporting treatment at the final follow-up. Mental health treatment in the comparison group also peaked at 18 months at 7.3%.

There was no program effect on receipt of outpatient, *AOR* = 1.56; 95% *CI* = 0.80 - 3.03, or inpatient (*AOR* = 1.02; 95% *CI* = 0.43 - 2.39 treatment for substance use problems. At baseline, use of substance use treatment was substantial in both groups (14.3% in the SESS group, 16.2% in the comparison group). Service utilization related to substance abuse issues decreased in the post-natal period for both groups.

Reduction in Barriers to Receiving Behavioral Health Services

Treatment services for mental health and substance use problems are severely under-utilized due to system, as well as individual barriers (Kessler et al., 1997). In addition to looking at service utilization, we assessed program effects on reducing obstacles to obtaining mental health and substance use treatment. While a substantial number of participants reported barriers to treatment during the prenatal period (baseline), reports of barriers during the intervention phase were low in both groups (see Table 2).

Table 2
Prevalence (%) and Odds Ratios[*] of Reporting Barriers to Service Use
From Child's Birth Through Age 18 Months (*n* = 236),
Treatment Group Compared to Control Group

	Treatment (n = 119)	Control (n = 117)	Pooled OR (95% CI)	p value
Mental Health Barriers			0.55 (0.28 - 1.07)	.079
Baseline[†]	14.5	23.9		
3 months	7.1	12.4		
6 months	8.0	16.2		
9 months	3.6	2.9		
12 months	4.6	6.7		
15 months	3.6	9.1		
18 months	7.1	10.9		
Total during program	15.1	22.2		
Substance Use Barriers			1.17 (0.19 - 7.09)	.867
Baseline[†]	13.4	15.4		
3 months	1.0	0.9		
6 months	2.7	1.9		
9 months	0.9	1.0		
12 months	0.9	1.0		
15 months	0.9	0.9		
18 months	0.0	0.9		
Total during program	5.0	1.7[‡]		

[*]Pooled odds ratio from GEE analysis controlling for time of assessment and baseline risk.
[†]Baseline reported for equivalence comparison, controlled for in analysis.
[‡]Percentage less than 6 month prevalence because denominator includes total sample.

The comparison group reported a slightly higher, but non-significant, level of barriers to mental health treatment at baseline (23.9% versus 14.5%, *p* = .07). Controlling for this difference, SESS participants were about half as likely to report encountering barriers to mental health services over the course of the intervention. The difference bordered on, but did not meet conventional standards for

statistical significance, *AOR* = 0.55; 95% *CI* = 0.28 - 1.07. Reports of barriers to substance use services during the intervention period were extremely low in both groups and did not differ, *AOR* = 1.17; 95% *CI* = 0.19 - 7.09.

Conclusions

The SESS/Healthy Start program was very successful in improving utilization of parenting and mental health services for participating families. More than 85% of families received parenting education during the intervention and almost half received treatment for a mental health problem. Far fewer people in the comparison group (community standard care) used these services.

Overall utilization rates for substance abuse treatment services were lower and very similar between the two groups. Substance users were most often identified while hospitalized for the birth of their infant, resulting in an automatic referral for substance abuse treatment services as well as referral into the SESS program. Reported barriers to substance use services during the post-natal period were extremely low. This suggests that those who perceived a need for substance abuse treatment services reported few barriers to accessing treatment. Another possible explanation is that individuals with substance use problems sought treatment in the mental health arena, which might account in part for the large program-related difference in receipt of mental health treatment. In the future, we will investigate the frequency and intensity of treatment among those receiving substance abuse treatment as well as potential differences in substance use.

Results overall indicated that the UM SESS/Healthy Start program was highly successful in improving access to parenting and mental health services. Future analyses will investigate whether or not higher levels of service use translated into improved outcomes for caregivers and their children.

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Opening Doors to Inclusion in Childcare Centers: Lessons From Directors and Staff

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Introduction

Employed parents of children with emotional or behavioral disorders are frequently without traditional childcare options such as care by relatives, family day care, or center care (Rosenzweig, Brennan, & Ogilvie, 2002). When childcare is obtained, parents of children with mental health challenges are more likely to report lower quality, less stable childcare arrangements (Emlen & Weit, 1997), as well as less affordability (Rosenzweig, Brennan, Wuest, & Ward, 2002) when compared with other parents. Moreover, children with emotional or behavioral challenges are 20 times more likely to be dismissed from childcare settings than are typically developing children (Emlen & Weit, 1997). Lack of childcare not only contributes to job loss, but is frequently reported by unemployed parents of children with disabilities to be a major obstacle to work (Kagan, Lewis, & Heaton, 1998). Childcare difficulties exacerbate the multiple stressors associated with caring for a child with challenging behaviors (Freeman, Litchfield, & Warfield, 1995; Kagan, et al. 1998).

This paper presents results from the first systematic national study of childcare centers that have successfully served families having children with emotional or behavioral disorders in a fully inclusive manner. Inclusion in the childcare environment is defined as the delivery of comprehensive services to children with emotional or behavioral challenges in settings that have children without these challenges, and in which all children participate in the same activities (with variation in the activities for those children whose needs dictate the adaptation) (Kontos, Moore, & Georgetti, 1998). This presentation focuses on the data collected from directors and staff of childcare programs that met the study's criteria for inclusion, supplemented by direct observation of staff and children, and content analysis of program materials. The major research question addressed was: What are the characteristics and practices of childcare programs, nominated for their inclusiveness, that are associated with quality care for children and youth having emotional or behavioral challenges?

Method

Childcare programs were identified through an intensive nomination process that solicited names of programs from a national sample of childcare administrators, heads of childcare resource and referral agencies, participants in a national inclusion technical assistance project, and members of family support organizations. A survey was then mailed to the contact person of each program nominated; 34 programs responded. From the characteristics and descriptions of the projects obtained from the survey, nine sites were selected for intensive study by an advisory panel of family members, researchers, and children's mental health experts. The centers were chosen on the basis of being fully inclusive, family-centered, culturally appropriate, and of high quality.

Directors ($N = 9$) from each selected site were willing to participate in the study. Semi-structured interviews lasting 60-90 minutes were conducted with five directors in person and with four directors by telephone. The center directors then assisted the research team in the recruitment of program staff willing to participate in the study. Face-to-face interviews with 25 staff were recorded and transcribed. Using a grounded theory approach (Strauss & Corbin, 1990), three members of the research team coded the data separately to develop "working labels" (Morse, 1994). Interpretation of the data was discussed to examine reliability of the preliminary coding. The transcripts and coding scheme were entered into NUD*IST (Qualitative Solutions and Research. 1993) for further analysis.

