

Chapter Four

Child Welfare and Medicaid

Models for Understanding the Implementation of the Welfare Transition Program in Florida

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Introduction

In recent years, the policy of welfare reform has received considerable attention from social science researchers. Much of the research analyzing poverty alleviation programs focuses on the outcomes for families living in poverty. (Brauner & Loprest, 1999; Churchill, 1997; Edin & Lein, 1996; Newman, 1999; Stack, 1974). However, in order to understand why poverty alleviation programs succeed or fail, it is equally important to develop an understanding of the process of implementing policy.

Policy Reformers

Uncovering the beliefs and attitudes regarding the causes of and appropriate solutions to poverty—which are held by individuals charged with implementing welfare reform—is central to the task of understanding the implementation process of welfare reform. Such diverse perspectives impact the manner in which welfare reform programs evolve, as well as a program's ultimate success or failure in serving client populations and alleviating poverty. This study analyzes the perspectives of three groups of individuals who participate in the implementation of welfare reform policy in the State of Florida:

- clients receiving welfare,
- case managers who work with these clients, and
- representatives from the regional boards of directors who make funding decisions.

Views of Poverty

Review of the literature suggests that three models of poverty alleviation inform both the design and implementation of policy making and also social science research (Churchill, 1997; Schneider, 2000). We will refer to these models as the *culture of poverty*, *structural constraint*, and *human capital*. This paper analyzes the perspectives of welfare clients, case managers and representatives/board members in terms of these three models of poverty alleviation. Poverty alleviation programs that are based on different models will logically have different goals and objectives. The culture of poverty model focuses upon the attitudes, values, and behaviors, which are believed to characterize communities of individuals living in poverty. These traits are thought to prevent individuals and families from achieving economic success and thereby contribute to the perpetuation of poverty from one generation to the next (Lewis, 1959). A central tenet of this argument as it applies to policy making is that individuals and families of low income are poor because they do not work and do not want to work (Murray, 1984). Programs based on the culture of poverty model focus on changing the attitudes, values and behaviors of low income people, with the aim of transforming them into middle class citizens.

The structural constraints model focuses on the external political and economic structures of society at large, such as institutionalized discrimination and the wage structure of the capitalist system, which serve to limit the economic prospects of those living in impoverished communities (Edin & Lein, 1996; Newman, 1999; Valentine, 1968).

Programs based on the structural constraints model will attempt to change aspects of the larger society, which limit the economic prospects of low income individuals and families. Examples include increasing the minimum wage, offering low cost childcare, and extending the public transportation system.

Finally, the human capital model attributes the cause of poverty to low levels of educational attainment and a lack of vocational skills among individuals of low income. By providing

opportunities for individuals to obtain further education and develop vocational skills in specific high demand, high paying career fields, it is believed that individuals, families, and communities can end the cycle of poverty (Churchill, 1997; Coleman, 1971).

Programs utilizing a human capital approach focus on providing education and vocational training geared toward specific careers.

Methodology

The methodology consisted of additional analyses of data collected through two research efforts of the Florida Inter-University Collaborative on Welfare Reform—an interdisciplinary team of researchers from five Florida universities, including the authors of this paper. The collaborative completed two studies funded by the Florida Legislature to better understand the impact of welfare reform in Florida:

- Study 1, Qualitative Study of the Work and Gain Economic Self Sufficiency program (WAGES), was completed in 1999, and
- Study 2, the Welfare Transition Program: Capacity Building Study was completed in 2001.

The purpose of Study 1 was to find out “what worked” for WAGES participants at various stages in the program. Study 2 had various purposes: (a) to find out what regions know about the characteristics of their clients, (b) to better understand the capacity of local workforce regions to achieve desired outcomes for clients with different characteristics and barriers to success, and (c) to describe for each region its capacity to connect assessment, services, and monitoring with the achievement of desired outcomes.

Data Collection

Data for Study 1 were collected in four WAGES Coalitions through document reviews, interviews with WAGES Coalition members, interviews with case managers, and focus groups with WAGES participants.

Data for Study 2 were collected in the 24 workforce regions and were collected through document reviews and interviews with three types of staff who have responsibility for implementation and/or oversight of the Welfare Transition Program. These staff include: regional board members, senior level administrative staff, and managers of One Stop Career Centers.

Data Analysis

This analysis uses data from the case manager interviews and client focus groups that were conducted during Study 1 in three WAGES Coalitions, along with the interviews with board members in the 24 workforce regions (also conducted as part of Study 2).

The analyses conducted for this study were guided by a framework of poverty models developed for the purpose of this study and prevalent in the literature (Churchill, 1997; Coleman, 1971; Lewis, 1959; Murray, 1984; Newman, 1999; Schneider, 2000; Valentine, 1968). The models were operationalized as follows:

- *Culture of poverty*: focus on clients’ limited work history, personal characteristics related to attitudes toward work and alcohol/substance abuse.
- *Structural constraints*: focus on, childcare, transportation and availability of jobs.
- *Human capital*: focus on providing education and job training, which imparts vocational skills for specific careers.

Four focus groups including 10–12 client participants per group were conducted in Study 1 (Gómez, 1999). The transcripts were organized by topic to facilitate identification of emerging patterns and trends. Furthermore, the transcriptions were coded according to the framework of the three poverty models developed.

Utterances were coded according to the framework and tabulated. The total number of utterances which reflected a particular model were also tabulated. Chi square goodness of fit tests were used to determine whether there was a statistically significant difference in the frequency of utterances representing each of the three models.

A total of 107 interviews were conducted with case managers in Study 1 (Beckerman & Zawisza, 1999). One question asked case managers to list the three greatest barriers clients face in securing employment. Using the framework described above, the number of case managers who mentioned each of the barriers listed was tabulated. The total number of barriers representing each model of poverty alleviation was also tabulated. Chi square goodness of fit tests were used to determine whether there was a statistically significant difference in the frequency of barriers mentioned which represented each of the three models.

A total of 49 board members were interviewed in Study 2. One question asked board members to prioritize various types of services that meet client needs. Board members were given a list of needs and asked to identify those considered to be a “high priority.” Using the data analysis framework, each high priority response was tabulated, and the total number of needs reflecting each of the three models of poverty alleviation was also tabulated.

Findings

The data analysis allowed for comparisons between the different levels of staff and with welfare clients. Some interesting patterns emerged:

- Board members appear to subscribe to a model of poverty alleviation that encompasses all three orientations with roughly equal weight.
- Case managers appear to follow a model in which the structural constraints orientation figures the most prominently and the culture of poverty orientation is represented the least.
- Welfare clients mentioned barriers which reflect a structural constraints orientation with the most frequency and mention needs related to the culture of poverty the least.

Conclusion

The data indicate that board members, case managers and welfare clients subscribe to different models of poverty alleviation. One might say that the closer one is to the day-to-day realities that welfare clients face, the more likely one is to subscribe to a model of poverty alleviation that emphasizes structural constraints and downplays the impact or even existence of a culture of poverty.

The finding that welfare clients have different perceptions from the staff who serve them regarding the barriers they face and the service needs they have is not new. Prior research has shown that staff serving welfare clients tend to attribute the cause of poverty to client attitudes (Kingfisher, 1998; Reimer, 1997a; Reimer, 1997b,) while welfare clients emphasize the need for further training and funding for support services such as transportation and childcare (Gómez, 2000). The case managers interviewed for this project have a perspective somewhat more congruent with that of their clients than do many social service providers discussed in the literature on poverty and welfare reform.

The data also indicate that perspectives regarding the causes of and appropriate solutions to poverty vary according to staff position. Case managers interact with welfare clients on a day-to-day basis. On the other hand, board members have limited or no contact with welfare clients. Over half of the board members represent the business community. Furthermore, they serve on the board in a volunteer capacity—all have full time careers in addition to their work on the board.

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Mental Health Services Utilization by Maltreated Children: Research Findings and Recommendations

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Introduction

Given what is known about the consequences of child physical abuse and neglect, it is reasonable to assume that some maltreated children need mental health services. However, barriers exist to the delivery and use of services, and not all maltreated children who need treatment receive it (Stiffman, Chen, Elze, Dore, & Cheng, 1997; Trupin, Tarico, Low, Jemelka, & McClellan, 1993). Trupin et al. (1993) point out that it may be difficult to provide mental health and adjunct services to maltreated children because the purpose of child protective agencies is to protect children, with no mandate to address their mental health needs. It is important to know the factors related to service use because this will aid in the development of interventions to increase access to and use of services by maltreated children. This paper reports on a review of empirical studies on the utilization of mental health services by maltreated children, discusses findings of the review, and makes recommendations for future research. The primary objective is to discern the correlates of service use and the variables that differentiate users from non-users.

