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## Improving Access to Appropriate Level of Psychiatric Care for Youth in Washington State

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Improving Access to Appropriate Level of Psychiatric Care  
for Youth in Washington State

Natasha M. Zamora, RN

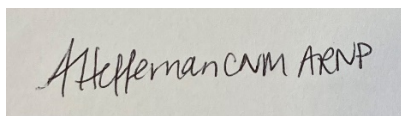
A DNP project submitted in partial fulfillment of the  
requirements for the degree of  
Doctor of Nursing Practice

Seattle University

2022

Approved by:  Date: June 7, 2022

DNP Faculty Mentor: Elizabeth Gabzdyl, CNM, DNP, ARNP



Approved by: \_\_\_\_\_ Date: June 9, 2022

DNP Project Reader: Amanda Heffernan, MSN, CNM

### Abstract

**Objective:** To advocate for better mental health coverage for adolescent youth, the goal of this DNP project was to identify disparities across levels of care based on insurance type to propose a solution that improves accessibility to appropriate levels of care for all adolescents.

**Design:** This is a patient advocacy project that utilized a retrospective chart review.

**Setting:** The setting for this project was a 27-bed hospital-based adolescent behavioral health unit in a hospital in Tacoma, WA.

**Participants:** Participants included 875 patients admitted to the unit between April 2020 and April 2021.

**Methods:** Patient charts from the desired time frame were manually reviewed and pertinent data was extracted. Descriptive statistics were used to capture the metric data.

**Results:** The average length of stay was slightly higher for patients with Medicaid compared to private insurance. Most patients were admitted for a diagnosis of major depressive disorder, typically only had one hospitalization prior to admission to the ABHU, were set up with outpatient services upon discharge, and had zero readmissions following discharge. There was a statistically significant association found between services set up for discharge and insurance type, as well as between services utilized prior to admission and insurance type.

**Conclusion:** This study did find gaps in levels of care based on insurance type. There is much work to be done to help improve the accessibility to appropriate services for adolescent psychiatric care and the results of this study are helpful in understanding the gaps that need to be filled.

**Keywords:** mental health, psychiatry, insurance, adolescent, coverage, services, and health care

## **Improving Access to Appropriate Level of Psychiatric Care for Youth in Washington State**

Adolescence is a vulnerable and transformative time in a person's life. It is a time of many physical, emotional, and social changes that ultimately continue to shape the person that they become. Adverse childhood experiences (ACEs) are potentially traumatic experiences that occur in childhood, including characteristics of a child's environment that can influence their sense of "safety, stability, and bonding" (Center for Disease Control and Prevention [CDC], 2021). The CDC describes how these experiences have been linked to an increase in chronic health problems, mental illness, substance use, and other risky behaviors in adulthood, with almost 61% of adults surveyed across 25 states reporting that they had at least one type of adverse childhood experience (2021). The ability to address these ACEs early on can have a profound impact on how these individuals transition into adulthood, with less mental health needs that put a burden on themselves and the healthcare system. The findings of a study by Heboyan et al. (2021) suggest that stronger mental health insurance laws were associated with a significantly lower number of mental health visits as an adult.

