

INDIANA CONSORTIUM FOR MENTAL HEALTH SERVICES RESEARCH

DAWN PROJECT EVALUATION STUDY, PUBLIC BRIEFING, SEPTEMBER 2005

EDUCATIONAL PROFILES AT ENROLLMENT

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Introduction

Systems of care have demonstrated improved outcomes for youth and families in a variety of domains; however, little empirical information is available about how these approaches improve school functioning. The purpose of this report is to describe the educational profiles of students upon their enrollment in the Dawn Project.

Methods

The outcome variables in this study (attendance, grades, and discipline) were derived by combining several items from the Educational Questionnaire (EQ), a 21-item scale developed by ORC Macro (2000) as part of the protocol for the national evaluation. The items on the EQ ask caregivers to rate their child's educational status and school performance during the previous 6 months. The three outcome variables used for this study, attendance, grades, and discipline, were each categorized into one of three values: below average functioning, average functioning, and above average functioning, as described below.

Attendance. Students were considered to have below average attendance if they were rated by their caregivers as having attended school less than 50% of all possible school days. A student received a rating of average attendance if the caregiver rating indicated that attendance was up to 75% of all possible school days. Caregiver ratings of either missing no school or attending school more than 75% of the time were considered to be above average attendance.

Grades. This variable was based on caregiver ratings of a student's average grades in school. This variable was considered below average if student grades were rated as being typically D's or F's, or if their performance was rated as being either unsatisfactory or needing improvement. Students rated by their caregivers as having typically C's and/or performing satisfactorily were considered to have average grades, while grades were categorized as above average when caregivers rated achievement as typically A's or B's.

<u>Discipline</u>. Discipline levels were based on the number of detentions, suspensions, or expulsions, as rated by caregivers. A student who had received out-of-school suspension or expulsion was considered to have below average discipline, where as a student who only received in-school detentions was considered to have average discipline. Students who had received no detentions, suspensions, or expulsions were rated as above average discipline.

The predictor variables for this study included demographic information, referral source, diagnosis, school quality, special education label, and ratings obtained from the several clinical instruments

<u>Child Behavior Checklist (CBCL)</u>. The CBCL is a caregiver report designed to measure competencies and behavioral and emotional problems among children ages 4 through 18 years. A Total Problem scale, derived from all of the syndrome scales is available; however, in the present investigation, only the Internalizing and Externalizing scales were used (Achenbach, 1991).

<u>Behavioral and Emotional Rating Scale (BERS)</u>. The BERS asks caregivers about a series of 52 strengths-related items. For the purposes of this investigation, only the overall Strength Quotient (SQ) ratings on all 52 items was used, as it is considered by Epstein and Sharma (1998) to be the best measure of a student's overall strengths.

<u>Family Assessment Device-General Functioning Scale (FAD-GFS)</u>. The FAD-GFS is a subscale of the Family Assessment Device that measures family functioning based on the six dimensions provided in the McMaster Model of Family Functioning (Epstein, Baldwin & Bishop, 1983).

<u>Family Resource Scale (FRS)</u>. The FRS is a 30-item scale that assesses adequacy of a family's resources during the previous six months (Dunst & Leet, 1987; ORC Marco, 2000).

School Quality. Caregiver assessment of school quality was determined from a question on the EQ. This item asks the caregiver to grade the school and how well it has met the child's needs using an A to F scale (A = excellent; B = good; C = fair; D = poor; F = failing).

Analysis. There were two phases to this study. First, descriptive statistics were calculated and reported in an effort to better understand the educational characteristics of students enrolling in the Dawn Project system of care (see Table 1). Second, ordinal logistic regression analyses were performed (see Tables 2 and 3) to determine the degree to which the variables of interest predicted grades, attendance, and discipline at the time of students' enrollment in the Dawn Project.

