

# Barriers/Facilitators to & Impact of Receiving Seven-Day Follow-Up Care for Mental Illness Hospitalization in Ohio Medicaid Patients

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## Introduction

- Not having an outpatient appointment following hospitalization is a significant predictor of poor health outcomes.
- Patients with mental health diagnoses, especially severe and chronic illnesses, are at an even greater risk of rehospitalization if they do not receive a follow-up.
- The Care Innovation & Community Improvement Program (CICIP) is endorsed by the Ohio Department of Medicaid (ODM) and implemented through the University of Toledo Medical Center (UTMC) and 3 other Ohio medical centers.
- UTMC addressed the behavioral health domain of CICIP through the implementation of a 7-day follow-up.
  - Defined as patients aged  $\geq 6$  years and treated for ODM-specified mental illness or self-harm having an appointment with a mental health practitioner within 7 days of discharge.
- Psychiatric follow-up adherence may be impacted by stigma, age, race, ethnicity, insurance type, and primary diagnosis.
  - It is of the utmost importance to address the unique barriers that certain patients face to receiving equitable outcomes.

## Methods

- The inclusion criterion for this study was all Medicaid patients attributed to UTMC that qualified for a 7-day psychiatric follow-up from October 2020 to November 2021 (n=235).
- Demographic data including each patient's gender, age category, race/ethnicity, and 3-digit zip code were collected from the face sheet of patient health records.
- International Business Machines Statistical Product and Service Solutions (SPSS) Statistics 28 was used for statistical analysis of de-identified patient data.
  - Data analysis included frequency/percentage calculations, Chi-squared tests (i.e., cross-tabulation), and an independent sample t-test.
  - The research team was also able to follow patients and providers at the in-patient Kobacker Center at UTMC, which provided qualitative data about the general patient journey to enhance and clarify analysis attained through SPSS.

