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Adolescent Psychiatric Readmission in Rural West Texas

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ABSTRACT

The purpose of the following replication study was to collect and analyze data regarding demographic, psychological, and environmental factors that are associated with adolescent readmission. A literature review was conducted, as well as a manual chart review of 16 adolescent patients from May 2019 to January 2020. Frequencies and descriptive statistics were run and results suggest that the majority of adolescents readmitted were female, living with a stepparent, had been diagnosed with some variation of major depressive disorder, identified as heterosexual, and had experienced some type of bullying, abuse, or other trauma. Oceans Behavioral Hospital provides specialized care, however the short time period that patients are in the hospital, the changing nature of mental health, and the lack of electronic charting at the agency require that further research be done to determine the significance of the results.

Adolescent Psychiatric Readmission in Rural West Texas

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CHAPTER I

INTRODCUTION

Inpatient psychiatric readmission is costly both financially and socially, and there is a need to limit the number of readmissions to psychiatric hospitals (James et al., 2010; Young, Ramachandran, Freeman, Bentley, & Banahan, 2019). Approximately 600,000 adolescents received inpatient psychiatric services in 2013, the last time the Substance Abuse and Mental Health Services Administration (SAMHSA) collected data on service usage (Lipari, Hedden, Blau, & Rubenstein, 2013).

The following review of the literature aims to synthesize risk factors associated with adolescent readmission. There were some inconsistencies in the literature, which may be due to the varying geographic locations in which the studies were published, including New Zealand, Australia, the U.K., and the U.S. In addition, there were methodological differences in the time to readmission ranging from 30 days to 12 months. The literature revealed that risk of rehospitalization is highest within first 30 days, and if there is a readmission during that time, there is an increased risk that a third readmission could occur within the next year (James et al., 2010; Markota et al., 2018). However, readmission rates significantly decrease after the first 90 days (James et al., 2010).

The review of the literature informed the methodology of the following study by identifying important variables which were used in this study. Variables such as psychiatric symptoms and disorders, demographics, family dynamics, length of

hospitalization, and discharge plans were all synthesized to better understand the complex associations with psychiatric readmission.

The purpose of this study is to explore factors associated with adolescent readmission to assist Oceans Behavioral Hospital to develop a profile of patients likely to readmit. Although the organization keeps a running tally of those readmitted, this information will help the organization better address the needs of their patients and reduce the chances of their readmission.

CHAPTER II

REVIEW OF LITERATURE

Disorders and Symptoms

There is a general consensus that adolescents with a history of receiving mental

health services, or having self-harming behaviors, suicide attempts, or suicidal thoughts

have an increased risk of readmission. Suicidal thoughts and attempts vary in severity and

presentation, typically ranging from subclinical presentations, to a decline in functioning

and happiness, to severe dysregulation of emotions that take a chronic course (Berona,

Horwitz, Czyz, & King, 2017; Wolff et al., 2018). Depressive symptoms, hopelessness,

anxiety, and emotional dysregulation are all positively associated with suicidal ideation,

which is positively associated with psychiatric hospital admissions (Berona et al., 2017;

Wolff et al., 2018).

However, there are inconsistencies in the literature regarding specific diagnoses

that lead to an increased risk of readmission with results that include oppositional defiant

disorder, post-traumatic stress disorder (PTSD), a learning disability, or depression and

anxiety-related disorders (Boekamp et al., 2018; Gathright et al., 2016; Similä, Hakko,

Riipinen, & Riala, 2018).

Persons with more than one diagnosis have also been shown to have an increased

risk for readmission, while in other studies diagnosis is not a significant predictor of

readmission at all (Donisi, Tedeschi, Salazzari, & Amaddeo, 2016; James et al., 2010;

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Tossone, Jefferis, Bhatta, Bilge-Johnson, & Seifert, 2014). The literature also revealed that involuntary admission results in higher rates of nonadherence to treatment, which could ultimately end up in readmission (Timlin, Hakko, Riala, Räsänen, & Kyngäs, 2015).

