CHANGES IN CLINICAL FUNCTIONING OVER TIME

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Introduction

The DPES has been examining longitudinal changes in clinical functioning since its inception. The purpose of this brief report is to update and expand previous studies examining relationships between participating in the Dawn Project and clinical functioning over time.

Methods

The data reported in these analyses comes from interviews conducted with the caregivers of young people enrolled in the Dawn Project for the national evaluation. Interviews are conducted at the time of enrollment and at 6-month intervals thereafter. This paper reports findings from three distinct outcome measures assessing clinical functioning, psychiatric symptomatology, and behavioral and emotional strengths.

Child and Adolescent Functional Assessment Scale (CAFAS). The CAFAS (Hodges, 1994) assesses the degree to which emotional, behavioral, or substance problems are disruptive to functioning. The CAFAS, which is completed as part of the 6-month evaluation interviews and scored by the interviewer, provides detailed behavioral descriptions for multiple psychosocial domains. The most severe level of impairment for each domain is scored based on the previous 180-day period, with higher scores indicating greater impairment: 30 indicates severe disruption or incapacitation; 20 indicates moderate or persistent disruption; 10 indicates mild disruption; 0 indicates no disruption of functioning. Aggregating domain scores provides a total score that ranges from 0 to 240. An overall score from 0-10 indicates minimal to no impairment; 20-40 indicates mild impairment; 50-90 indicates moderate impairment; 100-130 indicates marked impairment; and 140 and higher indicates severe impairment.

Child Behavior Checklist (CBCL). The CBCL (Achenbach, 1991) is used to determine the level of behavioral and psychiatric symptoms in the young people enrolled in the longitudinal evaluation. Caregivers are asked to rate if 103 behavioral and psychiatric symptoms are not at all true, somewhat true, or very true of their child. The CBCL provides ratings of internalizing behaviors (e.g., withdrawal, somatic complaints, anxiety, and depression), externalizing behaviors (e.g., delinquency and aggression), and total problems. Scores on all scales can range from 50 to 100. Scores of 60 points or greater indicate clinically significant impairment.

Behavioral and Emotional Rating Scale (BERS). The BERS (Epstein & Sharma, 1998) assesses the emotional and behavioral strengths of young people enrolled in the Dawn Project. Caregivers are asked to determine whether the 52 items on the BERS are very much like their child, like their child, not much like their child, or not at all like their child. The BERS provides

an overall strength score as well as scores for interpersonal strengths, intrapersonal strengths, family involvement, school functioning, and affective strengths. Higher scores indicate greater strengths. The overall strength score can range from less than 70 to over 130. Scores below 70 indicate very poor strengths; scores from 70 to 79 indicate poor strengths; scores from 80 to 89 indicate below average strengths; scores from 90 to 110 indicate average strengths; scores from 111 to 120 indicate above average strengths; scores from 121 to 130 indicate superior strengths; and scores above 130 indicate very superior strengths.

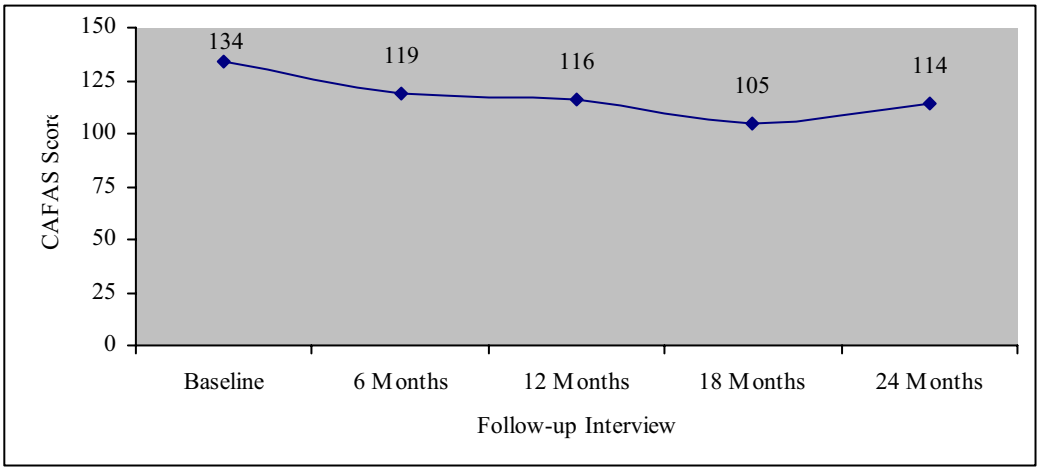
Study participants. To be included in the analysis, young people had to have data available for at least two interview time points from enrollment through 24 months.

