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Predicting outcomes of children in residential treatment: A comparison of a decision support algorithm and a multidisciplinary team decision model

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ABSTRACT

Residential treatment is the most intensive and costly component of all child welfare systems per episode of care. At the same time, decisions to place in residential treatment centers are prioritized by the practice of least restrictive setting and best interest for children. There are, however, no standard evidence-based criteria for placing children in residential treatment. Clinical judgment, staffing dynamics, and other system factors are part of the decision-making process. Thus, some residential placements may be unnecessary and may be even harmful. The present study compares two models of decision-making, a multidisciplinary team approach and an objective decision support algorithm, and assesses outcomes when the two models either concur or not. Concordant decisions predicted greater clinical improvement than discordant decisions, but no differences were found in length of stay in placement. Policy implications for the decision-making process in child welfare are discussed.

1. Introduction

The use of residential treatment for children with severe emotional or behavioral problems in state custody is undergoing a transition. Three major contributors to this change are the cost of treatment, the principle of "least restrictive setting," and the absence of standard placement criteria. Inappropriate placements often lead to poor outcomes such as longer stay in care, unaddressed clinical concerns, and unplanned discharge (Foltz, 2004; Sunseri, 2005). To guide this change, there is a need to re-assess the clinical and systemic consequences of residential care and the processes leading to placement in residential care. Evidence-based decision making will both contribute to this reassessment and to long-term improvements in child welfare.

1.1. Cost of treatment

Residential treatment is a considerable financial burden on the child welfare system. Burns, Hoagwood, and Maultsby (1998) estimated that while 8% of the child welfare population received residential treatment, 25% of total mental health expenses were attributable to residential care. Associated annual costs for a single episode of residential treatment can range from $50,000 to $350,000 (Lyons, Libman-Mintzer, Kisiel, & Shallcross, 1998). In 1995, $350 million out of $450 million, over 3/4 of the Illinois state budget on mental health services, were invested in residential treatment and psychiatric hospitalization (Lyons & McCulloch, 2006; Lyons et al., 1998). Recent estimates indicate that residential treatment is still considered the most expensive form of treatment on a per episode basis, with per diem costs ranging from $100 to $600 (Helgerson, Martinovich, Durkin, & Lyons, 2007; Lyons, 2004).

1.2. Least restrictive setting

The impetus of the principle of least restrictive setting is to ensure children are nurtured in a naturalistic and exploratory environment

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(Friedman & Street, 1985). Legislation such as the Federal Education for All Handicapped Children Act of 1975 and the Adoption Assistance and Child Welfare Act of 1980 mandate the principle of least restrictive setting (Courtney, 1998; Friedman & Street, 1985). Given ongoing concerns that children are placed in more restrictive settings than necessary, appropriate community-based treatment is better for children who do not require the intensity of residential (Lyons et al., 1998). There is a clinical and systemic responsibility to stabilize children in community settings whenever possible.

The increased use of residential treatment appeared to have stabilized after a 300% increase from 29,000 children to 117,720 children from 1982 to 1997 (Connor, Miller, Cunningham, & Melloni, 2002). According to the Adoption and Foster Care Analysis and Reporting System, recent child welfare statistics from 2005 to 2010 showed that institutional placements made up of 9–10% of all substitute care placements and the number of children placed in institutions decreased from 51,210 to 36,607 in that period (U.S. Department of Health and Human Services, 2006, 2008, 2009a, 2009b, 2010, 2011). Relative to the 407,355 children in foster care in 2010 with known placements (U.S. Department of Health and Human Services, 2011), this translates to 8.99% residential placements or approximately 90 children in residential treatment centers per 1000 children in foster care.

Although the decreasing numbers of the child welfare population and residential placements are encouraging, there are persistent obstacles in implementing the principle of the "least restrictive setting" when it comes to residential treatment. Sunseri (2005) noted the misinterpretation and misuse of the principle. Rather than providing what is needed at the outset, children often get placed in residential treatment as a last resort because other placements have failed (Epstein, 2004; Foltz, 2004; McCurdy & McIntyre, 2004; Pfeiffer & Strzelecki, 1990).