Results

The centers, located in urban, suburban, and rural areas, provided a variety of childcare services to economically and culturally diverse families. The number of full-time staff at each program ranged from 4 to 80 and the number of children receiving services ranged from 32 to 1,300. Despite size and geographic differences, data analysis identified five commonalities among the nine centers. A brief description of each characteristic is followed by quotations from the interview participants.

1. *A philosophy of inclusion was pervasive.* Directors and staff in the participating centers discussed the importance of a commitment to inclusion that penetrated all levels of the organization. Staff described their dedication to fostering success for each child:

> *I think that it is a commitment on part of the staff and the entire program … to make it work … that is huge. From the CEO down to the kitchen, everyone wants kids to succeed in this setting. I think it is an incredible gift to be a part of these kids' lives and their families.*

2. *High quality was fundamental.* High quality care, based on providing developmentally appropriate services, was identified as the foundation for inclusion. An individualized approach to meeting the needs of each child was part of this approach. Other elements of quality included low child-to-staff ratios, stable staffing, specialized staff training, and staff support.

> *A good environment with a good ratio and enough space and good materials and good staff is going to be good for all of the kids. If you have good quality and good developmentally appropriate settings, then inclusion will be a lot easier. It will be more natural to locate each child's individual needs.*

> *Having a true awareness of what is developmentally appropriate practice [is critical]…*

3. *The center adapted to the child.* The centers accommodated the child and changed the program to meet the needs of the child and family when necessary. Staff emphasized building relationships with individual children as the basis for working with them, and used specialized supports and practices that they designed to assist children to attain success in the setting.

> *I think the [center] environment is really important to look at when a child is having difficulties.*

> *Building a rapport with the child that maybe they just never had at any other center… where if things got a little rough, it kind of was over for everyone…*

4. *Families were central.* Families were seen as crucial to the child's success and staff recognized that parents were experts on their children. Staff and directors also reported that awareness of the family's culture shaped their childcare practices.

> *We look at them [parents] as being the experts on their child. We really want input from what the parents want their children to get out of the program.*

> *Professional staff that are well trained and that understand an asset-based family centered philosophy ….*

> *The parent trainer on our team draws a circle with the family in the center.*

5. *Additional supports, including mental health consultation were heavily utilized.* The center staff worked to build and maintain access to the resources in the community that would enable them to meet the needs of the children in their programs. Directors discussed the value of being able to integrate support into the child's daily routine, and the importance of onsite consultation. Staff talked about the importance of being open to new ideas, and of building relationships among different professionals involved in the life of the child.

We work with the families to try to make that resource as much embedded in the natural environment and the routines that are going on here as possible.

There's always more than one way to do everything, and everybody has to be open to that.

It takes time, because for the childcare staff and the special education or mental health staff, whoever you've got, to be able to effectively work together, they have to be able to trust each other.

Discussion

Child care settings are uniquely situated to address the mental health needs of children with emotional or behavioral challenges (Schock, 2002) through the promotion of opportunities for healthy social and emotional development (Shonkoff & Phillips, 2000), and the provision of access to mental heath services and family support (Ama, Berman, Brennan, & Bradley, 2002; Brennan, Caplan, Ama, & Warfield, 2001; Cohen & Kaufmann, 2000).

Directors and staff in the current study reported that children with emotional and behavioral challenges were successfully included in the childcare settings alongside typically developing children. This success depended upon the dedication of all care providers to meet the particular needs of every child in their care. Directors' reports were supported by a companion observational study (Brennan, Ama, & Gordon, 2002). Relevant examples from this study include the role of staff in setting up environments to meet individualized needs, structuring opportunities for appropriate social interactions for children with mental health challenges, and easing transitions between activities through carefully orchestrated routines.

Community support and resources were essential to the successful inclusion of children with emotional or behavioral challenges in the childcare setting, along with their typically developing peers. All directors reported the presence of essential mental health consultation resources, and staff members were knowledgeable about family support and were able to connect families with a variety of community resources.

In order to replicate these successes in childcare settings throughout the United States, policymakers must dedicate resources to training childcare directors and staff, along with mental health and family support specialists, so that more children with mental health challenges can be served. If the success of these centers in serving children with mental health challenges in child care settings are to replicated throughout the United States, resources must be dedicated to training childcare directors and staff, along with mental health and family support specialists.

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The San Francisco High Quality Child Care Mental Health Consultation Initiative

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Introduction

Care of young children by caregivers outside the home has become a staple of contemporary American life. The National Center for Education Statistics (2001) estimates that in 1999, 46% of three year olds, 70% of four year olds, and 77% of five-year-old children in the US received center-based childcare.

Because of the large number of families using childcare, there is a great deal of interest in childcare quality. Underlying the interest in assessing quality is the reasoning that better quality childcare will lead to short- and long-term benefits for children. Those who hold that quality of child care makes a difference in children's lives point to associations between child care quality and short and long term desirable effects, including heightened school readiness and greater social and cognitive development (Peisner-Feinberg et. al., 2000; Reynolds, Temple, Robertson, & Mann, 2001; Vandell & Wolfe, 2000).

Mental Health Consultation in Early Childhood Education Programs

Traditionally, mental health professionals have interacted with children who are having difficulties in preschool from a psychotherapeutic treatment framework. This framework rests upon assessment and diagnosis, individual, group, or family treatment, and referral for further specialized services as needed (Center for Mental Health Services, 2000). The mental health consultation model, however, is rooted within a prevention framework (Center for Mental Health Services, 2000; Knitzer, 2000). The consultative framework allows mental health consultants to improve the quality of care to all children, whether or not they are having psychological difficulties, and to serve as a resource to child care staff and parents as they work together to provide treatment services to children with emotional or behavioral problems.

This summary reports on the results of an evaluation of the High Quality Child Care Mental Health Consultation Initiative.

Services provided by consultants who are part of the Initiative include case consultation, direct intervention with children and families, program consultation, therapeutic play groups, referrals for specialized services (e.g., developmental and learning assessments, occupational or speech therapy, psychotherapy), parent education and support groups, and training and support for child care providers.