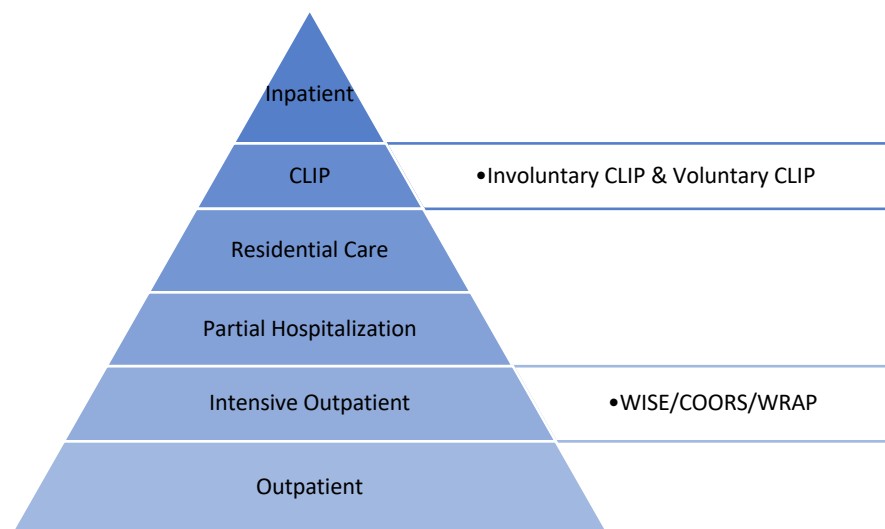
Despite the importance of mental health care in childhood, even in states with the greatest access for youth, almost 50% of youth that need mental health services are not receiving appropriate care (Mental Health America, 2020). In the state of Washington alone, Mental Health America (2020) assigned the state a ranking of 43, where numbers between 39 and 51 indicate states where youth have a higher prevalence of mental illness and lower rates of access to care. Additionally, there are limitations in trying to understand the level of accessibility to care for those that are uninsured because they may not know how or where to seek care in the first place. According to the World Health Organization (WHO), the key mental health promotion and prevention interventions are "to strengthen an individual's capacity to regulate emotions, enhance alternatives to risk-taking behaviors, build resilience for managing difficult situations and adversity, and promote supportive social environments and social

networks” (2021). This begins, first and foremost, by ensuring equitable and appropriate mental health care access for all individuals in childhood and beyond. Thus, to advocate for better mental health coverage for adolescent youth, the purpose of this DNP project was to identify gaps in levels of care based on insurance type by utilizing a retrospective chart review.

### Background and Significance

For the purpose of this study, it is important to distinguish the levels of psychiatric care available. *Inpatient* care typically refers to a locked psychiatric unit in a hospital or standalone facility with the average stay ranging from 7-14 days. *Child Long-Term Inpatient Program (CLIP)* is an intensive inpatient psychiatric treatment that is publicly funded by federal and state Medicaid dollars, with stays typically lasting approximately 180 days. *Residential care* is a facility-based setting that is less acute than a hospital setting, often for those patients that require an extended period of treatment. *Partial hospitalization* entails attending a program 5-6 times per week for approximately eight hours; the patient can remain in a home environment but still has acute treatment needs that must be met. *Intensive outpatient* entails attending a program 3-4 times per week for approximately three hours. *Outpatient* services set patients up to attend therapy around 1-2 times per week for approximately one hour each session.

*Wraparound with Intensive Services (WISE)* take a multidisciplinary team-based approach for follow-up and are available in home and community settings.



*Hierarchical display of the psychiatric levels of care that are available.*

It is also important to describe the insurance types that are being evaluated in this project. Medicaid is the government assistance plan that seeks to ease the burden of cost for health insurance for low-income individuals and families. Private insurance companies can include a variety of providers that are purchased through a marketplace, by an employer, or directly from an insurance company.

This distinction of levels of care and of insurance types is useful in understanding the drive behind this DNP project. A psychiatric ARNP at the project site recognized a pattern of certain discharge services being restricted due to contracting limitations with specific insurance providers. She found that this drastically influenced the level of care she can offer a patient following discharge from the Adolescent Behavioral Health Unit. This piqued an interest in wanting to understand more about insurance coverage, to better advocate for her patients. She has continued to be a voice for patients who would qualify for and benefit from particular levels of care based on their situation, but are denied access due to insurance coverage. By exploring what factors are creating these gaps in equitable coverage across insurance types, we can encourage an expansion of covered services, therefore increasing access for the patients who will benefit from them the most.

### **Review of the Literature**

With the goal of bridging the gap between coverage and access to care between different insurance types, a review of literature was performed with the intention of investigating how insurance impacts variables such as length of stay, placement of referrals, barriers to accessing the recommended level of care, and discharge outcomes. This literature review includes relevant works found through PubMed, EBSCOhost/CINAHL, and Google Scholar. Search criteria included the key words “mental health”, “psychiatry”, “insurance”, “adolescent”, “coverage”, “services”, and “health care”.