Demographics

Younger children in general are more likely to be readmitted, which may be due to a more chronic symptom course (Boekamp et al., 2018; Markota et al., 2018). Although readmission rates do not appear to vary by gender, symptoms and presenting problems do vary by gender (Markota et al., 2018; Similä et al., 2018; Timlin et al., 2015). Girls are more likely to be younger, have a mother that is unemployed, experience anxiety and sleep problems, and be diagnosed with an affective disorder (Similä et al., 2018).

Boys are more likely to be living in child welfare placements, be admitted for suicide attempts, and have a higher mortality rate (Similä et al., 2018). However, boys appear to be more likely to adhere to non-pharmacological treatment than girls, as well as treatment in general (Timlin et al., 2015).

The literature revealed that adolescents whose parents were unemployed or who were from low-income families, compared to their high-income related counterparts, were more likely to experience readmission (Similä et al., 2018; Timlin et al., 2015;). This could be the result of their inability to pay for inpatient hospitalization, or their inability to pay for needed psychiatric medications; however, research regarding this conclusion should be explored further.

In addition, the literature revealed that a significant amount of LGBTQ youth are experiencing bullying at school, have been the victim of violence or sexual assault, and are at an increased risk of having suicidal ideations or attempting suicide compared to their heterosexual counterparts (Bouris, Everett, Heath, Elsaesser, & Neilands, 2016; Markota et al., 2018). Even non-LGBTQ children who have experienced bullying are at an increased risk for rehospitalization (Markota et al., 2018; Tossone et al., 2014).

Family Dynamics

Adolescents whose parents respond in angry, hostile, or argumentative ways after a suicide attempt are at higher risk of recurrent suicide attempts, which could result in psychiatric rehospitalization (Greene-Palmer et al., 2015). Contrastingly, patients with peer and family support experienced reduced rates of suicidal ideation and depression (Czyz, Liu, & King, 2012).

In general, adolescents who have experienced family dysfunction and breakup are more at risk for emotional and behavioral issues that can lead to readmission (Rasmussen, Nielsen, Petersen, Christiansen, & Bilenberg, 2014). In addition, adolescents in child welfare placements or those who do not live with both biological parents are more likely to readmit (Kanamüller, Riala, Nivala, Hakko, & Räsänen, 2014; Similä et al., 2018). In addition, children whose parents are unemployed are more likely to be abused (Kanamüller et al., 2014).

Therefore, adolescents with supportive, loving, and stable parents are less likely to readmit (Similä et al., 2018). In addition, the majority of admitted adolescents have parents with their own mental health diagnoses, with inconsistencies in the literature regarding if this factor is a significant predictor of readmission (Boekamp et al., 2018).

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Children with a history of abuse have higher rates of PTSD, self-harming behaviors, and suicidal thoughts and attempts, and have been shown to increase the risk of being readmitted to a psychiatric hospital (Kanamüller et al., 2014; Keeshin et al., 2014; Tossone et al., 2014). Furthermore, they are prescribed more medication than their non-abused peers, which continues to adversely affect their lives financially and socially due to the side effects of medications and nonadherence that results from a complex medication routine (Keeshin et al., 2014). In addition, they have longer hospitalizations (Keeshin et al., 2014).

Length of Stay

The literature revealed that since the start of managed care, inpatient stays are now being associated with acute care and stabilization, and the rest is being left to outpatient services (Donisi et al., 2016; Markota et al., 2018; Masters, Baldessarini, Öngür, & Centorrino, 2014). As a result, fewer beds are available, and there is increasing pressure to shorten hospital stays (Markota et al., 2018; Donisi et al., 2016; Masters et al., 2014). Patients with public insurance experience a longer length of stay than those with private insurance (Masters et al., 2014). Longer hospitalization of initial admission demonstrated an increased risk in rehospitalization (James et al., 2010; Zeshan, Manocha, Waqas, Naveed, & Ghulam, 2018).

