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Psychiatric Rehospitalization of Children and Adolescents: Implications for Social Work Intervention

Walter Chung · Susan Edgar-Smith · Ruth Baugher Palmer · Elizabeth Bartholomew · David Delambo

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Abstract This study explored factors associated with the psychiatric rehospitalization of children and adolescents. A retrospective archival review was conducted on 403 children and adolescents admitted into an inpatient psychiatric hospital. Results indicated that 16% were readmitted in the same year. Children and adolescents who had a prior history of psychiatric rehospitalization, lived in a residential treatment facility, and had a diagnosis of oppositional/defiant or conduct disorder were more likely to be rehospitalized. Psychosocial factors must be considered in predicting and preventing psychiatric rehospitalization. Clinical social workers should include therapeutic foster care as an option for aftercare placements of youth exhibiting externalizing behaviors and/or with a history of multiple restrictive care placements.

Keywords Rehospitalization · Psychiatric readmissions · Children · Adolescents

Introduction

An estimated 16–22% of children and adolescents in the U.S. have been diagnosed with mental disorders, which usually continue into adulthood (U.S. Public Health Service 2000). Approximately six million children and adolescents are believed to have serious mental health problems that disrupt their normal life functioning (U.S. Department of Health and Human Services n.d.), with the number of children and

W. Chung (✉) · S. Edgar-Smith · R. B. Palmer · E. Bartholomew
Counseling Psychology Department, Eastern University, Rm 317 Eagle Learning Center, 1300 Eagle Rd., St. Davids, PA 19087, USA
e-mail: wchung@eastern.edu

D. Delambo
University of Wisconsin-Stout, Menomonie, WI 54751, USA

adolescents hospitalized in psychiatric facilities exceeding 15,000 at any given time (Lundy and Pumariega 1993). Therefore, it is not surprising that the annual treatment cost for this population is about $12 billion (RAND 2001).

A nationally representative study documented trends in inpatient mental health treatment of children and adolescents in U.S. community hospitals between 1990 and 2000 (Case et al. 2007). These researchers found a significant change in both the total number of inpatient days and mean charges per visit (each fell by approximately one half), and median length of stay (LOS) declined 63% over the decade (from 12.2 to 4.5 days). This decline in length of stay was observed for most diagnostic categories, and curiously, increased discharge rates were observed for the *most severe* disorders (psychotic, mood disorders, and intentional self-injuries), while discharge rates for adjustment disorders fell, findings Case and colleagues described as inpatient mental health professionals "doing more with less" (p. 94), that is, addressing more severe psychopathology in less time. Since private psychiatric hospitals were not included in their sample, the authors call for comprehensive data that span specialty and community inpatient treatments to explore this apparent trend.

While the well documented overall trend toward decreased LOS for inpatient care of children and youth (RAND 2001) has led to concerns that inpatient mental treatment is now merely a "revolving door", unfortunately comprehensive studies such as those called for by Case and colleagues continue to be lacking. There are some statewide studies which explore the impact of managed behavioral healthcare (including LOS) on inpatient admission and readmissions, but there are no current nationwide data available. High rates of psychiatric hospital readmission for children and adolescents ranging from 30% to 50% have been reported (Arnold et al. 2003), however, and the statewide data from Massachusetts, Tennessee, and Maryland all document increases in readmission rates for children and adolescents under Medicaid managed care (Callahan et al. 1995; Dickey et al. 2001; Fontanella et al. 2006; Saunders and Heflinger 2003).

Frequent rehospitalizations are considered an undesirable treatment outcome, not only due to costliness to society—with 70% of total mental health care cost attributed to hospitalization expenses—(Romansky et al. 2003), but also because of their adverse psychological impact on patients and their families. Initial hospitalization of a child is often viewed by parents as "a last resort" initiated by an escalating crisis (Scharer and Jones 2004). Mohr and Regan-Kubinski (2001) described the profound sorrow and trauma experienced by parents when their child is diagnosed with a mental disorder. If the period in which parents begin to identify their child as having a serious mental illness can be described as a "nightmare" (Scharer and Jones 2004, p. 81), how much more so for families in which psychiatric sequelae takes on a chronic course, requiring repeated hospitalizations over years?

