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13. SUPPLEMENTARY NOTES

14. ABSTRACT

Background: Chronic pain and subsequent prescription opioid misuse are common issues. When prescribing opioid analgesics, emergency medicine providers may subconsciously screen patients by specific patient behaviors. No previous reports have identified if this occurs or what the characteristics are.
Objective: To examine factors that emergency medicine providers use to identify potential prescription opioid misusers.
Methods: We conducted an anonymous survey of emergency medicine providers in a military tertiary care hospital. We created a 13-question survey with fixed response and multiple-answer questions on emergency medicine provider's perceptions of "hard" (physical/objective) and "soft" (behavioral) signs of opioid misusers. The survey was revised after a pilot sample.
Conclusions: EM providers use specific signs and behaviors to detect opioid misuse and to support their opioid prescription decision. Irrespective of experience, almost 50% take into account information in the medical record.

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"Hard" versus "soft" patient cues that influence emergency medicine provider perception of potential opioid misusers

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Background: Chronic pain and its resultant prescription opioid misuse are common in the United States. By identifying patient characteristics that influence their decision to prescribe opioid analgesics, emergency medicine providers (EMPs) may treat pain more appropriately.

Objective: We sought to examine factors that EMPs perceive may identify potential opioid misusers.

Methods: We conducted an anonymous survey of EMPs (physicians, physician assistants [PA], nurse practitioners) in a military tertiary care hospital. We created a 13-question survey with fixed response (closed end) and multiple-answer questions on prescriber perceptions of "hard" (physical/objective) and "soft" (behavioral) signs of opioid misusers. The survey was revised after a pilot sample. We expected a 9.8% margin of error and 98% response rate based on a sample size of 100 subjects. Patterns of responses were assessed using rank-ordered and binary logistic regression.

Results: 90 surveys were completed (100% response rate). Of respondents, 53.3% were age 25-35 years, 31.1% were 36-45 years, 79% were male, 77% were physicians, 16% PAs, and 56% had practiced 5 years or less. Irrespective of gender or length of practice, the most frequent choice for "hard cues" suggesting risk of opioid misuse was IV drug abuse. Among "soft cue" choices, the most frequent response was "patient provides unbelievable stories or exaggerated explanations regarding why they need more pain pills," which was also consistent when examined by gender or length of practice. The 2nd and 3rd most frequent responses involved the willingness to review medical records, which may reflect the increasing use of electronic medical records. When asked to select from a list which chief complaints they felt were most frequently associated with possible opioid misuse, EMPs cited back pain most frequently, while extremity pain was the least likely to generate suspicion. A possible explanation may be that extremity injury can often be corroborated by a radiographic documentation in the patient's medical history.

Conclusions: We found a concurrence among EM providers regarding specific signs and behaviors that suggest opioid misuse and support their opioid prescription decisions. Also, irrespective of experience, almost 50% were willing to pursue information in the medical record for opioid prescription decision-making.

"Hard" versus "Soft" Patient Cues That Influence Emergency Medicine Provider Perception of Potential Opioid Misusers

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Background

- Chronic pain and subsequent prescription opioid misuse are common

- When prescribing opioid analgesics, emergency medicine providers (EMPs) may subconsciously screen patients by specific patient behaviors

- No previous reports have identified if this occurs or what the characteristics are

Objective

- To examine factors that EMPs use to identify potential prescription opioid misusers

Methods

- Anonymous survey of EMPs (physicians, physician assistants [PA]) in a military tertiary care hospital

- 13-question survey with fixed response and multiple-answer questions on EMP perceptions of "hard" (physical/objective) and "soft" (behavioral) signs of opioid misusers

- Survey was revised after a pilot sample

- For a sample size of 90 subjects we expected a 9.8% margin of error and 98% response rate

- Descriptive statistics

Results

- 90 surveys completed (100% response rate)