Method

Studies were identified by searching databases (i.e., Social Work Abstracts and PsychLit) with relevant key words (e.g., services utilization, mental health services, maltreatment), and by examining the reference lists of articles identified in the computerized search. Studies were included if they examined mental health service utilization by physically abused and neglected children. Studies that focused solely on service use by sexually abused children were excluded. Studies that examined the use of both medical and mental health services were included (Bilaver, Jaudes, Koepke, & George, 1999; Ezzell, Swenson, & Faldowski, 1999; Takayama, Bergman, & Connell, 1994), but only the use of mental health services is reported on here.

The search process resulted in thirteen articles that were included in this review. These studies had one of four aims: (a) To compare mental health services utilization by children in foster care with that of Medicaid-eligible children not in foster care (Bilaver et al., 1999; dosReis, Zito, Safer, & Soeken, 2001; Halfon, Berkowitz, & Klee, 1992; Harman, Childs, & Kelleher, 2000; Takayama et al., 1994); (b) to compare youth receiving services in single-systems (child welfare) with youth receiving services in multiple-systems (child welfare and mental health) (Blumberg, Landsverk, Ellis-MacLeod, Ganger, & Culver, 1996); (c) to examine the correlates of service use by children in foster care (Garland & Besinger, 1997; Garland, Hough, Landsverk, McCabe, Yeh, Ganger, & Reynolds, 2000; Garland, Landsverk, Hough, & Ellis-MacLeod, 1996; Leslie, Landsverk, Ezzett-Lofstrom, Tschann, Slymen, & Garland, 2000; Zima, Bussing, Yang, & Belin, 2000), and; (d) to examine the correlates of service use by children not in foster care but identified by child protection agencies (Ezzell et al., 1999; Kolko, Seleyo, & Brown, 1999).

Results

Despite different study aims and methodologies, the overall findings converged. Primary findings included:

1. Children in foster care had higher rates of mental disorders and use rates than did Medicaid-eligible children not in foster care. Children in foster care who used services had different patterns of service use, pointing to the limitation of conceptualizing service use as a dichotomous variable (use or non-use).

2. The Child Behavior Checklist (CBCL; Achenbach, 1991) and other measures of children's behavior and impairment correlated with service use.
3. Non-need variables correlated with use of services when controlling for need. Race was the most consistent non-need predictor of service use. Caucasian children had a higher rate of use than did African-American and Latino children. Other non-need predictors that correlated with service use for children in foster care were age (older), placement type (more restrictive and non-relative foster care), maltreatment type (physical or sexual abuse), and gender (males).
4. Few studies examined the relationship between caregiver or adult decision-maker variables and service use. Studies with samples of children identified by child protection agencies but not in foster care included caregiver variables; these studies found that higher parent stress correlated with service use. Foster parents with higher education were more likely to obtain referrals for their foster children (Zima et al., 2000), and Garland and Besinger (1997) found a trend for courts to be more likely to order counseling for Caucasian children than for children of color.

Implications and Recommendations

One of the more disturbing findings from this review is that Caucasian children were more likely to receive mental health services and have more visits than children of color. Many studies have documented differences in children's mental health service use by race (cf., Cuffe, Waller, Cuccaro, & Pumariega, 1995; Lavigne et al., 1998; Zahner & Daskalakis, 1997). Courtney et al. (1996) reported that children of color and their families in the child welfare system received fewer services and had poorer outcomes than did Caucasian children. Research to ascertain the underlying mechanisms and proximal variables leading to differential provision and use of services by race/ethnicity is needed to understand and overcome these inequities in service access and use.

Another finding of concern is that children in kinship foster care were less likely to receive services than were children in non-kinship foster care. It is important to learn more about why this is so. Similarly, it will be important to study other potential inequities in service use by child gender, age, and type of maltreatment, the factors that contribute to these inequities, and how to increase access to and use of these services by these groups of children.

More work on conceptualizing the processes by which maltreated children and their families access and use mental health services is needed. Efforts to make explicit and measure the underlying processes leading to service access and use are imperative prior to the development of interventions to increase service access and use by maltreated children. Zima et al. (2000) used the Andersen model (Andersen, 1995) as a conceptual framework for their study, whereas the other researchers did not explicitly name the conceptual framework guiding their research.

Researchers must grapple with how to conceptualize and operationalize the constructs of need for services, mental health services, and service use. Undoubtedly, maltreated children's use of services and the correlates of service use vary at different points in their service careers and maltreatment histories. Most of the studies reviewed here focused on children's use of mental health services when they were in foster care. Landsverk and Garland (1999) noted how important it is to know whether children continue to use these services when they leave foster care. Researchers must conduct longitudinal studies to fully understand the patterns and pathways of maltreated children's service use and how these vary for different sub-groups of children. Moreover, research on parent use of services and parent involvement in their children's services is needed. It is unlikely that children can be safely maintained or re-united with their families unless parents receive services aimed at reducing the stresses and problems that contributed to maltreatment in the first place.

A premise of research on service use by maltreated children is that the use of services leads to better outcomes. Much more research is needed to determine what types of services and treatments are most effective for maltreated children, as well as whether the outcomes of children who receive services are

better than those of children who do not receive services. A concomitant need is to study participation in services and adherence to treatment plans and service recommendations by maltreated children and their families. Much remains to be accomplished in order to continue to build the knowledge base on services utilization by maltreated children and to use that knowledge to improve policies and practices to ensure that all maltreated children and their families have access to and can successfully use the mental health and adjunct services that they need.

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Mental Health Outcomes from a Randomized Experiment within Connecticut's Child Welfare System

Introduction

This paper presents a comparative analysis of mental health outcomes for children in a child welfare system who received treatment as usual versus community-based mental health services in a system of care. All children were enrolled in the Title IV-E Waiver Demonstration Program managed by the Connecticut State Department of Children and Families (DCF), Connecticut's public child welfare agency. Only children assessed to be in need of residential treatment were enrolled into the program. These children traditionally have been placed in residential treatment centers, group homes, and shelters when no permanent placement is currently available or appropriate. Not only can such long-term restrictive placements be costly, but placement slots can become scarce for children who need long-term care while waiting for a permanent placement.

The primary purpose of the Title IV-E Waiver Demonstration Program is to increase creative treatment options for children and families in order to improve child behavioral outcomes and reduce the length of stays in restrictive settings. In the current study, an experimental design was used to randomly assign children to the traditional state services-as-usual option or to the community-based system of care option (offered by the Comprehensive Community Mental Health Services for Children and Their Families Program and funded by the Center for Mental Health Services). With these goals in mind, the following questions were examined:

- Are higher rates of improved mental health outcomes associated with receiving services in the demonstration programs versus the treatment as usual group?
- Do children and adolescents receiving services under the systems of care approach experience fewer days in restrictive placements?

Method

Using an acuity screening process, only children with the most severe behavioral and emotional disorders were enrolled from DCF into the Title IV-E demonstration program. Children were deemed in need of residential treatment by DCF staff based on assessments of daily living skills, relationships, self-care, school behavior, and social participation. In order to be eligible for the program, children had to be between 7 and 14 years of age. Eligible children whose caregivers consented to participate in the evaluation were randomly assigned to experimental or control conditions in two different regions. An experimental and control condition exists in both the north central and south central human service regions in Connecticut. From July 1999 through November 2001, 149 children have been enrolled into the evaluation of the Title IV-E Waiver Program. In the north central region, 44 children have been enrolled in the DCF control condition and 40 children have been enrolled in the system of care experimental condition. In the south central region, 29 children were enrolled in the DCF control condition and 36 in the system of care experimental condition.

Face-to-face interviews were conducted with children and their caregivers to collect descriptive, child and family outcome, and placement data. Caregivers and children participated in interviews at program entry, six months post-assignment, 12 months post-assignment, and 24 months post-assignment. Data on clinical symptoms were collected from the caregiver with the Child Behavior Check List (CBCL; Achenbach, 1991). Functional outcomes were measured with the Child and Adolescent Functional Assessment Scale (CAFAS; Hodges, 1997) and strengths were measured with the Behavior and Emotional Rating Scale (BERS; Epstein and Sharma, 1997). Finally, caregivers were asked about the child's living situations and placements in the last six months with the Restrictiveness of Living Environments and Placement Stability Scale (ROLES; Hawkins, Almeida, Fabry, & Reitz, 1992).