The focus of this review of literature is on the adolescent age group (ages 13-18), where there is a significant intersection of growth and development for an age group where 49.5% of

adolescents have mental, behavioral, or emotional disorders and 22.2% of those experience severe impairment (Hamersma & Ye, 2021). A longitudinal study by Heboyan et al. (2021) highlighted that the effects of strong mental health laws in childhood and adolescence reduced the demand for mental health visits in adulthood, showing the long-term impact that appropriate health care has when interventions are put in place sooner rather than later.

### **Medicaid**

Overall, Medicaid appears to provide greater access to a wider range of services, especially when it comes to mental health. A qualitative study of Medicaid expansion by Winetrobe et al. (2016) found that patients who took advantage of the Medicaid expansion had greater access to specialty services, medications, medical supplies, and mental health care. The Medicaid expansion helped address new eligibility requirements that allowed many homeless young adults to qualify for Medicaid. Hamersma & Ye (2021) reported that the State Children's Health Insurance Program (SCHIP) led to an increase in coverage for children in older age groups, especially those above the poverty line, because the program was designed specifically to reach children with incomes above the traditional Medicaid limit. However, Lynch et al. (2021) found that children with comprehensive coverage under Medicaid had decreased odds of care coordination.

### **Private Insurance**

Graaf (2021) found that unmet mental health needs among children with severe emotional disturbance were frequently associated with either a lack of health insurance or private health insurance, because private companies cover relatively few mental health treatments and do not typically cover community-based support. Yet, Golberstein (2015) found that after the ACA expanded dependent coverage, inpatient and emergency department services were less likely to be uninsured, which could have been associated with a rise in the likelihood that hospital-based care for mental health diagnoses rose and individuals were now being covered privately.

### **Transfers of Care**

An important factor, especially in today's environment amidst a global pandemic, is the availability of appropriate staffing. A study by Kissee et al. (2021) cites "a lack of available specialists, support staff, or resources, which may require patients to be transferred to another facility for definitive care" as a reason why emergency room visits for pediatric mental health concerns have doubled in the past decade. This could also create additional strain on the health care system and on the family, should care need to be obtained outside of the scope of their insurance coverage. Leff et al. (2021) recognizes the reliance on community-based mental health providers such as outpatient clinics, schools, and telepsychiatry services during the COVID-19 pandemic as well, which are also lacking in availability.

Kissee et al. (2021) found that uninsured pediatric patients, whose primary diagnosis was a mental health disorder, were three and a half times more likely to be transferred to another hospital compared to similar patients that had private insurance. However, there were similar rates of transfer for patients with Medicaid compared to those that had private insurance.

Regarding follow-up, Lynch (2021) found significantly increased odds of appropriate care coordination for children in the 10 to 14 age group, likely attributable to the availability of school-based resources for that age group.

### **Length of Stay**

Kissee et al. (2021) found that children with psychotic disorders are more likely to be admitted and held for brief stabilization rather than evaluated and released, resulting in longer lengths of stay. These children have the highest overall emergency department return rates, at nearly 40% compared to other pediatric mental health visits. Graaf (2021) found that Medicaid covers a broad range of home and community-based behavioral health and rehabilitative services, which could be attributed to the reduced financial barriers to accessing those services. This would result in shorter lengths of stay inpatient, but more improved follow-up and continuity of care in the outpatient setting.



## **Framework**

This DNP project utilized the "Plan-Do-Study-Act (PDSA)" cycle as a theoretical framework. This model for improvement utilizes a continuous cycle to enact meaningful change. The process begins with forming a plan by establishing a goal, reviewing pertinent literature and data, and utilizing evidence-based practices. The plan is then put into action. The results and outcomes are recorded, and the data is used to make adjustments, if needed, to the plan of action until the desired end goal is achieved.

