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BACKGROUND

- Cancer-related pain is a common and significant challenge in patients with advanced cancer, with opioids serving as the cornerstone of effective pain management.
- Adequate pain control is critical for maintaining quality of life in these patients.
- The evidenced growing impact of the opioid epidemic has introduced significant systemic, behavioral, and safety challenges leading to barriers in achieving effective pain management.
- In our Supportive Care Clinic in Mobile, AL, which now manages roughly 400 patients annually, we have observed a notable increase in difficulties addressing cancer-related pain that we believe to be due to factors associated with diminished healthcare access and increased policy-driven regulations.
- This study highlights the effects and impacts of these barriers on the oversight and management of cancer-related pain in the advanced cancer care of our patient population.

METHODS

Study Design and Participants

- To quantify the barriers observed in managing cancer-related pain, a database was created and maintained that included all 251 adult outpatients (2022) and 407 adult outpatients (2025) who presented for treatment at an academic supportive care clinic.

Procedures

- During each outpatient encounter, if aberrant behavior was observed, the overseeing Supportive Care Oncologist denoted and categorized the violation type in the database.
- Key metrics analyzed included patient behavioral boundary violations, and key factors believed to be tied to the opioid epidemic, such as pharmacy-related issues linked to the aberrant behavior.
- Figure 1 defines each abbreviation that was used to describe the behavioral violation.

Data Analysis

- A retrospective review of the database was conducted, comparing data from May 2022 to May 2025.
- Violations were then categorized and quantified as a percentage of the total patient population for each time point.
- If multiples of the same violation were observed for the same patient, the violation was summative.
- Primary outcomes, analyzed using two-proportion z tests, included change overtime in the observed violations. Alpha was set at 0.05 for all analyses.

Abbreviation	Category Tracked	Definition
MC	Multiple Calls	Patient called multiple times for the same refill
ER	Early Refill	Patient requested refill earlier than the scheduled date
POC	Plan of Care	—
Pharm	Pharmacy Issues	Pharmacy-related delays in medication refill
BEH	Behavioral Issues / Violation	Uncategorized behavioral issue
LEG	Legal Issues	—
UDS NEG	UDS Not Showing Prescribed Drugs	Urine drug screen did not detect prescribed medications
UDS POS	UDS Showing Non-Prescribed Drugs	Urine drug screen detected non-prescribed substances
MD2+	Multiple Prescribers	Two or more clinicians prescribing controlled substances
FIN	Financial Barriers	—
ASSY	Refill Asynchrony	Lack of alignment in medication refill timing
DD	Double Dipping	Concurrent hospitalization and outpatient medication refill
NACLM	No Contact, No Message	No answer and unable to leave a message
NA	No Contact, Message Left	No response despite message being left
NFU	No Follow-Up	No return follow-up from patient
FAM	Family Issue	—
PDMP	Prescription Monitoring Program Conflict	(Definition unspecified; possibly state database concern)
Education	Education on Pharmacy Shortage	Patient education provided on medication access barriers
LOM	Lost Medication	Patient reported losing prescribed medication