Method

To implement the Initiative, the San Francisco Department of Public Health (DPH) contracts with community-based mental health agencies to provide mental health services to child care sites throughout San Francisco. As of January 2001, at least 75 center based programs (ranging from infant care to pre-kindergarten to special needs) and 100 family childcare providers were receiving services from the Initiative. Sites include Head Start, state subsidized preschools, school district affiliated Child Development Centers, private nonprofit childcare centers, and homeless shelters. An estimated 5000 young children and families from many diverse cultures with many different languages receive childcare from sites served by the Initiative.

The evaluation of the Initiative addressed three focal areas: (1) the children, (2) child care center teaching staff, and (3) the childcare centers themselves. Baseline data were collected from childcare centers in November and December 2001. Follow-up data for the children and for the teaching staff were collected in May and June 2002.

Measures

To evaluate child-focused outcomes, a sample of children at each child care center were assessed by rating their Socialization scores on the Vineland Adaptive Behavior Scales, Classroom Edition (Sparrow, Balla, & Cicchetti, 1985). Children were selected for evaluation by mental health consultants. Children assessed included both those targeted for consultation/treatment services and children not targeted for services. Children not targeted for services acted as a comparison group. At baseline, 303 Vinelands were completed, 214 for children in the treatment group and 89 for children in the comparison group. At follow-up, 281 Vinelands were completed, 189 for treatment children and 83 for children in the comparison group. The drop off was primarily due to children leaving child care before the follow-up assessment occurred.

Teaching staff at child care centers being evaluated filled out the Child Care Opinion Survey (Tyminski, 2001), a self administered questionnaire assessing teachers' attitudes about their work, the child care center, their opinions about the mental health consultation, and other elements.

To evaluate the childcare centers, head teachers at each center were asked to fill out the Survey of Beliefs and Practices (Marcon, 1999), which classifies a program's philosophy and practices as either Academically Directed, Child Initiated, or Mixed. In addition, DPH raters assessed program quality at a random sample of 24 centers using the Early Childhood Environment Rating Scale, Revised (ECERS-R; Harms, Clifford, & Cryer, 1998).

Results

Evaluation results are grouped below according to whether the findings pertain to children, teachers, or to the overall childcare center.

Child Domain

The Vineland was administered on two occasions, in the fall and in the spring. Administrations were separated by an average of 5.6 months, about one-half year. Children who were identified for treatment/consultation and those not so identified did not differ in their chronological age – the average chronological age of each group at baseline was 4.1 years. Raw Vineland scores and the derived Age Equivalent scores clearly distinguished between the treatment and the comparison groups. Table 1 illustrates Socialization Age Equivalent scores for both groups, at baseline and at follow-up.

Table 1
Vineland Socialization Age Equivalent Scores

	Baseline	*Follow-up*
Treatment	2.7 years (*n*=214)	3.8 years (*n*=189)
Comparison	4.6 years (*n*=89)	5.8 years (*n*=83)

In the approximately five to six month measurement interval, Socialization Age Equivalent scores of Treatment/Consultation identified children changed one year, three months, while Age Equivalent scores of the Comparison children changed about one year, a statistically significant change, $F = 46.1$, $p < .001$. Raw Socialization scores showed a similar effect, including a significant effect for each group between baseline and follow-up, $F(1, 253) = 74.9$, $p < .001$. An interaction effect suggests that the Treatment/Consultation children developed at a faster rate than the Comparison children, $F(1,253) = 6.2$, $p < .05$. This is particularly noteworthy considering how the treatment group children were significantly delayed in their adaptive social behaviors at baseline.

Teacher Domain

Data from the Child Care Opinion Survey suggest that most teaching staff are satisfied with their work and their childcare centers, and value the work of mental health consultants (see Table 2).

Respondents had been childcare teachers for an average of 11.8 years (median = 9), and had worked at their particular center for an average of 7.5 years (median = 5). The surprising length of time these teachers have been in the field is contrary to most research on the child care workforce (Whitebook, Howes, & Phillips, 1998). These figures suggest either that teacher tenure is unusually long at centers served by the Initiative, or that teachers with a relatively shorter tenure tended to not fill out the survey.

Table 2
Selected Child Care Opinion Survey Items

	% agree or strongly agree	
Item	Baseline (n=170)	Follow-up (n=103)
I always feel good about caring for children at the center.	93%	92%
I have an extremely good knowledge of child development.	89%	89%
I always can tell when a child is falling behind and needs help.	85%	84%
Consultants almost always provide practical insights into children's behaviors.	72%	73%
Consultants always offer us very good advice for handling children with special needs.	79%	78%
After spending time with a consultant, I definitely feel much more positive about the job.	73%	9%

The survey had very little variability between the two occasions on which it was administered (see Table 2). It should be noted that because of the anonymity of responses, it was not possible to match the baseline and follow-up surveys to detect opinion changes among individual teachers.

Child Care Center Domain

ECERS-R. A random sample of 24 child care sites were observed using the Early Childhood Environment Rating Scale, Revised (ECERS-R). The total ECERS scores of 20 centers (out of 24 assessed) were in the *Good* range, with two centers registering in the *Excellent* range, and two in the *Minimal* range.

Survey of Beliefs and Practices. Patterns of answers for the Survey of Beliefs and Practices instrument were analyzed using cluster analysis, resulting in the classification of a program's philosophy and practices as either *Academically Directed*, *Child Initiated*, or *Mixed*. Of the 50 centers that returned the survey, the classification procedure characterized 18% (*n* = 9) as *Academically Directed*, 32% (*n* = 16) as *Child-Initiated*, and 50% (*n* = 25) as *Mixed* (i.e., incorporating features from both models). Contrary to results from a previous evaluation (Tyminski, 2001), no differences were found in outcome measures based on which cluster a center had membership in.

Conclusion

The San Francisco High Quality Child Care Mental Health Consultation Initiative represents a civic partnership in which government agencies, community-based mental health agencies, and child care providers work together to improve the quality of child care in San Francisco and to provide accessible mental health services and consultation to children and families in need.

Mental health consultation can improve children's experience in child care through a number of avenues, including program consultation, training and case consultation, parent education and support, and direct psychotherapeutic services. The consultant's ability to influence the system is supported by his or her professional skills, the relationships he or she has built up with the child care staff, parents, and children, and by the consultant's cultural awareness and competence.

The present evaluation suggests that mental health consultation provided by the San Francisco High Quality Child Care Mental Health Consultation Initiative helps improve children's experiences

in child care. The impact of the consultation was shown most prominently by the acceleration of social development among children identified for treatment services, and by the positive effects on socialization among children not identified for treatment. Improving children's social development is important in its own right, and important because research suggests that social competence and pro-social behaviors are related to better outcomes once children start school (Peisner-Feinberg, et. al., 2000).