Analysis. Longitudinal analyses were conducted with hierarchical linear modeling (HLM; Raudenbush & Bryk, 2002). We chose HLM over other analysis methods as HLM allows one to work with cases that may have missing data at one or more time points.

Results

CAFAS. Overall, young people in the Dawn Project had a statistically significant drop in CAFAS scores during the 24-month follow up period after controlling for demographic characteristics (see Figure 1 for a cross-sectional representation of CAFAS scores over the evaluation period). Additionally, young people referred from Child Welfare had CAFAS scores (M = 121.75, SD = 50.02) that were significantly lower than young people referred from other agencies (M = 140.31, SD = 47.33). Caucasian youth had CAFAS scores that were significantly higher (M = 144.74, SD = 47.87) than young people who were either African-American or biracial (M = 124.92, SD = 48.26). Youth who were younger upon enrollment in the Dawn Project had significantly higher CAFAS scores than older youth.

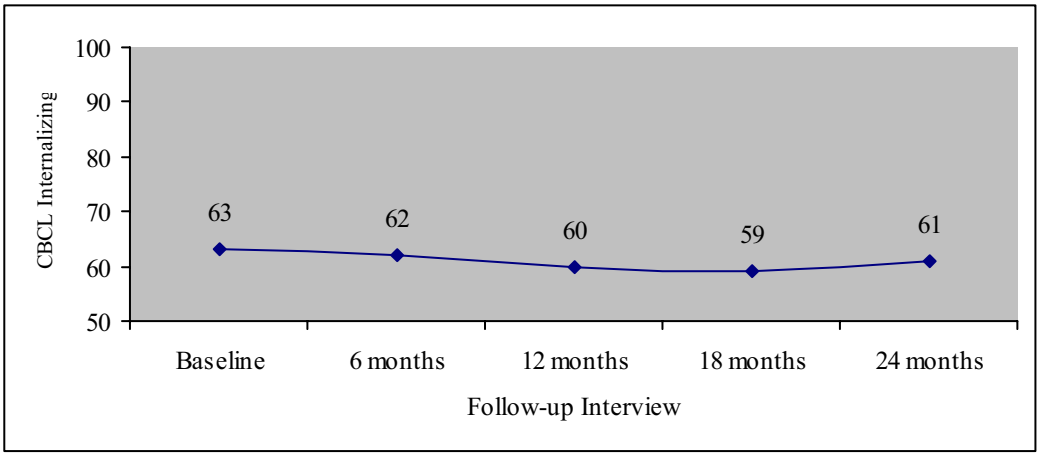
Figure 1. CAFAS scores over time.



CBCL Internalizing subscale. Overall, CBCL internalizing subscale scores showed a statistically significant decrease during the 24-month evaluation period. Additionally, Caucasian youth had a significantly higher CBCL internalizing subscale score (M = 65.73, SD = 11.72) than did African-American or biracial youth (M = 61.44, SD = 11.92). Demographic and referral

source variables did not affect change over time for CBCL internalizing scores (see Figure 2 for a cross-sectional representation of CBCL internalizing scores).

Figure 2. CBCL Internalizing subscale scores over time.