- 53.3% were ages 25-35, 31% ages 36-45

- 79% male, 77% physicians, 16% PAs, 6% NPs

- 56% had practiced 5 years or less

- **Figure 1** shows most common chief complaints suggesting opioid misuse

Results

Figure 1. The most and least frequently selected chief complaint that causes concern for opioid abuse
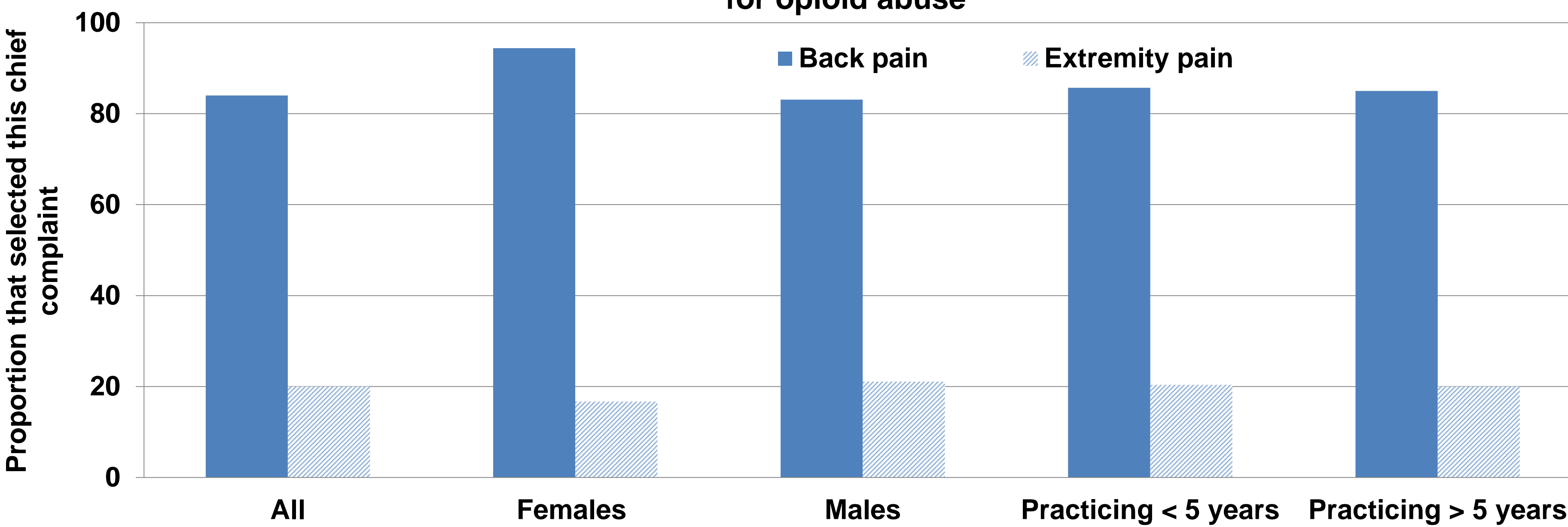

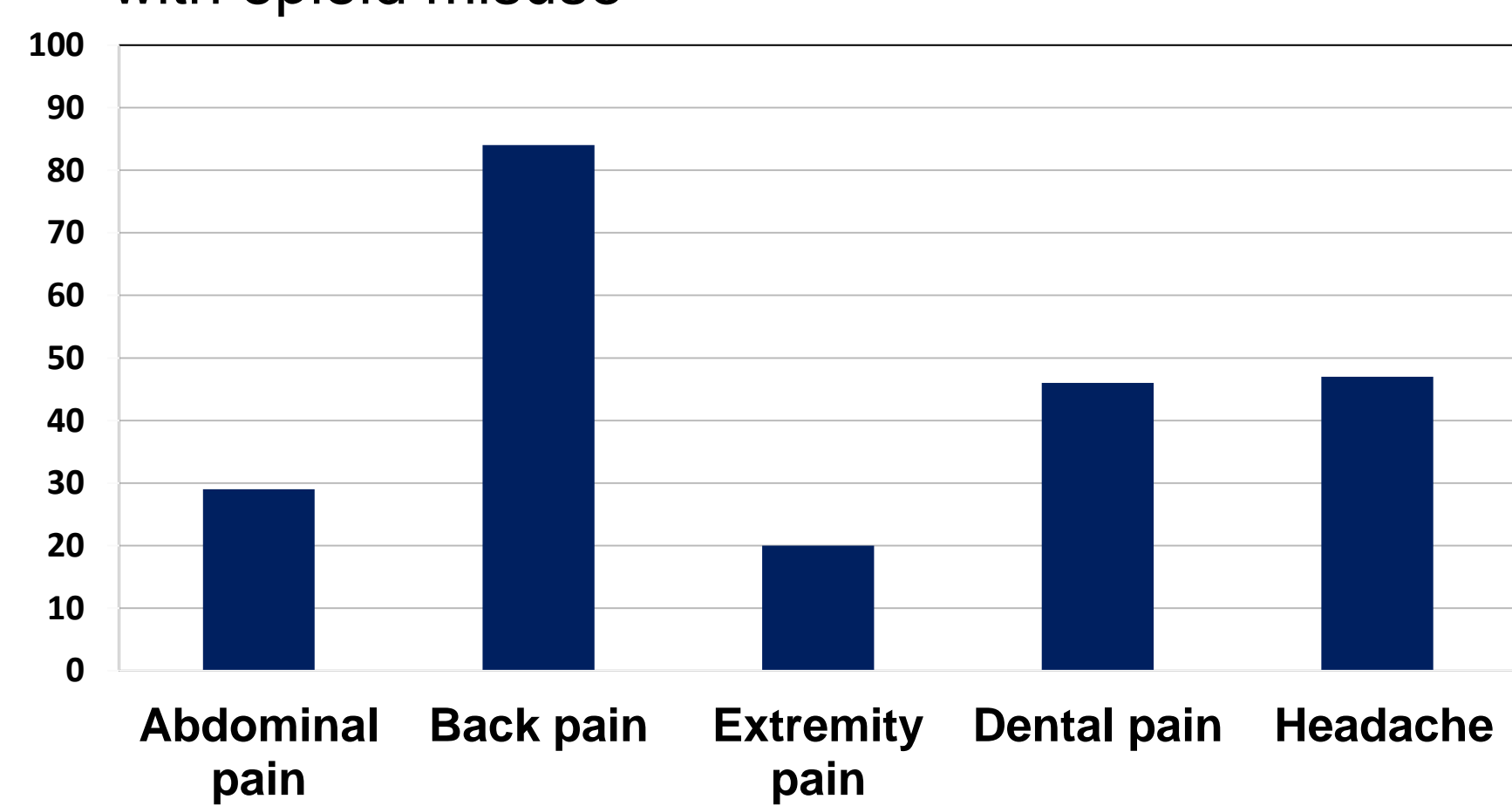Figure 2: Chief complaints providers associated with opioid misuse

