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Developing a new system to measure outcomes in a service coordination program for youth with severe emotional disturbance

Lisa M. Shannon [a,*], Robert Walker [a], Michele Blevins [b]

[a] Department of Behavioral Science, Center on Drug and Alcohol Research, University of Kentucky, 915B South Limestone Street, Lexington, KY 40536-9824, United States
[b] Kentucky Department for Mental Health, Developmental Disabilities and Addiction Services, United States

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ABSTRACT

This paper presents information on re-developing an outcome evaluation for a state-funded program providing service coordination utilizing wraparound to youth with severe emotional disturbance (SED) and their families. Originally funded by the Robert Wood Johnson Foundation, the Kentucky IMPACT program has existed statewide since 1990. Changing data needs and limitations of the original evaluation required revamping the program's data collection system. The new evaluation uses the extant knowledge base to improve: (1) design, (2) measures, and (3) utility. A pre-post design with multiple follow-ups provides the framework for data collection. An ecological framework provides a conceptual structure for selecting measures focusing on both the service recipients and their environment. Data collection via a personal digital assistant (PDA) ensures utility of the data for both consumers and researchers. Issues ranging from conceptualization to implementation of the project as well as lessons learned are discussed.

1. Introduction

The Substance Abuse and Mental Health Services Administration (SAMHSA) estimates one in ten children and adolescents have a severe emotional disturbance (SED) which limits their ability to interact with family members, at school, or within their communities (Center for Mental Health Services [CMHS], 1998). Emotional disturbance ranges from mild to severe and any level can affect health and well-being (CMHS, 1998). Evidence-based practices for treating youth with SED are currently a priority, particularly those contextualized to the youth's environment and that help their families overcome barriers to services (Pottick et al., 2004).

Service coordination is one approach for connecting families in need to existing services and supports. Service coordination is a type of targeted case management using a wraparound philosophy and implemented within a system of care. Wraparound is a system-level intervention which seeks to "wrap" services around youths and families to ensure continuity of care (Stambaugh et al., 2007), while focusing on individualized needs and strengths-based services (Ferguson, 2007; Huffine, 2002). Wraparound services are given credit for helping families with even the most challenging youth function in the community (Burchard, Bruns, & Burchard, 2002; Ferguson, 2007). The system of care emphasizes a community-based, culturally-competent, youth/family driven, "comprehensive spectrum of mental health and other necessary services which are organized into a coordinated network to meet the multiple and changing needs of children and adolescents with severe emotional disturbances and their families" (Stroul & Friedman, 1986, p. 3). While services offered within the case management model are acknowledged as a best practice with supporting effectiveness research (Evans & Armstrong, 2002; Hyde, Burchard, & Woodworth, 1996; Stambaugh et al., 2007; Yoe, Santarcangelo, Atkins, & Burchard, 1996), consistent evidence with youth is still somewhat limited.

This article describes one state's process of designing and implementing a study to evaluate outcomes for youth with SED participating in a service coordination program in a statewide system of care. The state agency responsible for overseeing service coordination is interested in an evaluation that: (1) meets scientific standards for systematic evaluation within the confines of service delivery, (2) allows for expeditious feedback to providers and policymakers, and (3) incorporates elements of continuous quality improvement (Bickman & Noser, 1999).

2. Overview of the service coordination program

The Kentucky program providing service coordination utilizing wraparound is called Interagency Mobilization for Progress in Adolescent and Child Treatment (IMPACT). IMPACT began in one region of the state with funding from the Robert Wood Johnson

* Corresponding author. Tel.: +1 859 323 0249; fax: +1 859 257 9070.
E-mail address: lisa.shannon@uky.edu (L.M. Shannon).

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Foundation and later was established statewide through legislation by the Kentucky General Assembly in 1990. The IMPACT program, originally built on the Child and Adolescent Service System Program (CASSP), continues to adhere to the principles and values of the System of Care (SOC; Stroul & Friedman, 1986). The goals of Kentucky IMPACT are to: (1) increase and improve available services; (2) coordinate services more effectively for the youth/family using involvement and collaboration of multiple agencies; (3) reduce dependency on psychiatric hospitalization; (4) increase the use of less restrictive community-based treatment alternatives, and (5) provide timely and responsive support to families. At the time when IMPACT was developed, inpatient expenditures had increased from $2.8 million to $30 million over a 9-year period, an increase of 1200% (Illback, Neill, Call, & Andis, 1993).