Results

Table 1 presents the educational characteristics of the three groups (below average, average, above average) at the time students enrolled in the Dawn Project. Attendance did not appear to be a primary concern, with most caregivers (72.3%) rating their children as having above average school attendance during the previous six months. On the other hand, discipline appeared to be more of a concern with over 47% of the sample demonstrating below average discipline (i.e., higher rates of school suspensions, detentions, and/or expulsions); however, slightly more than half of the sample was rated as having average (21.9%) or above average (30.8%) discipline. Academically, 60% of the sample was rated by their caregivers as having either average (33.0%) or above average (26.8%) grades, while 40% of the sample rated with below average grades (see Table 1). Students from minority backgrounds were more likely than Caucasian students to be rated with above average grades (χ^2 (2, N = 224) = 15.32, $p \le .001$).

Table 1. School functioning by demographic characteristics.

	Below Average		Average		Above average	
_	n	%	n	%	n	%
Attendance	23	10.27	39	17.41	162	72.32
Gender						
Male	14	8.59	29	17.79	120	73.62
Female	9	14.75	10	16.39	42	68.85
Race	23		39		162	
Caucasian	9	9.47	15	15.79	71	74.74
African-American/Biracial	14	10.85	24	18.60	91	70.54
Referral Source						
Child Welfare	2	3.08	11	16.92	52	80.00
Juvenile Justice	15	15.79	17	17.89	63	66.32
Education	4	9.30	10	23.26	29	67.44
Mental Health	2	9.52	1	4.76	18	85.71
Discipline	106	47.32	49	21.88	69	30.80
Gender						
Male	84	51.53	33	20.25	46	28.22
Female	22	36.07	16	26.23	23	37.70
Race						
Caucasian	48	50.53	18	18.95	29	30.53
African-American/Biracial	58	44.96	31	24.03	40	31.01
Referral Source						
Child Welfare	23	35.38	13	20.00	29	44.62
Juvenile Justice	51	53.68	19	20.00	25	26.32
Education	23	53.49	13	30.23	7	16.28
Mental Health	9	42.86	4	19.05	8	38.10
Grades	90	40.18	74	33.04	60	26.79
Gender						
Male	64	39.26	52	31.90	47	28.83
Female	26	42.62	22	36.07	13	21.31
Race						
Caucasian	50	52.63	31	32.63	14	14.74
African-American/Biracial	40	31.01	43	33.33	46	35.66
Referral Source						
Child Welfare	18	27.69	23	35.38	24	26.92
Juvenile Justice	46	48.42	27	28.42	22	23.16
Education	16	37.21	17	39.53	10	23.26
Mental Health	10	47.62	7	33.33	4	19.05

Table 2. Ordinal logits of grades and discipline.

	Discipline coefficient	Grades coefficient	
Demographics			
Gender	0.51	-0.20	
Race	-0.10	0.79*	
Age at Enrollment	-0.09	-0.14*	
Special Education Designation	-0.70*	-0.31	
Referral Source ^a			
Juvenile Justice	-0.53	087*	
Education	-0.61	-1.10*	
Mental Health	0.22	-0.49	
Diagnostic Categories			
Affective Psychotic Disorders	-0.11	-0.05	
Attention Deficit Disorders	-0.23	-0.38	
Conduct-Based Disorders	0.09	-0.31	
MR/DD/LD Disorders	0.62	-0.31	
Reactive Stress Disorders	0.34	-0.14	
Other Disorders	0.12	0.27	
Clinical Measures			
CBCL Internalizing Scale	0.05**	0.01	
CBCL Externalizing Scale	-0.06**	-0.03	
CAFAS Total Score	-0.01	0.01	
BERS Strength Quotient	0.01	0.03*	
FAD Total Score	0.12	-0.46	
FRS Total Score	-0.36	-0.11	
School Measures			
Rating of School Quality	-0.17	-0.45***	
γ2	62.51***	66.39***	
Nagelkerke R ²	0.13	0.14	

^{a.} Child Welfare served as the comparison category

<u>Discipline</u>. Several predictors were significantly associated with discipline ratings (see Table 3). First, students with a special education label were more likely to be in the below average discipline group, while controlling for other predictors in the model. Additionally, internalizing and externalizing behaviors, as measured by the CBCL, were also found to significantly predict discipline group membership. Specifically, students with higher internalizing scores were more likely to be in the above average discipline group, while students with higher levels of externalizing symptoms were more likely to be in the below average discipline group. Findings also indicated that the probability of being in the above average group steadily increases as internalizing T scores increase, controlling for all other predictors in the model. Conversely, with externalizing T scores, the chances of being in the above average discipline group steadily decrease as scores increase.

