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Utility of the Daily Adjustment Indicators (DAI) for Assessing Juveniles in Community-Based Care.

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This paper discusses the results of a study that investigated youth and adolescent psychosocial variables associated with community exclusion and whether there are consistent pathways of exclusion associated with those psychosocial variables or clusters of variables. The investigators obtained a complete set of demographic data on 35 adolescents served in two group living programs. The group living programs were designed to integrate fully these adolescents into all aspects of community life, including public education. The youth were described as uncontrollable, demonstrating disorders of conduct, including aggression, assault, property damage, law violation, and inappropriate sexual behavior, with most having more than one prior psychiatric hospitalization. Results from the study indicated that while demographic variables had little utility to predict which adolescents would be excluded from community settings (only the number of prior hospitalizations was correlated with the criterion variables), several items from the Daily Adjustment Indicators instrument were useful. A composite of these items (physical aggression, verbal aggression, sexual acting-out, anxious behavior, and police contact) was substantially correlated with both Sutter-Dyberg Student Behavior Inventory Intensity and Problem scores. (CR)
Utility of the Daily Adjustment Indicators (DAI) for Assessing Juveniles in Community-Based Care

Authors

Introduction

In 1984, the U.S. Congress expressed a growing concern regarding the mental health status of children and youth with serious emotional and behavioral disorders, and the system responsible for serving these youth. Under the auspices of the National Institutes of Health, Mental Health Branch, the Child and Adolescent Service System Program (CASSP) was established to promote a comprehensive working model of service provision. As originally presented, this "model" was not intended as a static product, but as a set of guidelines and principles in service of a process of research-driven, bottom-up service system improvement.

Historically, children who suffer from the debilitating influences of serious emotional disturbances have not received services outside very restrictive and controlling settings, and very little meaningful data has been collected which promotes informed treatment or public policy judgments or decisions. Most critically, there exists a serious lack of data regarding how to best serve these youth. Research efforts have principally focused on describing these youth in terms of gross demographic variables and service usage.

The descriptive research approach has provided some basic information about these youth; however, it has not provided much useful information regarding the relative contribution of various psychosocial variables in the process of community integration or exclusion. Identifying the pathways leading to community exclusion, based upon unique youth psychosocial variables, could inform both treatment and policy judgments regarding system needs and improvements.

Purpose
These data are part of an evolving project designed to investigate two related questions: (a) What youth and adolescent psychosocial variables are associated with community exclusion? and (b) Are there consistent pathways of exclusion associated with those psychosocial variables or clusters of variables?

**Method**

**Subjects**

The investigators obtained a complete set of demographic data on thirty-five adolescents served in two group living programs. The group living programs were designed to fully integrate these adolescents into all aspects of community life, including public education. The adolescents served by these two programs were either returned to the state, from out-of-state restrictive residential treatment centers, or placed in the group living programs to prevent out-of-state placements. These youth were described as uncontrollable, demonstrating disorders of conduct, including aggression, assault, property damage, law violation, inappropriate sexual behavior, with most having more than one prior psychiatric hospitalization.

**Measurement/Instrumentation**

In an attempt to identify adolescent behaviors associated with functional problems in the two most influential contextual settings in which youth must participate, the following instruments were employed:

- **Daily Adjustment Indicators** (DAI; Burchard, 1990). The DAI is a 25 item behavior checklist designed to be completed by adult caretakers on a daily basis. In this present study, monthly aggregates formed the basic unit of DAI analysis. The score for the adolescents during the second month on each behavioral item was used as a concurrent and potentially predictive variable with the Sutter-Eyberg scores described below. The second full month of data was chosen in an attempt to control for variations in behavioral responding due to a new living environment.

- **Sutter-Eyberg Student Behavior Inventory** (SESBI; Sutter & Eyberg, 1992). The SESBI is a 36 item behavior checklist that allows the teacher to rate each child's behavior from never to always. This inventory also rates a second dimension by asking: Is this [behavior] a problem for you? Teachers completed this checklist every other month. This measure includes a total problem score and a total intensity of behavior score for each adolescent. In order to maintain temporal consistency with the DAI data collection, each adolescent's primary teacher completed this checklist at the end of the second month of school. Total "problem" and "intensity" scores formed the basic unit of analysis.
scores formed the basic unit of analysis.