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Service utilization data were collected from the management information systems (MIS) of DCF and from the two children's mental health agencies central to the systems of care. Data on service utilization were also collected from caregivers with the Multi-Sector Services Contact questionnaire used in the face-to-face interview.

Results and Discussion

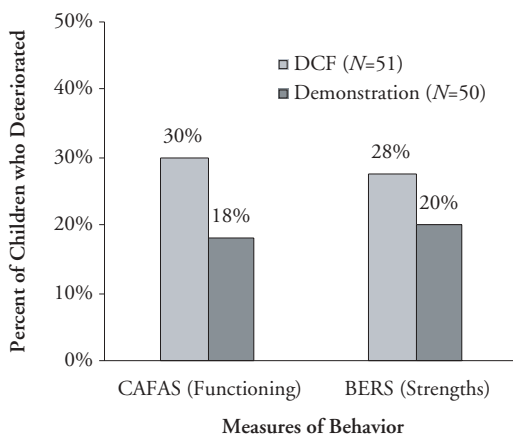
Analyses for this summary were conducted with intake data that are currently available for 149 children, and six-month data are available for 101 children. The gender, age, and racial/ethnic identity of children served by DCF and the demonstration agencies were not significantly different at this stage of the enrollment process. Fifty-eight percent of children served at DCF were males, compared to 50% in the demonstration agencies. At the time of the study, the average age of children at DCF was 12.2 years compared to 11.7 years for children at the demonstration agencies. The racial/ethnic identity of children in the two groups was very similar and very diverse. In the control group, 47% of children were White, 25% Hispanic, and 21% are African American. In the experimental group, 45% of children were White, 20% Hispanic, and 28% African American.

Data on risk factors illustrate the high severity of disorders for this sample of children from the child welfare system. Compared to children enrolled in the Phase II evaluation of the Comprehensive Community Mental Health Services for Children and Their Families Program funded by the Center for Mental Health Services (CMHS), children in Connecticut's Title IV-E Waiver program had greater individual and family risk factors with which to contend. An equal or larger proportion of children in the latter program had a history of physical abuse (29% more), sexual abuse (9% more), psychiatric hospitalization (33% more), running away from home (8% more), and suicide attempts (12% more).

To measure change in mental health status over time, the Reliable Change Index (RCI; Jacobson and Truax, 1991) was used. Similar percentages of children who were served by the demonstration agencies and DCF experienced behavioral improvements. However, fewer children served by the demonstration agencies experienced deterioration in their behavior in the first six months of service than did children served by DCF. Changes in problems and strengths as measured by the CAFAS, CBCL, and the BERS were all examined and showed the same general pattern. Deterioration rates were greater for children served by DCF, but only deterioration in functional impairment as measured by the CAFAS was statistically significant ($\chi^2 = 3.608, df = 1, p < .05$) at this point (see Figure 1).

Following the tenets laid out in Federal foster care legislation over the last 30 years, one of the primary goals of the Title IV-E Waiver program is to reduce or divert the number of children who enter long term group care. Preliminary analyses indicate that the pattern of placements for children in both groups during their first six months of service reveals important differences (Figure 2). Children served by DCF spent 60 %of their days in residential treatment centers compared to 62% for children served by the demonstration agencies. However, children served by DCF spent almost three times as many days in group homes and shelters than did children served by demonstration agencies (17% versus almost 6%). Most importantly to the goals of the program, children served by the demonstration agencies spent twice as much time with

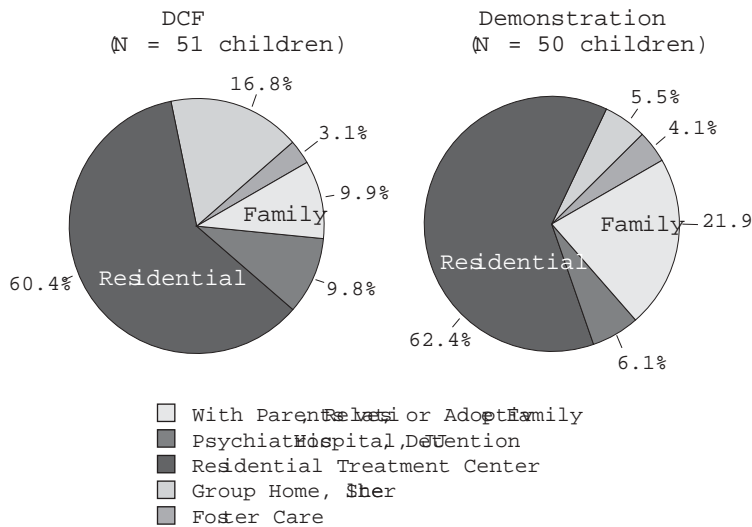
Figure 1
Behavioral Deterioration after 6 Months
(Reliable Change Index)



family (22% of all days) than did children served at DCF (10%). While children in each group spent virtually the same amount of time in psychiatric hospitals before program entry, the number of days in psychiatric hospitals reduced from 19% to 6% in the demonstration agencies. Time spent in psychiatric hospitals was also reduced for children served by DCF, but not by the same magnitude (14% to 10% percent).

Figure 2
Percent of Days in Placement Six Months After Program Entry

(Total N = 183)



In summary, preliminary analyses of children served up to six months indicate that the experimental systems of care are doing a slightly better job at stabilizing children and preventing behavioral deterioration while in services, when compared to treatment-as-usual services. In addition, the systems of care are providing children with twice as much family time and placing these children with family more often during the first six months than are as-usual child welfare services.

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Placement Movement in Out-of-Home Care: Patterns and Predictors

Sigrid James
John Landsverk

Introduction

Much research has focused in the past on identifying factors that promote movement in and out of the child welfare system, yet surprisingly little is known about the movement of children *within the system*. Multiple reasons account for the lack of attention in this area: (a) static rather than dynamic conceptualizations of placement instability, (b) inadequate methodological approaches, (c) lack of definitional agreement on what constitutes a “placement” or a “placement change,” and (d) assumptions about the unpredictable and idiosyncratic nature of placement movement (see Usher, Randolph & Gogan, 1999; Webster, Barth & Needell, 2000).

This study constitutes an in-depth investigation of foster children’s placement moves through out-of-home care. It investigates sequences of placements over an 18-month period and examines whether patterns of movement can be identified for a cohort of children who spent an equal amount of time in out-of-home care. It further examines clinical and nonclinical child characteristics that predict patterns of placement movement through care.

Methods

Study Cohort

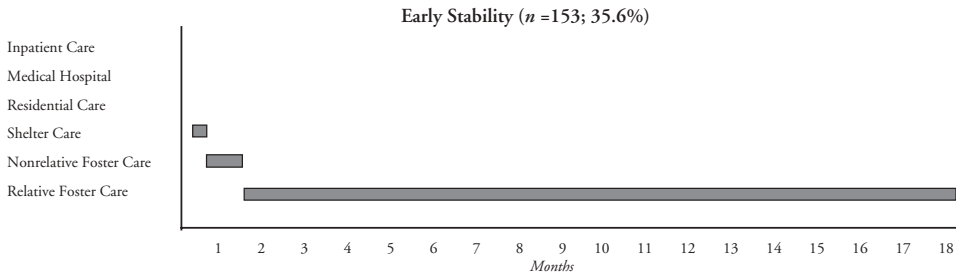
Participants were part of a cohort of 1,084 children who entered out-of-home placement in San Diego, California in the early 1990s, and had remained in placement for at least five months. Children in the current study represent those who were still in out-of-home care at the end of the 18-month data collection period. Excluded from this study were children who were reunified or adopted during that time ($n = 377$), who experienced a reentry into care ($n = 32$), or who were younger than two at the time behavioral data were collected ($n = 245$). The final study cohort consisted of 430 children. Almost two-thirds of the children were under the age of eight; 53% were female and almost 60% were children of color. The majority of children had entered out-of-home care due to neglect or caretaker absence (75%), followed by physical abuse (25%). About half of the children scored in the problematic range on the Child Behavior Checklist (CBCL; Achenbach, 1991)—both for total behavior problems and externalizing problems; and 39% presented with internalizing problems in the problematic range. This group of children had experienced 4.4 placements on average ($SD = 2.4$) over the 18-month period.