Figure 1. Flowchart of UTMC Psychiatric Hospitalization & Follow-Up

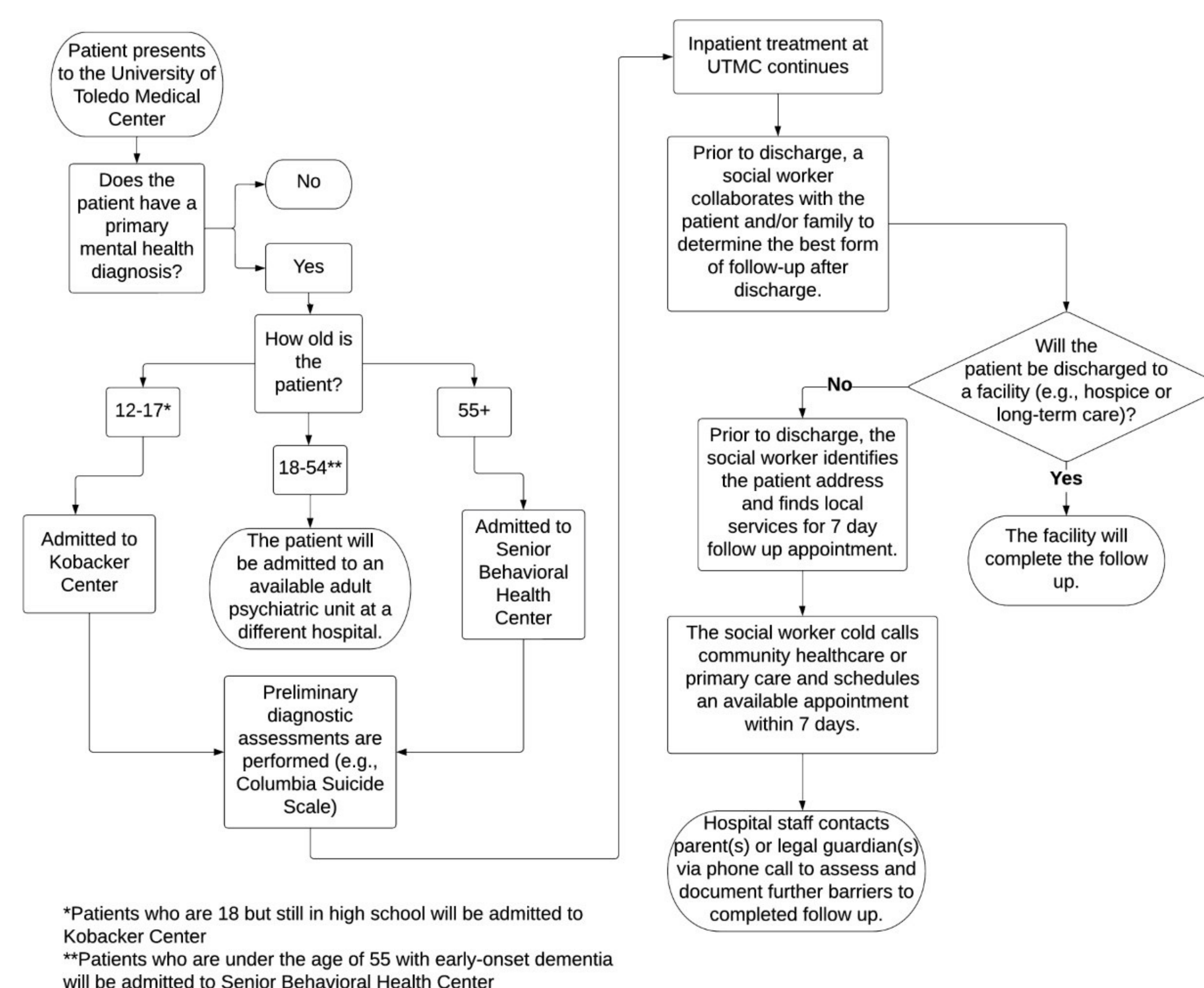


Table 1. Sample Demographics

Independent Variable	x (n=235)	% (x/235)
Gender		
Male	116	49.4
Female	119	50.6
Age Category (years)		
0-17	26	11.1
18-34	97	41.3
35-54	76	32.3
55-74	35	14.9
75+	1	0.4
Race/Ethnicity		
Black	61	26.0
White	124	52.8
Asian	1	4.0
Middle Eastern	2	0.9
Hispanic	9	3.8
Other	10	4.3
Not Reported	28	11.9
3-Digit Zip Code		
436	167	71.1
435	22	9.4
434	7	3.0
458	4	1.7
Not Reported	28	11.9
Remaining 7 Zip Codes	7 total	3.0

## Results

- The vast majority (90.6%) of the sample had clinically diagnosed depression, and over four-fifths (81.3%) reported having a primary care physician (PCP).
- ODM's outcome measure of the number of avoidable ED visits (AMB) had a range from 0 to 50 visits with a mean value of 2.07 avoidable visits (standard deviation of 5.14 visits).
- A statistically significant association was found between patients having diagnosed depression and receiving a follow-up after mental health hospitalization ( $\chi^2=6.774$ ;  $p=0.009$ ).
- Additionally, there was an even stronger association between having severe and persistent mental illness and following up ( $\chi^2=9.216$ ;  $p=0.002$ ).
- Attribution method and 7-day follow-up were also significantly related to one another ( $\chi^2=12.961$ ;  $p=0.002$ ).
  - Patients attributed as other ("O") were much less likely to attend their follow-up appointment than those attributed via claims-based ("A") or member choice ("C") methods.
- There was, however, no association between gender, age category, race/ethnicity, and 3-digit zip code and adherence to the 7-day follow-up. Having a PCP as well as having  $\geq 3$  ED visits were also not associated with a follow-up appointment.
- Ultimately, follow-up attendance did not significantly contribute to the outcome of unnecessary ED utilization, as there was no correlation between follow-up and AMB ( $t=0.519$ ;  $p=0.604$ ).

## Conclusions

- Moving forward, it would be beneficial to analyze how the method in which follow-up appointments are conducted influences patient outcomes.
  - Future research should assess if the timing of appointments and who conducts the appointments has a significant impact on ED utilization or readmission rates.
- Gathering more data on these specifics would not only provide more effective patient-centered care but could also be used to assess the appropriateness of the current metric chosen by the ODM.



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