

Complete methodology for, “Disparity in SED Recovery During A System of Care Mental Health Transformation.” *Journal of Applied Social Science*, forthcoming Fall 2013. Annette Grape, Kathleen C. Plum & Stephen L. Fielding.
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How we conducted the evaluation

Children’s Institute (CI) was subcontracted by Coordinated Care Services, Inc. (CCSI) to conduct this evaluation in collaboration with the community. CCSI contracts with Monroe County’s Office of Mental Health (MCOMH) to provide data management, training, and other services. The data collection package consists of questionnaires from Phase V of the National Evaluation, sponsored by the Center for Mental Health Services, and SAMHSA. Our data cover the period from June 2007 through August 2011. This evaluation was approved by the University of Rochester’s Research Subjects Review Board. In addition, SAMHSA has issued a confidentiality certificate to CI that protects the data from all subpoenas and other law enforcement queries. Neither CCSI nor MCOMH have access to any identifiable data elements.

Inclusion criteria

Eligibility requirements included families with youth between the ages of birth to 21 designated as having SED, entering care coordination, and residing in Monroe County. Families were excluded from enrolling into this evaluation if their services began more than 30 days before or after their service enrollment, or if their youth had a sibling already enrolled. Caregivers from 1270 families were asked if they would be willing to speak with an evaluator about enrolling into this study, and 257 provided informed consent along with a baseline interview.

Caregiver interviews

Caregivers were interviewed in their home, or other location of their choosing, every six months (within +42 days from the target date that was based on six month intervals from their baseline interview date) up to 3 years. They were encouraged to remain in the evaluation whether or not they continued to receive SOC services. Caregivers received a \$35 retail gift card per interview to compensate them for their time.

As per SAMHSA guidelines, the interviewers were contracted and drawn from the population of focus. Five of the six interviewers were people of color; they either had a family youth designated as SED or conducted professional work with these families. They were trained to collect evaluation interviews; training included role-playing, and initial field monitoring. They conducted the interviews using lap-top computer-assisted questionnaires. Caregivers were interviewed for about 1.5 hours on average and out of family earshot to ensure confidentiality. The interviewers uploaded the data to a central server within 24 hours of completing each interview.

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Behavioral and Emotional Rating Scale 2

The BERS-2 is designed to assess children's emotional and behavioral strengths. It has 5 subscales: 1) Interpersonal Strengths: ability to control emotions; 2) Family Involvement: relationship with family; 3) Intrapersonal Strengths: outlook on competence; 4) School Functioning: competence in school tasks; and 5) Affective Strengths: ability to express feelings toward others and to accept affection from others. The Strength Index is a composite, standard score combining the above subscales that we used for our analysis. “This score, which has a mean of 100 and a standard deviation of 15, is the most reliable and useful of all the scores generated on the BERS-2” (Epstein 2004: 27). A Strength Index above 90 is clinically significant for having overall strengths that greatly reduce the likelihood of having SED. In contrast, a Strength Index below 70 indicates a clinically significant greater likelihood of having SED.

Place

We derived place by using the residential ZIP Code reported by families when they began using services. We then used U.S. Census 2000 data to determine the median household income for each reported ZIP Code to create four ZIP Code groups: 1) Urban ZIP Codes with less than \$39,000 median household income (\$18,997 - \$29,544), 2) Urban ZIP Codes with \$39,000 or higher median household income (\$39,000 - \$47,396), 3) Suburban ZIP Codes (\$45,414 - \$82,000), and 4) Rural ZIP Codes (\$27,500 - \$87,126). We chose \$39,000 as the divide between low and high median household urban income since the next lower ZIP Code median was \$29,000—much closer to the 2010-2011 poverty guidelines for a family of four (\$22,000).

Data analysis

We provide cross-tabulated descriptive statistics for the demographics and background data in Tables 1 through 3. We used mixed models with repeated measures for the multi-variate analyses to plot the estimated marginal means in Figures 1 and 2. Mixed models is superior to general linear models for unbalanced designs, particularly those with a large proportion of missing data, as it better adjusts for biases due to missing data (Brown and Prescott 1999: 210). We set $\alpha = 0.10$ at the study's outset due to the small sample size, and since the consequences of committing a Type I error (i.e., a false positive) is not as critical as it would be in a clinical trial. We used statistical significance more as a guide to establish trends, rather than actual differences. We used SPSS (V19) software to run the analyses.

The Type III fixed effects analysis of main effects shows that there is no significant change in BERS overall strength scores in terms of the main effects of time ($F=1.7$, $P=0.14$) or race ($F=0.00$, $P=0.998$), but the main effects of place is significant ($F=2.6$, $P=0.05$). There is an additional interactive effect of race

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and place ($F=3.3$, $P=0.02$). Although time is not statistically significant in the overall model, it is for some groups. The Univariate Tests show that White youth from the Suburbs and Rural groups show significant BERS increases by 18 months ($F=2.5$, $P=0.03$; $F=2.3$, $P=0.04$, respectively), along with non-White youth from the High Income Urban group ($F=2.1$, $P=0.06$). However, there appears to be a regression to the mean by 30 months for all groups, except among White and non-White youth from the Rural group (the latter showing clinical improvement by 30 months).

Brown, Helen; and Robin Prescott. 1999: 210. *Applied mixed models in medicine*. Chichester; New York: J. Wiley & Sons.
Epstein, M.H. 2004: 27. *BERS-2: behavioral and emotional rating scale (2nd edition)*. Austin, TX: Pro-ed.