Classification of Placement Patterns

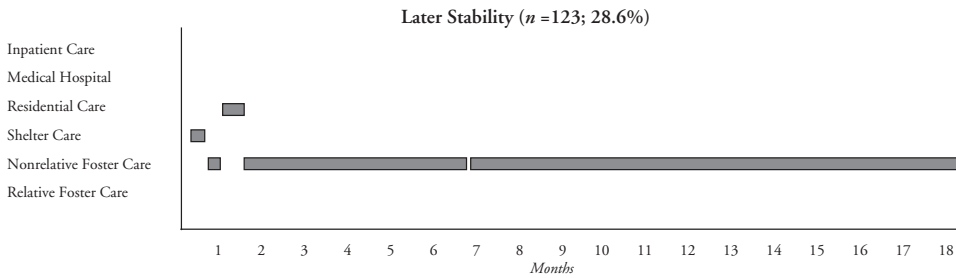
Given the longitudinal framework of the data and the exploratory nature of the study, an inductive process of discovering categories from data was chosen to classify patterns of movement. Specifically, this process involved graphing the placement histories for a 20% random sample of this cohort (as illustrated in Figure 1). Classification criteria were developed along two dimensions: The timing and duration of the longest placement and movement along degree of placement restrictiveness. The process further involved inspection of the graphs by child welfare professionals, identification and naming of patterns, specifying cutoff points to create mutually exclusive categories, and developing algorithms which were then consistently applied to the full cohort of 430 children.

This study is currently in press: James, S., Landsverk, J. & Slymen, D. (in press). Placement movement in out-of-home care. Child & Adolescent Services Review. The original Foster Care Mental Health study was funded by NIMH grant RO1 46078; the current study was funded in part by Caring for Children in Child Welfare, CCCW, NIMH grant MH59672.

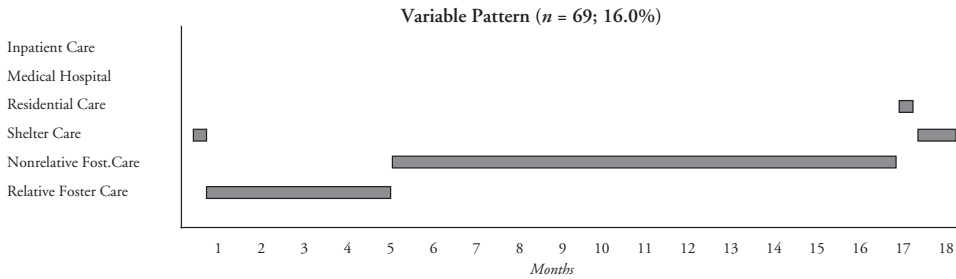
Figure 1
Sample Graphs Showing Patterns of Movement of One Child from Each Category



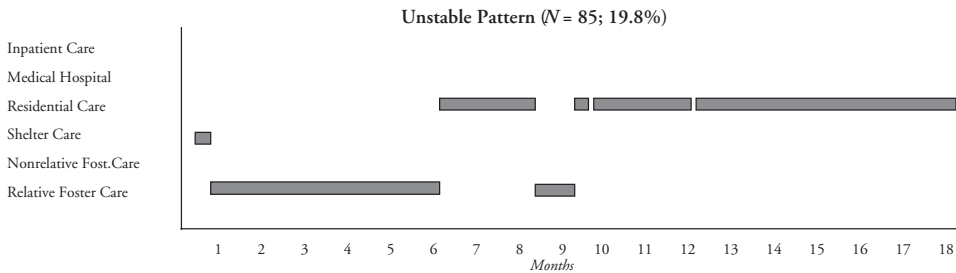
Classification Criteria: Children who within the first 45 days of entering out-of-home care achieved placement stability and stayed for the remainder of the 18-month period (1) in the same kinship home (19.3%); (2) in the same nonrelative foster home (16.3%); (3) in the same residential care facility (0%)



Classification Criteria: Children who between the 46th day and the 9th month of entering out-of-home care achieved placement stability and stayed for the remainder of the 18-month period (1) in the same kinship home (8.8%); (2) the same nonrelative foster home (15.0%); (3) in the same residential care facility (1.6%)



Classification Criteria: Children with both signs of stability and instability. These children had at least one placement that lasted 9 months (half the overall study period). However, they experienced subsequent placement moves. Longest stay in: (1) kinship home (4.9%); (2) nonrelative foster home (9.8%); (3) in residential care facility (1.4%)



Classification Criteria: Children who experienced multiple placements with no placement lasting longer than 9 months (half the study period). (1) Without episodic stays in residential care (8.6%); (2) with episodic stays in residential care (11.2%)

Results

The process described above resulted in the identification of four patterns of movement through care. Figure 1 visually illustrates these patterns for one sample child from each category and presents the specific classification criteria used.

Description of Pattern Categories

Early Stability. This group constitutes those children who achieved placement stability the fastest ($n = 153$; 35.6%) and as intended by the system. Children in this category experienced on average 2.5 placements ($SD = .7$). Also, this group experienced only four episodes in highly restrictive placement settings and no AWOL (i.e., leaving care without permission) incidences.

Later Stability. Children in this group ($n = 123$; 28.6%) experienced multiple placement changes early on but spent the last nine months or longer in a stable setting. The average number of placements for this group was 4.3 ($SD = 1.5$). In this group, 31 children experienced 62 episodes of highly restrictive care and there were three incidences of AWOL.

Variable Pattern. Children in the Variable Pattern group ($n = 69$; 16%) had at least one placement that lasted nine months (i.e., half the time of the data collection period). However, this placement ended and subsequent shorter-stay placements followed. The average number of placements for this group was 5.1 ($SD = 1.6$). Twenty-five children experienced 49 episodes of highly restrictive care. Four children experienced four incidences of AWOL.

Unstable Pattern. This group ($n = 85$; 19.8%) is characterized by multiple brief placements with no placement lasting longer than nine months (less than half the study period). Forty-eight children experienced 196 episodic stays in residential or inpatient care, while 37 moved through multiple placements of lower restrictiveness. The average number of placements was 7.2 ($SD = 2.8$), with more than one third of the children in this group staying in as many as 8 to 15 different placements. Twelve children experienced 35 AWOL incidences.

Comparisons between Pattern Categories

Table 1 presents results of chi-square analyses determining differences across the four patterns along nonclinical (gender, race/ethnicity, age, maltreatment type) and clinical (CBCL total behavior problems, externalizing problems, internalizing problems) child characteristics. Significant differences were found with regard to age, sexual abuse, internalizing, externalizing and total behavior problems.

Multivariate Regression Results

Polychotomous logistic regression (PLR) was used to examine the relationship of the predictor variables to the main pattern categories in two multivariate models. One model included all nonclinical variables and the externalizing and internalizing behavior score. The second model ran the same regression with all nonclinical variables and the total behavior score only.

In the first model, three variables—age ($p = .002$), sexual abuse ($p = .012$), and externalizing problems ($p = .002$)—remained significant when adjusted for all other variables. Results indicated that children in the problem range for externalizing behavior were one and a half times more likely to fall into Later Stability versus Early Stability compared to children not in the problem range ($OR = 1.48$; $CI = 0.83, 2.63$). Classification into Variable Pattern was more than twice as likely ($OR = 2.28$; $CI = 1.15, 4.52$), and three and a half times more likely for children in the Unstable Pattern group versus the Early Stability group ($OR = 3.56$; $CI = 1.79, 7.07$). Any significant relationship between internalizing problems and the patterns disappeared within the multivariate context. Results further indicated that with every four-year increase in age, the odds of being classified into Later Stability increases by 5% ($OR = 1.05$; $CI = 0.82, 1.36$), the odds of being in the Variable Pattern group increases by 35% ($OR = 1.35$; $CI = 1.00, 1.82$), and the odds of being in an Unstable Pattern increases 66% when compared to classification into Early Stability ($OR = 1.66$; $CI = 1.24, 2.22$).