CBCL Externalizing subscale. Females had a significantly higher externalizing score (M = 73.90, SD = 10.66) than did males (M = 70.03, SD = 11.07). Caucasian youth had an average externalizing t-score that was significantly higher (M = 73.07, SD = 10.72) than African-American or biracial youth (M = 69.44, SD = 11.14). Being younger at enrollment also predicted higher baseline CBCL externalizing scores. The longitudinal analysis showed a statistically significant and positive change in Externalizing subscale scores during the 24-month evaluation period. When compared to young people referred from Mental Health, young people referred from the Child Welfare, Education and Juvenile Justice systems had significantly different patterns of overtime change in their externalizing scores (see Figure 3 for a cross-sectional representation of CBCL Externalizing scores by referral source). Additionally, Caucasian youth had a pattern of change significantly different from African-American or biracial youth (see Figure 4 for a cross-sectional representation of CBCL Externalizing subscale scores by race).

Figure 3. CBCL Externalizing subscale scores over time by referral source.

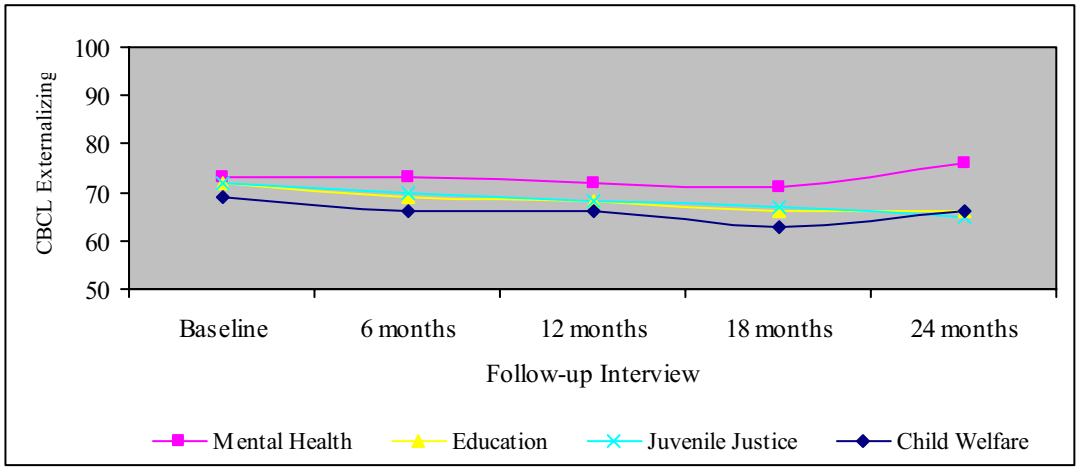
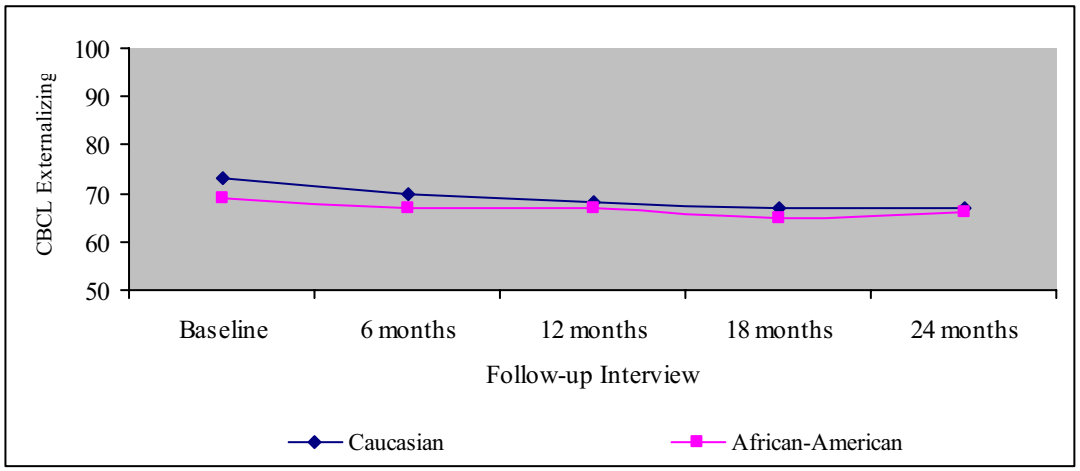


Figure 4. CBCL Externalizing subscale scores over time by race.



