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Utilization of a Drug Use Screening Assessment: A Quantitative Study to Reduce Benzodiazepines in Inpatient Detoxification

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Utilization of A Drug Use Screening Assessment: A Quantitative Study to Reduce Benzodiazepines in Inpatient Detoxification

DNP Project Defense

Malerie Bolinsky, DNP Candidate



Substance use
disorder overview



Normal detoxification
with benzodiazepines



Significance of the
problem

Introduction

Project
purpose, goals,
and aims

Purpose

For providers and nurses to better understand the severity of their patient's drug use habits and adequately assess for the presence of polysubstance use on admission to an inpatient facility

Goal

Reduce use of benzodiazepines to improve the overall withdrawal experience

Aim

Reduce unnecessary benzodiazepine use in patients undergoing medical detoxification from illicit substances, not including alcohol by the end of three months of the study

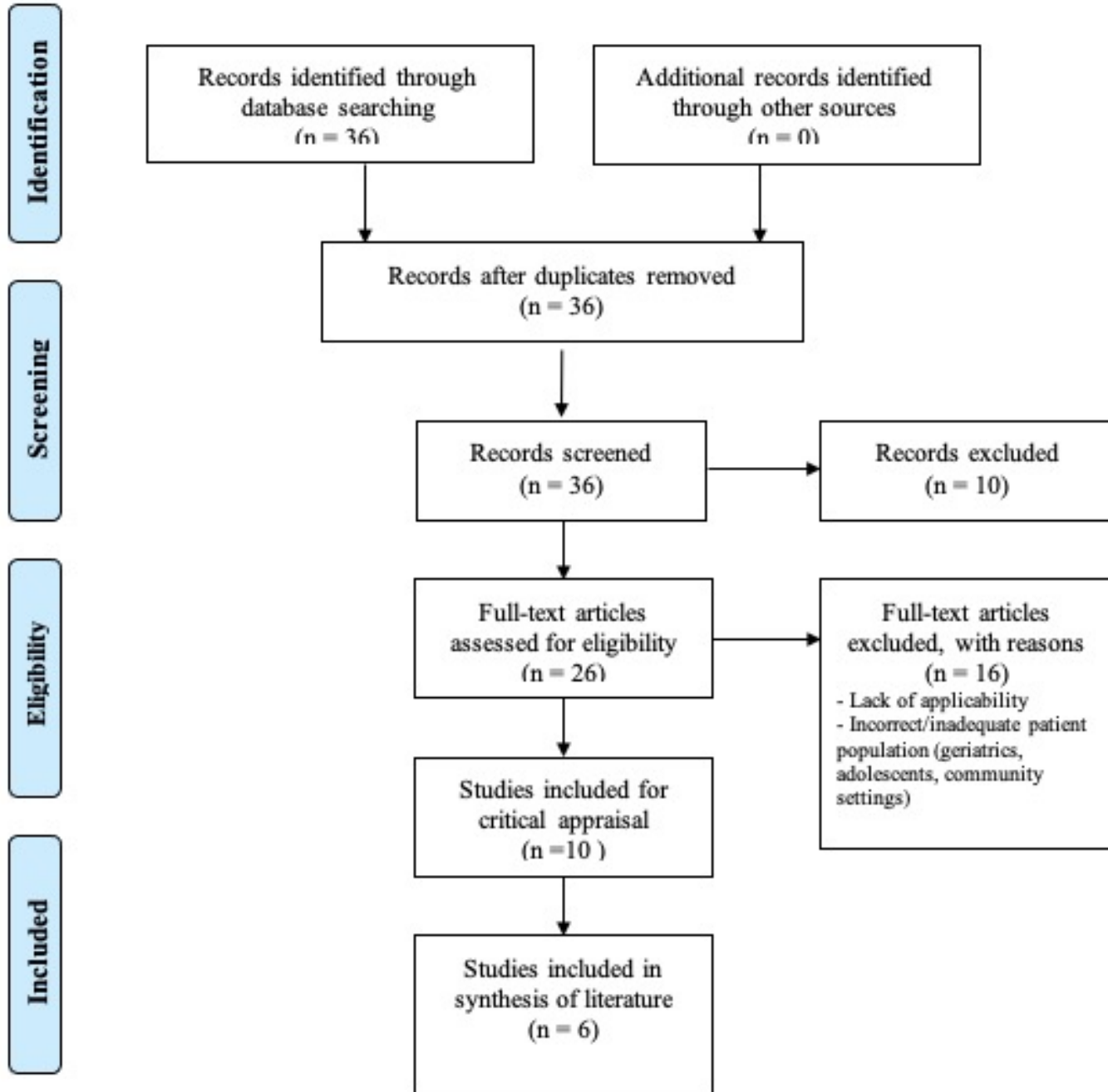
Theoretical base

- Evidence Based Practice Improvement (EBPI) model
- Developed in 2010 and combines two existing paradigms: evidence-based practice and process improvement

PICOT question

In individuals experiencing drug detoxification, how does utilizing the Drug Abuse Screening Test to analyze drug use upon admission compared to no assessment affect use of benzodiazepines for detoxification symptoms within length of stay at an inpatient psychiatric hospital?