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The Relationship of Trauma Exposure and Presenting Symptomatology

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Introduction

Over the past decade, researchers have been examining the association of childhood trauma to the mental health problems facing our nation today including depression, suicidality, eating disorders, substance abuse, violence, and personality disorders (Spat Widom, 1999). Compelling data show that 72% of men and 76% of women receiving inpatient psychiatric services for severe mental illness have a history of being maltreated as a child (Read, 1998; Everett & Gallop, 2001).

National estimates indicate that 75% of children in the United States have been exposed to at least one violent act in their lifetime (Barnett, Miller-Perrin & Perrin, 1997). The increased incidence of child abuse and neglect, over 3 million reported cases in 1997, or 47 out of 1,000 children in reported cases of child maltreatment, represents an increase in reports of 41% between 1988 and 1997 (Wang & Daro, 1998). Such trends suggest a parallel increase in chronic trauma and prolonged stress at a national level (Wang & Daro, 1998).

Studies investigating the long-term related outcomes in adult populations to chronic trauma demonstrate increased adult health care utilization for conditions such as fibromyalgia, diabetes, irritable bowel syndrome, eating disorders, respiratory difficulties, substance abuse, and suicidal behavior (Dallam, 2001; Jong, Mulham & Kam, 2000; Kendall-Tackett, Williams & Finkelhor, 1993; Perry, 2001).

Despite the growing rates of trauma, there is only a small collection of research for child behavioral and mental health outcomes, perhaps due to the many unresolved methodological and ethical issues surrounding child maltreatment. With the increased rates in adolescent externalizing behavioral problems (e.g., violence, substance abuse, high-risk sexual activities), linked to increased morbidity and mortality in adolescence, there has been surge of interest in risk and protective factors associated with childhood trauma or maltreatment (Esters, 1998). So while not absolute, the evidence is mounting to show a high correlation between exposure to trauma as a risk factor for later externalizing symptoms as manifested in both victimization and delinquency behaviors (American Psychological Association, 1996; Greenwald, 2002).

Theoretical Model

The premise of this study is based on the theoretical model that posits risk as additive in nature; more specifically, increases in risk factors are associated with decreases in coping, competence, and overall well being (Kirby & Fraser, 1997). Based on the assumption that exposure to traumatic events may produce a dose response that is additive, there is also the consideration of the developmental impact of childhood trauma. Developmental theories suggests that exposure to trauma during a critical maturization period may be more damaging than when exposure occurs during a more stable life period (Perry, 2001). For example, intrauterine trauma could interrupt the development of the brain stem resulting in diffuse neurological deficits (Perry, 2001). Global neglect or sensory deprivation during early childhood, the period of active development of the neocortex, has been found to result in emotional, behavioral, and cognitive delays and impairment (Perry, 2001). Furthermore, childhood trauma creates difficulties with attachment formation, mood regulation, fine motor development, and gross motor skills (Perry, 2001).

Even children with sub-clinical Post Traumatic Stress Disorder (PTSD) present with complex symptomatology that includes increased startle response, hyperarousal and hyperactivity, low-grade temperatures, sleep disturbances, increased muscle tone, affect regulation problems, anxiety, and memory and learning impairments (Greenwald, 1997; Kendall-Tackett, Williams & Finkelhor, 1993; Perry,

2001; Vasterling, et al, 2002). Perry (2001) proposed that chronic stimulation of the stress response systems may result in alteration in functioning across emotional, behavioral, and cognitive domains. Thus, uncovering the impact of trauma on the dysregulation of multiple neurobiological systems across cognitive, affective, and behavioral domains has significant treatment implications.

Nevertheless, often children presenting with internalizing and externalizing behaviors are treated by symptom with medications by clinicians who have inadvertently failed to respond to the underlying trauma (Donnelly, Amay-Jackson, & March, 1999). The confusion for clinicians is that these disorders have shared symptoms with other disorders such as Attention Deficit Hyperactivity Disorder (ADHD), Attachment Disorders, Anxiety Disorders, Depression, Conduct Disorder, and Oppositional Defiant Disorder (Greenwald, 2002; Perry, 2001).

The purpose of the present study is to: (a) examine the prevalence and nature of trauma in a clinical population of children at a community assessment center through a comprehensive review of existing medical charts during a one year period of time; (b) explore the relationship between the frequency of traumatic exposures and presenting symptomatology across cognitive, behavioral, and emotional domains; and (c) determine the previous service utilization patterns among the children referred for evaluations.

Methodology

Retrospective in design, this study utilized a chart review methodology to collect demographic and clinical information on youth assessed at a Community Assessment and Intervention Center (CAIC) in southwest Florida. This site was funded by the Substance Abuse and Mental Health Services Administration (SAMHSA) to provide a single point of entry for youth (6-18 years of age) at risk for mental health problems, substance abuse, and delinquent behavior. The goal of the center is to reduce duplication of services throughout the community by offering immediate and comprehensive clinical assessments and psychological testing to uninsured and Medicaid eligible youth deemed to be in need of services.

A random sample of 184 medical charts were selected from a pool of records spanning from September 31, 2001 to October 1, 2002 from the CAIC data management system through automated processes. Only those charts with a completed biopsychosocial assessment were included in the study. Assessments included data from a battery of psychological diagnostic measures, in-depth interview procedures, psychological testing, and collateral information from schools, parenting figures, caseworkers, and other referring agencies.

Procedures

An abstraction tool was utilized to collect data on presenting cognitive, emotional, and behavioral symptomatology, presenting initial diagnosis, substance abuse, suicidality, abuse reports, the presence of trauma or abuse, age, and frequency of occurrence, (i.e., recorded for up to three incidents of exposure), Axis I diagnosis, foster/adoption placement, previous mental health treatment, and previous and current use psychotropic medications.

Presenting symptomatology was assessed across cognitive, emotional, and behavioral domains. Cognitive symptoms were defined as psychotic, learning disabled, speech problems, and attention problems; emotional symptomatology were defined as depression, anxiety, phobia, and aggression; behavioral symptoms were defined as disruptive, violent, stealing, fire setting, sexually acting out, and running away.

Intentional trauma was defined as physical, sexual, or psychological abuse, family violence, family substance abuse, and neglect. Unintentional trauma was defined as natural disasters, fire, medical trauma, vehicular crashes, injury, loss or death of a family member, and community violence. In this study, school violence was subsumed into community violence. The variable for the DSM-IV diagnosis on Axis I

allowed for up to three diagnoses and was coded for the most commonly occurring childhood disorders: PTSD, ADHD/ADD, Oppositional Defiant Disorder/Disruptive Disorder, Depression, Anxiety, Psychotic, Adjustment Disorder, Substance Abuse/use, Other, and None.