Multiple psychiatric diagnoses, comorbid medical diagnoses, not living with biological parents, family history of mental illness, and legal problems have all been shown to extend length of stay (Zeshan, et al., 2018). Children with a history of trauma have been shown to have shorter hospitalizations (Markota et al., 2018). In addition, patients with schizophrenia have been shown to experience a longer length of stay, while

patients with disruptive disorders or affective disorders have been shown to experience a shorter length of stay (Masters, et al., 2014; Zeshan, et al., 2018). Patients with larger doses of medication experience longer length of stay (Masters, et al., 2014).

Discharge Planning

Follow-up care such as special services at school and more hours of follow-up care resulted in reduced rates of readmission (Gathright et al., 2016; James et al., 2010; Timlin et al., 2015; Trask, Fawley-King, Garland, & Aarons, 2016; Savina, Simon, & Lester, 2014). Follow-up services should be a continuum of care that mirrors the interventions present during hospitalization and will be individualized for each patient based on their needs, which may include problem solving, emotion regulation, social and stress management skills through school assistance, medical services or outpatient therapy services (Savina et al., 2014; Young, Ramachandran, Freeman, Bentley, & Banahan, 2019).

Reintegration into school is an important part of discharge planning for adolescents, and a successful discharge plan will consist of a collaboration among the hospital staff, school staff, and parents that maximizes resources tailored to each child's specific needs (Savina et al., 2014). In addition, the combination of both medication management and therapy that continues to support the patient and help them use the tools they learned inpatient, such as coping skills, are important in managing life after discharge and reducing the likelihood of readmission (Gill, Butler, & Pistrang, 2016; Savina et al., 2014; Trask et al., 2016). However, if a patient does not meet with their psychiatrist or psychologist within seven days, it is likely they will readmit within seven days, especially if they have a psychiatric history (Donisi et al., 2016). Younger female

adolescents are less likely to receive follow-up care, as well as adolescents with anxiety, and adolescent with affective or disturbance disorders are more likely to receive follow-up services (Young et al., 2019).

Summary

In conclusion, major risk factors for adolescent psychiatric readmission include self-harming behaviors, suicidal ideations or attempts, unsupportive or unstructured home environments, chronic and severe mental illnesses, or receiving no outpatient services post discharge. The purpose of this study was to investigate factors associated with adolescent readmission at Oceans Behavioral Hospital (OBH), a psychiatric facility in rural West Texas, in which there are few options available for inpatient psychiatric care. This study seeks to inform OBH regarding which risk factors could be associated with adolescent readmission.

CHAPTER III

METHODOLOGY

Design

This study utilized a quantitative approach to conduct a risk assessment to discover what factors impact adolescent readmission at Oceans Behavioral Hospital, a private inpatient psychiatric hospital. This study's original intent was to be a replication study, based on an article by Markota et al. (2018). However, due to limitations in data access and the number of adjustments required, this study was instead modeled after Markota, et al. (2018).

Data Collection

Replicating Markota et al., data was collected retrospectively based on adolescents who had been readmitted to the inpatient private hospital between May 2019 and January 2020. This timeframe was selected due to the time period that paper charts are kept at the facility and to ensure that patients would be discharged during the data collection period that began in January. Data was collected by obtaining a list of adolescents who had been readmitted from the medical records department. Then, manual paper chart review was conducted by the researcher to analyze a history of trauma or abuse, a history of bullying among peers, family status, age at first admission, gender, LGBTQ status, and length of stay of initial hospital admission.

In addition to these variables that Markota et al. analyzed, this study also analyzed length between readmission, as the literature shows that if a patient readmits within the first 30 days, they are likely to readmit within the next three months or the next year (James et al., 2010; Markota et al., 2018). In addition, patient diagnoses were analyzed to determine if certain diagnoses impact hospital readmission. This additional factor was chosen to be analyzed based on the inconsistencies in the literature regarding if certain diagnosis impact readmission rates. There is a distinction between admitting diagnosis and discharge diagnosis, as this can sometimes change over the course of admission.

In addition, Markota et al. looked at patient age relative to their grade school year due to the increased stress that these individuals experience according to the study conducted by Price, Allen, Ukoumunne, Hayes, and Ford (2017). However, this study did not examine this factor due to the broad catchment area that this study analyzed and the differing school protocol of different counties.