Impact of hospitalization on patients themselves can also incur heavy costs. Cohen (1994) described psychiatric hospitalization as traumatizing because of the sense of disempowerment patients may experience. Indeed Causey et al. (1998) documented the stressful nature of psychiatric hospitalization on adolescents, with loss of autonomy and the restrictive situation of being on a locked ward as the

second and third most reported stressors for teens (separation from family and friends was reported as the most stressful). Further, these researchers found that higher levels of hospital-related stress was consistently related to poorer hospital adjustment on a number of variables, including disruptive behaviors while hospitalized: "the significant findings between *nurse*-reported oppositional behaviors and distress with *patients*' report of stress provide strong evidence that at least part of the adjustment difficulties displayed by young patients is associated with the stressors they experience while on the psychiatric inpatient unit" (p. 143, emphasis theirs). Summarizing narratives of "now competent" young adults who experienced in-patient hospitalization in middle adolescence, Hauser (2006) similarly has asserted: "experiencing a serious psychiatric disorder leading to hospitalization, regardless of how time limited, can markedly change the experience of self, often leading to lowered self-regard and lowered personal competence" (p. 549). Again, if even one psychiatric hospitalization is experienced as traumatizing, adversely impacting one's sense of self, how much more so for children and adolescents with multiple rehospitalizations?

Curiously, despite the costs, research on psychiatric rehospitalization of children and adolescents is limited. Only recently studies have been conducted to examine the possible factors associated with the psychiatric hospital readmission of this population (e.g., Arnold et al. 2003; Blader 2004; Enns et al. 2003; Figueroa et al. 2004; Foster 1999; Romansky et al. 2003; Wickizer et al. 1999). The factors examined can be categorized into parental influences, living arrangement, length of hospital stay, posthospital services, psychiatric diagnoses and personal characteristics. Unfortunately, except for parental influences, findings in other categories are still inconclusive or even contradictive.

Parental Influences

Parental influences are consistently found to have significant relationships with psychiatric rehospitalization of children and adolescents. Analyzing the data of 89 subjects aged 5–17 collected from the University of New Mexico Children's Psychiatric Center, Lakin et al. (2004) reported that subjects with a higher level of parental involvement had a significantly lower rate of readmission to the center than subjects with less parental involvement. Parental involvement included weekly visitations, phone calls, and family therapy participation. Brinkmeyer et al. (2004) likewise found family engagement in treatment was associated with subsequent rates of rehospitalization children and adolescents. In their study of 45 male and female patients, aged 7–17, 32% were rehospitalized within a nine-month period. Rehospitalization was associated with poorer family engagement during the hospital stay and with lower parental ratings of satisfaction with the inpatient care.

King et al. (1997) conducted a short-term follow-up study of 89 adolescent psychiatric inpatients by interviewing the teens and their parents six to eight months following discharge. They found that adolescents who had been rehospitalized scored higher on a Baseline Parent-Adolescent Conflict subscale than those who had not been rehospitalized. This suggests that parent–child conflict is related to more severe psychosocial problems for the adolescent, possibly contributing to higher

recidivism rates. Similarly, Blader (2004) monitored the rehospitalization rate of 109 children aged 5–12 discharged from the psychiatric treatment for a year. Results indicated that children living in families with harsh parental discipline and poor parent–child relationships were more likely to be rehospitalized.

Living Arrangement

Only one study examined the impact of living arrangement on the psychiatric readmission of children and adolescents. Reviewing the service reports of 500 randomly selected children and adolescents in state custody who experienced psychiatric hospitalization, Romansky et al. (2003) concluded that those who live in a congregate care setting (e.g., a residential treatment center, a group home, an adolescent emergency shelter, or an institutional correction facility) had a significantly higher hospital readmission rate than those who live in other settings. Specifically, over 25% of children and adolescents living in the congregated care setting were readmitted to the psychiatric facility, compared to 20% of those who lived in a foster home and 13% of those who lived either independently or with their parents and relatives.

Length of Hospital Stay

The concern over managed care's impact on mental health treatment has given rise to studies on the relationship between length of hospital stay (LOS) and readmission for children and adolescents. One study which reviewed patterns of hospital use of over 8,000 pediatric patients found the utilization management program decreased inpatient "resource consumption" but also increased risk of readmission (Wickizer et al. 1999). Patients in this study who were "admitted for medical *or mental health* care and whose stay was restricted by concurrent review were more likely to be readmitted within 60 days after discharge" (p. 1353, emphasis ours). Another investigation which included both children and adults in the sample showed an inverse relationship between LOS and readmission rates (Figueroa et al. 2004). In this study, "slight decreases in LOS were associated with significant increases in risk of readmission" (Case et al. 2007, p. 94). The mixed population of the sample, however, makes it difficult to determine the relative weight of this relationship for children and adolescents versus adults.