Results

The sample included 184 youth with 28.3% between 5 to 9 years old, 49% between 10-14 years old and 22.8% ranging from 15-17 years of age. There were 103 (56%) males and 81 (44%) females in the sample. The racial and ethnic distributions were 62% Caucasian, 19% Hispanic-Latino, 10.9% African American and 1.6% Native American. Children raised in single parent homes at the time of the assessment comprised 41.8% of the sample.

Service Utilization

Previous service utilization was demonstrated by 40.2% of the children receiving psychotropic medications with only 35.5% receiving any form of previous mental health treatment. A smaller proportion (30.4%) of the youth presented with a need for continued medication management. There were 22.3% of the children with foster care or an adoption history, and 46.2% with previous involvement with the Department of Children and Families.

Presenting Status

Assessment of substance abuse in the youth revealed 22.8% self-reported use. According to cross informants, 21.2% of the youth presented with some level of suicidality and 27.7% with violent/acting out behaviors. There was also a sub-sample of 45 youth (24.5%) presenting with a previous primary diagnosis of ADHD/ADD, which following a comprehensive assessment was confirmed for only 46% of these cases. Moreover, PTSD was determined to be the primary diagnoses for 16% of these cases.

Trauma Exposure

The overall prevalence rate for trauma exposure was 84% of the sample, with the average age of the initial trauma exposure at four years old. Youth with a history of trauma were significantly more likely (75.5%) to have been exposed to intentional trauma or abuse. Utilizing cross tabulations, only behavioral symptomatology approached significance in association with number of exposures to trauma. The rates of type of trauma at time one for youth exposed are summarized in Table 1.

Table 1
Rate of Trauma Exposure at Time One

Intentional Trauma	%	Unintentional Trauma	%
Physical Abuse	3.8	Natural Disaster/Fire	1.6
Sexual Abuse	5.4	Medical, accident, injury	5.4
Psychological Abuse	4.9	Death or loss of loved one	12.5
Neglect	2.7	Community Violence	1.1
Family Violence	20.1		
Family Substance Abuse	26.6		

Discussion

The results of this study suggest the importance of accurate assessment of trauma in order to reduce misdiagnosis and to protect youth from further victimization. More specifically, accurate assessment should clearly differentiate between trauma symptomatology that could be misperceived as Conduct Disorder, ADHD, or Oppositional Defiant Disorder. Barriers to accessing treatment is another implication, given the fact that a large percentage of the exposed children (35%) had not received previous treatment for prior or even repeated traumas. It is hoped that this study is but a small step toward more deeply understanding the relationship between trauma and various symptoms.

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Methodological and Contextual Challenges to Researching Childhood Resilience: An International Collaboration

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Introduction

An increasing fascination with resilience among researchers and service providers concerned with enhancing the capacities of at-risk children, youth and families has lead many in the field of children's mental health to shift their focus from pathology to strengths. Despite this interest in resilience related phenomena, the validity of the resilience construct remains a point of debate. Two frequently noted shortcomings in studies of resilience formed the basis for this research endeavor: the arbitrariness in the selection of outcome variables, and the challenge of accounting for the social and cultural context in which resilience occurs. To examine these issues, an interdisciplinary team of international researchers with expertise in both qualitative and quantitative methods and service providers was established in 2001. A three-year project is now underway in Canada, the United States, Colombia, Hong Kong, India, Palestine, Israel and Russia to develop and pilot a methodology to study resilience that is contextually relevant and systematic in its selection of outcome criteria.

The challenge posed to the research team is to develop a mixed method design that can draw together findings from communities struggling with social disintegration, war, crime and violence, economic and political upheaval, poverty, and racism, while also studying youth struggling with mental health and addictions problems and the challenges of living in care or on the streets. Each research site, though chosen predominantly for one constellation of environmental, familial, or personal risk factors, provides access to a culturally diverse sample of children, youth, and their service providers. By bringing together leaders in the field of resilience research from different disciplines (e.g., education, social work, psychology, neuropsychiatry, medical anthropology, epidemiology, etc.), and cultural backgrounds with methodologically diverse approaches (quantitative researchers with experience in longitudinal, epidemiological, and case study designs; qualitative researchers with experience with grounded theory, ethnographic and phenomenological methods) our intent is to develop an approach to health research that promotes contextual relevance. Because the research team also includes community practitioners and advisors, it is anticipated that the resulting methodology and the studies that follow will be useful to the communities collaborating in the design work.

Resilience: Definitions and Debates

Despite a growing body of research on risk and resilience, definitional ambiguity of the terms *risk factors*, *protective mechanisms*, *vulnerability*, and *resilience* has resulted in a large and inconsistent set of variables being used to study the trajectories through the lives of children and youth growing up under adversity or following exposure to trauma (Anthony & Cohler, 1987; Cairns & Cairns, 1994; Fraser, 1997; Glantz & Slobada, 1999; Ungar, in press). Masten (2001) defines resilience as a "class of phenomena characterized by *good outcomes in spite of serious threats to adaptation or development*" (p.228). Resilience may refer to either the state of well-being achieved by an at-risk individual (as in he or she *is resilient*) or to the characteristics and mechanisms by which that well-being is achieved (as in he or she *shows resilience to* a particular risk). As Gilgun (1999) has observed, the resilience construct has come to mean both a set of behaviors and internalized capacities.

Despite a growing interest in resilience, researchers employing quantitative methods have been self-critical of the arbitrariness apparent in their selection of outcome measures and the lack of contextual specificity in the design of studies that, combined, has made generalization of findings across socio-cultural contexts difficult (Masten, 2001; McCubbin et al., 1998; Silbereisen & von Eye, 1999). As Richman and Fraser

(2001) note, "resilience requires exposure to significant risk, overcoming risk or adversity, and success that is beyond predicted expectations. Of course, problems arise when researchers and practitioners attempt to agree on what constitutes *significant* risk and *successful* outcomes that are *beyond predicted* expectations" (p.6). The issue of the arbitrariness of the resilience construct in particular has been dealt with by quantitative researchers through the refinement of measures, expanded data collection to include more contextually relevant variables, the use of more powerful tools of analysis, and, in a few instances, complementary qualitative methods including grounded theory, ethnographies and phenomenological approaches to research (Boehnke, 1999; Graham, 2001; Graham & Rockwood, 1998; Hauser, 1999; Kaplan, 1999; Luthar & Zigler, 1991; Magnus, Cowen, Wyman, Fagen, & Work., 1999; Nesselroade & McCollam, 2000; Rutter, 2001; Thoits, 1995; Yellin, Quinn & Hoffman, 1998). However, as Masten (2001) observes, there is only a tentative consensus among researchers as to a shared set of common factors that predispose children to specific outcomes across different contexts as a result of the "arbitrary naming" of the variables involved.

