Child and Adolescent Needs and Strengths (CANS) for Tennessee's Juvenile Justice Population

Reform Goals

The Juvenile Justice Reform legislation adds two new requirements:

- 1. The use of validated risk and needs assessment in making decisions and recommendations regarding programming and treatment; and
- 2. The risk and needs assessment tool must periodically undergo a validation study to ensure that the risk and needs assessment is predictive of the risk of reoffending of the population on which the tool is being administered.

The CANS

The Tennessee Administrative Office of the Courts (AOC), the Department of Mental Health and Substance Abuse Services (TDMHSAS), and the Department of Children's Services (DCS) are recommending the Juvenile Justice Child and Adolescent Needs and Strengths (JJ-CANS 2.0) instrument. The Child and Adolescent Needs and Strengths (CANS) instrument was developed to support decision making, including service planning and level of care, as well as to facilitate quality improvement initiatives and to allow for the monitoring of outcomes¹. Versions of the CANS are currently being used statewide in 39 states, and at the organizational-level or higher in all 50 states, with applications in child welfare, mental health, juvenile justice, and early intervention². The JJ-CANS 2.0 assesses child and adolescent functioning in 5 major life domains: strengths, emotional and behavioral needs, risk behaviors, juvenile justice, and trauma experiences.

Reliability of the CANS

The CANS has demonstrated reliability. Several roles including clinicians, researchers, and caseworkers have been trained to reliably use the CANS³. The average inter-rater reliability of the CANS is 0.75 with vignettes; the reliability is higher (0.84) with case records and can be above 0.90 with live cases⁴. Domains within the comprehensive CANS have shown good internal consistency⁵. The CANS is auditable and audit reliabilities demonstrate that the CANS is reliable at the item level^{3,4,6}.

Validity of the CANS

CANS dimension scores have been shown to be valid outcome measures in residential treatment, intensive community treatment, foster care and treatment foster care, community mental health, and juvenile justice programs⁴. Studies have demonstrated the CANS validity, or the ability to measure youth and their caregiver's needs and strengths⁷The CANS assessment has also been used to distinguish needs of youth engaged by juvenile justice and in urban and rural settings^{8,9}.

Validation studies on the development of the CANS has established its ability to predict a number of important outcomes for youth, including:

- 1. Re-arrest & school suspension⁸
- 2. Placement disruption¹⁰
- 3. Psychiatric hospitalization⁹ & psychiatric rehospitalization¹¹
- 4. Psychotropic medication use¹²

Periodic Evaluation

The Administrative Office of the Courts and TN's Dept of Mental Health and Substance Abuse services has partnered with the Vanderbilt Center of Excellence and Vanderbilt University researchers to conduct an ongoing evaluation on the use of the JJ CANS among juvenile justice involved youth. Studies will be conducted to assess the predictive validity specifically with respect to youth recidivism in Tennessee, along with ongoing training of all Court staff to ensure interrater reliability.

References

- ¹Lyons, JS (2009). *Communimetrics: A theory of measurement for human service enterprises.* New York: Springer.
- ² Where else is the CANS used? (2018, November 1). Retrieved January 6, 2020, from https://praedfoundation.org/wp-content/uploads/2018/11/CANS-Map-072018.pdf.
- ³ Anderson, RL, Lyons, JS, Giles, DM, Price, JA, Estes, G. (2003). Examining the Reliability of the Child and Adolescent Needs and Strengths-Mental Health (CANS-MH) Scale from two perspectives: A comparison of clinician and researcher ratings. *Journal of Child and Family Studies*, 12, 279-289.
- ⁴Child and Adolescent Needs and Strengths. Retrieved January 7, 2020, from https://praedfoundation.org/project/child-and-adolescent-needs-and-strengths-2/.
- ⁵ Kisiel, C, Patterson, N, Torgersen, E, den Dunnen, W, Villa, C, Fehrenbach, T. Assessment of the complex effects of trauma across child serving settings: Measurement properties of the CANS-Trauma Comprehensive. *Children and Youth Services Review*, 86, 64-75.
- ⁶ Lyons, JS, Rawal, P, Yeh, I, Leon, SC & Tracy, P. (2002). Use of Measurement Audit in Outcomes Management. *Journal of Behavioral Health Services & Research*, 29(1), 75-80.
- ⁷ Lyons, JS, Weiner, DA & Lyons, MB. (2004). Measurement as communication in outcomes management: The Child and Adolescent Needs and Strengths (CANS). *The Use of Psychological Testing for Treatment Planning and Outcomes Assessment*. 2. 461-476.
- ⁸ Lyons, JS, Griffin, G, Quintenz, S, Jenuwine, M, Shasha, M. (2003). Clinical and Forensic Outcomes from the Illinois Mental Health Juvenile Justice Initiative. *Psychological Services*, 54(12), 1629-1634.
- ⁹ Anderson, RL, & Estle, G. (2001). Predicting level of mental health care among children served in a delivery system in a rural state. *Journal of Rural Health*, 17, 259-265.
- ¹⁰ Weiner, D.A., Leon, S.C., & Steihl, M. (2011). Demographic, clinical, and geographic predictors of placement disruption among foster care youth receiving wraparound services. *Journal of Child and Family Studies*. 20, 758-770
- ¹¹ Fontanella, C.A. (2008). The influence of clinical, treatment, and healthcare system characteristics on psychiatric readmission of adolescents. American Journal of Orthopsychiatry, 78, 187-198.
- ¹² Rawal, P, Lyons, JS, MacIntyre, J, Hunter, JC. (2003). Regional variations and clinical indicators of antipsychotic use in residential treatment: A four state comparison. Journal of Behavioral Health Services and Research 31. 178-188.