Posthospital Services

The above-mentioned study by Romansky et al. (2003) also revealed that children who were readmitted within three months of discharge had received significantly less posthospitalization social service hours than those not readmitted. However, their findings only partially supported the study conducted in 1993 by Solomon, Evans and Delaney who examined the readmission rate of 62 children and adolescents discharged from a state psychiatric facility. Solomon et al. found that although fewer posthospitalization service receivers were readmitted within a year of discharge than non-posthospitalization service receivers, their readmission rate

was still surprisingly high (i.e., 33%). Foster (1999) found contradictory results. After 204 children and adolescents discharged from a psychiatric facility were monitored for a year, no statistically significant difference was found between those who had been provided aftercare services and those who had not. Foster proposed two explanations: (a) aftercare service was ineffective; (b) subject comparison bias existed because aftercare services tended to be given to those most vulnerable for readmission.

Psychiatric Diagnoses and Personal Characteristics

Research findings on what psychiatric diagnoses and personal characteristics may predict about rehospitalization of children and adolescents with psychiatric disorders are most inconclusive and contradictive. Two studies reported that there was no relationship between psychiatric diagnoses and rehospitalization of children and adolescents. For instance, Romansky et al. (2003) categorized their 500 subjects into nine groups based on the Diagnostic and Statistical Manual—Fourth Edition (DSM-IV) and found that none of the diagnostic categories predicted the hospital readmission of the subjects. In another study, Bobier and Warwick (2005) analyzed the data of 71 adolescents admitted into a psychiatric facility for over a two-year period. She also concluded that the rehospitalization of these subjects was not related to any DSM-IV axis I or axis II diagnosis.

Nevertheless, several studies found that depression or suicidal ideation was related to a higher readmission rate of children and adolescents. In Foster's (1999) study described above, he reported that children diagnosed with major depression had a higher tendency to be rehospitalized. Arnold et al. (2003) confirmed Foster's finding after examining the readmission rate of 180 formerly hospitalized adolescents in a span of over 10 years. They discovered that diagnoses of affective disorders and previous suicidal attempts significantly predicted the readmission rate of adolescents. Enns et al. (2003) also reported that the psychiatric rehospitalization rate of his 78 adolescents within one year was significantly related to their suicidal ideation.

Another psychiatric diagnosis that may be related to psychiatric rehospitalization is conduct disorder or oppositional disorder. Foster (1999) found that oppositional disorder was a significant predictor of the readmission of his subjects. In another study of 109 children and adolescents, Blader (2004) reported that those who have a higher level of conduct disorder had a higher probability to be rehospitalized. In contrast, Arnold et al. (2003) found that neither oppositional disorder nor conduct disorder significantly predicted readmission.

In terms of personal characteristics, a history of sexual abuse in childhood, an early age of first admission to a psychiatric hospital and identification as learning disabled all have been found to be related to a higher readmission rate (Bobier and Warwick 2005; Romansky et al. 2003). Pavkov et al. (1997) examined the computerized records of 3,969 children and adolescents in a state hospital and found that patients were more likely to be rehospitalized if they were African American, younger in age, had a longer length of stay in a prior hospitalization and a diagnosis of psychotic disorder. In contrast, Foster later (1999) discovered that children and

adolescents who were Caucasian, older and female were more likely to be rehospitalized. Due to the discrepant findings, Arnold et al. (2003) argued that many of these personal factors are still inconclusive because "most studies … did not find gender differences in rates of rehospitalization. Contradictory findings have been reported on the relationship between age and rehospitalization and between race or ethnicity and rehospitalization" (p. 995).

Psychiatric rehospitalization of children and adolescents is costly to everyone involved, both financially and emotionally. Given the limited amount of studies currently in the literature, and the often contradictory findings in regards to factors associated with child and adolescent recidivism, the present study was exploratory. Our research examined the extent of psychiatric rehospitalization of children and adolescents in an attempt to identify specific factors related to repeated inpatient stays within a one year time frame in order to elucidate possible prevention strategies. Due to their association with recidivism in previous studies, the following factors were explored for their relative predictability: gender, ethnicity (i.e., Caucasian vs. non-Caucasian), living arrangement (i.e., living in a home environment vs. living in a residential treatment setting), psychiatric diagnosis (i.e., those with a diagnosis of conduct disorder or oppositional-defiant behavior vs. those without such diagnosis), and prior history of psychiatric readmission.