A Study across Culture and Place

Arguing against the use of standardized instruments in cross cultural research, Desmond Painter (2001) notes that the methodological imperative in psychology to conceive of social phenomena as objects of study, and a lack of appreciation for how social representations differ across cultures, leaves open to scrutiny the validity of any investigation of another culture that does not start from a method which is itself indigenous to those studied.

Through electronic discussions, the 35 members of this international team developed a tentative methodology that was refined during face-to-face meetings held in March, 2003 in Halifax, Canada. A tentative methodology has been designed that allows for both a common approach to the research across each site and site-specific modes of inquiry to further contextualize the study. This tentative methodology includes four strategies for ensuring contextual relevance. First, two separate but linked subgroups have been addressing qualitative and quantitative challenges including sample selection, study design, data collection and analysis. At the March meeting members finalized details of a pilot study to be conducted across all sites in year two of the project.

Specifically, researchers with expertise in qualitative methods have argued that each community will have to decide for itself the proper way to investigate resilience. Researchers are being advised to upon entry into each community that they ask their colleagues and key informants the following questions:

- Who should we talk with in order to understand resilience here?
- What should we ask them?
- How do we get people to participate/engage with the research?
- Where should we interview people (e.g., on the street, in schools, inside institutions, etc.)?
- When should meetings take place (or should we just conduct observations)?

    Such an approach would mean diversity in sample selection and an emergent design in each setting.

Meanwhile, quantitative researchers have compiled a list of domains relevant to the construct of resilience that are based on established instruments. These researchers are inviting comment from other team members; their goal is to develop a set of generic questions for translation based on agreement across settings of relevant domains. However, the team has been less than satisfied with this approach and is looking at ways for the qualitative data to better inform testing in each site and the development of questions particular to each setting. In the engaging dialogue that has resulted between communities and paradigmatically diverse researchers, the design for a pilot study is being developed that employs a unique constellation of methods.

Second, this research collaboration has progressed through the principal investigator's visits to a number of the sites to stimulate interest in the project and to better understand context-specific aspects of resilience through discussions with key informants.

Third, representatives from each site have been asked to share electronically and in person with local investigators a summary of the challenges facing children in the target communities and the unique aspects that distinguish their understanding of resilience. For example, in Hong Kong the concept of obedience was raised as an important aspect of resilience, while among the Innu of Northern Canada, familiarity with living on the land was deemed a cornerstone of healthy development among children.

Finally, in consultation with a professional facilitator, the interactive process of face-to-face meetings brought about both a sharing of information and consensual decision-making. A complete record of the March meeting discussions is available from the first author.

Conclusion

To the best knowledge of the authors, this endeavor represents the first attempt to design and pilot research that addresses the challenges of comparing resilience related data from a mixed methods study across diverse domestic and international cultural and environmental contexts. Indeed, there is little precedent for this interdisciplinary, mixed method approach to studying resilience. This fact is well documented in the recent National Institute of Mental Health's (NIMH) *Blueprint for Change: Research on Child and Adolescent Mental Health* (2001) that cites "discipline insularity" as a major threat to our "prospects for gaining a deeper understanding of the complexities of child and adolescent mental illnesses" (p.5). Managed through the combined expertise of Dalhousie University's Maritime School of Social Work, the University of South Florida's Louis de la Parte Florida Mental Health Institute in Tampa, Florida, and The Centre for Research on Culture and Human Development at St. Francis Xavier University, this pilot work is committed to resolving the apparent contradictions between the demands for contextual specificity, construct validity across settings, and the generalizability or transferability of findings in the study of resilience. Each of the communities involved in this work have come on board with the express purpose of gaining access to the tools to study resilience in their specific contexts in order to understand the pathways to health that high-risk children and their families travel.

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What Factors Contribute to Resilient Adaptation in Children with Severe Emotional Disturbance?

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Introduction

Resilience is a dynamic process whereby individuals display positive adaptation despite significant adversity or trauma (Luthar & Cicchetti, 2000). The risk and resilience framework asserts that the effects of multiple indices of risk (e.g., mental health problems, single parenthood, poverty, maladaptive functioning), which often coexist, far exceed those of a single risk factor. This cumulative risk results in negative outcomes for children and families (Liaw & Brooks-Gunn, 1994; Rutter, 1990; Sameroff, Seifer, Baldwin & Baldwin, 1993). Children with serious emotional disturbance are more likely to experience difficult family circumstances brought upon by high levels of poverty and single parenthood; and they are more likely to suffer from multiple mental health risk factors than children from the general population.

Yet, despite these negative life circumstances, some individuals "do well" in different domains such as school, home, or community (Luthar, Cicchetti, & Becker, 2000, Masten, 1999). Resilience models seek to identify positive adaptation despite adversity by examining protective factors that influence child adjustment (Luthar & Cicchetti, 2000; Luthar, 1991; Luthar, Doernberger, & Zigler, 1993). Factors that modify the effects of adversity have been recognized as important in making clinical assessments, decisions about child placement, and intensity of services (Oswald, Cohen, Best, Jensen, & Lyons, 2001).

The present study examines factors contributing to resilient adaptation in children with severe emotional disturbance. The study seeks answers to these questions: What are the protective factors contributing to resilient adaptation, and are these factors due to child behavior, family characteristics or both? For the purpose of this study, resilience was defined by four areas of competence: (a) social competence (e.g., good peer relations); (b) the ability to display competence in activities (e.g., involvement in sports, organizations); (c) school competence (e.g., good school performance); and (d) the ability to show interpersonal, intrapersonal, family & affective strengths (e.g., control emotions, interact well with family, etc.).

Methods

Participants

Participants were drawn from youth and families who participated in the national evaluation of the Comprehensive Community Mental Health Service for Children and Their Families Program at the 23 communities who received their initial grant funding in 1997 and 1998. To participate in the evaluation, children must have been 5 to 17.5 years of age at the time of entry into services, must not have had a sibling in the evaluation, and must have had a caregiver consent to their participation.