Table 1
Characteristics of Children in Pattern Categories

	<i>Early Stability (35.6%)</i>	<i>Later Stability (28.6%)</i>	<i>Variable Pattern (16.0%)</i>	<i>Unstable Pattern (19.8%)</i>	<i>p-value</i>
Gender					0.296
Male	35.1	31.7	16.8	16.3	
Female	36.0	25.9	15.4	22.8	
Race					0.122
Anglo	35.8	27.8	13.4	23.0	
Hispanic	23.4	35.1	16.9	24.7	
African American	40.3	25.7	19.4	14.6	
Other	45.5	31.8	13.6	9.1	
Age					0.024*
1-4	40.3	30.9	12.9	15.8	
5-8	36.2	30.4	18.1	15.2	
9-12	33.3	27.8	18.9	20.0	
13-16	27.0	20.6	14.3	38.1	
Sexual Abuse					0.008**
Yes	39.6	20.8	5.7	34.0	
No	35.0	29.7	17.5	17.8	
Physical Abuse					0.441
Yes	37.1	31.4	17.1	14.3	
No	35.1	27.7	15.7	21.5	
Neglect					0.761
Yes	35.2	27.8	16.9	20.1	
No	37.0	31.5	13.0	18.5	
Emotional Abuse					0.253
Yes	25.0	27.3	18.2	29.5	
No	36.8	28.8	15.8	18.7	
Protective Issue Only					0.696
Yes	38.5	23.1	15.4	23.1	
No	35.1	29.6	16.2	19.2	
Total Behavior Problem					0.005**
Not Problematic	42.5	28.8	14.6	14.2	
Problematic Range (≥ 60)	28.9	28.4	17.4	25.2	
Internalizing Problems					0.036*
Not Problematic	39.8	28.4	15.9	15.9	
Problematic Range (≥ 60)	28.9	28.9	16.3	25.9	
Externalizing Problems					0.0002***
Not Problematic	43.5	29.9	14.0	12.6	
Problematic Range (≥ 60)	27.8	27.3	18.1	26.9	

* $p < .05$, ** $p < .01$, *** $p < .001$

Less clear and interpretable was the statistically significant finding with regard to sexual abuse. Children who entered care due to sexual abuse were overrepresented in the Early Stability and the Unstable Pattern. They were 52% less likely to be in the Later Stability group (versus the Early Stability group) compared to children who did not enter due to sexual abuse ($OR = 0.48$, $CI = 0.20, 1.15$), 75% less likely to be in the Variable Pattern group ($OR = 0.25$; $CI = 0.07, 0.94$) and 43% more likely to be in the Unstable Pattern group ($OR = 1.43$; $CI = 0.62, 3.31$), after adjusting for all other predictor variables.

A similar yet slightly less pronounced trend was apparent in the second model in which age ($\chi^2 = 13.15$; $df = 3$; $p = .004$), sexual abuse ($\chi^2 = 10.51$; $df = 3$; $p = .015$), and total behavior problems ($\chi^2 = 11.77$; $df = 3$; $p = .008$) remained significant when adjusted for all other variables.

Discussion

Despite a number of limitations (e.g. bias toward children with higher degrees of movement, exploratory methodology), this study generated interesting findings which are briefly summarized:

- Children followed distinct pathways through care which could be identified using an inductive methodology.
- Children in this cohort experienced a high degree of movement, which is perhaps partially promoted by San Diego County's practice to first place children into shelter care and then into emergency foster care before moving children to their intended placements. While central entry points into the system might facilitate more efficient assessment, they also add additional moves to the child's placement history. It is not known whether all placement changes—regardless of their reason—have adverse effects on the foster child.
- More than one-third of the children achieved stability as intended by the system, and another 28% found a stable placement within the first nine months. Children who achieved stability early had fewer placement moves, fewer stays in residential care settings, fewer AWOL incidences, were more often placed with relatives, and had fewer problematic behaviors.
- Instability is not always associated with stays in residential care. While children with an unstable placement pattern experienced the highest number of episodes in facilities of higher restrictiveness, these children generally started their placement history in family-based settings, and, following an episode in residential care, were often “stepped-down” again to such settings. Furthermore, 44% of children meeting the criteria for Unstable Pattern did not spend any time in residential care. They simply moved back and forth between different family-based settings, never achieving stability. It is not known what types of additional interventions are offered to such children and whether the volatility of their placement history could have been averted had they been placed into higher levels of care early on.
- A child's level of externalizing behavior problems emerged as the main distinguishing predictor classifying the patterns. Higher levels of externalizing behaviors increased the odds of experiencing delayed entries into stable placements, late disruptions, and multiple short stays in care. This finding is consistent with previous studies that have reported a link between disruptive behaviors and placement instability (e.g. Newton, Litrownik, Landsverk, 2000; Pardeck, 1984). Much energy should be focused on disseminating those interventions that have been found to effectively treat disruptive behaviors into the foster care system.

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Transitioning from Foster Care To Adoption: Service Utilization for High-Risk Children

**Jill Waterman
Susan Edelstein
Jill Walker
Dorli Burge
Sheryl Kataoka**

Introduction

UCLA TIES for Adoption seeks to promote the successful adoption of young children from foster care who have special needs, including prenatal substance exposure (Edelstein, Waterman, Burge, McCarty and Prusak, 2000; McCarty, Waterman, Burge and Edelstein, 1999). Adoptive parents are often wary about adopting children with prenatal substance exposure; TIES provides accurate information and intensive supports for families who adopt these children. Services are offered as children transition from foster care into adoptive homes, a vulnerable period that presents opportunities to promote attachment and develop healthy family interactions. TIES for Adoption involves collaboration between the UCLA Departments of Pediatrics and Psychology, and the Los Angeles County Departments of Mental Health and Children and Family Services Adoption Division. This paper describes the TIES model and discusses service utilization patterns during the crucial first year after adoptive placement. Components of the TIES for Adoption model include adoptive parent preparation and support services.

Adoptive Parent Preparation

In addition to the training required of all prospective adoptive families, families interested in adopting children with special needs voluntarily attend nine hours of education and training specific to the challenges of parenting such children. Topics include: (a) empathy for substance abusing biological parents; (b) outcome research on prenatal substance exposure (e.g., Barth and Nedell, 1996; Delaney-Black et al., 1998; Edelstein, Howard, Tyler, Waldinger, & Moore, 1995; Lester, 2000); (c) strategies to manage children's challenging behaviors, and; (d) substance abuse prevention for the child.

Transition Support Services

After completing preparation, parents may utilize any transition support services, including those that are provided prior to adoptive placement (i.e., some children receive psychological assessments to inform workers and potential parents about the child's needs), and services provided during and following transition from foster care to adoption. Services provided during and following transition include:

- **Interdisciplinary Consultation.** Review of records by pediatricians, psychiatrists, psychologists, social workers, and educational consultants, and meetings with prospective adoptive parents to help them understand the child's strengths and vulnerabilities and recommendations for needed services.
- **Transition Counseling Services.** Parent counseling informs adoptive parent(s) about the child's development and temperament, and how to understand attachment and loss issues. In addition, these services give training in temperament-specific parenting interventions, and provide emotional support. Individual child psychotherapy is available when appropriate.
- **Support Groups.** Adoptive parents may attend monthly support groups, and children participate in parallel child support groups.
- **Interdisciplinary Consultation.** Psychiatric consultation and/or treatment as well as pediatric and educational consultation are available.

Method

Sample

We evaluated 54 children and their parents who received TIES preparation sessions and volunteered for the study. Participants could utilize a variety of services offered (monthly support group, parent counseling, child psychotherapy, educational consultation, psychiatric services) or participate only in the evaluation component. Parents and children were evaluated at 2 months (Time 1) and 12 months (Time 2) after placement for adoption. Average age of children at placement was 51 months (range: 4-100 months). Boys comprised 61% of the sample. The children's ethnic composition was 33% Hispanic, 25% African-American, 18% Caucasian, and 24% mixed ethnicity. Children had an average of three foster placements prior to adoption (range 1-7), and 38% had experienced documented child maltreatment (in addition to prenatal substance exposure). Sixty-nine percent of the adoptive parents were Caucasian, and 39% of adoptions were transracial. Of the families, 49% of parents were married, 26% were single, 19% were living with a partner of the same gender, and 6% were divorced.

Measures

In addition to demographic information and background data from the children's records, the following areas were assessed at both Time 1 and Time 2: (a) cognitive functioning was assessed with the Bayley Scales of Infant Development (Bayley, 1993) or with the Stanford-Binet Intelligence Scale: Fourth Edition (Thorndike, Hagen & Sattler, 1986), depending on child age; (b) emotional and behavioral functioning were evaluated by the parent-report Child Behavior Check List (CBCL; Achenbach & Edelbrock, 1991); and (c) parenting stress was assessed using the Parenting Stress Index (Abidin, 1983; Loyd & Abidin, 1985).

Procedure

We examined the role of parent demographic variables and parent stress, along with child demographic variables and child distress, utilizing the PSI and the CBCL, respectively, in order to predict usage of the various TIES service modalities. Data are presented both by number of different services used (breadth) and by number of visits during the first year after placement (intensity).

