Implementation of a Common Assessment Tool and Quality Management Process across Child Service Systems: Child and Adolescent Needs & Strength (CANS)

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Introduction

Like many states, Indiana is transforming its behavioral health system. Indiana's transformation builds on a foundation of cross-system and family collaboration which was used to develop many local systems of care and a statewide early identification and intervention initiative for children in the child welfare system (Walton, 2006). A state Social, Emotional, and Behavioral Health Plan (Interagency Task Force, 2006) includes multiple strategies of change: performance based contracting, carving behavioral health into Medicaid managed care, implementing a common assessment tool and quality management processes across service systems, and initiating a quality service case review process.

An interagency team is working together to implement a common assessment tool and quality management processes across state child service systems: mental health and addiction, Medicaid services, child welfare, education, juvenile justice and corrections. This paper describes development of the Indiana version of the Child and Adolescent Needs and Strength (CANS; Lyons, Griffin, Fazio, & Lyons, 1999; Lyons, 2004) and the implementation plan.

A Common Cross System Assessment Tool

The CANS is an assessment tool that describes the needs and strengths of youth and their caretakers. The tool has evolved from earlier work in modeling decision-making for psychiatric services and the Childhood Severity of Psychiatric Illness (CSPI; Lyons, 1998). The CSPI, developed to assess those dimensions crucial to good clinical decision-making for expensive mental health service interventions, proved useful in reforming decision making for residential treatment (Lyons, Mintzer, Kisiel, & Shallcross, 1998) and for quality improvement in crisis assessment services (Lyons, Kisiel, Dulcan, Cohen & Chesler 1997; Leon, Uziel-Miller, Lyons & Tracy, 1998). The strength of the measurement approach is face validity and easy use, while providing comprehensive information regarding the clinical status of the child.

Building on the methodological approach of the CSPI, the CANS expands the assessment to include a broader conceptualization of needs and adds an assessment of strengths. The tool is designed to be used either prospectively for decision support during the process of planning services or retrospectively based on the review of existing information for use in the design of high quality systems of services. The CANS provides a comprehensive and contextual understanding of the needs of youth and informing decisions (Winters et al., 2005).

Reliability. Testing of the reliability of the CANS in its applications for developmental disabilities and mental health indicate that this measurement approach can be used reliably by trained professionals and family advocates. An interrater reliability of .74 on clinical vignettes and .85 on clinical cases has been demonstrated. There is also preliminary evidence of consistency reliability (Winters, Collett & Myer, 2005).

Structure. Due to its modular design, the tool can be adapted for local applications without jeopardizing its measurement properties. The dimensions and objective anchors used in the CANS are developed by focus groups with a variety of participants including families, representatives of the provider community, case managers, and staff. The goal of the measurement design is to ensure participation of representatives of all partners to begin building a common assessment language. Indiana's CANS is a comprehensive multi-system tool. A shorter reassessment will be used to modify care plans, inform changes in level of care, and measure outcomes. Indiana's CANS tool includes the following domains: Life Domain Functioning, Child Strengths, Acculturation, Caregiver Strengths and Needs, Child Behavioral/Emotional Needs, and Child Risk Behaviors. For children with specific needs, additional

items are completed in attached modules related to school functioning, developmental needs, substance use, trauma, sexually aggressive behavior, juvenile justice, runaway and fire setting.

Rating. Unless otherwise specified, each item is rated based on the last 30 days. Each of the dimensions is rated on a 4-point scale after routine service contact or following review of case files. The basic design is that '0' reflects *no evidence*, a rating of '1' reflects a *mild degree* of the dimension, a rating of '2' reflects a *moderate degree* and a rating of '3' reflects a *severe or profound degree* of the dimension. Another way to conceptualize these ratings is that a '0' indicates *no need for action*, a '1' indicates a need for *preventive services or watchful waiting* to see whether action is warranted in the future, a '2' indicates a *need for action*, and a '3' indicates the need for either *immediate or intensive action*. Strengths are rated in the opposite manner to maintain consistency across the measure. Patterns of scores from domains are used to create algorithms that inform level of care decisions (e.g. counseling supportive case management, intensive community based services, out of home services).

Applications. A set of possible interrelated activities based on the CANS assessment tools is reflected the following chart. Total Clinical Outcome Management (TCOM; Lyons, 2004) uses information from the CANS to support decisions, implement quality improvement activities and monitor outcomes at the youth and family, program, and system levels.

Table 1
Total Clinical Outcome Management (TCOM) Grid of Activities

	Family & Youth	Program	System
Decision Support	Service Planning	Eligibility	Resource Management
Quality Improvement	Case Management & Supervision	Accreditation	Transformation
Outcome Monitoring	Service Planning & Celebrations	Evaluation	Performance Contracting

The core concept is to keep the vision, the focus, on the needs and strengths of children and their families. This focus provides a common ground for families, the various child service systems, and funders. Through training, certification, experience, and developing common decision models, communication is improved between families, providers, and across service and funding systems.

Ensuring that the assessment tool is meaningful to youth and families and to service providers in planning services is important for successful implementation of the tool and the quality of data. A simple rating system quantifies a comprehensive assessment of multiple domains, suggesting care plan actions. Patterns of ratings are used to create suggested thresholds for different intensities of service or levels of placement. Such decision models are sometimes used as eligibility criteria for a program or level of care. At a system level, an algorithm can help inform policy decisions. During the first year of implementation in Indiana's behavioral health system, a baseline will identify the intensity of behavioral health needs for Indiana's children.

Implementation Plan

Overview. Since 2004 there have been several local applications of the CANS. At the state level, the CANS tools are being implemented at some level across child service systems. The Department of Correction began using the CANS within their facilities in November 2006 and in targeted re-entry programs. The Department of Education is initiating a pilot in an entire school system combining a

three-tiered model with the CANS to assess the needs of students who do not respond to general positive behavioral initiatives. Behavioral health providers who contract with the Division of Mental Health and Addiction or Medicaid will begin using the CANS in July 2007. The CANS has been written into Indiana's new Medicaid managed care contracts. Child welfare, involved in multiple reforms, will continue to screen children for behavioral health needs and refer youth to mental health providers for further assessment and recommendations.

Quality management. A web-based data system is being developed to collect CANS assessment data, calculate algorithms, and routinely report information to providers and state agencies. Client specific data will aid clinicians and families in making decisions and modifying plans prospectively to achieve better outcomes for youth and their families. Provider agencies will be able to use the information to enhance supervision, identify training needs, and other quality management purposes. At the state level, aggregate data will identify successes, gaps in services, possible needs for evidence-based interventions to be integrated into the system of care, and will inform policy.

Summary and Conclusions

Indiana is the first state to successfully design a common cross-system assessment strategy that includes the four major child serving systems of behavioral health, child welfare, juvenile justice and the schools. Initial implementation has begun in all four sectors. Decision support models for level of care have been designed. The next several years will be the test of whether such a strategy can be fully implemented and used as an active ingredient in a state-wide transformation process.

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