The goal of this model is to accelerate improvement by strategically evaluating changes and adjusting based on aims that are specific and measurable (Langley, 2009). For the purposes of this project, the planning phase begins with evaluating what insurance type and level of care produces the desired outcome. These aims that are specific and measurable will be used to create a proposal. Through a series of cycles, the idea is that teams can refine a plan of action several times until the end goal is reached.

## **Objectives**

To advocate for better mental health coverage for adolescent youth, the goal of this DNP project was to identify disparities across levels of care based on insurance type and formulate a solution to address these disparities. This would help improve accessibility to high quality, appropriate levels of care for all adolescents and ultimately, improving their quality of life in adulthood. This is a multi-part project and this installment focused on the data collection and analysis portion. The goal is to advocate for change by utilizing stakeholders, including health systems, medical organizations, legislators, and governing bodies. Moving forward, the project team will create case studies based on these findings in order to achieve the end goal: advocating for a solution that addresses the impact of coverage in order to provide better quality of care to all adolescents, regardless of insurance.

## **Methods**

### **Design and Setting**

This is a patient advocacy project that utilized a retrospective chart review. The setting for this project was a 27-bed hospital-based adolescent behavioral health unit (ABHU) within a MultiCare Health System hospital in Tacoma, WA.

### **Sample and Participants**

Participant data was gathered retrospectively using MultiCare Health System's Epic electronic medical records for patients admitted to the unit from April 2020 to April 2021 for a sample size of  $N = 875$ . There were no exclusion criteria. The minimum age of participants was 13 years old and the maximum age was 19 years old. Informed consent was not necessary as there is no patient interaction and data were extracted from electronic medical records. Patient medical record numbers were used for chart review purposes and patient identifiers were removed after all pertinent data was collected.

### **Stakeholders and Significance**

Important stakeholders in this project include the patients that utilize these services and their families, providers, administrators of the healthcare system, insurance companies, and legislators. Findings of this study can be utilized by other organizations, as well as insurance companies, to advocate for an increase in level of services to establish better outcomes for adolescent psychiatric patients. Additionally, future DNP students may be able to replicate this study to further evaluate suitability of insurance coverage for other departments and specialties.

### **Data Collection**

Admission data for April 2020 through April 2021 was reviewed by project team members. Patient charts from this time frame were manually appraised and pertinent data was extracted. The data points that were collected for each patient included: Medical record number, age, length of stay, admit date, discharge date, insurance information, diagnosis, number of total hospitalizations, number of readmissions following initial admission, current services utilized prior to admission, and services set up for discharge.

Initially, 970 lines of data, each corresponding to one admission, were tabulated. The data set was then refined by reviewing patient medical record numbers that appeared more than once, indicating multiple admissions in the same year. Data from the most recent admission was retained. After this review of the data set, 875 lines of data remained. The information was manually transferred into an Excel spreadsheet, de-identified, and exported for analysis.

### **Data Analysis**

Descriptive statistics were used to capture the metric data to create a comparison to assess for various characteristics across insurance types. Continuous data was assessed using a Wilcoxon test. Categorical data was analyzed using a Chi-Square or Fisher's Exact Test, when appropriate. Analysis was done using SPSS V28.

### **Ethical Considerations**

This project was exempt from Seattle University's Institutional Review Board as this project only utilized retrospective, de-identified data without "participants for whom to assess and provide protections". This project was approved through MultiCare Health System's Institutional Review Board, with the writer being approved as a co-investigator.

Patients were tracked by their medical record number for chart review and data collection purposes. The data set was password-protected and stored in a secure drive that was only accessible on MultiCare Health System's campus. Once all data was obtained, the data set was de-identified for data analysis.