Figure 1. Boundary violation abbreviations and definitions

RESULTS

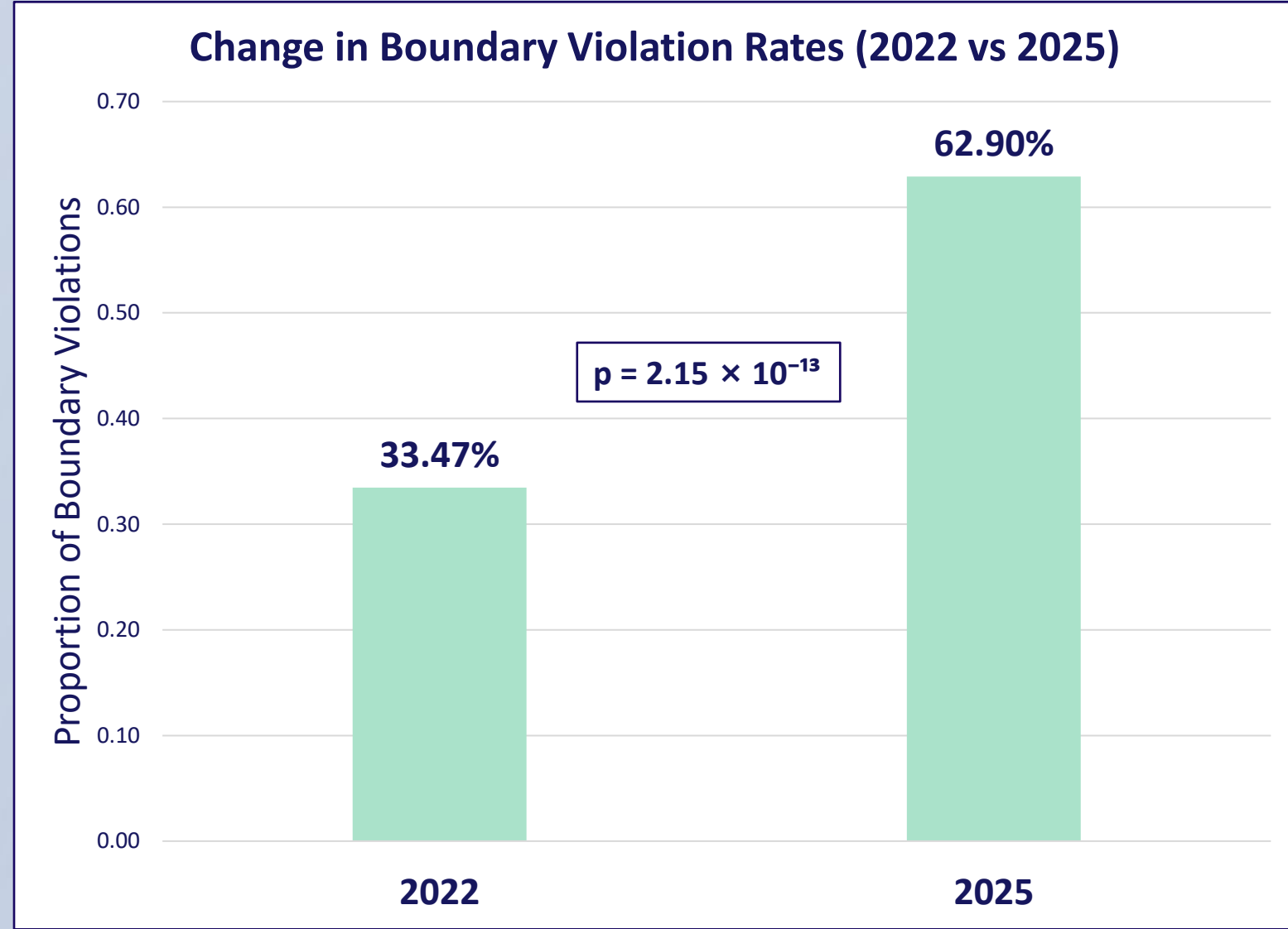
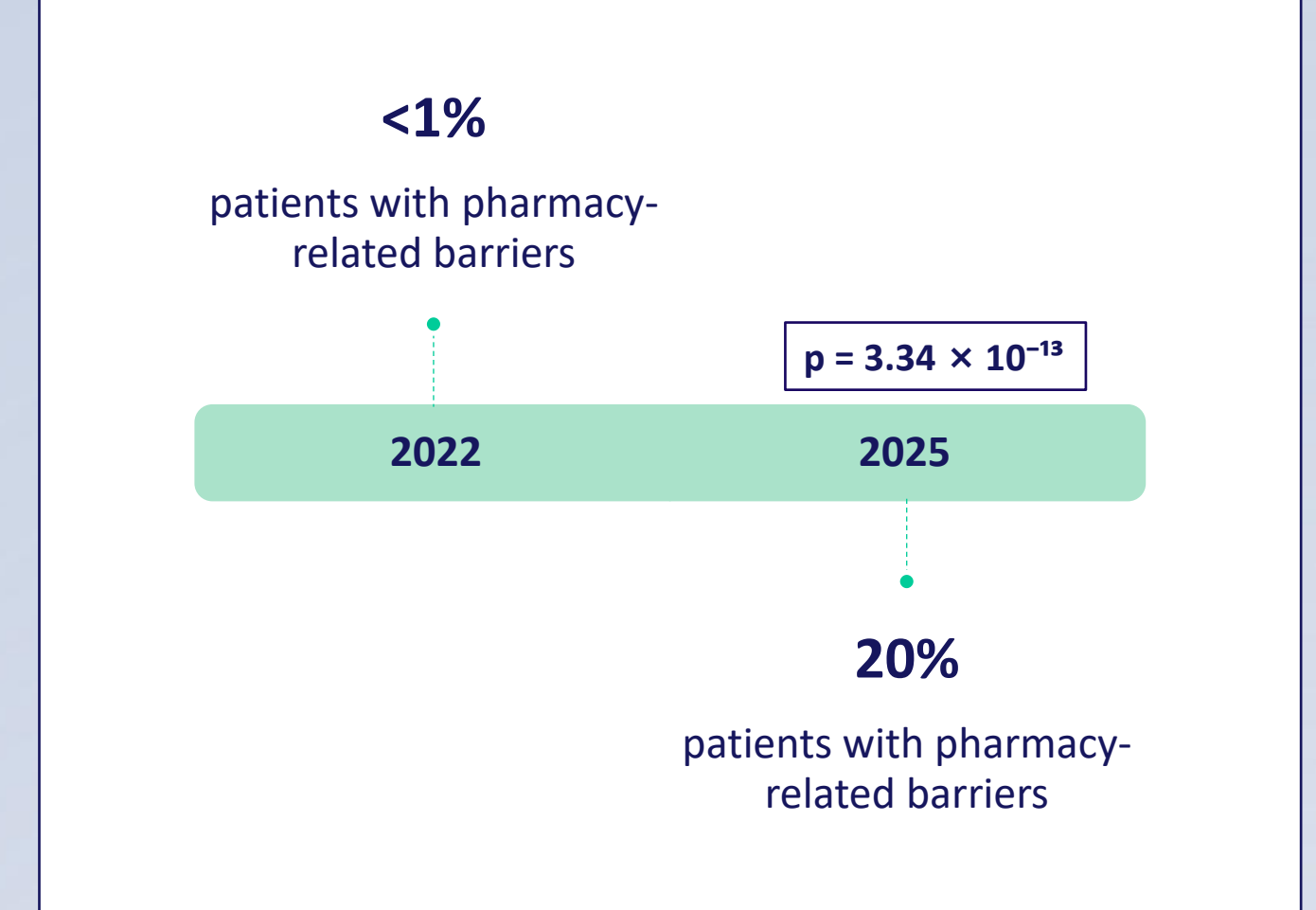


Figure 2. Proportion of individuals with documented boundary violations in 2022 and 2025. A two-proportion z-test revealed a statistically significant increase in boundary violation rates over the three-year period ($z = -7.34$, $p < 0.001$).

Figure 3. Proportion of individuals with documented boundary violations attributed to pharmacy-related barriers in 2022 and 2025. A two-proportion z-test revealed a statistically significant increase in pharmacy-related violation rates over the three-year period ($z = -7.28$, $P < 0.001$).



CONCLUSIONS

- There was a marked increase in overall boundary violations, especially pharmacy-related boundary violations from 2022 to 2025, underscoring growing complexities in cancer pain management during the opioid crisis.
- These trends may reflect heightened prescribing scrutiny, evolving access barriers, and shifts in clinic workflows.
- Ongoing evaluation is critical to disentangle regulatory, staffing, and systemic influences—and to ensure equitable, effective pain care for advanced care of oncology patients.
- Our current efforts in the Supportive Care Clinic include creating the reviewed database to establish a method of oversight for boundary violations.
- Future proposed interventions for this clinic, as well as other clinics alike, include establishing interventions to address each boundary violation noted.

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