All information was locked on a password-protected computer and locked in an office supervised by an administrator. All identifying information was removed prior to data analysis, including name, chart number, date of admission, date of readmission, and date of discharge. Patients were assigned a number based on the random order in which their chart was reviewed. The files of patients who had been readmitted within the last nine months were kept in a separate section of the OBH medical record department. All 16 patients who had files within that section were reviewed.

Participants

Markota et al. analyzed a smaller catchment area, but this study did not make exclusions based on geographic region due to the limited amount of comparable private

acute care facilities in the area, with the closest one ranging from 90 minutes to four hours. The age of inclusion ranged from 12-17 years old, as the unit only accepts adolescents of this age group. This study excluded data from participants who are pregnant or decisionally impaired.

Instruments

Inconsistent with Markota et al., PHQ-9 scores were not analyzed due to the lack of data collected by the agency. In addition, Markota et al. used a diagnosis of post-traumatic stress disorder, reactive attachment disorder, and a child and family services report as criteria for an experience of trauma or abuse. However, Markota et al. cite these criteria as a limitation, so this study will search for notes of trauma in documentation instead. Diagnoses are based on the ICD-10 Classification of Mental and Behavioural Disorders: Clinical Descriptions and Diagnostic Guidelines (World Health Organization, 2018).

Data Analysis

Quantitative data was analyzed based on a retrospective manual chart review of demographic information, history of trauma or abuse, length of stay during initial hospitalization, and LGBTQ status. Unlike Markota et al., statistics were run by hand instead of JMP v13.0.0 (SAS Institute Inc.) due to lack of access to the latter software. Frequencies and descriptive statistics were run by hand to produce results.

CHAPTER IV

RESULTS

A total of 16 adolescent patients were readmitted between 7 or 30 days during the

timeframe of May 2019-January 2020 (see Table 1). The mean age of these patients was

13.7 years old, with the youngest being 12 years old and the oldest being 17 years old.

The majority of patients were heterosexual, female, and lived in a household with

stepparents. One person in this study identified as gender fluid; however this category

was combined with bisexual, as this person also identified as bisexual.

Table 1

Demographics

		n	%
Age			
	Mean	13.7 years	
	Range	5 years (12 to 17 years)	
LGBTQ			
	Heterosexual	10	62.5
	Bisexual	5	31.3
	Homosexual	1	.6
Gender			
	Female	10	62.5
	Male	6	37.5
Ethnicity			
	Caucasian	11	68.8
	African American	3	18.7
	Hispanic	2	12.5
Family Living Situation*			
	Parents Remarried	7	43.7
	Single parent	3	18.8
	Both birth parents	2	12.5
	Adopted	1	.6
	Separated, not divorced	1	.6

*n=2 missing

The length of stay (LOS) ranged from 5-22 days (see Table 2). Of those readmitted, most had a history of trauma or abuse, ranging from physical, sexual and emotional abuse, to death of family members, to divorce in the family. In addition, at least four patients were bullied at school. The majority were diagnosed initially with a variation of major depressive disorder.

Table 2

Length of Stay and Diagnosis

		n	%
LOS initial			
	Mean	9.3 days	
	Range	17 days (5 to 22 days)	
	Mode	22 days	
Hx trauma/abuse			
	Yes	13	81.2
	No	3	18.8
Hx of bullying*			
	Yes	4	25
Initial Admitting Diagnosis**			
	Major depressive disorder	10	
	Schizophrenia unspecified	2	
	Disruptive mood dysregulation disorder	1	
	Unspecified mood [affective] disorder	1	
	Bipolar disorder	1	
Initial Discharge Diagnosis***			
	Major depressive disorder	14	
	Bipolar adjustment disorder mixed	1	

**n*=12 missing; ***n*=1 missing; ****n*=1 missing

The majority of patients were heterosexual, with others identifying as bisexual or

homosexual (see Table 3). Out of 16 patients, there were a total of 24 readmissions. Of

those, 11 patients only readmitted one time, and those results are shown in the table down

below. Of those who readmitted once, the majority had some variation of major

depressive disorder upon readmission and upon final discharge.