Results

What TIES for Adoption services were utilized?

Intensity of service utilization of the families over the first year of adoption of high-risk foster children was very high. Mean total number of visits over the first year after adoptive placement was 55 (range: 0-115). In terms of different services used, 74% of families participated in support groups, 82% received parent counseling, 46% participated in individual child psychotherapy, 22% received educational consultation, and 22% received psychiatric services. In breadth of service usage, 13% of families received no transition services, 11% utilized only one service, 22% utilized two, 28% utilized three, 19% utilized four, and 7% of families utilized all five services available. Services were also accessed for extended periods, with 52% of parents and children attending support groups for at least one year, 48% receiving over one year of parent counseling, and 35% participating in child psychotherapy for more than one year.

Who utilized TIES services?

With regard to parent characteristics, single and divorced parents and those living with same gender partners had significantly more visits overall than did married parents, $t(54) = 1.97, p = .03$, as well as more visits in each of the five categories, except support group. In addition, those with only one child used significantly more services than those who had more than one child in the home, $t(51) = 2.16, p = .02$, and as shown in Table 1, those with more parenting stress used all services at a higher rate than those who reported less stress (e.g., for total visits, $r(47) = .56, p < .0001$).

With regard to child characteristics, older children received significantly more of every type of service, with the exception of support group (i.e., total visits, $r(50) = .60, p < .001$; parent counseling visits; $r(50) = .57, p < .001$; play therapy visits, $r(50) = .60, p < .001$; educational consultation, $r(50) = .37, p = .008$; and psychiatric consultation, $r(50) = .42, p = .002$). Families with foster children who had come from abusive or neglectful environments had significantly more total visits, $t(50) = -3.34, p < .001$, and also utilized a broader range of services, $t(50) = -2.86, p = .003$. Similarly, children with more previous placements had significantly more total visits, $r(49) = .38, p = .002$, and used a broader range of services, $r(49) = .46, p < .001$. Those with more problems on the CBCL had significantly more visits of every type except support group and educational consultation (total visits: $r(42) = .60, p < .001$; parent counseling: $r(42) = .50, p < .001$; child therapy: $r(42) = .54, p < .001$, psychiatric services: $r(42) = .59, p < .001$). Not surprisingly, those with lower IQ scores received more educational consultations, $r(44) = -.57, p < .001$. CBCL means are given in Table 1.

Table 1
Child Behavior Check List and Parenting Stress Index Scores for Service Users and Non-users at Time 1 (2 months after placement)

<i>Service used</i>	<i>CBCL Total</i>	<i>Parenting Stress Index</i>
Support Group	60.3	115.3 [*]
No Support Group	55.4	91.3
Parent Counseling	60.0	112.6
No Parent Counseling	55.0	98.3
Child Therapy	64.0 ^{***}	123.6 ^{***}
No Child Therapy	53.4	97.4
Educational Advocacy	61.9	129.9 ^{**}
No Educational Advocacy	58.6	104.9
Psychiatric Services	68.5 ^{***}	140.6 ^{***}
No Psychiatric Services	55.9	100.5

* $p < .05$, ** $p < .01$, *** $p < .001$

Multiple regression analyses were carried out to assess the relative contribution of significant child and parent factors. As shown in Table 2, families with more total visits had older children at the time of placement, had higher CBCL scores, were adopting children of color, and were less likely to be married (e.g., single, divorced or living with partner); these factors accounted for 68% of the variance. The same variables predicted number of parent counseling visits, and accounted for 61% of the variance. Children with more child psychotherapy sessions were older at time of placement and had higher CBCL scores, accounting for 59% of the variance. None of the variables examined explained significant variance in support group attendance (adjusted $r^2 = .07$). However, 95% of families adopting children with a history of abuse or neglect utilized support groups compared with 61% of those adopting children without an abuse/neglect history, $\chi^2(2, 50) = 6.85, p = .009$.

Children who were older had significantly more previous placements, $r(48) = .59, p = .0001$. Additionally, children with histories of abuse or neglect were significantly older at the time of placement (Mean placement age = 64 months) than those without a history of abuse or neglect (Mean placement age = 44 months, $t(30) = -2.82, p = .009$).

Table 2
Predictors of Total Number of Visits in First Year After Placement

<i>Predictor</i>	<i>Standardized Beta</i>	<i>t</i>	<i>p</i>
Age of child	.23	2.04	.05
CBCL Total	.58	4.03	.00
Parents married	-.26	-2.65	.01
Child of color	.29	2.64	.01

Adjusted $r^2 = .68$

Discussion

Families adopting high-risk children from foster care, most with prenatal substance exposure, used services very intensively when they were available to them in the period of transition into adoptive placement. Age at time of placement was one of the strongest predictors of service usage. The older children had more previous placements and were more likely to have been abused or neglected. Children with more behavior problems were also heavier service users, particularly of child psychotherapy and psychiatric services. Parents who were single, divorced or living with a same gender partner used significantly more services than married parents. Participation in support groups seemed generally unrelated to parent or child characteristics.

TIES for Adoption represents a university-community collaborative effort to improve access to timely, high-quality and comprehensive mental health care for this high-risk population. Such intensive transition services as children move from foster care to adoption are not generally available to adoptive families, but appear very beneficial. This time is a period of vulnerability for newly forming families, but also one of great opportunity in helping high-risk children and their adoptive parents develop healthy attachments and positive interactions as they weather the ups and downs of becoming a family. It seems cost-effective to implement preventive programs supporting families through the transition to adoption in order to maintain successful adoptive placements and hopefully to decrease the need for costly services such as residential treatment in the future.

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Co-morbidity Among Children with Disabilities

**Roger A. Boothroyd
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Introduction

Numerous recent studies have examined the presence of co-morbid mental health conditions in children and youth (Eiraldi, Power, Karustis, & Goldstein, 2000; Manassis, & Monga, 2001; Masi, Favilla, Mucci, & Millepiedi, 2000; Pliszka, 2000; Young, 1998) and the prevalence of mental health and co-occurring substance abuse problems (King, Gaines, Lambert, Summerfelt, & Bickman, 2000; Thompson, Riggs, Mikulich, & Crowley, 1996; Zeitlin, 1999). Additionally, several studies have examined the prevalence of mental health problems among children with physical disabilities (Cohen, Pine, Must, Kasen, & Brook, 1998; Lavigne & Faiers-Routman, 1992; Nolan & Pless, 1986). However, a review of the literature revealed few studies examining the prevalence of co-morbid health problems among children and youth with serious emotional problems (Combs-Orme, Heflinger, & Simpkins, 2002). Despite the paucity of research, the importance of the research conducted to date is supported by the fact that the report of the Surgeon General's Conference on Children's Mental Health (2000) stressed the need to train primary health care providers to identify mental health problems in children, particularly among those with special health care needs. This study examined the co-morbidity of health and mental health problems in children and youth by addressing three basic questions:

- What is the prevalence of significant health and mental health problems among children with either a health or mental health disability?
- How do these prevalence rates compare to a general sample of children in families receiving Temporary Assistance to Needy Families (TANF)?
- What is the rate of unmet service needs among children with co-occurring mental health disabilities?

Methodology

Participants

This study included 1,145 children from three disability groups: (a) TANF/non-Social Security Income (non-SSI; no disability, $n = 764$), (b) children receiving SSI because of a health disability ($n = 161$), and (c) children receiving SSI because of a mental health disability ($n = 220$). Table 1 presents a summary of the characteristics of the children in this study across the three disability groups.

Children's ages differed by disability status, $F(2, 1144) = 30.07, p < .001$. Children with mental health problems were significantly older than either children with health problems or those with no disabilities. Significant gender differences were also found across disability groups, $\chi^2(2, N = 114) = 36.23, p < .001$. Children with mental health or health problems were more likely to be boys than were children without a disability. Finally, there were racial/ethnic differences among the children in the three disability groups, $\chi^2(6, N = 1145) = 13.31, p < .05$. Children with mental health problems were more likely to be Black/NonHispanic and less likely to be Hispanic compared to children without a disability who were more likely to be Hispanic and less likely to be Black/NonHispanic.