Method

Participants

Data were collected on 403 children and adolescents admitted into an inpatient psychiatric hospital located in the eastern United States, between the dates of January 1, 2004 and December 31, 2004. Of the 403 individuals, 211 (52%) were female and 192 (48%) were male. Approximately 47% of the subjects were Caucasian, 40% African American, 10% Hispanic, and 4% Biracial. Subjects ranged from 4 to 18 years, with an average age of 13. Approximately 39% of the subjects studied were given a psychiatric diagnosis of either oppositional/defiant disorder or conduct disorder. Prior to admission, 80% of the subjects resided in a home setting (68% with biological parent(s), 12% with adoptive or foster families), while 20% lived in residential treatment facilities.

Research Design & Procedure

For this descriptive research, a retrospective archival review was conducted to collect data. A list of all the children and adolescents admitted into the psychiatric hospital in 2004 was generated. The records of these individuals were reviewed, and the information for this study was retrieved from the intake information sheet, the psychiatric evaluation, and the discharge summary. Children/adolescents who were re-admitted into the hospital in 2004 were compared to those who had only one psychiatric admission in the same year.

Statistical Analyses

Data were analyzed by SPSS 14.0. A stepwise regression was conducted with the dependent variable being no psychiatric readmission vs. psychiatric readmission in 2004. Tested predictors were gender, ethnicity, living arrangement, psychiatric diagnosis, and prior history of psychiatric rehospitalization. A p-value of less than .05 was used to determine which factors were significantly related to the psychiatric rehospitalization of children and adolescents.

Results

Of the 403 individuals admitted into the psychiatric hospital in 2004, 64 (16%) were re-admitted to the hospital that same year. Two hundred forty-four (61%) of the participants had a prior history of psychiatric rehospitalization before their 2004 admission. See Table 1 for a comparison of sample characteristics according to number of psychiatric hospitalizations within the same year. A stepwise regression analysis was conducted to examine which factors (i.e., gender, ethnicity, living arrangement, psychiatric diagnosis, and prior history of psychiatric rehospitalization) may predict psychiatric readmission of participants. Results indicated that three factors were significantly related to readmissions: prior history of psychiatric rehospitalization, living in a residential treatment facility, and a diagnosis of oppositional/defiant or conduct disorder. All three predictors were found to account for 17% of the variance for multiple psychiatric admissions in the same year, F (3, 395) = 26.5, $p < .01$ (see Table 2).

Table 1 Comparison of sample characteristics with and without psychiatric rehospitalization in the same year

Demographic characteristic	One time psychiatric admission *N* (%)	Multiple psychiatric admissions *N* (%)
Gender		
Female	174 (82)	37 (18)
Male	165 (86)	27 (14)
Ethnicity		
Caucasian	163 (86)	27 (14)
Non-Caucasian	176 (83)	37 (17)
Living arrangement		
Home environment	288 (89)	35 (11)
Residential	51 (64)	29 (36)
Psychiatric diagnosis		
ODD/CD	204 (83)	43 (17)
Not ODD/CD	135 (87)	21 (13)

Note: Home environment = lives with biological, foster, adoptive family. *ODD/CD* Oppositional Defiant Disorder/Conduct Disorder

Table 2 Psychiatric rehospitalization of 2004 as predicted by demographic, clinical, and social environmental factors

Hierarchical step	Predictor variable	Total R^2	Incremental R^2
1	Prior history of psychiatric rehospitalization	.12*	.12
2	Living environment (live in residential treatment facilities)	.16*	.04
3	Diagnosis of oppositional/defiant or conduct disorder	.17*	.01

* $p < .01$

Discussion

Although inpatient hospitalization care is the costliest of mental health placement settings for children and youth (Burns et al. 1999), astoundingly few research studies have investigated its efficacy. Since children and youth with severe and potentially dangerous disorders do, at times, require safe and highly restrictive settings, inpatient hospitalization will continue to be a major component of the mental health continuum of care for children and adolescents (Burns et al. 1999; McCurdy and McIntyre 2004). Given this continued need and use of inpatient hospitalization facilities for children and adolescents, and the finding that *non-clinical factors* (e.g., race/ethnicity, custody status, availability of services, and hospital referral patterns) influence aftercare decisions for psychiatrically hospitalized youth (Fontanella et al. 2007), rigorous investigation of the benefit of such placements is long overdue. The findings of this study should further the field's understanding of how inpatient psychiatric care is related to treatment placement, psychiatric disorders and rehospitalization.