Sample

This analysis was conducted using a sub-set of the total sample (n = 2,435) and included cases with complete data on all variables. The sample was also restricted to children attending school. For the overall sample, children's mean age was 12.16 (SD = 3.82). Sixty-seven percent of the children in the sample were boys and 56% were non-white. About 66% of the sample had household incomes that were at or below the poverty level.

Measures

Descriptive information collected included child and family risk factors, family income and employment, adolescent's custody status and referral source, adolescent's mental health service use history, diagnosis, and presenting problems. The Family Assessment Device (FAD; Epstein, Baldwin,

& Bishop, 1983; 12 items; α = .71 to .92 across seven subscales) measures family functioning based on six dimensions of the McMaster Model of Family Functioning scale (Problem Solving, Communication, Roles, Affective Responsiveness, Affective Involvement, Behavior Control, and general functioning). The Family Resource Scale (FRS; Dunst & Leet, 1987; 30 items; α = .92 to .95 across subscales) is a caregiver report assessing the adequacy of resources (e.g., food, shelter, and enough income for bills) available to the family in the past six months. For the purpose of this paper, the FRS has four items that measured quality of life: Stable employment, Adequate Furnishings at Home, Dependable Transportation and Access to Telephone. The Child Behavior Checklist (CBCL; Achenbach, 1991; 113 items; α >.82) is a widely used parent report measure that assesses children's emotional and behavioral problems. The CBCL subscales examined in this study include internalizing and externalizing behavioral problems; and academic, social and activities competence. The Behavioral and Emotional Rating Scale (BERS; Epstein & Sharma, 1998; 52 items; α = .85 to .99 across subscales) identifies the emotional and behavioral strengths of children.

Results

Cluster Analysis

A K-means cluster analysis was conducted to determine groups of children who are similar on areas of competence. The variables included in the cluster analysis were the four areas of competence measured with the CBCL (e.g., Activities, School and Social Competence), and BERS (e.g., Strengths), which defined resilience in this study. The cluster analysis yielded a 4-cluster solution: high resilience, moderate resilience, mixed resilience and low resilience groups. The high resilience group tended to score high on most areas of competence. The moderate group scored in the middle range on most areas of competence. The mixed group scored high on some and low on other areas of competence. The low resilience group scored low on most areas of competence. The distribution of means across the competence scales for each cluster group is provided in Table 1. On the CBCL, scores of 33 or below are in the clinical range and considered lower competence in activities, social and school subscales, and scores of 90 or below on the BERS are considered below average strengths.

Table 1
Description of the Cluster Groups

Cluster Group	Description	Means (SD)	
High Resilience	High on most competence scales	(*n*=729)	
		Activities	44.02 (7.02)
		Social	34.06 (9.36)
		School	40.44 (7.64)
		Strengths	96.99 (14.69)
Moderate Resilience	Middle range on competence scales	(*n*=497)	
		Activities	35.15 (9.20)
		Social	39.01 (7.45)
		School	38.30 (8.14)
		Strengths	79.71 (12.47)
Mixed Resilience	High on activities and social competence, low on school and strengths	(*n*=617)	
		Activities	43.64 (6.99)
		Social	42.63 (5.75)
		School	28.22 (3.68)
		Strengths	88.96 (15.36)
Low Resilience	Low on most competence scales	(*n*=592)	
		Activities	36.85 (9.21)
		Social	26.12 (4.31)
		School	27.07 (4.09)
		Strengths	74.68 (12.56)

Predictors of cluster groups

A logistic regression was conducted to predict cluster group membership. *Belonging to a group* was coded as 1, while *Not belonging to a group* was coded as 0. Internalizing and externalizing behavioral problems, family functioning and family resources were included as predictors in the logistic regression. The child clinical variables assessed the validity of the cluster groups. All analyses controlled for age, gender, race/ethnicity, poverty level, and child and family mental health risk factors. The results, presented in Table 2, indicated that children with fewer internalizing and externalizing behavioral problems, and greater family functioning had increased odds of belonging to the high resilience group. Children and families with more access to resources, but lower family functioning, had increased odds of belonging to the moderate resilience group. Children with higher internalizing and externalizing behavioral problems, fewer family resources and lower family functioning had increased odds of belonging to the low resilience group. There were no significant predictors of the mixed resilience cluster group.

Table 2
Predictors of Cluster Group Memberships

Predictor Variables	High Resilience	Moderate Resilience	Mixed Resilience	Low Resilience
Internalizing	-.01 [.99]**	.00 [1.00]	-.00 [.99]	.05 [1.05]***
Externalizing	-.05 [.96]***	.02 [1.02]	-.01 [.99]	.05 [1.06]***
Family Resources	.06 [1.07]	.20 [1.23]*	.01 [1.01]	-.37 [.69]***
Family Functioning	.46 [1.57]***	-.65 [.52]***	-.00 [.99]	-.65 [.52]***

Note. Analyses were conducted with logistic regressions. Betas reported with odds ratios in brackets.
Significance = *$p < .05$; **$p < .01$; ***$p < .001$.

Discussion

These findings confirm that the concept of resilience is multifaceted and that understanding outcomes for children should not be examined unidimensionally. Resilience can and should be looked at across several domains. It may be the case that children function well in one domain but not in others. Conversely, children who have problems, specifically externalizing problems, may function highly in other areas of behavior. These findings suggest that family functioning and access to resources are important protective factors for children with mental health problems. Future research should continue to clarify definitions of resilience and work toward understanding the complicated patterns of resilient behavior in high-risk children. Family members should be encouraged by research that suggests children with behavioral problems may function quite well in important domains of behavior when family functioning is high.

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Identifying Child and Family Strengths as a Vehicle for Change: Implications for Intervention Development

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Introduction

Although many studies have documented the importance of identifying child and family strengths (De Jong & Miller, 1995; Epstein, 1998; Kaufmann & McGonigel, 1991), there is little empirical evidence documenting the specific link between building on strengths and child outcomes (i.e., internalizing and externalizing behaviors). According to Epstein (1998), strengths-based interventions can make the treatment experience more positive for both the child and the family by building the child's capacity to address challenges, empowering the child and family for change, and by positively engaging youth and caregivers, particularly when youth are reluctant to receive services. The present study aims to identify changes in child and family strengths as they relate to changes in levels of child internalizing and externalizing behavior after one year of receiving system-of-care based services and how these relationships might differ depending upon demographic characteristics.