Literature search strategy



Current literature

Validity of screening tools for patients with substance use disorder

- Drug Abuse Screening Test
- Substance Use Risk Profile Scale
- Identification of substance use disorder

Medical detoxification treatments with benzodiazepines


- Symptom triggered scales
- Tapered benzodiazepines

Methods: Setting/ Participants

- Substance use and dual diagnosis unit in a psychiatric hospital
- Patients aged 18 years and older

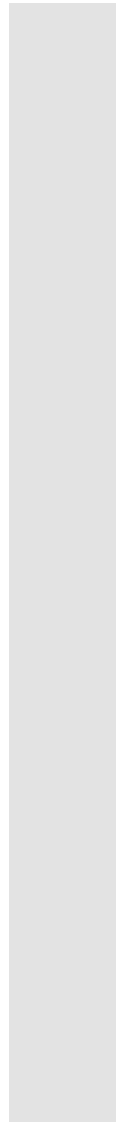
Methods: Data collection

- Initial chart review three times weekly for four weeks
- Evaluated categories: number of patients present on the unit, substances present in a drug screen, if benzodiazepine treatment was being utilized and what type, age, gender, admitting doctor, and readmission within 30 days status
- Consent unnecessary because data was de-identified
- Education provided to nurses and providers regarding Drug Abuse Screening Test for one month
- Chart review completed again for four weeks



Methods:
outcome
measures

If an overall reduction in the number of benzodiazepines used for detoxification was seen



Methods: Data analysis

Data collected and stored in a Microsoft excel table with each line dictating a single patient

- For yes/no questions, 1 indicated yes and 0 indicated no

Chi-square test was completed to evaluate if there was a relationship between the two main variables: time before and after screening tool implementation

Stratification of data occurred to remove duplicates

Results: demographics

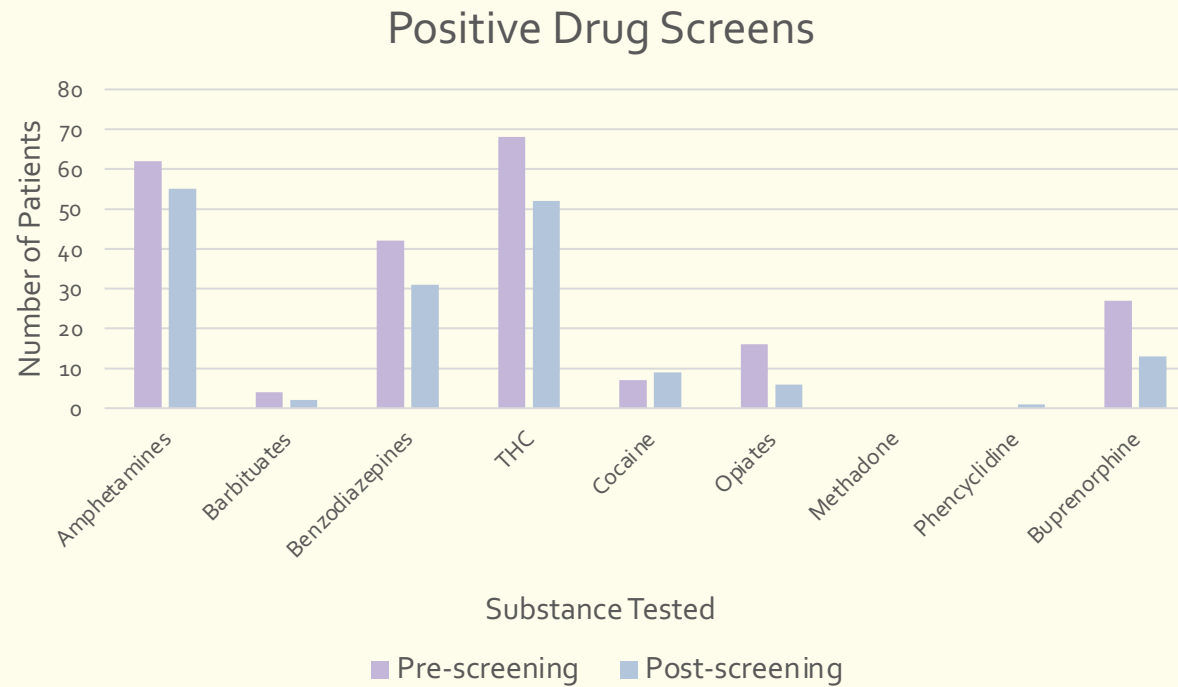
180 patients
pre-screening
and 134
patients post-
screening