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Table 3

Length Between Readmission

		<7 days	8-30 days
LGBTQ			
	Heterosexual	10	12
	Bisexual	2	4
	Homosexual	1	0
Readmission Admitting Diagnosis			
	Major depressive disorder	4	3
	Disruptive mood dysregulation disorder	2	0
	Bipolar disorder	0	2
Readmission Discharge Diagnosis			
	Major depressive disorder	3	3
	Bipolar disorder	2	2
	Psychosis not otherwise specified	1	0

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CHAPTER V

DISCUSSION

The mean age of patients was 13.7 (see Table 1), which is supported by the literature that suggests that those who admit at a young age are likely to have more severe symptoms and a more chronic course of diagnosis, which results in more readmissions to provide appropriate psychiatric care (Boekamp et al., 2018; Markota et al., 2018). This study also found that 50% (*n*=3/6) of those who identified as LGBTQ were bullied (see Table 1). This is consistent with the literature in which studies have shown that LGBTQ youth are more likely to be bullied and experience suicidal ideations. (Bouris et al., 2016; Markota et al., 2018). In addition, 40% of those who identified as LGBTQ were readmitted multiple times, indicating that the identification as LGBTQ and the bullying resulting therefrom may be associated with higher readmissions. In general, of those readmitted, 81.3% experienced some type of trauma other than bullying, which means that children who have experienced abuse, bullying, or other forms of trauma are more likely than those who have not experienced bullying, abuse, or trauma to be readmitted for psychological care (Kanamüller, et al., 2014; Keeshin et al., 2014; Tossone, et al., 2014).

Oceans Behavioral Hospital (OBH) currently provides instruction on coping skills, as well as makes referrals for outpatient therapy upon discharge to address the needs of those who have experienced bullying or some other type of trauma or abuse.

However, because OBH is an acute care hospital, the goal is to stabilize patients to a point at which they are no longer a harm to themselves or others, and it is not always possible to address the complex impact of bullying and trauma. This task is mostly left to outpatient therapy appointments that discharge planners make for every patient. This is the result of managed care in which insurances now prefer patients' hospitalizations to be shorter and the rest managed outpatient (Donisi et al., 2016; Markota et al., 2018; Masters, Baldessarini, Öngür, & Centorrino, 2014). Although the literature suggests that those with follow-up services are less likely to readmit, it is not known whether those readmitted actually went to their scheduled appointments because OBH does not collect that data (Gill et al., 2016; Savina et al., 2014; Trask et al., 2016).

The current work found that the majority of those readmitted lived with stepparents (see Table 1). In addition, the next highest category of living situation was single parents. Those whose parents were divorced or were from a single-parent home were readmitted multiple times, and the one person who was adopted also had multiple readmissions. This is supported by the literature, which suggests that family disruption and breakup are likely to cause readmission (Rasmussen, Nielsen, Petersen, Christiansen, & Bilenberg, 2014).

The literature suggests that those with supportive and loving family and peer environments are less likely to readmit (Similä et al., 2018); therefore, staff should ensure that Child Protective Services becomes involved when appropriate and makes arrangements at discharge to ensure that the child is returning to a loving, supportive environment. This may include the therapist having a discussion about living arrangements in the family session that is required, as well as teaching the child coping

skills to provide the child with a sense of control over their environment, in which they can control their reaction to various situations.

The current study found that the mean length of stay was 9.3 days, which is longer than the seven days preferred by most insurances. This may be due to the fact that two patients were admitted for over 20 days while waiting on a bed for state hospitalization, with the mode being 22 days. In addition, it could be due to the fact that these patients experienced more severe mental illness, as evidenced by multiple readmissions.

For those with just one readmission, Table 3 indicates that there was generally the same number of patients with some form of major depressive disorder. However, out of those who were readmitted within seven days, 66.7% ($n=4/6$) of patients' diagnoses changed from the first admission to the final discharge; of those readmitted within 8-30 days only 20% ($n=1/5$) had a different diagnosis. For those who were readmitted multiple times, 50% ($n=2/4$) received a different diagnosis upon discharge than their initial diagnosis.