Grades. A number of variables were significant predictors of grade performance (see Table 3). First, students from a minority background were more likely than Caucasian students to have average grades, while Caucasian youth had a higher probability of having below average grades. Second, when compared to youth referred to the Dawn Project from Child Welfare, students referred from both Education and Juvenile Justice were more likely to be rated as

^{*} $p \le .05$. ** $p \le .01$. *** $p \le .001$.

having below average grades, controlling for all other predictors in the model. Third, the probability of being in the above average grade group steadily decreases with age at enrollment. Conversely, the probability for being in the below average grade group increases with age at enrollment, while the probability of being in the average grade group remains somewhat constant across the age span. Fourth, students were more likely to be in the high or average grade performance groups if their caregivers rated the school as performing at either an 'A' or 'B' level. If caregivers rated the school as performing at a 'C' level or below, students were more likely to be in the below average grade group. Finally, students with a higher level of overall strengths (as measured by the BERS) were more likely to be in either the average or high grade performance groups.

Table 3. Predicted probabilities of group membership for significant variables.

	Below	Average	Above
	Average		Average
Discipline			
Special Education			
Yes	53.37	25.08	21.55
No	36.30	28.14	35.56
CBCL			
Internalizing T Scores			
50	62.10	21.89	16.01
70	37.85	28.25	33.80
90	18.58	23.65	57.77
Externalizing T-Scores			
50	18.44	23.56	58.00
70	43.46	27.65	28.89
90	72.33	17.00	10.67
Grades			
Race			
Caucasian	48.61	36.20	15.19
African-American/Biracial	30.00	41.67	28.34
Referral Source			
From Juvenile Justice	49.62	35.70	14.67
From Another Agency	29.37	41.68	28.95
From Education	59.22	30.34	10.45
From Another Agency	32.70	41.45	25.85
Age at Enrollment			
8	23.98	41.02	35.00
12	35.68	40.88	23.45
16	49.37	35.80	14.84
Parent Rating of School Performance			
A	23.59	40.98	35.43
В	32.54	41.47	25.99
С	42.98	38.67	18.34
D	54.08	33.34	12.57
F	64.80	26.78	8.43
BERS SQ	-		
40	68.25	24.42	7.32
70	49.73	35.62	14.66
100	31.27	41.54	27.18
130	17.31	37.89	44.80

Note. Predicted probabilities indicate the chance of being in a given group.

Conclusions

The findings presented here indicate that that discipline problems were more common among students entering the system of care than attendance problems, while most students were performing academically at an average or above average level. Additionally, minority students were more likely to have above average grades, while Caucasian students were more likely to have below average grades. Compared to students from child welfare, students from both education and juvenile justice were more likely to have poor grades. Students who were younger upon enrollment in the Dawn Project were more likely to have better grades, as were students whose caregivers rated the school highly. Finally, having a greater number of strengths was found to be associated with average academic performance or above. Somewhat surprising was the fact that scores on the FAD-GTS, and FRS were generally not predictive of grades or discipline.

The findings from this exploratory study need to be interpreted with some caution. First, caregivers' self-report of the child's school functioning is limited to respondent perceptions. Using a single measure of school functioning based on second party self-report may fail to capture the depth or breadth of school characteristics of participating children and adolescents. Second, attendance data are skewed as the interview questions about attendance do not fully capture a range of attendance that might discriminate among respondents.

References

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