Average age
of the patient
was 38

71.7% male
and 28.3%
female

Average
length of stay
at time of
assessment
was 2.43 days

Results: Substances used



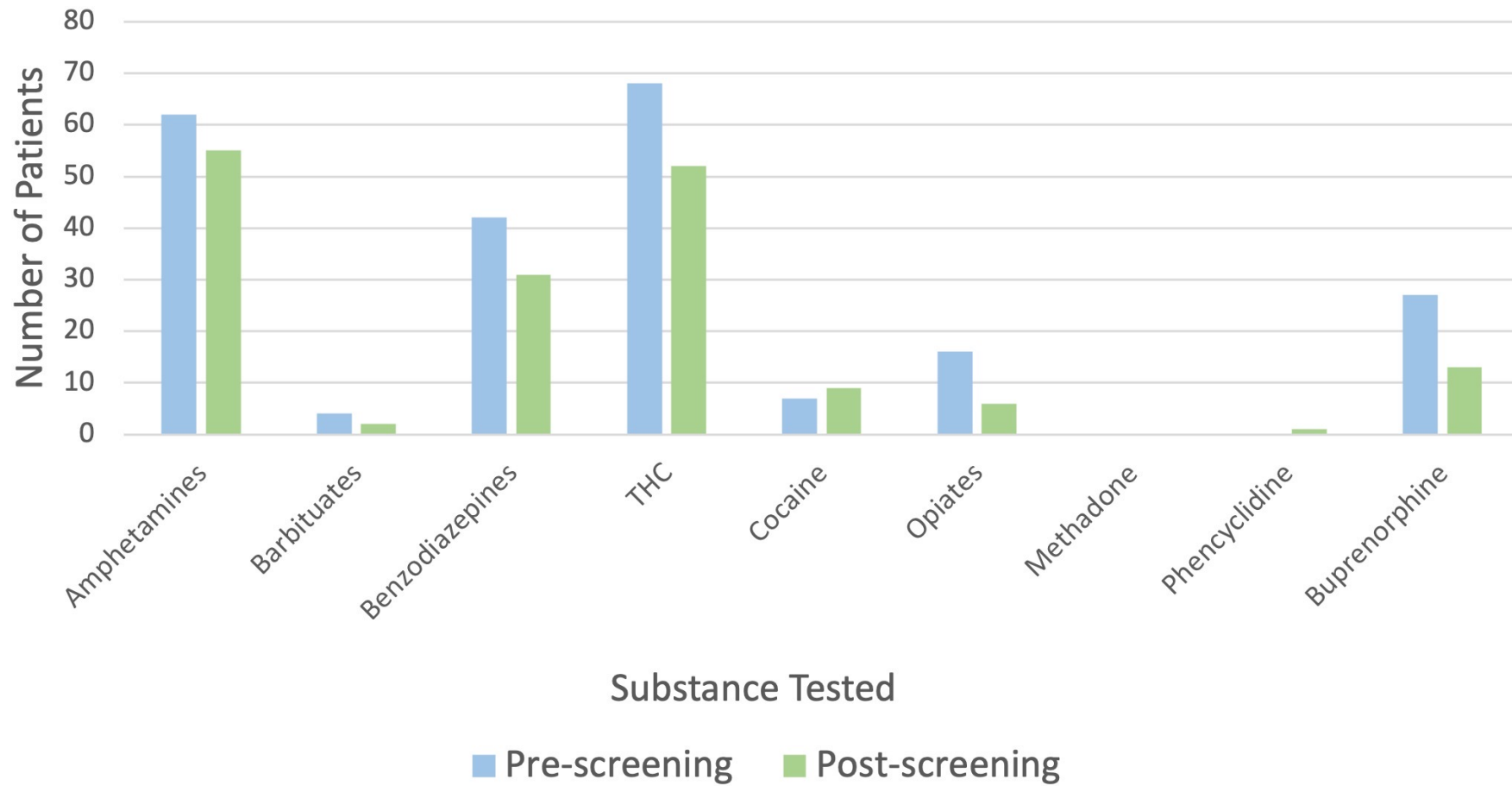
65 patients had a blood alcohol level greater than 0, 50 having a BAL greater than 0.05

Average BAL > 0 was 0.051, average BAL for > 0.05 was 0.233

40 patients negative on both UDS and BAL (12 did not have one completed)