This could be due to the fluid nature of people's mental health. Mental health comes with many ups and downs, most often depending on a person's adherence to treatment or life circumstances. The process of getting to know a patient in which more information can be gathered and a more accurate diagnosis given may also explain the differing diagnosis. OBH is a for-profit hospital and mental healthcare providers are sometimes "flexed" or, in other words, not needed and asked to stay home, which sometimes results in inconsistencies in diagnosis as well due to the providers' differing views in judgement and the broad definitions of diagnosis in the ICD-10.

Implications

Even though there was a small number of participants, which precluded statistical analysis, the risk assessment conducted found consistencies in the literature that suggest those readmitted were more likely to be female, have experienced some form of trauma or abuse, and live with a stepparent. In addition, most were diagnosed with major depressive disorder, and their diagnosis changed over the course of hospitalization and readmissions. The agency should pay special attention to patients with this profile in order to reduce the likelihood that these patients are readmitted.

Limitations

A limitation of this study includes a small sample size. This was the result of a small timeframe from which this researcher had to collect data. Access to charts was limited due to the way in which data is collected by the agency and the organization of charts. The agency collects data only on rapid readmissions, and data is grouped by 7- or 30-day readmissions. There is a general list of readmissions for the whole year, but the data are only organized by provider, and the medical record number is not included in the collection of data, so it was not possible to review those charts. The agency has not yet implemented electronic charting, and charts are kept off site after a certain date and cost a fee to obtain. This study did not allot a budget in order to obtain those charts, which therefore limited the sample size.

Another limitation of the study is that charting was inconsistent, which led to some missing data. Some data were only available for a few patients. For example, it was unclear whether patients were bullied or not in some charts because there was not a

specific question asking whether the patient was bullied. However, some interviewers asked this question and noted it in the chart. Additionally, some adolescents had multiple diagnoses, but treatment and discharge were based on the principal diagnosis, and charting was inconsistent on the different diagnosis. Again, electronic charting would likely help with this issue.

In addition, although the literature suggests that those who receive outpatient services after discharge are less likely to readmit (Gathright et al., 2016; James et al., 2010; Savina et al., 2014; Timlin et al., 2015; Trask et al., 2016), it is unclear whether that is the case for this agency because they do not collect data on whether patients received the services to which they were referred. However, the agency does collect data on if patients were receiving mental health services in general, such as seeing a therapist, psychiatrist, or case manager, but it is unclear if those services are the direct result of referral. In retrospect, it would have been beneficial to collect this data to better understand if this made an impact on readmission. It is likely that those who readmitted within seven days did not attend outpatient services, as evidenced by literature that suggests if a patient does not attend an appointment with a psychologist within the first seven days after discharge, it is likely they will readmit within seven days, especially if they have a psychiatric history (Donisi et al., 2016).

REFERENCES

Berona, J., Horwitz, A. G., Czyz, E. K., & King, C. A. (2017). Psychopathology profiles
of acutely suicidal adolescents: Associations with post-discharge suicide attempts
and rehospitalization. *Journal of Affective Disorders*, 209, 97–104.
doi:10.1016/j.jad.2016.10.036.

Boekamp, J. R., Liu, R. T., Spirito, A., Mernick, L. R., DeMarco, M., & Martin, S. E.
(2018). Predictors of partial hospital readmission for young children with
oppositional defiant disorder. *Child Psychiatry & Human Development*, 49(4),
505–511. doi:10.1007/s10578-017-0770-8

Bouris, A., Everett, B. G., Heath, R. D., Elsaesser, C. E., & Neilands, T. B. (2016).
Effects of victimization and violence on suicidal ideation and behaviors among
sexual minority and heterosexual adolescents. *LGBT Health*, 3(2), 153–161.
doi:10.1089/lgbt.2015.0037