CBCL Total Problems. Overall, CBCL Total Problems scores decreased significantly over the 24-month evaluation period (see Figure 5 for a cross-sectional representation of CBCL Total Problems over time). When compared to young people referred to the Dawn Project from Mental Health (M = 74.70, SD = 8.33) young people referred from Child Welfare had significantly lower total problem scores at enrollment (M = 69.44, SD = 11.04). Also, females had significantly higher total problem scores at baseline (M = 73.13, SD = 10.74) than did males (M = 69.90, SD = 11.07). African-American and biracial youth had significantly lower total problem scores at enrollment (M = 68.51, SD = 11.14) than did Caucasian youth (M = 73.53, SD = 10.34). A significant decrease in Total Problems scores was also observed as age at enrollment increased. Over time, young people from both Juvenile Justice and Education had significantly different rates of change over the evaluation period than young people referred from Mental Health (see Figure 6 for a cross-sectional representation of change over time by referral source). Additionally, African-American and bi-racial youth had a significantly different rate of change over time than Caucasian youth (see Figure 7 for a cross-sectional representation of CBCL Total Problem scores over time by race).

Figure 5. CBCL Total Problem*s scores over time.*

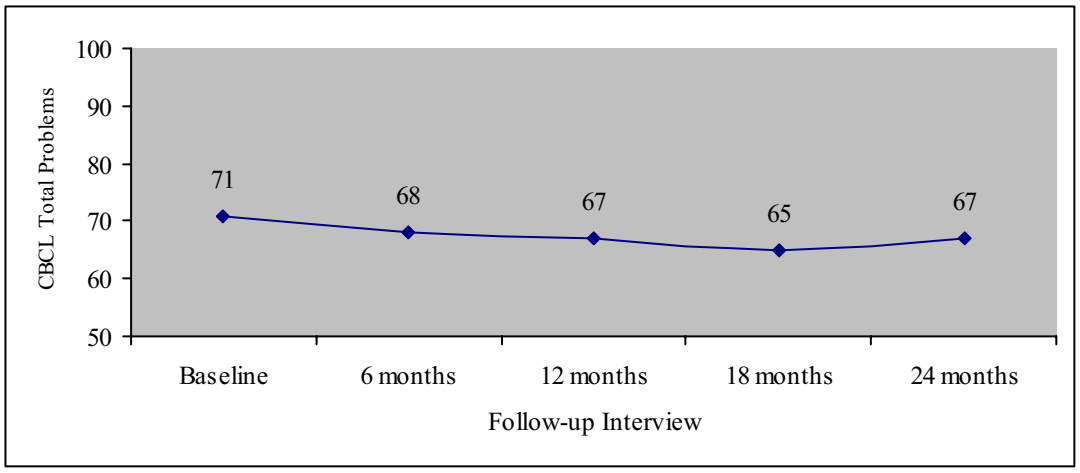


Figure 6. CBCL Total Problems over time by referral source.