The current study's finding that rehospitalization within a one year's time span was associated with prior hospitalizations was not surprising given the comparable findings from a large scale longitudinal study conducted on children in out-of-home care (James et al. 2006). These researchers found that children who entered into intensive or restrictive settings, such as inpatient hospitalization, had several out-of-home placements prior to their entry into a restrictive setting. One possible explanation is that those with prior hospitalization have more severe psychiatric problems resulting in higher recidivism rates. Another possibility is that lack of effective posthospitalization mental health services is provided for these children and adolescents after discharge (Foster 1999). As other researchers have suggested (e.g. Pavkov et al. 1997), these findings on multiple placements in restrictive settings necessitate the identification of effective posthospitalization treatment approaches so that children and adolescents are linked to appropriate community services. Since Blader (2004) observed that most psychiatric readmissions occur within 90 days of discharge and are closely related to parental stress and disengaged child–parent relationships, social workers may arrange intensive parental support such as stress coping and positive parenting training within this period of time.

Another major factor associated with rehospitalization in the current study was residential placement of the child/adolescent. Residential placement is a highly restrictive setting, second only to inpatient hospitalization, and has come under

considerable scrutiny over the past few years (e.g., Burns et al. 1999). Criticisms are akin to those leveled against inpatient hospitalization settings. Burns and colleagues contend that despite the high amount of mental health resources given to this intensive treatment modality there is minimal research supporting its efficacy. In fact, most studies (e.g., Joshi and Rosenberg 1997; Loeber and Farrington 1998) indicate that placing youth with a history of extreme violent and aggressive behavior together in a restrictive setting leads to increased deviant behavior and may even promote contagion effects (Dishion et al. 1999). Besides, workers in residential placement tend to have a lower tolerance level of deviant behavior and also have a lower threshold for psychiatric hospitalization in order to avoid problems or minimize liability. In contrast, biological families may have more engaging relationships with the youth, and perhaps therefore a stronger threshold for psychiatric hospitalization (Leon et al. 1999).

Both community-based interventions that involve the parents or caregivers (Henggeler et al. 1998) and highly targeted behavioral interventions provided to the family on an outpatient basis (Brestan and Eyberg 1998) show more promise in working with severely externalizing adolescents than more restrictive mental health treatment facilities. Adolescents placed in restrictive settings, whether inpatient or residential, have a higher tendency of being placed in multiple restrictive environments in comparison to their counterparts placed in less restrictive settings. The study's finding that externalizing behaviors, such as oppositional defiant behaviors, were linked to instability in placement out of the home (in this case, rehospitalization), has been found frequently in research (e.g. Barber et al. 2001; James et al. 2004, 2006). Only recently has a study uncovered the causal direction of disruptive behaviors and unstable placement patterns. Newton et al. (2000) found that behavior problems not only predicted but also were an outcome variable of multiple placement changes in children and youth. Not surprisingly, behavior problems often lead to a change in treatment placements and also seem to perpetuate this unstable pattern of changing placement.

Implications for Intervention

Taking all of the current study's findings together with those from similar research studies, there is no doubt that restrictive settings, such as inpatient and residential treatment centers, need to address disruptive behaviors in youth since these youth are the most likely candidates for rehospitalization. These adolescents often exhibit 'barrier behaviors' like physical aggression and damage to property that keep them from re-entering successfully into their communities (Isett et al. 1980). Just as residential treatment centers are focusing their services on a 'stop-gap' model (McCurdy and McIntyre 2004), so should inpatient hospitalization facilities. This 'stop-gap' model focuses goals on reducing the "downward spiral of increasingly disruptive and antisocial behavior" (p. 141) by decreasing the length of stay in restrictive settings and preparing caregivers for success after discharge. McCurdy and McIntyre identify a full array of services needed to employ a 'stop-gap' model within a residential treatment center, all of which are associated with positive

outcomes in research studies. The three general intervention areas include environmental-based, intensive and discharge-related interventions.

Some of the environmental interventions appropriate for residential care can also be employed during inpatient care by clinical social workers, no matter how short the stay. One of these important interventions includes the use of token economies that help to immediately reduce or eliminate the external behaviors that lead to barriers (Sugai and Horner 2003). Behavior support interventions such as those that promote prosocial behaviors and utilize response costs as negative consequences have been shown to be efficacious with aggressive youth. The well-researched work of Barkley et al. (1999) and the work of Goldstein et al. (1998), offer practical guidance on how to create structured and explicit expectations and consequences for conduct disordered adolescents. Other environmental interventions include specific skills training such as problem solving (Kazdin et al. 1992) and anger management (Lochman 1992), which have shown positive effects with externalizing youth and could readily be implemented within an inpatient hospitalization setting. Of course, coordination between treatment providers within the inpatient unit and external treatment agency is necessary so that these youth can continue their skills training once discharged.

