Evaluating the Effectiveness of Child Residential Treatment Programs to Improve Functional Outcomes

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OBJECTIVE

Serious emotional disturbance (SED) in children can lead to further developmental issues and affect social and family dynamics as well as performance in school. To prevent deterioration of a child's condition, appropriate diagnosis and treatments are needed. Residential treatment (RT), for children ages 6 to 14 with SED, needs to be evaluated using functional outcomes assessment to determine the appropriateness of level of care. The study used a single subject retrospective review design and analysis of functional outcomes based on a pre- and post-evaluation using the Child and Adolescent Needs and Strengths Assessment (CANS MH 2008) tool.

BACKGROUND

- In the United States, approximately 20% of children are diagnosed with a mental health disorder each year (Perou et al., 2013).
- SED in children can lead to further developmental issues and affect social and family dynamics and performance in school.
- The criterion for admission to an RT program includes any of the following.
  - The child or youth is a danger to self or others,
  - The child or youth exhibits aggression or assaulting others, and
  - The child or youth's behavior is destructive or significantly disruptive to the community, school, or family unit (Abt Associates, 2008).
- To prevent deterioration of a child's condition, appropriate diagnosis and treatment are needed.
- Studies evaluating effectiveness of outpatient psychotherapy and cognitive behavioral therapy far outnumber those for RT, especially in young children.
- Despite the lack of robust evidence, RT programs remain the preferred choice for children with SED (Cuthbert et al., 2011).
- Further research is needed to determine the efficacy of RT programs to treat children with SED.

PURPOSE

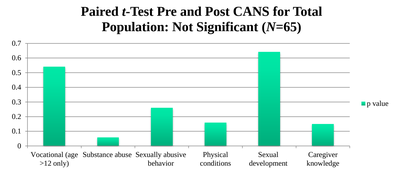
- There is disagreement concerning the effectiveness of RT for children (DHHS, n.d.; McNeal et al., 2006).
- The research question asked in this study was to what extent the use of RT programs affect functional outcomes in a pediatric population.
- The null hypothesis being tested is the use of RT does not affect functional outcomes in the pediatric population.
- This study was approved and given exempt status by the A. T. Still University Institutional Review Board.

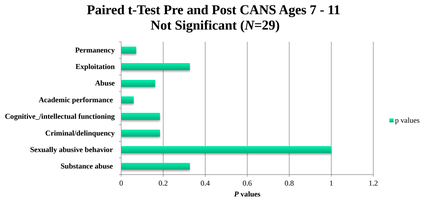
METHODS

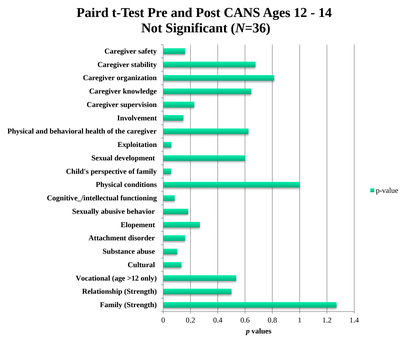
- The study used a single subject retrospective review design and analysis. The study used a purposive sampling methodology.
- Inclusion criteria:
  - Aged 6–14 years; Had a diagnosis of SED within the study period; Admitted to a mental health RT program during the study period
  - Continuously enrolled in the state of Nebraska Medicaid plan from January 1, 2011 to December 31, 2013; and,
  - Was administered at least two functional outcome assessments at least 10 days apart.
- Exclusion criteria:
  - Had a diagnosis of autism, mental retardation, seizure disorders, trauma related developmental disorders, Tourette's syndrome; and
  - Had only an initial assessment.
- Sixty-four children met the inclusion criteria, one child was admitted to the RT twice during the study period; therefore, the number of records included in the study was 65.

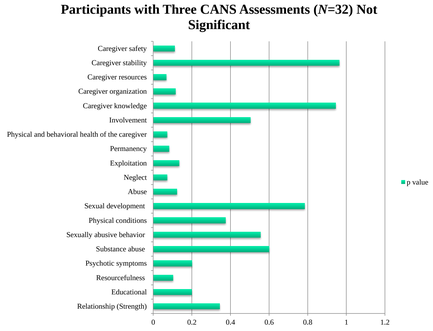
INSTRUMENTATION

- The study used the Child and Adolescent Needs and Strengths Assessment (CANS MH 2008) tool for pre- and post-intervention evaluation of the study population. The CANS is an open domain functional outcome and assessment tool that incorporates identification of needs and strengths for children and adolescents (The Praed Foundation, n.d.).
- The CANS evaluates six domains: strength domain, problem presentation, risk behavior, function, child safety, and family/caregiver needs and strengths. Each domain consists of several assessment items, 47 in total, with four possible ratings per question (Lyons, 2008).









RESULTS

- The age range was 7 -14 with a mean age of 11.71 (*N*=64).
- Results of the paired samples *t*-test (α=0.05) showed 41 of the 47 questions as having statistically significant improvement between pre- and post-CANS and six did not (Graph 1 on 6 n.s. items).
- For ages 7 -11 (*N*=29), 38 of the 46 questions had statistically significant improvement (Graph 2 on 8 n.s. items).
- For ages 12- 14 (*N*=36), 27 of the 47 questions had statistically significant improvement (Graph 3 on 20 n.s. items).
- An ANOVA (α=0.05) for participants (*N*=32) who had three CANS assessments showed 28 of the 47 items had statistically significant improvement. Nine items showing no statistically significant improvement were in the caregiver domain. (Graph 4 on n.s. items)

CONCLUSION

- The results showed statistically significant improvement of 41 functional assessment questions for children ages 7 – 14 who were admitted and discharged from an RT program.
- Of the six functional items that did not show statistically significant improvement from baseline to discharge, five items had greater than 70% of the participants scoring zeros. Baseline scores of zero were for vocational, substance abuse, sexually abusive behavior to others, physical health chronic or acute conditions, and sexual development.
- Caregiver knowledge of child's strengths and problems showed no statistically significant improvement and more investigation is needed to determine if there is an opportunity to improve the caregiver component of the RT program.
- There were significant differences between pre- and post-assessment for children ages 6 to 14. Additional analysis was conducted on ages 6 to 11 and 12 to 14 to determine if age was a factor in the improvement of functional outcomes. Significant differences were seen in both age groups; however the total number of assessment items showing significant improvement was seen in ages 6 to 11 years.
- Further research needs to be conducted to determine the value of RT for children ages 12 to 14 and if length of stay affects functional outcomes.

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