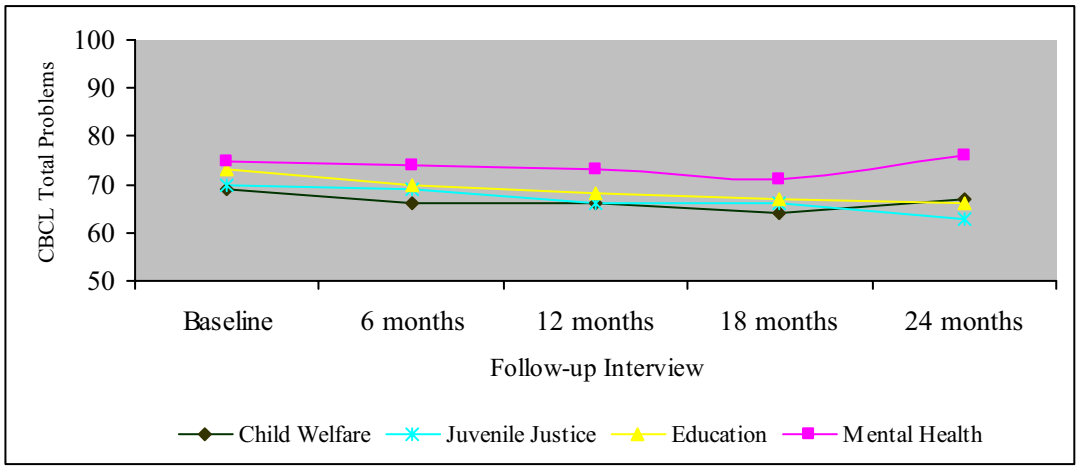
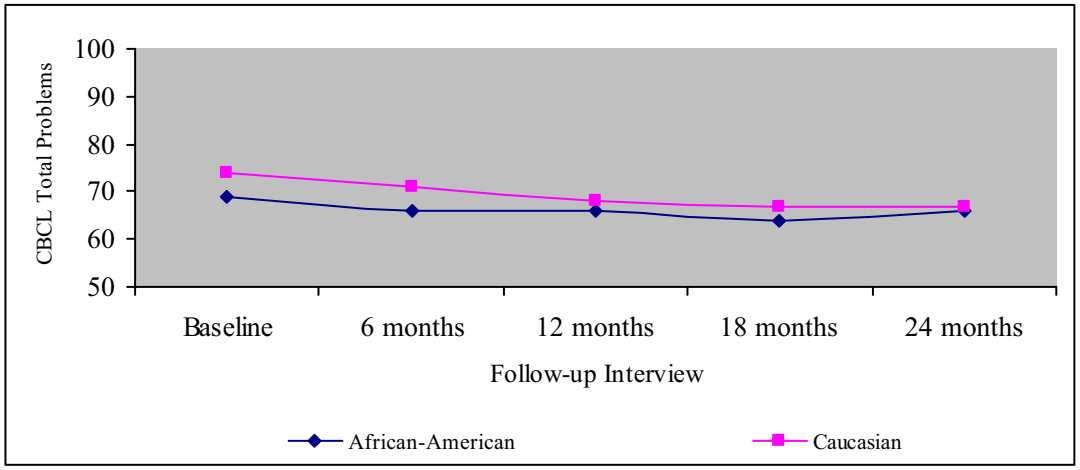


Figure 7. CBCL Total Problems over time by race.



BERS. Overall BERS Strength Quotient (SQ) scores were found to increase significantly over time (see Figure 8 for a cross-sectional representation of SQ scores over time). At baseline, males had SQ scores that were significantly higher (M = 91.18, SD = 17.00) than those of females (80.94, SD = 19.26). Caregiver ratings of overall strengths were significantly higher for African-American or biracial youth (M = 92.00, SD = 18.66) than were caregiver ratings for Caucasian youth (M = 83.99, SD = 16.63). Ethnicity did affect the rate of change over time with African-American or biracial youth showing a significantly different rate of change over time than Caucasian youth (see Figure 9 for a cross-sectional representation of SQ scores by race).

Figure 8. BERS Strength Quotient scores over time.

