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ScienceDirect

Children and Youth Services Review 30 (2008) 800–808

Children and Youth Services Review

www.elsevier.com/locate/childyouth

Individual and provider effects on mental health outcomes in child welfare: A three level growth curve approach

Jeffrey H. Sieracki [a,*], Scott C. Leon [a,1], Steven A. Miller [b], John S. Lyons [c,2]

[a] Loyola University Chicago, Department of Psychology, 6525 N. Sheridan Road, Chicago, IL 60626, United States
[b] California State University-Fullerton, Department of Psychology, 800 N. College Ave., Fullerton, CA 92834-9480, United States
[c] Department of Psychiatry and Behavioral Sciences, Northwestern University, 710 North Lake Shore Drive, Chicago, IL 60611, United States

Received 25 June 2007; received in revised form 9 October 2007; accepted 9 December 2007
Available online 17 December 2007

Abstract

Approaches for treating children and adolescents with emotional and behavioral disorders within their communities have been implemented in counties, cities, and states throughout the United States. The goal of this study was to model course of improvement for individuals enrolled in a statewide community treatment program. Five hundred and sixty three children and adolescents (mean = 11.6 years at time of initial contact) receiving community-based services from 26 different agencies throughout Illinois were evaluated using the Child and Adolescent Needs and Strengths (CANS) measure. Hierarchical linear modeling (HLM) was applied to three levels of data: time (months in care), child-level (clinical, demographic data), and provider agency; the problem behaviors factor score of the CANS served as the measure of outcome. The results indicated that months in care, time 1 problem behavior score, caregiver needs and strengths, youth strengths, and school problems predicted course of improvement at the child level. Results also indicated that agencies (level 3) differed in client problem behavior reduction; however, this effect was much smaller than has been observed in other populations. Implications for service organization and delivery are discussed.

Keywords: Community treatment; Child welfare; Growth curves; System of care

1. Introduction

The past 20 years have brought greater clarity to the question of how best to conceptualize and organize mental health services for children and adolescents. Current thinking emphasizes that the child or adolescent's home community should be the centerpiece of any service system and should always be considered the treatment setting of first choice (Stroul & Friedman, 1986, 1994). According to the community-based perspective, services should (a) be delivered in the least restrictive environment (b) be individualized (c) be coordinated (d) be delivered as close to youths' home as possible, (e) involve all available adults in youths' lives, (f) recognize youth strengths, and (g) be culturally competent.

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[*] Corresponding author. Tel.: +1 773/508 3041; fax: +1 773/508 8713.
E-mail addresses: jsierac@luc.edu (J.H. Sieracki), sleon@luc.edu (S.C. Leon), stevenmiller@fullerton.edu (S.A. Miller), jsl329@northwestern.edu (J.S. Lyons).
[1] Tel.: +1 773/508 8684; fax: +1 773/508 8713.
[2] Tel.: +1 312/908 8972; fax: +1 312/908 5070.

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doi:10.1016/j.childyouth.2007.12.008

In 2002, the Illinois Department of Children and Family Services (DCFS) used a system of care approach to address the problem of unstable foster care placements. A growing body of research was demonstrating that multiple moves were unhealthy for children (see Budde et al., 2004) and statewide data suggested that wards of the State of Illinois were often placed in many foster homes before they eventually ended up in out of community placements (Zinn, DeCoursey, Goerge, & Courtney, 2006). The System of Care (SOC) program, as it was called, was designed for children and adolescents that were capable of community functioning but were either at-risk of stepping up to specialized foster or residential care or were stepping down from these higher level placements. All clients that are admitted to the DCFS community-based program reside in the homes of relatives, traditional foster care placements, or DCFS managed foster homes.

For the SOC program, DCFS contracted with local providers (e.g., Community Mental Health Centers, foster care agencies) to serve eligible youth in circumscribed catchment areas known as Local Area Networks (LANS). These contracts are essentially "capitated" service agreements such that providers agreed to serve any eligible youth in the LAN who was referred by a caseworker. Each region of the state is divided into LANs (State of Illinois DCFS, 2003). The client's caseworker refers the client to the provider serving the LAN within which the client resides. If the client is accepted into the program, the provider is responsible for planning, organizing, staffing, and administering an array of community-based positive youth development and therapeutic services. The agency may offer the services and interventions directly or may arrange selected services through subcontracts or other formal arrangements. Agencies are expected to provide a variety of services, ranging from traditional psychotherapy to mentoring to wraparound (e.g., boys and girls clubs memberships, music lessons etc.).

All clients receive what is termed an Individual Plan of Care (IPC). This written document specifies the client's strengths, needs, service goals, service provider, and frequency and duration of service provision. A "Child and Family Team" helps to develop the IPC. The IPC is updated at a minimum of every six months, and it is revised to reflect the current needs and strengths of the client and to reflect current service needs. The program also calls for youth to be served in a manner that is culturally competent.

From the inception of the program, DCFS decided allow a great deal of flexibility with regard to the actual services provided by the agencies. However, DCFS worked with Northwestern University to implement an outcomes management system designed to monitor the progress of youth receiving services and to assure accountability among the agencies; the current study uses data from the first two years of the community-based program.

1.1. The present study

The current study uses multiple data points for a sample of youth in the community-based program with three or more assessments. Since data points were nested within child, and child was nested within agency, a statistical strategy was required for how to account for dependencies in the data. The adult psychotherapy literature has had significant success using multi-level modeling (e.g., HLM; Bryk & Raudenbush, 1992) strategies to model change as a function of time, patient-level characteristics, and recently, therapists (Howard, Moras, Brill, Martinovich, & Lutz, 1996; Kim, Wampold, & Bolt, 2006; Lutz, Leon, Martinovich, Lyons, & Stiles, 2007).

Modeling outcomes at three levels of analysis allowed us to answer three questions: (1) how much improvement is the average client in Illinois' program achieving over time? (2) to what extent are the changes due to client level factors such as presenting problem type, severity, functioning, caregiver issues, and youth strengths? and (3) how much change in client outcomes is attributable to the agency coordinating and delivering services? The results of recent studies in the psychotherapy literature suggest that most of the variability in clinical severity data can be attributed to time (e.g., number of sessions), followed by time-invariant characteristics of the patient, and lastly, the therapist (e.g., Lutz et al, 2007). However, the therapist variable in psychotherapy studies has consistently accounted for approximately 8% of the variance in outcomes, suggesting that the provider of service can have a significant impact on mental health outcomes (Kim et al., 2006; Lutz et al., 2007).

The overwhelming majority of predictors in behavioral health outcome studies have been at the client level ("level 2"). Demographic variables such as gender and age have been shown to be associated with children's psychotherapy outcomes (Ponton, 1993; Weisz, Weiss, Han, Granger, & Morton, 1995). Initial clinical variables, such as problem behaviors, symptom severity, and level of functioning, significantly influence treatment outcomes, are significantly associated with symptom scores after 12 months of SOC treatment (Stephens, Holden, & Hernandez, 2004), and can be used to successfully predict client improvement in psychotherapy (Leon, Kopta, Howard, & Lutz, 1999; Lutz et al.,