Table 1: Ranking of patient characteristics providers used as **Hard Signs** suggesting opioid misuse

Emergency medicine providers (n = 90)	1st Choice	2nd Choice
IV drug abuse (track marks)	42	22
Medical record review reveals excessive opioid prescriptions	41	29
Allergy to other pain medications	6	11
History of hospitalization for overdose/depression/rehabilitation	3	19
Patient affect	1	1
Odor of tobacco/alcohol		3
Poor hygiene including oral hygiene/missing teeth		2
Criminal background		1
Poorly educated (less than high school)		1
Tattoos		1

Table 2: Ranking of patient characteristics providers used as **Soft Signs** for opioid misuse

Emergency medicine providers (n = 90)	1st Choice	2nd Choice
Patient provides unbelievable stories or exaggerated explanations	28	10
Excessive ED visits for pain	22	10
Patient looks comfortable from a distance but in severe pain when you enter the room	19	21
Patient refers to drugs by name	17	24
When you present your plan for analgesia (NSAIDs), Pt states, "That never works!"	6	11
History is inconsistent with presentation	4	11
Excuses for missing clinic appointments	1	2
Patient reports not enough money to fill prescription, so needs more meds now	1	2
Patient denies having a PCM, or does not know who it is	1	

Results

- Most providers reported that exaggerated pain scores were a warning sign for opioid misuse **(Figure 2)**

- Table 1 shows most common **hard signs** EMPs used to identify potential prescription opioid misuse

  ➢ Top two 1st choices were similar irrespective of gender or years in practice

- Second most common **hard sign** is shown in **Table 1**

- **Soft signs** are shown in **Table 2**

- Responses for 1st choice of soft signs were similar by provider gender but not practice years

- EMPs practicing 5 years or less reported

  ➢ Exaggerated explanations (24%) and patient appearance of comfort (24%) were most common soft signs

- EMPs practicing more than 5 years reported

  ➢ Exaggerated explanations (32%) and excessive ED visits for pain (28%) most commonly suggested misuse

Limitations

- Anonymous without follow-up

- Some answers may not be truthful

- Single site

- Military providers (so may not be applicable to civilians)

Conclusions

- EM providers use specific signs and behaviors to detect opioid misuse and to support opioid prescription decisions

- Provider gender did not impact choice of hard or soft signs

- Provider experience level did not affect 1st choice of hard signs but did influence selection of soft signs

- Almost 50% of providers use medical record information