### **Findings and Outcomes**

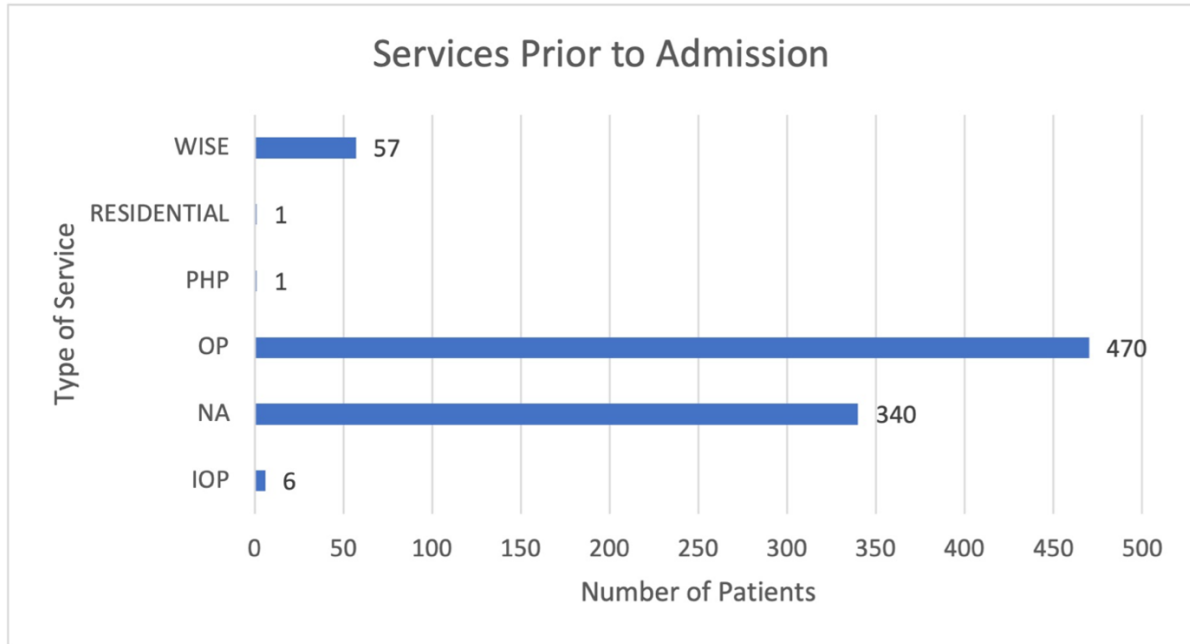
Regarding insurance type, 47.7% of patients had Medicaid insurance ( $n = 417$ ) and 52.3% of patients had private insurance ( $n = 458$ ). The average length of stay was slightly higher for patients with Medicaid (Median = 8, IQR = 1, Min/Max = 1/98) than those with private insurance (Median = 8, IQR = 1, Min/Max = 1/33). However, there was not a statistically significant association between length of stay and insurance type (two-sided  $p = 0.178$ ).

Overwhelmingly, the majority of patients were admitted with a diagnosis of major depressive disorder (85.49%,  $n = 748$ ). The chart below shows the distribution of the primary diagnosis on admission,  $n$  (%). “Other” includes personality disorders, Asperger’s, Autism, delusional disorders, and other miscellaneous psych disorders.

Primary Diagnosis on Admission	
Major Depressive Disorder	748 (85.49%)
Bipolar Disorders	42 (4.80%)
Adjustment Disorders	26 (2.97%)
Brief Psychotic Disorder	10 (1.14%)
Suicide Attempt (Diagnosis Unspecified)	10 (1.14%)
Conduct Disorder/Oppositional Defiant Disorder	7 (0.80%)
Anxiety Disorders	5 (0.57%)
Other	5 (0.57%)
Obsessive Compulsive Disorder	4 (0.46%)
Disruptive Mood Dysregulation Disorder	3 (0.34%)
Dysthymic Disorder	3 (0.34%)
Post-Traumatic Stress Disorder	3 (0.34%)
Schizoaffective Disorder, Bipolar Type	3 (0.34%)
Schizophrenia	2 (0.23%)
Schizophreniform Disorder	2 (0.23%)
Attention-Deficit Hyperactivity Disorder	1 (0.11%)
Intermittent Explosive Disorder	1 (0.11%)
<b>TOTAL</b>	<b>875 (100.00%)</b>

Prior to arriving at the ABHU, 53.71% of patients were utilizing outpatient services. 38.86% of patients were not utilizing any services. The chart below shows the distribution of services utilized prior to discharge, stratified by insurance type. The “Other” category groups together intensive outpatient, partial hospitalization, residential, and WISE services. A Chi-Square determined that there was a statistically significant association between services utilized prior to admission and insurance type (two-sided  $p = <.001$ ).