Service coordination under the IMPACT model provides a strengths-based, family-focused, individualized plan of care for youth with SED and their families. IMPACT coordinates services between Kentucky's youth-serving systems including: education, child welfare, public health, mental health, family resource and youth service centers, courts/juvenile justice, and Medicaid. The following are some examples of services coordinated by IMPACT. (1) School support—providing individual and group therapy in the school as well as consultation with teachers, school counselors and peers to help them better understand the strengths and needs of youth with SED. (2) In-home services—helping youth and families gain understanding and develop skills to improve relationships and functioning in the home. (3) Therapeutic child support—one-on-one and group skills training and therapy that occurs in the child's natural environment (i.e., community settings). (4) Respite—giving families a few hours to meet personal needs while the youth is cared for by a professional. Because no two youth are the same, services and supports coordinated by IMPACT are unique to each youth. Service coordination also differs from community to community, depending on available resources. The IMPACT program relies on 18 Regional Interagency Councils (RIACs) to help with localized planning and service development for youth and families. Kentucky IMPACT, along with other mental health services, receives funding from the Kentucky Department for Mental Health, Developmental Disabilities, and Addiction Services (DMHDDAS) through contracts with regional Community Mental Health Centers (CMHCs).

In 2005, the Kentucky DMHDDAS contracted with the University of Kentucky Center on Drug and Alcohol Research (UK CDAR) to participate in developing a comprehensive services outcome evaluation. The evaluation goals are to enable the continuous collection of client level data to better examine IMPACT youth/family characteristics and to longitudinally examine service outcomes. Since this evaluation project is practice-based, practicality and utility are of utmost concern. Evaluation data are needed by a variety of sources (e.g., practitioners, program administrators, policymakers, researchers, families and youth) to answer a range of questions. UK CDAR is responsible for data system design, technology support, managing and analyzing the data for feedback and reports to the provider community, state government administrators, and policymakers in executive and legislative branches of government.

3. Overview of extant research and other pertinent research considerations

This outcome evaluation for youth and families capitalized on extant knowledge. First, the evaluation was based upon previous evaluation research on youth services. While Kentucky IMPACT refers to targeted case management as service coordination, the literature on case management for youth was reviewed, particularly focused on the wraparound approach. Second, more general information on other considerations for evaluation research was incorporated by reviewing literature on barriers to practice-based research and/or lessons-learned, with special attention on publicly funded service programs for youth. The goal of this section is to review the literature which shaped the development of the IMPACT outcome evaluation system.

3.1. Previous research evaluating case management outcomes

Previous studies on youth in case management services suggest positive outcomes (Burns, Farmer, Angold, Costello, & Behar, 1996; Cauce & Morgan, 1994; Clark et al., 1998; Evans & Armstrong, 2002; Evans et al., 2003; Glisson, 1994; Hyde et al., 1996; Illback & Sanders, 2001; Kutash & Rivera, 1996; Yoe et al., 1996). More specifically, one study suggested that utilization of a case manager on the youth's treatment team was associated with fewer inpatient stays when compared with youth treated by a multi-agency team led by a mental health clinician (Burns et al., 1996). Other evaluations of case management that utilized wraparound also suggest: improved youth functioning (Clark & Prange, 1994), more involvement in community activities (Hyde et al., 1996), less restrictive placements (Glisson, 1994; Yoe et al., 1996), and fewer problem behaviors (Cauce & Morgan, 1994; Illback & Sanders, 2001; Yoe et al., 1996).

While some evidence has supported positive outcomes associated with case management, other evidence has suggested these services do not result in outcomes different from standard treatment. In fact, one of the most well-known evaluations of the case management model in Fort Bragg, North Carolina showed null findings on service benefits. The Fort Bragg study compared youth and families who received case management/service coordination with those who received mental health services where the family was in charge of coordinating their own care (Bickman et al., 1995; Bickman, Lambert, Andrade, & Penaloza, 2000a). One-year follow-up data showed no significant differences in clinical symptoms or functioning between youth who received case management and those who received standard services (Bickman et al., 1995). Not all findings related to case management services were null, consumer satisfaction was higher and there was evidence for positive system outcomes (e.g., fewer youth in residential treatment; Bickman et al., 1995). Results from the Fort Bragg study sparked debate regarding potential shortcomings in the study design, the short timeframe for outcomes (i.e., 1 year), whether results were generalizable, and the importance of having a clearly defined intervention to produce a quality evaluation in a real-world setting (Behar, 1997; DeLeon & Williams, 1997; Feldman, 1997; Hoagwood, 1997; Weisz, Han, & Valeri, 1997).

In response to criticism on the short-term outcome measures in the Fort Bragg study, Bickman and colleagues (2000a) examined data on long-term youth outcomes. Five-year longitudinal data also suggested that youth who received case management services were not significantly different on the mental health outcome domains than those in the comparison group (Bickman et al., 2000a). Similar findings were produced by Bickman and colleagues (1999) in Stark County, Ohio. The Stark County study suggested no significant differences in clinical outcomes for youth who received wraparound case management services within a coordinated system of care compared with those who received usual care (i.e. provided a list of community providers with the burden to arrange the receipt of services on their own; Bickman, Noser, & Summerfelt, 1999). In another evaluation examining wraparound, data suggested youth who received wraparound services (including case management) had an improved continuity of care and