1.3. Absence of standard placement criteria

The increase in inappropriate placement decisions due to the lack of standard placement criteria contributed to the earlier increase in residential placement (Ashford & LeCroy, 1988; Jaffe, 1979; Meddin, 1984; Schwab, Bruce, & Mcroy, 1984; Sowers, 1998; Wells, 1991). The National Association of Psychiatric Treatment Centers for Children is the only professional organization to publish explicit criteria exclusively for residential placement (Leon et al., 2000; Wells, 1991). These criteria include mental disorders of "moderate to severe in nature" such as functional impairment, acute disturbance in affect, behavior, and cognition, and danger to self or others. Common practice emphasizes the child's level of aggression, impulse control, risk behaviors, degree of reality testing, and presence or absence of a supportive home environment (Courtney, 1998; Foltz, 2004; Frensch & Cameron, 2002; Friedman & Street, 1985; Ong, 1999).

Although there is agreement that the best practice is to allow the child's needs to determine the levels of care most beneficial to the child (Sunseri, 2005), a plethora of non-clinical factors are considered, such as availability of residential placements (Aarons et al., 2010), availability of alternative community settings (Epstein, 2004), or preferences of the child and/or caregivers (DeMuro & Rideout, 2002; Hyde & Kammerer, 2009). Nevertheless, there is a consensus across state systems that standardizing placement criteria as a means to achieve placement stability and optimal child welfare outcomes is a priority (Blakey et al., 2012).

1.4. Placement decision-making

The practice of evidence-based placement decisions is rare, especially those resulting in residential treatment (Frensch & Cameron, 2002). Given the absence of standard placement criteria for residential treatment, placement decision-making is equally difficult to standardize. In a study of 18 clinicians' recommendations for appropriate levels of care for 47 children using clinical profiles, Bickman, Karver, and Schut (1997) found that the clinicians' inter-rater reliability was near zero. In other words, clinical judgment alone without consulting placement guidelines did not ensure the most appropriate level of care. Although residential treatment is designed to treat the most behaviorally and emotionally disturbed child population by managing risk and stabilizing symptoms, this clinical focus can be at times overshadowed by placements that are crisis-oriented or used for short-term or shelter care (McMillen, Lee, & Jonson-Reid, 2008). Finally, and perhaps most importantly, the outcomes of residential treatment over time have been sorely understudied (Connor et al., 2002; Foltz, 2004; Helgerson et al., 2007). Empirical evidence is essential to the effort to understand and reform child welfare. That the use of residential care in child welfare is in transition can be a blessing. If the appropriate empirical evidence can be brought to bear, the changes in the system can be directed to improve the welfare of the child. To address what is best for children who require residential treatment, the present study contributes to this goal by comparing two placement decision-making models and their associated longitudinal outcomes following placement.

2. Methods

2.1. Setting

Participants in this study are children who were placed in residential treatment centers and were in the custody of the Illinois Department of Children and Family Services (IDCFS), the Illinois child welfare agency. IDCFS oversees the child welfare population in Illinois, implements quality improvement initiatives, including evidence-based treatments, outcomes monitoring, child protective investigation, and child service delivery including medical and behavioral health, education, and transition to adulthood services (Weiner, Schneider, & Lyons, 2009). IDCFS has implemented two models of decision-making pertaining to level of care: a multidisciplinary team approach and a decision support algorithm.

2.1.1. Multidisciplinary team model: Child and Youth Investment Teams (CAYIT)

Placement Review Teams was originally the formal placement mechanism in Illinois child welfare. These teams were chaired by clinical managers in collaboration with psychologists and caseworkers, though typically without the child or family. As multidisciplinary team decision-making and child-empowerment began to take shape in state systems (DeMuro & Rideout, 2002; Leeson, 2007), the IDCFS implemented the Child and Youth Investment Teams (CAYIT) in July 2005 to capitalize on the key advantages of team decision-making, such as pooling multidisciplinary expertise together and including children in the process that will determine their future. To bolster the appropriateness of placement decisions made, a small group of IDCFS administrators make up the Centralized Matching Team (CMT) to identify potential placements and facilitate the intake process.

While caseworkers and their supervisors mainly oversee the general operation of placement changes, the CAYIT manage the level of care decision-making process statewide. Different regions in the state are served by different teams, with interchangeable team members depending on staffing availability. Each team consists of an intake coordinator, a reviewer, a facilitator, and an implementation coordinator. Through file reviews, investigations, and interviews, CAYIT staffing actively involves the child (if older than 12), caregivers, health care workers, educators, psychologists, and other pertinent individuals to arrive at a consensual, informed placement recommendation. CAYIT staffing is typically triggered by out-of-home placements that are at-risk of disruption, recent multiple changes of placement, and an identified need for a youth to "step-up" to a higher level of care such as residential setting (Illinois Department of Children and Family