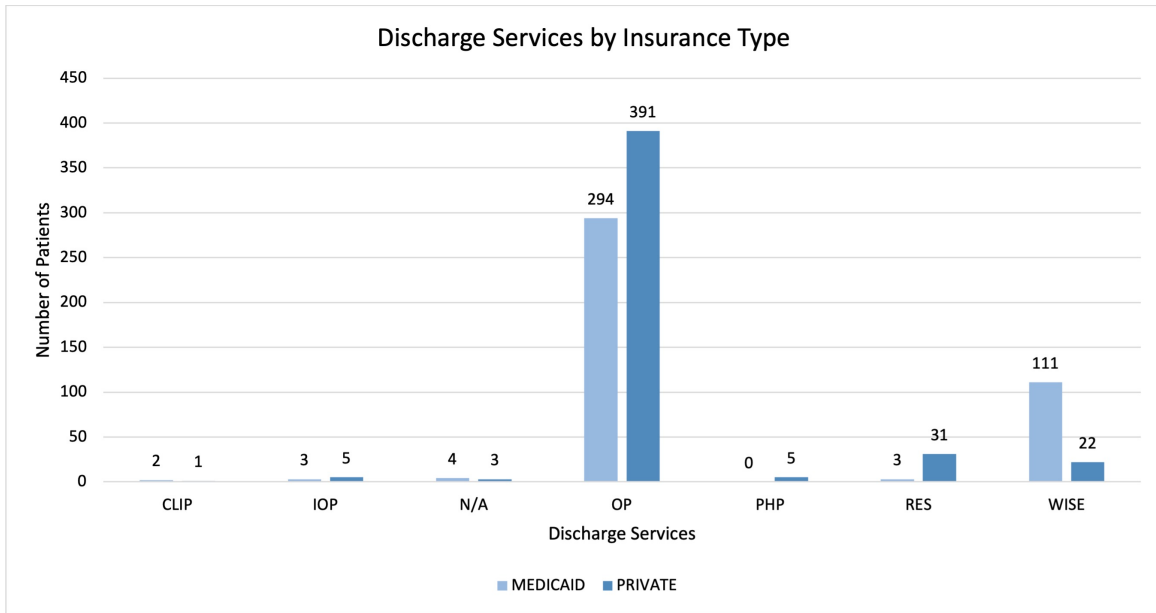
Medicaid ( $n = 417$ )	Private Insurance ( $n = 458$ )
1. Outpatient: 44.84% ( $n = 187$ )	1. Outpatient: 61.79% ( $n = 283$ )
2. None: 43.17% ( $n = 180$ )	2. None: 34.93% ( $n = 160$ )
3. Other: 11.99% ( $n = 50$ )	3. Other: 3.28% ( $n = 15$ )



