TEAM KENTUCKY

CABINET FOR HEALTH AND FAMILY SERVICES

STATE UNIVERSITY PARTNERSHIP

Different Services for Patients Diagnosed with Alcohol Use Disorder: Telehealth, and Certified Peer Support

Carly E. Middleton, MS, Mst Sharmin Akter Sumy, MS, Craig J. McClain, MD, Qi Zheng, PhD, K.B. Kulasekera, PhD, Chris Stewart, MD, Haojiang Huang, MD, PhD, Maiying Kong, PhD

University of Louisville
Principal Investigator: Maiying Kong, PhD

What is Known on This Topic?

Alcohol abuse is the leading substance use problem. Persons with alcohol use disorder (AUD) face enormous health consequences and family problems. AUD is a major cause of mortality[1,2]. Behavioral therapy (BT) has been very effective in treating patients with AUD[3,4]. The expansion of telehealth has allowed beneficiaries to receive a wider range of services from their doctors without traveling to a healthcare facility[5]. Peer support (PS) services are designed to provide social and emotional support by qualified adults and youth[6]. Peer providers are a rapidly growing workforce with a considerable promise to help alleviate behavioral health workforce shortages by supporting consumers in attaining and maintaining long-term recovery[7].

What Did This Project Do?

In this project, we analyze patterns, trends, and geographic distributions related to the use of various services, including telehealth, BT, and PS. We focus on their impact on emergency room (ER) visits, hospitalizations, and Medicaid costs. Specifically, we aim to determine: (1) whether the use of these services leads to a reduction in ER visits, hospitalizations, and Medicaid costs, and (2) whether BT and PS provided via telehealth are as effective as those delivered in person.

What could Medicaid do with these findings?

We identify the geographical areas and managed care organizations (MCOs) with higher medical costs, increased health service utilization, and greater use of ER visits and hospitalizations. This will enable the CHFS to integrate these findings with other data to implement targeted interventions.

Introduction

Alcohol abuse is the leading substance use problem. Persons with alcohol use disorder (AUD) face enormous health consequences and family problems. AUD is a major cause of mortality, and alcohol is the third leading preventable cause of death in the United States. In this project, we investigate whether the utilization of different services (i.e., telehealth, behavior therapy, and certified peer support services) reduce utilization of emergency room (ER) visits, hospitalizations, and Medicaid cost based on KY Medicaid claims data from 1/1/2026-12/31/2022.

Methods

For each year, we generated patient-level data, incorporating indicator variables for telehealth usage (using place of service (POS) 02 and 10, HCPCS modifiers GT or 95, other HCPCS/CPT codes), behavior therapy (HCPCS codes), certified peer support (HCPCS code H0038). Additionally, we created indicator variables for hospitalization (POS code 21 for “Inpatient Hospital” and POS 51 for “Inpatient Psychiatric Facility”), emergency room visits (POS 23 for "Emergency Room – Hospital"), and healthcare costs. We also identified whether behavior therapy (BT)/peer support (PS) was delivered via telehealth or in person. Summarized tables, graph presentations, geographic maps, and rigorous statistical models were used to examine trends and geographic distribution of the utilization of telehealth, behavior therapy, and certified peer support services, ER visits, hospitalizations, and Medicaid cost, and their associations with patients’ characteristics (age, gender, race), Managed Care Organizations (MCOs) and Area development districts (ADDs). The impact of the different services on ER visits, hospitalizations, and Medicaid cost are also investigated.

Results

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For patients diagnosed with AUD, telehealth utilization experienced a significant surge, reaching 55.5% in 2020 and dropping to 50.1% in 2022. Behavior therapy showed a rising trend from 42.5% in 2016 to 53.1% in 2019. This rate plateaued between 53.0% and 55.3% from 2019 to 2022, with about 50% of behavior therapy sessions delivered via telehealth during 2020-2022. Peer support also demonstrated a significant upward trend over time, increasing from 2.7% in 2016 to 24.3% in 2022, with approximately 25% of these sessions delivered via telehealth during 2020-2022 (see Table 1).

The Medicaid cost for patients with AUD peaked in 2019, with a median cost of $10,216 and a 97.5% quantile of $110,299. Overall, the median cost for patients with AUD was more than double the median cost for the general Medicaid population, and the 97.5% quantile was $20,000 higher for patients with AUD. The utilization of hospitalization and ER visits has decreased over the years, with the hospitalization rate dropping from 43.3% in 2016 to 37.0% in 2022, and ER visit utilization declining from 74.0% in 2016 to 65.2% in 2022.