Czyz, Ewa K., Liu, Z., & King, Cheryl A., (2012). Social connectedness and one-year
trajectories among suicidal adolescents following psychiatric hospitalization.
Journal of Clinical Child & Adolescent Psychology, 41(2), 214–226.
doi:10.1080/15374416.2012.651998

Donisi, V., Tedeschi, F., Salazzari, D., & Amaddeo, F. (2016). Pre- and post-discharge
factors influencing early readmission to acute psychiatric wards: Implications for
quality-of-care indicators in psychiatry. *General Hospital Psychiatry*, 39, 53–58.
doi:10.1016/j.genhosppsych.2015.10.009

Gathright, M., Holmes, K., Morris, E., Gatlin, D., Gathright, M. M., Holmes, K. J.,

    Gatlin, D. A. (2016). An innovative, interdisciplinary model of care for inpatient

    child psychiatry: An overview. *Journal of Behavioral Health Services &*

    Research, 43(4), 648–660. doi:10.1007/s11414-015-9484-5

Gill, F., Butler, S., & Pistrang, N. (2016). The experience of adolescent inpatient care and

    the anticipated transition to the community: Young people's perspectives. *Journal*

    of Adolescence, 46, 57–65. doi:10.1016/j.adolescence.2015.10.025.

Greene-Palmer, F. N., Wagner, B. M., Neely, L. L., Cox, D. W., Kochanski, K. M.,

    Perera, K. U., & Ghahramanlou-Holloway, M. (2015). How parental reactions

    change in response to adolescent suicide attempt. *Archives of Suicide Research*,

    19(4), 414. doi.org/10.1080/13811118.2015.1094367

James, S., Charlemagne, S. J., Gilman, A. B., Alemi, Q., Smith, R. L., Tharayil, P. R., &

    Freeman, K. (2010). Post-discharge services and psychiatric rehospitalization

    among children and youth. *Administration and Policy in Mental Health and*

    Mental Health Services Research, 37(5), 433–445. doi:10.1007/s10488-009-0263-

    6

Kanamüller, J., Riala, K., Nivala, M., Hakko, H., & Räsänen, P. (2014). Correlates of

    sexual abuse in a sample of adolescent girls admitted to psychiatric inpatient care.

    Journal of Child Sexual Abuse, 23(7), 804–823.

    doi:10.1080/10538712.2014.950401

Keeshin, B. R., Strawn, J. R., Luebbe, A. M., Saldaña, S. N., Wehry, A. M., DelBello, M.

    P., & Putnam, F. W. (2014). Hospitalized youth and child abuse: A systematic

examination of psychiatric morbidity and clinical severity. *Child Abuse &*

Neglect, 38(1), 76–83. doi:10.1016/j.chiabu.2013.08.013.

Lipari, R.N., Hedden, S., Blau, G. & Rubenstein, L. *Adolescent mental health service use*

and reasons for using services in specialty, educational, and general medical

settings. The CBHSQ Report: May 5, 2016. Center for Behavioral Health

Statistics and Quality, Substance Abuse and Mental Health Services

Administration, Rockville, MD. Retrieved from

https://www.samhsa.gov/data/sites/default/files/report_1973/ShortReport-

1973.html

Markota, M., McKean, A. J., Romanowicz, M., Schak, K. M., Croarkin, P. E., & Vande

Voort, J. L. (2018). Rehospitalization to a child and adolescent psychiatry unit:

Role of trauma and bullying. *General Hospital Psychiatry*, 55, 10–14.

doi:10.1016/j.genhosppsych.2018.08.010

Masters, G. A., Baldessarini, R. J., Öngür, D., & Centorrino, F. (2014). Factors

associated with length of psychiatric hospitalization. *Comprehensive Psychiatry*,

55(3), 681–687. doi:10.1016/j.comppsych.2013.11.004

Price, A., Allen, K., Ukoumunne, O. C., Hayes, R., & Ford, T. (2017). Examining the

psychological and social impact of relative age in primary school children: a

cross-sectional survey. *Child: Care, Health & Development*, 43(6), 891–898.

doi:10.1111/cch.12479.