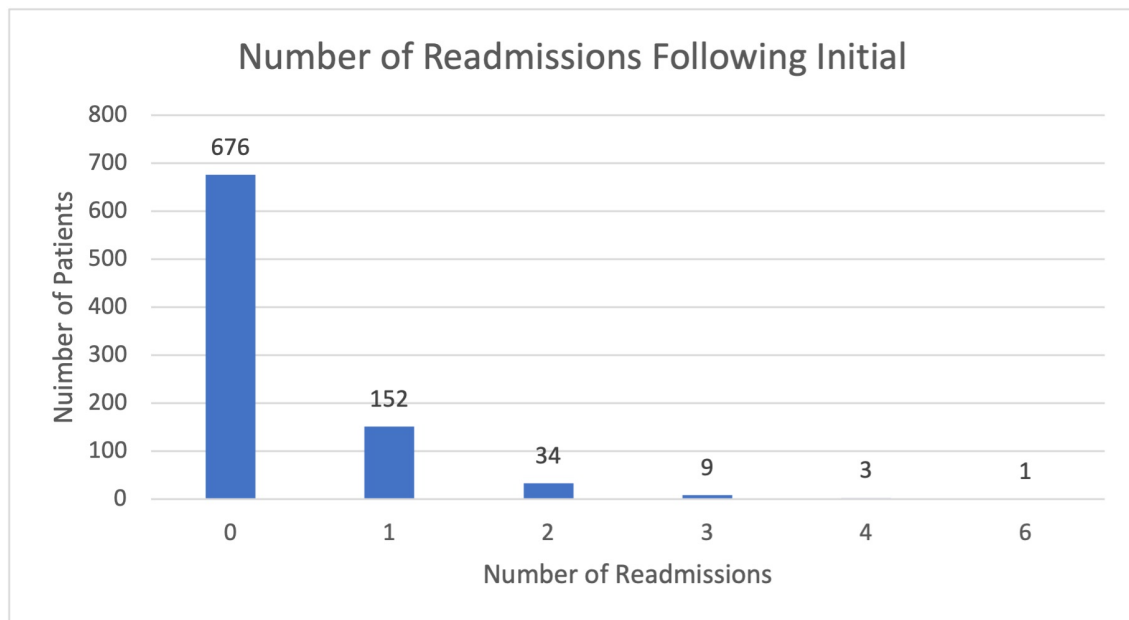
Prior to admission to the ABHU, 61.14% of patients had only one hospitalization ( $n = 535$ ). A Chi-Square determined that there was not a statistically significant association between total number of hospitalizations and insurance type (two-sided  $p = 0.168$ ).

Regardless of insurance, the majority of patients were set up with outpatient services upon discharge from the ABHU (78.29%,  $n = 685$ ). The chart below shows the top three services set up upon discharge, stratified by insurance type. A Fisher’s Exact Test determined that there was a statistically significant association between discharge services and insurance type (two-sided  $p = <.001$ ).

Medicaid ( $n = 417$ )	Private Insurance ( $n = 458$ )
1. Outpatient: 70.50% ( $n = 294$ )	1. Outpatient: 85.37% ( $n = 391$ )
2. WISE: 26.62% ( $n = 111$ )	2. Residential: 6.77% ( $n = 31$ )
3. None: 0.96% ( $n = 4$ )	3. WISE: 4.80% ( $n = 22$ )



Following discharge from the ABHU, 77.23% of patients had zero readmissions ( $n = 676$ ). With Medicaid, 23.74% ( $n = 99$ ) of patients were readmitted at least once following discharge. With private insurance, 21.83% ( $n = 100$ ) of patients were readmitted at least once following discharge. A Fisher's Exact Test determined that there was not a statistically significant association between number of readmissions and insurance type (two-sided  $p = 0.519$ ). Rates of admission were fairly similar between insurance types.



## Discussion

The majority of patients shared the following characteristics regardless of insurance type: A majority of patients were admitted for a diagnosis of major depressive disorder, typically only had one hospitalization prior to admission to the ABHU, were set up with outpatient services upon discharge, and had zero readmissions following discharge.

Typically, the goal is to set up patients with outpatient or residential services upon discharge. Most patients were able to utilize outpatient services (78.29%). However, when it comes to access to residential services, there is a discrepancy between insurance types. Only 0.72% of patients with Medicaid were set up with residential services upon discharge, compared to 6.77% of patients with private insurance.

Since Medicaid typically does not cover residential treatment, the project team wanted to scrutinize the data, and a comprehensive manual chart review was performed. Upon investigation, the project team found three outliers. One of the patients had a relative that paid out of pocket for a residential program out of state. The two other patients went to a local residential program and were likely accepted in error and the organization was never compensated. These outliers were rare cases that would not have likely had an impact on the statistical analysis.