Measures

Data were gathered using mail survey procedures. The administered questionnaire contained previously developed and validated measures of health and mental health status. Caregivers were asked to report on their child's health status using questions adapted from the Child Health Questionnaire (CHQ; Landgraf, Abetz, & Ware, 1999). Caregivers reported children's mental health status using the Pediatric Symptom Checklist (PSC; Jellinek, Murphy, & Burns, 1986). Additionally, the questionnaire

Table 1
Child Characteristics

<i>Disability Group</i>	<i>None (TANF/nonSSI) (n=764)</i>	<i>SSI-Health (n=161)</i>	<i>SSI-Mental Health (n=220)</i>	<i>Overall (n=1145)</i>	<i>p</i> <
Age					
Mean/SD	11.1/3.56	11.6/3.84	13.2/3.22	11.6/3.63	.001
Range	5 to 21	5 to 21	6 to 20	5 to 21	
Gender					
Male	51.2	62.7	73.2	57.0	.001
Female	48.2	37.3	26.8	43.0	
Race/Ethnicity					
White/NH	40.7	42.2	39.5	40.7	.05
Black/NH	38.7	41.0	46.8	40.6	
Hispanic	16.6	11.8	8.2	14.3	
Other/NH	3.9	5.0	5.5	4.4	

contained demographic information regarding the age, race/ethnicity, and gender of the children and their SSI disability status (e.g., SSI for health, SSI for mental health, TANF i.e., non-disabled). The questionnaire was printed as an 8.5" by 7" booklet in both English and Spanish and was personalized to include information specific to the child printed on the form. A personalized cover letter was included; it was designed to protect respondents' confidentiality and to reduce possible stigma to the child's caregiver. The letterhead contained a toll-free telephone number in the event that caregivers had questions about the survey or wanted to complete it over the phone.

Procedures

Data were collected as part of a larger population-based study examining the effects of managed care on access to and quality of services. A highly systematic and structured mail survey methodology was used similar to that recommended by Dillman (1978) and Salant and Dillman (1992). In total, five separate mailings were conducted. The first mailing consisted of a prenotification postcard to each child's caregiver explaining that we were conducting a study examining their health care services and that they would receive a questionnaire in the mail in about a week. One week later a second mailing was conducted. This mailing included a personalized cover letter and questionnaire (in both English and Spanish), an explanation of the purpose of the study, the fact that respondents would be paid \$7.00 for returning a completed questionnaire, and information about the days and hours of operation of the toll-free telephone number. A preaddressed stamped return envelope was also included in the mailing. One week later, a postcard reminder was sent to each person who had not yet responded. This reminder emphasized the importance of the study and again included information on the toll-free telephone number they could call. Two weeks after the postcard reminder was mailed, a fourth mailing containing a cover letter, questionnaire, and return envelope was mailed to each non-respondent. Finally, four weeks later, a fifth mailing was sent via certified mail to individuals who still had not responded. As with the first and fourth mailing, enrollees received a personalized cover letter, questionnaire, and a preaddressed, stamped return envelope. As recommended by Dillman (1978), first class postage was used on both the outgoing and return envelopes of each mailing, and address correction was requested from the post office so that mailing lists could be updated. These mailing procedures were based on the findings of a feasibility study conducted to assess the validity of using mail survey procedures with a Medicaid population. The findings from this feasibility study are summarized in Boothroyd and Shern (1998). Telephone coverage was available weekdays until 8:30 pm so that caregivers not able to call during the day could call during the evening.

Results

Two “disability” groupings were identified based on whether children received SSI for (a) emotional/behavioral problems, or (b) health problems. These children were compared to a “no disability” group based on being in a family receiving TANF and not in receipt of SSI. The non-disability comparison group of TANF/non-SSI children was then used to estimate the presence of current health or mental health problems among disability groups. In all cases, children receiving SSI for reasons of mental retardation were excluded. Children whose composite score on the health measure was more than one standard deviation below the comparison group mean (indicating poorer health relative to 84% of the children in the TANF/non-SSI group) were considered to have a current health problem. Similarly, children whose total score on the mental health measure was more than one standard deviation above the comparison group mean (indicating greater levels of symptomatology relative to 84% of the children in the TANF/non-SSI group) were considered to have an existing mental health problem. The current rates of health and mental health problems were then estimated for each of the three disability groups.

Figure 1 and Table 2 summarize the estimated prevalence rates of current health, mental health, and co-morbid problems among the children surveyed by disability category. Significant differences were found for the presence of health and mental health problems among children in the three disability groups.

Not surprisingly, children receiving SSI for a particularly disability were most likely to be identified as currently having that problem. Specifically, children receiving SSI for health reasons were significantly more likely to have a current health problem (60.2%) relative to children receiving SSI for mental health reasons (37.8%), who in turn were more likely to have a health problem than children with no disability, (15.0%) $F(2,931) = 67.42, p < .001$.

As shown in Table 2, significant differences were found among disability groups in terms of the presence of mental health problems, $F(2,931) = 76.13, p < .001$. Post hoc examination revealed that children receiving SSI for mental health reasons were significantly more likely to have a current mental health problem (64.4%) relative to children receiving SSI for health reasons (37.0%), who were in turn significantly more likely to have mental health problems compared to children with no disability (19.3%).

Figure 1
Prevalence of Current Health and Mental Health Problems by Disability Classification

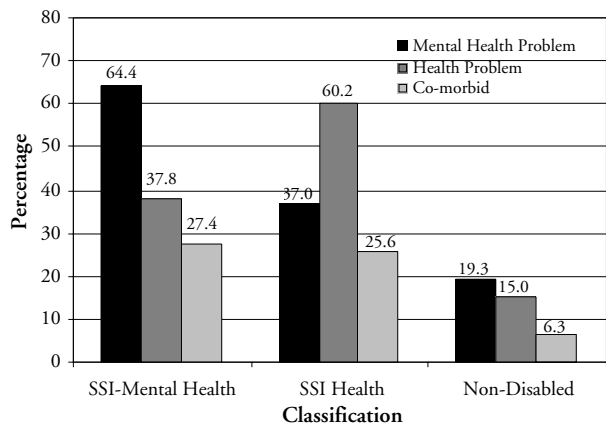


Table 2
Prevalence of Health and Mental Health Problems Among Disability Groups

Disability Group	Current Health Problem	Current Mental Health Problem	Current Comorbid Health & Mental Health Problem
None (TANF/nonSSI)	15.0	19.3	6.3
SSI-Health	60.2	37.0	25.6
SSI-Mental Health	37.8	64.4	27.4

Similar rates of co-morbid health and mental health problems were found among the two disability groups. The rate of co-morbidity for children on SSI for health problems was 25.6%; the co-morbidity rate among children receiving SSI for emotional behavioral problems was 27.4%. These rates were significantly higher than the 6.3% rate found for children in the non-disabled comparison group (i.e., TANF), $F(2, 1135) = 49.93, p < .001$.

A summary of children’s unmet service needs is presented in Figure 2 and Table 3. In terms of health related services, between 1.6% and 2.5% of the children experiencing significant health problems were not accessing needed services. The rates of unmet mental health needs were somewhat higher and more variable, ranging from 9.5% among children with mental health problems to 2.0% among children with no specified disability.

Figure 2
Rates of Unmet Service Needs
by Disability Classification

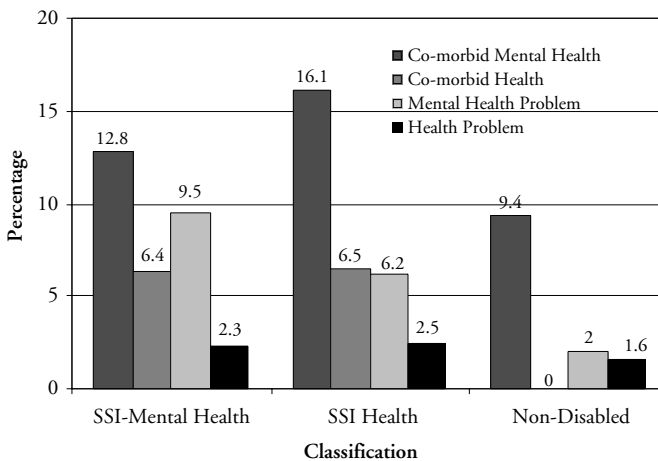


Table 3
Unmet Service Needs of Children with Health
and Mental Health Problems Among Disability Groups

Disability Group	Current Health Problem	Current Mental Health Problem	Current Comorbid Health & Mental Health Problem (Health/Mental Health)
None (TANF/nonSSI)	1.6	2.0	0.0 / 9.4
SSI-Health	2.5	6.2	6.5 / 16.1
SSI-Mental Health	2.3	9.5	6.4 / 12.8

Summary and Conclusion

The rate at which children with an identified mental health disability were found to have an existing health problem (37.8%) was similar to the rate at which children with an identified health disability were found to have an existing mental health problem (37.0%). Among both groups of children, the likelihood of having current co-morbid health and mental health problem was also similar at approximately 26%. Additionally, in both groups of children with disabilities, unmet mental health needs were found to be 2 to 3 times higher than were unmet health needs.