- **Community-Oriented Programs Environment Scale** (COPES; Moos, 1987). This instrument, designed for community-based treatment programs, includes 100 items and 10 subscales. Youth rate their living environment every month. Again, total scores associated with the second month formed the basic unit of analysis.

**Results**

Table 1 shows the means and standard deviations as well as the correlations between the demographic variables and the SESBI scores. Of these, only the number of prior hospitalizations was significantly correlated with the SESBI scores.

Table 2 shows the univariate statistics for and correlations between the components of the DAI and the SESBI. Six of the components were significantly correlated with both of the SESBI scores (marked with *). These six were aggregated into a composite score, and the correlations between this composite score and the SESBI are shown near the bottom of Table 2.

Knowing that the number of prior hospitalizations was the only demographic variable correlated with the SESBI scores, and that these scores were also correlated with the DAI Composite score, a series of multiple regression analyses were completed to examine the incremental utility of the DAI composite score, and to explore the possibility of an interaction between the DAI composite score and selected demographic variables (e.g., number of prior hospitalizations, gender, age, and the COPES).

Table 3 shows the results of a hierarchical regression analysis used to examine the incremental utility of the DAI composite score relative to the number of prior hospitalizations, and whether there was an interaction between these two variables as they relate to the Sutter-Eyberg Problems score. As that table shows, the R square of the two-predictor model was significantly larger than of the model including only the number of prior hospitalizations, indicating that the DAI composite score has independent predictive utility. Further, there is a significant interaction of these variables, as shown in Step 3 of the analysis. Figure 1 represents the form of this interaction, by plotting the simple regression line of the DAI composite onto Sutter-Eyberg Problems for three different values of the number of prior hospitalizations, at one standard deviation above the mean of priors, at the mean of priors, and at one standard deviation below the mean of priors. As the figure shows, the DAI composite score is a better predictor of Sutter-Eyberg Problems for clients with higher numbers of prior hospitalizations (the regression slope is not different from 0.0 for the low priors). Parallel analyses for the Sutter-Eyberg intensity showed that while
inclusion of the DAI composite scores did increase the fit of the model above, when only the number of prior hospitalizations was included (R squared increased from .10 to .55, p < .001), there was no interaction of priors and the DAI for this criterion variable.

Table 4 shows the results of a hierarchical regression analysis used to examine whether there was an interaction between gender and the DAI composite score, as they relate to the Sutter-Eyberg Problem score. As that table shows (Step 3), there is a significant interaction of these variables. Figure 2 represents the form of this interaction, by plotting the simple regression line of the DAI composite score onto Sutter-Eyberg Problems for males and females as the figure shows, the DAI composite score is a better predictor of Sutter-Eyberg Problems for males (the regression slope is not different from 0.0 for females). Parallel analyses for the Sutter-Eyberg Intensity showed that while inclusion of the DAI composite score did increase the fit of the model above that including only the number of prior hospitalizations (R square increased from .03 to .44, p < .001), there was no interaction of Priors and the DAI for this criterion variable.

Additional multiple regression analyses revealed that there was no interaction between the DAI composite and age nor the COPES score, for either Sutter-Eyberg Intensity or Problems.

Conclusions

These results demonstrate that while demographic variables have little utility to predict which adolescents will be excluded from community setting (only the number of prior hospitalizations was correlated with the criterion variables), several items from the DAI were useful. A composite of these items (physical aggression, verbal aggression, sexual acting-out, anxious behavior, and police contact) was substantially correlated with both the Sutter-Eyberg Intensity and Problem scores.

Further, with respect to the SESBI score, this DAI Composite showed interactions with both gender and number of prior hospitalizations. The patterns of these interactions raised the possibility that different patterns of behavior may serve as better predictors for females than males, and for those with fewer prior hospitalizations.

Based on these findings, we would like to encourage the further exploration of the utility of the DAI and the SESBI for studying this population. These behavior-observational instruments appear to have potential to help identify the pathways associated with community exclusion of youth with serious emotional or behavioral disturbances.

References


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