Prior to admission, patients with Medicaid utilized outpatient services (44.84%) or no services at all (43.17%) at an almost equal rate. Patients with private insurance utilized outpatient services the most (61.79%) and much less utilized no services (34.93%). The discrepancies in these rates may reflect the likelihood that those with private insurance have easier access to outpatient service coverage and the opportunity to escalate levels of care with more ease.

While there was no statistically significant association found between length of stay and insurance type, it is important to note that there was a difference in the maximum length of stay across insurance types. For example, the longest length of stay out of all patients with Medicaid

was 98 days, while the longest length of stay out of all patients with private insurance was 33 days.

### **Limitations**

While every effort was made to have a standardized method of pulling data, we do acknowledge that there are some limitations with data collection that may have impacted our findings. Data was pulled manually by four members of the project team. Standardized instructions were provided to all team members that indicated what data to obtain and where it was located in the patient chart. However, we do acknowledge that there may be some discrepancies in the inter-rater reliability of those individuals collecting the data.

Study metrics did include data that was pulled from visit notes written by providers. We recognize that documentation style and history taking methods may not be consistent across providers.

One of the most significant gaps in understanding the quality of care, access to referrals, and treatment outcomes for adolescents come with a lack of studies about those that are uninsured and how we can best advocate for improvements in their access to care. Additionally, many of the studies appraised in this review of literature encouraged further research on the disparities across different genders, as well races. Various studies have speculated that stigma and barriers that people of color already disproportionately face today could influence certain demographics and their ability to access care.

### **Conclusions**

This study did find gaps in levels of care based on insurance type. Differences were found in the services that were being set up for discharge as well as with the services that were utilized prior to admission, where coverage of these services is specifically determined by insurance type. Not finding any statistically significant associations between insurance type with each of the three categories: length of stay, total number of hospitalizations, and number of readmissions speaks to the state of psychiatric care as a whole. There is a lot of room for



improvement in trying to decrease length of stay, number of hospitalizations, and number of readmissions, which would indicate a more successful use of services. While duplicate patient charts, for those admitted more than once over the study time frame, were excluded, this project could be expanded further by utilizing that data. Patients with more than one admission may be able to provide a unique look at coverage and the appropriateness of care by looking at what services were set up for discharge that resulted in their readmission, as well as looking ahead to see the last service that was used that eventually resulted in them no longer being readmitted. Ultimately, there should be equitable access to the same services, regardless of insurance type and this data analysis proved that is not the case. Equitable access to the services that are proven to be the most successful at reducing readmission rates and decreasing rates of severe functional impairment in this adolescent age group is the key. Thus, this data would support advocacy for private insurance matching Medicaid coverage for WISE services and for Medicaid matching private insurance coverage for residential care. There is a lot of work to be done to help improve the accessibility to appropriate services for adolescent psychiatric care and the results of this study are helpful in understanding the gaps that need to be filled.

### **Acknowledgements**

This work would not have been possible without the incredible efforts of my support team: Annelise Crosswhite, Elizabeth Gabzdyl, Amanda Heffernan, and Alyssa Ylescupidéz. Annelise, thank you for dreaming up this project and inviting me to be a part of it. It is obvious that improvement in coverage for adolescent psychiatric care is desperately needed and if there is anyone that can advocate to make these changes, without a doubt, I know you can. Also, you know, firsthand, the effort that it takes to get through the project portion of this degree; I truly would not have made it to this point without your generosity, patience, humor, support, and encouragement. Thank you for everything. I am so excited to see the rest of this project flourish. Liz, thank you for your support and encouragement every time my dreams and plans for a DNP project fell through. It was a race to get caught up once I finally found the perfect project and I

appreciate your support and I have really valued your insight throughout this whole process.

Amanda, thank you for taking the time and effort it takes to be my DNP project reader. You have been a comforting source of encouragement and support throughout this process, and I truly value your feedback. Alyssa, thank you for sharing your wisdom and patiently explaining the statistical concepts to me when I was struggling with the analysis portion of this project. Your knowledge and expertise are unmatched; I would have still been trying to calculate data points by hand on Excel if it wasn't for you.

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