In terms of intensive intervention, the use of behavior specialists and functional behavior assessments may be useful in determining behaviors that are especially detrimental, intense or recalcitrant to change (Cooper et al. 2007). Such a thorough evaluation of the function of behaviors while in intensive treatment would be especially useful once the youth is integrated back into their residential treatment center. In fact, a functional analysis inventory (Repp and Horner 1999) can be completed on the adolescent's behavior (e.g., physical aggression) to determine the possible functions (e.g., attention, automatic reinforcement, access to tangible items, or escape). The function of the verbal behavior may be to gain attention, get out of some activity, or even, to get placed in the psychiatric hospital. The functional analysis of a behavior can provide the social worker or caregiver with a plethora of information that could be used to decrease the negative behavior, thus, reducing psychiatric hospitalizations.

McCurdy and McIntyre (2004) advise that promoting family involvement is an essential aspect of discharge-related interventions in a residential treatment center, and likewise, can be implemented within an inpatient facility. In the work of inpatient hospitalized youth, intensive case mangers, such as clinical social workers, may serve as a liaison between treatment centers and caregivers, and certainly case managers from residential treatment centers should be actively involved in hospital care and transition planning for the youth. Certain groups may need additional effort to overcome barriers to accessing or remaining in aftercare treatment. Goldston et al. (2003) monitored 180 adolescents for up to eight years after their discharge from an inpatient psychiatric facility and concluded, "Psychiatric comorbidity, prior service use, and *presence of a biological parent/grandparent in the home* were related to initial service use…[while] older age and minority group status were related to shorter duration of aftercare service use" (p. 49, emphasis ours). Thus adolescents not living with biological relatives may need especially targeted

intervention to ensure continuity of care postdischarge, without which they are vulnerable to rehospitalization.

Although employing research-based therapeutic programs would benefit youth who require inpatient hospitalization, there is another placement option of note for youth exhibiting externalizing behaviors and/or experiencing multiple restrictive care placements: therapeutic foster care. Of the most restrictive treatment settings, therapeutic foster care for children and adolescents with serious behavioral and emotional disturbances is the most cost effective and shows the most research-based support (Farmer et al. 2004). Therapeutic foster parents are highly trained professionals that work with youth having special needs, in particular serious and multiple behavior and emotional problems (Burns et al. 1999). These parents are paid higher than the typical foster parent, often work with only one child at a time and receive intensive supervision and guidance from mental health professionals. Research has shown that in comparison to youth placed in residential care, youth in therapeutic foster care make significantly more improvements in such areas as improved self-esteem and reduced aggressive behavior and most importantly, most maintain these gains after leaving foster care (e.g. Chamberlain and Reid 1991; Curtis et al. 2001). Thus social workers should consider this option when planning posthospitalization placement for children and youth who are not able to return home to live with biological parents.

Limitations

Due to the exploratory nature of this study, the findings should be cautiously interpreted and applied. One of the limitations of this research was its focus on only one inpatient hospitalization facility; therefore, we are cautious in generalizing our findings to other inpatient treatment facilities. There is the possibility that this particular facility studied may struggle in its treatment of externalizing behaviors. Perhaps they failed to use research-based practices for these complicated behavior problems and hence these barrier behaviors persisted and led to a significant recidivism rate for these youth. Effective treatment interventions with these vulnerable youth is necessary especially given their tendency to spend more time in restrictive care (Lawder et al. 1986) and their increased risk of continued externalizing behavior into adulthood (Fanshel et al. 1990). Another limitation of this study involved its somewhat short data collection time frame. In order to confirm the findings found in this study, more extensive longitudinal studies are needed that collect data over a number of years and that derive data from multiple inpatient hospitalization samples. Finally, data on the relationship between length of hospital stay (LOS) and readmission rates were not available in this study. Given the well-documented trend in reduced LOS for inpatient hospitalization of children and adolescents (Case et al. 2007) and the increased risk for readmission with shorter LOS found in some studies (Figueroa et al. 2004; Wickizer et al. 1999), further research on these variables is warranted. Especially needed is *nationally representative* research on patterns of psychiatric hospital usage for children and adolescents in the current decade (2000 and beyond).

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