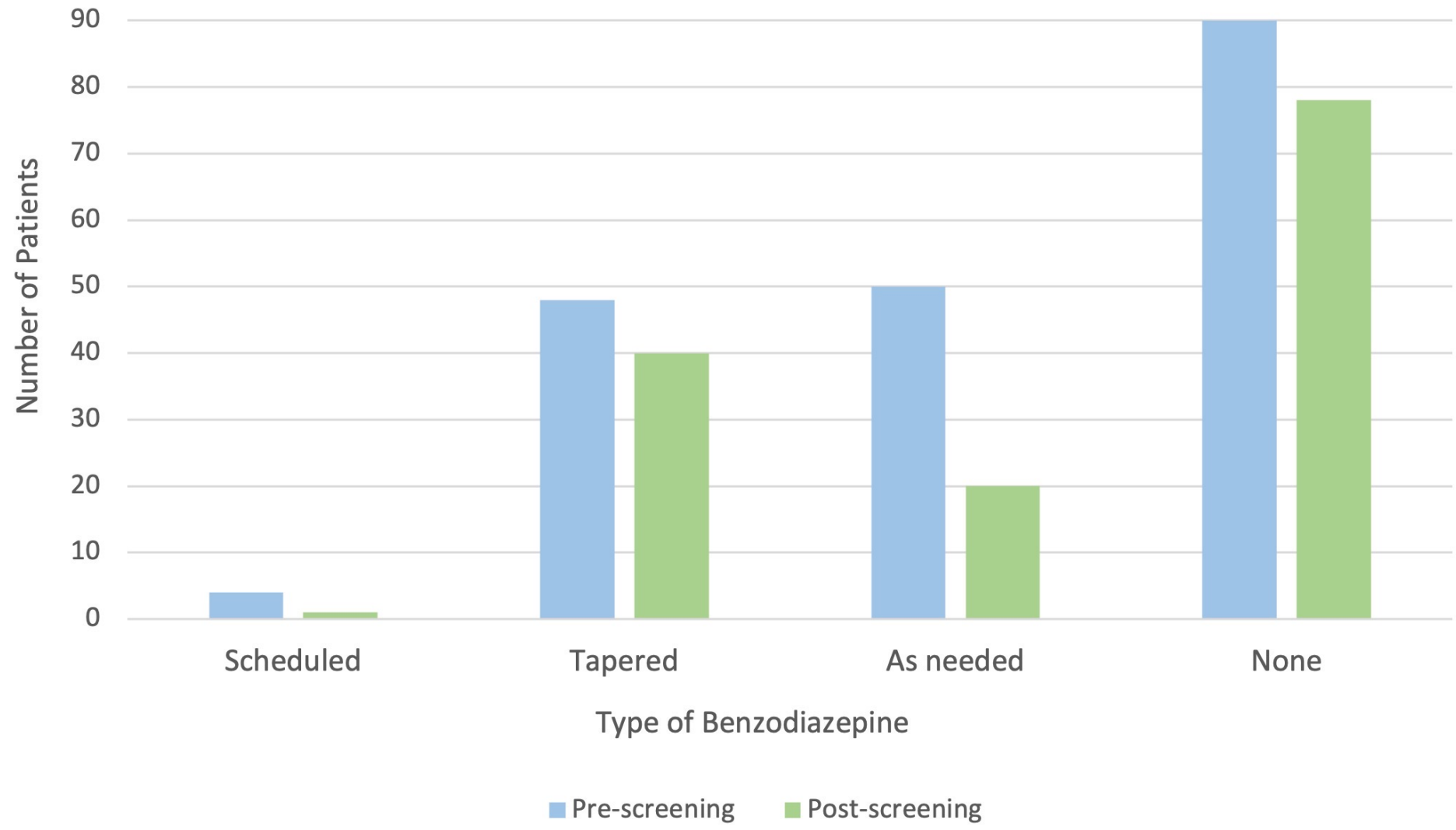
Results: Substances Used

Positive Drug Screens



Results: Benzodiazepine use

- As needed benzodiazepines showed a statistically significant chi-square value of 0.004 – 27.8% were prescribed as-needed benzodiazepines during time 1 and 10.6% were prescribed as-needed benzodiazepines during time 2
- Scheduled and tapered benzodiazepines did not show a statistically significant chi-square value for reduction of use



Discussion

- Confirmed the use of the drug abuse screening test was associated with a decrease in benzodiazepine use on a detoxification unit
- As needed benzodiazepines showed a statistically significant decrease of prescribing between time 1 and time 2, indicating that the drug abuse screening tool likely had some effect in the ordering of benzodiazepines
- Confirms that using a screening tool to address drug use can accurately assess drug use and assist in appropriate benzodiazepine use for patients

- Appropriate use of benzodiazepines can lower sedation rates and reduce exposure to addictive substances
- Limitations include small sample size at only one facility, not thorough education for providers, and ultimate prescribing authority of the provider

Implications and
Limitations

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