We believe the findings support a number of recommendations related to the diagnosis and treatment of children. First, there is a need to implement a comprehensive health policy that emphasizes the importance of assessing all children for health and mental health problems and disabilities. Second, as was recommended by the Bazelon Center for Mental Health Law (1999), early, periodic screening and diagnostic treatment (EPSDT) screenings (i.e., periodic health care checks for low-income children) should routinely include a brief mental health assessment. Third, as noted by the Surgeon General, primary health care providers need to be educated on the identification of mental health problems in children, particularly among those with special health care needs (U. S. Public Health Service, 2000). In addition, mental health practitioners need further education related to the identification of health problems in children, particularly among those with serious emotional disturbance. Finally, managed care plans with mental health carve-outs should pay special attention to the prevalence of health disabilities and problems in children with mental health needs.

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Medicaid Managed Care and Children with Autism Spectrum Disorders

**Lisa Ruble
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Introduction

In 1994, the state of Tennessee moved to a fully capitated, statewide, managed care Medicaid program called TennCare. TennCare Partners, the behavioral health care arm of TennCare, was developed in 1996. Fully capitated plans like TennCare are expected to result in the greatest cost savings because they have the fewest incentives for cost shifting among payers and the greatest incentives for controlling service utilization (Deal & Shiono, 1998).

Because more states such as Tennessee are experimenting with their Medicaid systems by employing managed care approaches for underserved, low income, and disabled populations, obtaining independent analyses of the impact of these programs on the health care of special needs children is increasingly important. The effect of fully capitated programs like TennCare on service use of children with severe disabilities is unknown, and no data on service patterns of children with complex disorders like autism spectrum disorders (ASDs) are available.

As identified by the *Diagnostic and Statistical Manual of Mental Disorders, IV* (American Psychiatric Association, 2000), ASDs are comprised of five pervasive developmental disorders: (a) Autistic disorder, (b) Asperger disorder, (c) Pervasive developmental disorder, (d) Rett's disorder, and (e) Childhood disintegrative disorder. Table 1 reviews criteria for a diagnosis of ASD. All ASDs are lifelong and result from an underlying neurological insult. No association between ASDs and social economic status, ethnicity, or parenting style exists. Autism, the prototypical ASD, is present before or nearly after birth and affects a child's development in social and communicative behaviors prior to three years of age. An estimated more than 500,000 children between the ages of birth to 18 live in the U.S. A recent epidemiological survey revealed that autism affects approximately 1 out of every 600 children, and ASDs affect about 1 out of every 160 children (Chakrabarti & Fombonne, 2001).

Best practices in autism identify a whole-child approach to treatment as primary (Ruble & Brown, 2002). A whole-child approach requires access to specialists in behavior management, speech and language therapy, and occupational therapy. Other less traditional services such as respite care, in-home personal assistance, counseling, and support are also necessary for many families. Fortunately, these services are within the scope of the guidelines of Medicaid's Early and Periodic Screening, Diagnostic, and Treatment (EPSDT) service.

The aim of this study was to determine the utilization rate of behavioral health services by children with ASD over a six-year period and compare this rate to the expected number of children with ASD in the TennCare population.

Methods

TennCare data available from a previous investigation, the IMPACT Study (Heflinger, Northrup, Saunders, & Renfrew, 2000), were analyzed. The IMPACT study was conducted at Vanderbilt University's Institute for Public Policy Studies and was part of a national investigation that examined the impact of managed care on vulnerable populations. Children and adolescents with autism and

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Table 1
Autism Spectrum Disorders

	<i>Autistic Disorder</i>	<i>Asperger Disorder</i>	<i>Pervasive Developmental Disorder Not Otherwise Specified</i>	<i>Rett's Disorder</i>	<i>Childhood Disintegrative Disorder</i>
Disordered social interaction	Present	Present	Present	Present	Present ^b
Disordered communication	Present		Present ^a	Present	Present ^b
Restricted and repetitive behaviors	Present	Present	Present ^a		Present ^b
Age of onset	Prior to 36 months			Prior to 36 months	Between 2 and 10 years
Pattern of regression in several areas				Present	Present
Average intelligence		Present			
Incidence (Chakrabarti & Fombone, 2001)	16.8/10,000	8.4/10,000	36.1/10,000	1/10,000	1/10,000

^aOne of these must be present

^bTwo of these must be present

mental retardation serve as an additional population group not targeted in the original IMPACT Study. Existing TennCare enrollment and encounter data for the statewide population of children and adolescents who were Medicaid beneficiaries are available through TennCare files.

After files were extracted and cleaned, data on children with ASD were selected based on ICD-9 codes (U.S. Department of Health and Human Services, 1980) reported in the encounter/claims data. ASDs were identified by ICD-9 diagnostic codes 299.00 to 299.9.

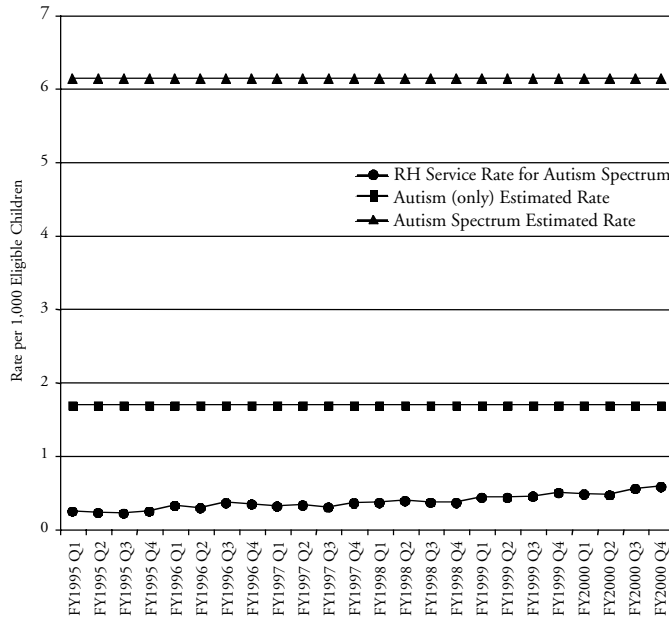
Results and Discussion

As shown in Figure 1, the rate at which children with an ASD received a behavioral health service was 0.24/1000 in FY1995 and 0.57/1000 in FY2000. Although the rate doubled over time, so did the number of children who participated in TennCare. This low rate of service use confirms the need for research on service use patterns such as access, type, duration, and continuity of services for children with ASD and the impact of Medicaid managed care on child and family outcomes.

Evaluating the impact of Medicaid managed care programs on the behavioral health care usage patterns of children with complex developmental disorders is critical. The purpose of this study was to describe the rate of service utilization of children with ASDs and compare this rate to the expected number of children with ASD participating in TennCare.

An unexpected finding was the low rate of children reported with ASD. Several possibilities may explain this finding. First, many families may receive services through their local school systems as part of the Individuals with Disabilities Education Act. Second, families may have difficulty locating specialists in ASDs to provide behavioral health services for their child. A third possibility suggests that although ASDs are described in the DSM-IV as a psychiatric disorder, they are also considered to be a developmental disorder. This dichotomy may result in services being disregarded by the managed care organizations and behavioral health organizations due to a lack of medical necessity. Or, service providers may be coding children as having a psychiatric disorder in order to receive reimbursement. Clearly, more information is needed to fully understand why children with ASDs are highly under-represented in this statewide data set.

Figure 1
Estimated vs. Actual Service Rate for
Children 0-17 Years with Autism



Although the number of children with ASD doubled over the years, the general TennCare population also doubled, suggesting that the proportional number of children seeking services did not increase over time. This trend contradicts data from the U.S. Department of Education and the California Department of Developmental Services (CDDS). These agencies have published reports documenting autism as the largest growing low incidence disability in terms of numbers of children receiving services (U.S. Department of Education, 1999). The CDDS reported a 273% increase in the number of services provided to children with ASD. More research on the types, patterns, and quality of service use and the impact of managed care on child and family outcomes is necessary.

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