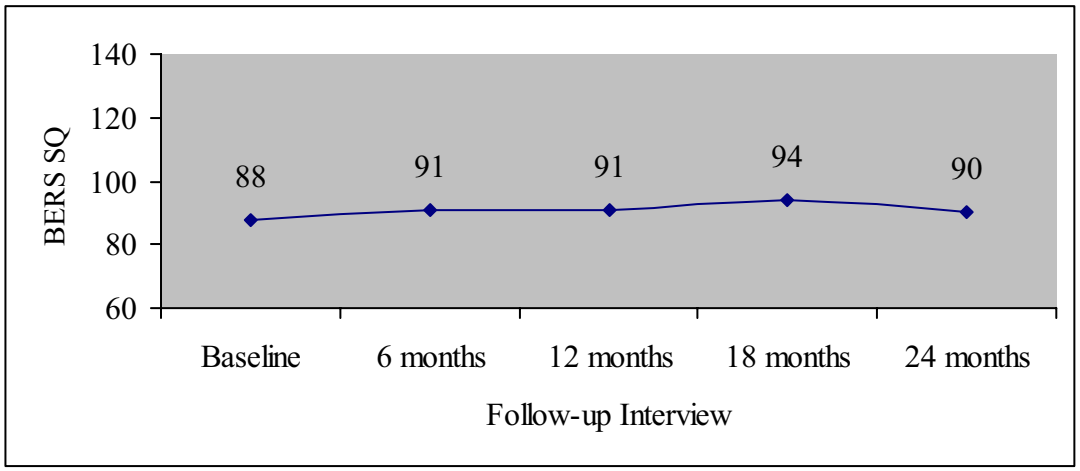
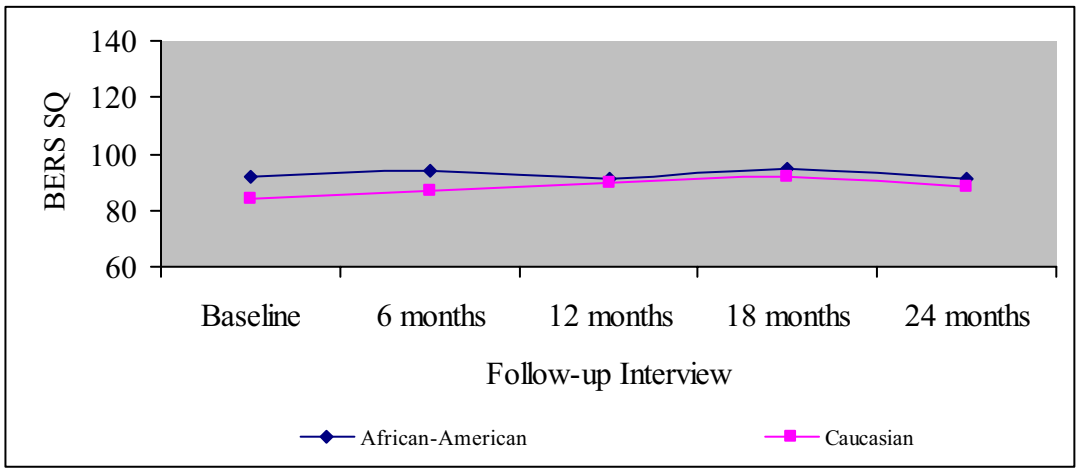


Figure 9. BERS Strength quotient scores over time by race.



Conclusions

A fundamental purpose of the Dawn Project is to improve functioning and strengths, while simultaneously decreasing impairment in the young people in the project. Ongoing analyses of the available data suggest that the Dawn Project is successful in reducing impairment in a number of domains among participating youth and adolescents. While there are differences among some demographic cohorts in the degree to which improvements are observed, overall, the available evidence is that the Dawn Project does lead to improvements in functioning, impairments, and strengths for the youth who participate.

References

Achenbach, T. M. (1991). *Manual for the Child Behavior Checklist/4-18 and 1991 Profile*. Burlington, VT: University of Vermont Department of Psychiatry.

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