Rasmussen, C. S., Nielsen, L. G., Petersen, D. J., Christiansen, E., & Bilenberg, N.

(2014). Adverse life events as risk factors for behavioural and emotional problems

in a 7-year follow-up of a population-based child cohort. *Nordic Journal of Psychiatry*, 68(3), 189–195. doi:10.3109/08039488.2013.794473

Savina, E., Simon, J., & Lester, M. (2014). School reintegration following psychiatric hospitalization: An ecological perspective. *Child & Youth Care Forum*, 43(6), 729–746. doi:10.1007/s10566-014-9263-0

Similä, N., Hakko, H., Riipinen, P., & Riala, K. (2018). Gender specific characteristics of revolving door adolescents in acute psychiatric inpatient care. *Child Psychiatry & Human Development*, 49(2), 225–233. doi:10.1007/s10578-017-0744-x

Timlin, U., Hakko, H., Riala, K., Räsänen, P., & Kyngäs, H. (2015). Adherence of 13-17 year old adolescents to medicinal and non-pharmacological treatment in psychiatric inpatient care: Special focus on relative clinical and family factors. *Child Psychiatry & Human Development*, 46(5), 725–735. doi:10.1007/s10578-014-0514-y

Tossone, K., Jefferis, E., Bhatta, M. P., Bilge-Johnson, S., & Seifert, P. (2014). Risk factors for rehospitalization and inpatient care among pediatric psychiatric intake response center patients. *Child and Adolescent Psychiatry and Mental Health*, 8. doi.org/10.1186/1753-2000-8-27

Trask, E. V., Fawley-King, K., Garland, A. F., & Aarons, G. A. (2016). Do aftercare mental health services reduce risk of psychiatric rehospitalization for children? *Psychological Services*, 13(2), 127–132. doi:10.1037/ser0000043

World Health Organization. (2018). *The ICD-10 classification of mental and behavioural disorders: Clinical descriptions and diagnostic guidelines*. Geneva: World Health Organization.

Wolff, J. C., Davis, S., Liu, R. T., Cha, C. B., Cheek, S. M., & Nestor, B. A., Spirito, A.

    (2018). Trajectories of Suicidal Ideation among Adolescents Following

    Psychiatric Hospitalization. *Journal Of Abnormal Child Psychology*, *46*(2), 355–

    363. doi:10.1007/s10802-017-0293-6

Young, J., Ramachandran, S., Freeman, A. J., Bentley, J. P., & Banahan, B. F. (2019).

    Patterns of treatment for psychiatric disorders among children and adolescents in

    Mississippi Medicaid. *PLoS ONE*, (8). doi.org/10.1371/journal.pone.0221251

Zeshan, M., Manocha, P., Waqas, A., Naveed, S., & Ghulam, H. (2018). Factors

    predicting length of stay in an adolescent psychiatric unit, South Bronx, NY: A

    Short Report. *Journal of the Canadian Academy of Child & Adolescent*

    Psychiatry, 27(2), 142–147. ISSN:1719-8429

APPENDIX A

Institutional Review Board Approval Letter

ABILENE CHRISTIAN UNIVERSITY
Educating Students for Christian Service and Leadership Throughout the World

Office of Research and Sponsored Programs
320 Hardin Administration Building, ACU Box 29103, Abilene, Texas 79699-9103
325-674-2885

December 9, 2019

Keila Gabel
Department of Social Work
Abilene Christian University

Dear Keila,

On behalf of the Institutional Review Board, I am pleased to inform you that your project titled "Adolescent Psychiatric Readmission in Rural West Texas",

(IRB# 19-130   ) is exempt from review under Federal Policy for the Protection of Human Subjects.

If at any time the details of this project change, please resubmit to the IRB so the committee can determine whether or not the exempt status is still applicable.

I wish you well with your work.

Sincerely,

Megan Roth

Megan Roth, Ph.D.
Director of Research and Sponsored Programs

Our Promise: ACU is a vibrant, innovative, Christ-centered community that engages students in authentic spiritual and intellectual growth, equipping them to make a real difference in the world.

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