The trends and geographic maps (see Figures A1-D1) reveal that: (1) KIDPA and Northern Kentucky remain the two districts with the highest AUD prevalence. (2) The AUD prevalence rate in Gateway and Lincoln Trail increased significantly, ranking as the 3rd and 4th highest ADDs in 2022, followed by Bluegrass. (3) In 2020, there was a remarkable surge in telehealth utilization, and telehealth utilization exhibited a decline or plateau in 2021 and 2022 compared to the peak observed in 2020. (4) Eastern Kentucky generally had a higher telehealth utilization rate, with Kentucky River (69.0%) and Big Sandy (66.6%) being the highest, followed by FIVCO (59.6%) and Cumberland Valley (58%) based on 2022 data. (5) Utilization of behavior therapy exhibited an uptrend during 2016-2019 and showed significant variation since then. Gateway continued trending up to the highest, while FIVCO declined since 2019. (6) Utilization of peer support continued to increase over time, with Gateway and Lincoln Trail being the highest in 2022.

In terms of MCOs, UNKWN had the highest utilization of telehealth, behavior therapy, peer support, median cost, ER visits, and hospitalizations, followed by V4BZZ (fee-for-service). The newly added MCO, 80YU7, had lower utilization rates for telehealth, behavior therapy, and peer support. However, their utilization frequency for telehealth and behavior therapy was higher than that of MCO 41T81.

The median cost for patients who received behavior therapy or peer support was higher compared to those who did not receive these services. The median cost for patients who received behavior therapy via telehealth was higher than for those who received behavior therapy in person before 2019, with the gap narrowing from 2020-2022. The median cost for patients who received peer support via telehealth was similar to those who received peer support in person in 2020 and 2021, but was higher in 2022.

Hospitalization rates for patients who received behavior therapy in person were similar to those without behavior therapy. Patients who received behavior therapy via telehealth had higher hospitalization rates than those who received behavior therapy in person before 2019, but this trend reversed from 2020-2022, with lower hospitalization rates for behavior therapy via telehealth. Hospitalization

Table 1: Utilization of different services, cost, hospitalization, and ER visits for patients in Medicaid diagnosed with AUD

Year	N	AUD	Tel	BT	BT.tel	PS	PS.tel	Cost	Hosp	ER
2016	25782	5.57%	1.9%	42.5%	0.1%	2.7%	0.0%	4923 (121, 65617)	43.3%	74.0%
2017	25729	5.29%	3.1%	46.7%	0.3%	5.2%	0.0%	5869 (141, 69293)	44.0%	73.3%
2018	27264	5.46%	4.1%	50.3%	0.3%	8.9%	0.0%	6354 (151, 70284)	44.3%	72.5%
2019	28850	5.75%	5.3%	53.1%	0.8%	12.2%	0.0%	10216 (236, 110299)	43.3%	71.1%
2020	31597	6.06%	55.5%	53.4%	27.3%	15.0%	4.3%	7646 (175, 79389)	43.2%	68.3%
2021	35041	6.25%	53.9%	53.0%	29.1%	18.6%	5.4%	7945 (211, 82686)	39.4%	66.7%
2022	36905	6.48%	50.1%	55.3%	25.4%	24.3%	6.3%	8899 (222, 85844)	37.0%	65.2%

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STATE UNIVERSITY PARTNERSHIP POLICY BRIEF

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rates for patients who received peer support via telehealth were lower compared to those who received peer support in person from 2020-2022.

ER visits for patients who received behavior therapy were lower than for those without behavior therapy. ER visits for patients who received behavior therapy via telehealth were lower than for those who received behavior therapy in person from 2020-2022. ER visits for patients who received peer support via telehealth were also lower compared to those who received peer support in person from 2020-2022.

Policy Implications

The median cost for patients diagnosed with AUD peaked in 2019 and reduced in 2020. Additionally, the utilization of hospitalization and ER visits has decreased over time, which may be associated interventions aimed at avoiding unnecessary hospitalization and ER visits. In 2022, the median costs for Big Sandy, Lincoln Trial, Gateway, and Kentucky River were the highest. The AUD prevalence in Gateway and Lincoln Trial has increased significantly over years, ranking as the 3rd and 4th in the Commonwealth Kentucky. The high Medicaid cost and service utilization in these area development districts could be associated with other substance use issues. It may be worthwhile for CHFS to examine additional data to investigate these trends and implement appropriate interventions.

In terms of MCOs, UNKWN had the highest utilization of telehealth, behavior therapy, peer support, median cost, ER visits, and hospitalizations, followed by V4BZZ (fee-for-service). CHFS may consider increasing the utilization of other MCOs to reduce costs and the utilization of ER visits and hospitalizations.

Conclusion

The utilization of telehealth, BT and PS varies across different demographics (such as age, gender, and race), geographic ADDs, and MCOs. We have identified specific geographic areas and MCOs with higher costs and service utilization. Further investigation is needed to assess the impact of BT and PS on Medicaid expenditures, hospitalizations, and ER visits, taking into account patients' comorbid conditions and social determinants.

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