By examining these issues, the present study attempts to provide empirical support for using child and family strengths in clinical practice as well as in intervention development within strengths-based approaches. The specific hypotheses suggest that: (a) levels of child and family strengths will increase after receiving one year of system of care-based services, (b) levels of internalizing and externalizing behaviors will decrease after receiving one year of system of care-based services, (c) increasing levels of child and family strengths will be linked with lower levels of internalizing and externalizing behaviors, and (d) the interaction of child and family strengths will predict greater change in levels of child internalizing and externalizing behaviors.

Method

Participants consisted of 157 youth and their primary caregivers (77% boys), with an age range from 5 to 17 years of age (M = 10.80, SD = 2.73). Forty-four percent of participants were African American, 53% were European American, and 3% were Biracial or Other. Consent for participation was obtained from the legal guardian when intake workers determined that the child and family met eligibility criteria. These criteria included: (a) being between the age of 5 and 18 years old at intake, (b) being a local county resident, (c) having a clinical diagnosis, (d) being separated or at risk of being removed from the home, and (e) having multiple agency needs. Two-hour in-home interviews were conducted with the caregiver, and a one-hour in-home interview was conducted with the youth. Caregivers received $25 for baseline interviews, and $30 for follow-up interviews while youth received gift certificates to local restaurants.

Jacobson and Truax's (1991) Reliable Change Index (RCI) was used to create clinically significant change scores. This index is a more stringent index of change, indicating whether true change has occurred (rather than as a reflection of imprecise measurement). Where there were multiple reports of a construct, reports were so highly correlated that they were aggregated, resulting in a total averaged construct. RCI was used for changes in levels of child and family strengths as well as for changes in levels of internalizing and externalizing behaviors.

Measures

Demographic Characteristics – Caregiver Report. Demographic Questionnaire (DQ; CMHS, 1997). This 37-item questionnaire describes the child's and family's characteristics.

Family Strengths – Caregiver and Youth Report. The Family Assessment Device (FAD; Epstein, Baldwin, & Bishop, 1983) is a 60-item questionnaire designed to measure how families interact, communicate, and work together. Total composite scores for both caregiver and child at T1 and T2 were created.

Child Strengths – Caregiver Report. The Behavioral and Emotional Rating Scale (BERS; Epstein & Sharma, 1998) is a 52-item questionnaire of caregiver-reported youth behavior and activities. Change scores were created using T-scores.

Externalizing and Internalizing Behaviors – Caregiver Report. Child Behavior Checklist (CBCL; Achenbach, 1991) For this measure, we utilized the 32-item subscale of parent-reported child externalizing behaviors, with items such as *Uses alcohol?* or *Gets in many fights?* as well as the 32-item subscale of child internalizing behaviors, such as *Anxious* or *Depressed*. Change scores were created using T-scores.

Externalizing and Internalizing Behaviors – Youth Report. Youth Self-Report (YSR; Achenbach, 1991) – With this measurement, we utilized the 32-item subscale of youth-reported externalizing behaviors as well as the 32-item subscale of internalizing behaviors. Change scores were created using T-scores.

Results

Preliminary correlations indicated that child strengths and family strengths were not correlated significantly ($r = .15$, *ns*), suggesting that child and family strengths are independent constructs. Paired samples *t*-tests indicated that levels of both child, $t(92) = -4.60$, $p < .01$, and family, $t(105) = -2.13$, $p < .05$, strengths increased after one year of receiving system-of-care-based services. Further, levels of both internalizing, $t(146) = 4.22$, $p < .01$, and externalizing, $t(146) = 6.17$, $p < .01$, behaviors decreased after receiving one-year of system of care based services (see Tables 1 and 2). Thus, hypotheses one and two were confirmed.

Table 1
Preliminary Correlations – Reliable Change Indices

	Changes in Externalizing	*Changes in Internalizing*
Changes in Child Strengths	-.37**	-.33**
Changes in Family Strengths	-.20*	-.16

Note. *p < .05, **p < .01

Table 2
Descriptive Statistics for
Independent and Dependent Variables

	M	*SD*	*t statistic*
Child Strengths			
Time 1	1.49	.48	-4.60**
Time 2	1.73	.51	
Family Strengths			
Time 1	2.78	.28	-2.13*
Time 2	2.83	.29	
Child Internalizing			
Time 1	65.75	11.63	4.22**
Time 2	62.17	12.79	
Child Externalizing			
Time 1	71.70	10.43	6.17**
Time 2	67.76	10.77	

Note. *p < .05, **p < .01.
Higher scores indicate more child and family strengths and more internalizing and externalizing behaviors.

Hierarchical regressions indicated that increases in child strengths from T1 to T2 predicted decreases in levels of both internalizing, $F = 3.09$, $p < .05$, and externalizing, $F = 2.61$, $p < .05$, behaviors from T1 to T2. This findings supports hypothesis three; however, changes in family strengths did not predict changes in levels of either internalizing or externalizing behaviors, nor did the interaction between child strengths and family strengths. Finally, hypothesis four was disconfirmed, as the interaction between child and family strengths was not the strongest predictor of changes in levels of child behaviors.

In summary, an increasing level of child strengths was the strongest predictor of change in levels of child internalizing and externalizing behaviors, with more positive change in child strengths being associated with larger changes (decreases) in levels of both internalizing and externalizing behaviors.

Discussion

The present study adds to the research base on the relation between child strengths and levels of child internalizing and externalizing behaviors. Results suggest that building upon child and family strengths, particularly for children with externalizing behaviors, may be an important vehicle for change.

The first three hypotheses that were examined in the present study were supported and suggest important implications for the field. Specifically, strengths-based measures should be used in conjunction with other instruments (e.g., deficit-based) when conducting a comprehensive assessment of a child referred for services. Without measuring strengths, clinicians are unable to build strengths into treatments, possibly limiting the effectiveness of their interventions. Additional child-reported strengths-based measures should be developed so that children's perspectives can be examined and integrated into treatment planning and outcome evaluation.

Although increases in family strengths were not as strongly linked to changes in levels of child behaviors compared to increases in child strengths, it is probable that the majority of interventions were child-focused, even within a system of care approach. If child and family strengths were addressed equally, it is possible that family strengths would have emerged as a stronger predictor of change. These findings suggest that new mental health professionals should be trained in strengths-based approaches, and that measuring therapeutic change in terms of strengths is essential for adherence to best practices in the field of children's mental health (Furman & Jackson, 2002; Woodbridge & Huang, 2000).

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