Screening for Psychological Trauma in Patients With Chronic Pain: An Arizona Survey of Primary Care Providers Identifies Systems-Level Barriers to Implementation

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BACKGROUND

Chronic pain persisting 3 months or longer is associated with restrictions in mobility and daily activities, dependence on opioids, anxiety, depression, and reduced quality of life[1,2]. Numerous studies demonstrate an association between psychological trauma, including adverse childhood experiences, and chronic pain[3]. Unaddressed psychological trauma may create a barrier to successful treatment of chronic pain, yet there is little information on provider attitudes and practices related to screening for trauma in Arizona primary care. Efforts to achieve optimal outcomes in patients with chronic pain are hampered by unaddressed psychological trauma; screening for psychological trauma is widely promoted at the federal level but the implementation of such screening into clinical practice is unknown.

OBJECTIVES AND HYPOTHESES

- This study aims to characterize the implementation ~~status~~ of trauma screening in Arizona and points to relevant barriers and opportunities to facilitate improvement.
- We hypothesized that primary care trauma screening is uncommon and less consistent than screening for anxiety/depression, social determinants of health, and substance use disorders in the general and chronic pain patient populations.

METHODS

- Our interdisciplinary research team developed a survey for PCPs to collect data on screening practices and workflow surrounding screenings, perceived barriers to screening and implementing new screeners, interest and intent in implementing new screeners, and attitudes and awareness regarding the association between psychological trauma and chronic pain.
- The survey was disseminated through multiple channels from January 1 to May 1, 2023, leveraging the networks of organizations such as the Arizona Alliance for Community Health Centers, The Arizona Medical Foundation, and The Arizona Chapter of Family Physicians. The aim was to engage PCPs across diverse clinical environments statewide.
- We collected demographic characteristics and practice setting information of the primary care providers.
- We measured screening practices by asking providers to complete the sentence "I regularly screen for…" and prompted select one answer each for anxiety/depression, social determinants of health, substance use disorder, and psychological trauma and binarized screening frequency into two categories: consistently ("at every appointment" or "all new patients") and inconsistently ("intermittently, based on need" and "I never screen for this")
- We assessed primary care provider knowledge, beliefs, and attitudes around screening using various Likert scales and conducted thematic coding of open-ended responses to "please explain any potential barriers to implementing screeners for psychological trauma" and "what would help you to implement screeners for psychological trauma?"
- Data were tabulated and analyzed from questions assessing providers' implementation, comfort level, beliefs, and system factors for trauma and other risk-factor screenings.

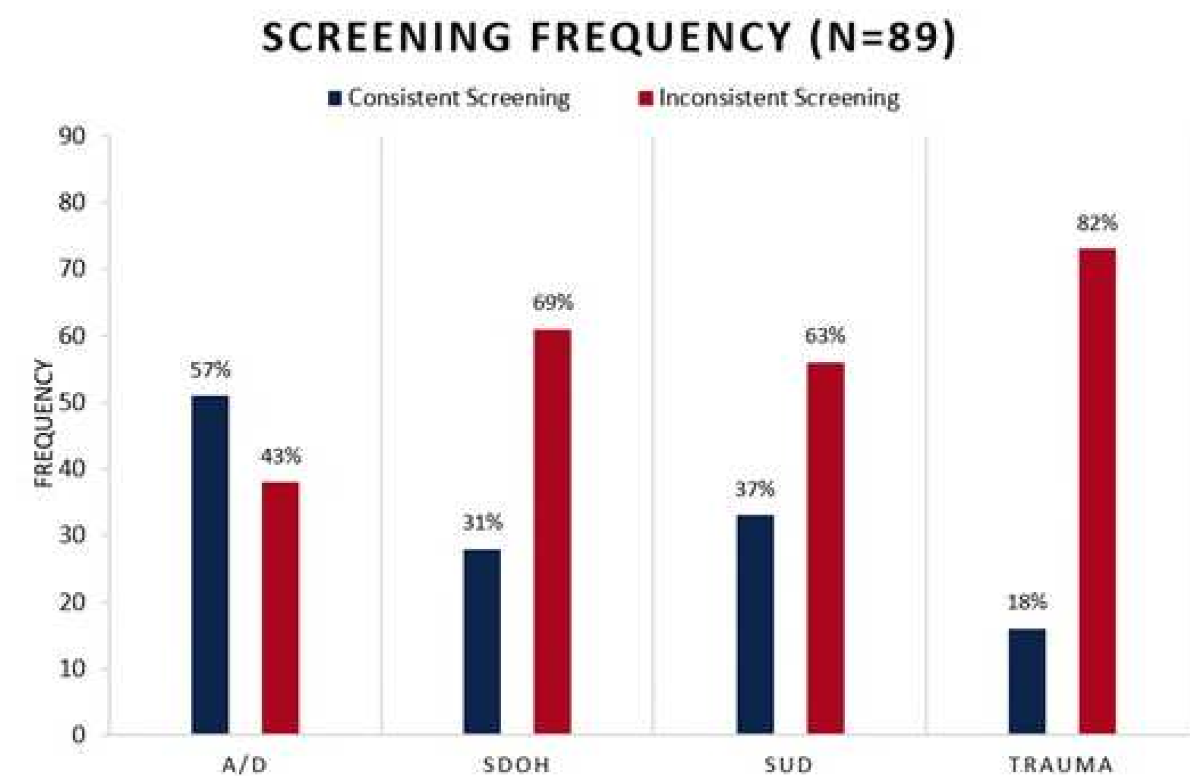
SURVEY RESULTS: RESPONDENT CHARACTERISTICS

Characteristics of 89 primary care providers in Arizona

Characteristic	No. (%) or Mean (s.d.)	Characteristic	No. (%) or Mean (s.d.)
Profession		**County**	
MD/DO	52 (58.4)	Maricopa	17 (20.5)
Nurse Practitioner	27 (30.3)	Pima	48 (57.8)
Physician's Assistant	10 (11.2)	Other	18 (21.7)
Clinical Setting		**Age**	51.3 (14.5)
Community/Rural Health Center	57 (63.3)	**Sex**	
Private Practice	14 (15.6)	Male	26 (29.6)
Hospital - Outpatient	4 (4.4)	Female	60 (68.2)
Hospital – Inpatient/ Emergency Dept.	3 (3.3)	Prefer not to answer	2 (2.3)
Another Clinical Setting	12 (13.3)	**Race/Ethnicity**	
Licensure/Specialization		NH White[3]	55 (61.2)
Family Medicine	62 (70.5)	NH Black	5 (6.5)
Internal Medicine	11 (12.5)	NH Asian	8 (10.4)
Pediatrics	5 (5.7)	Hispanic	12 (13.5)
Other	10 (11.4)	Other/Prefer not to answer	9 (10.1)

1. NH=Non-Hispanic

SURVEY RESULTS: FREQUENCY OF TRAUMA SCREENING



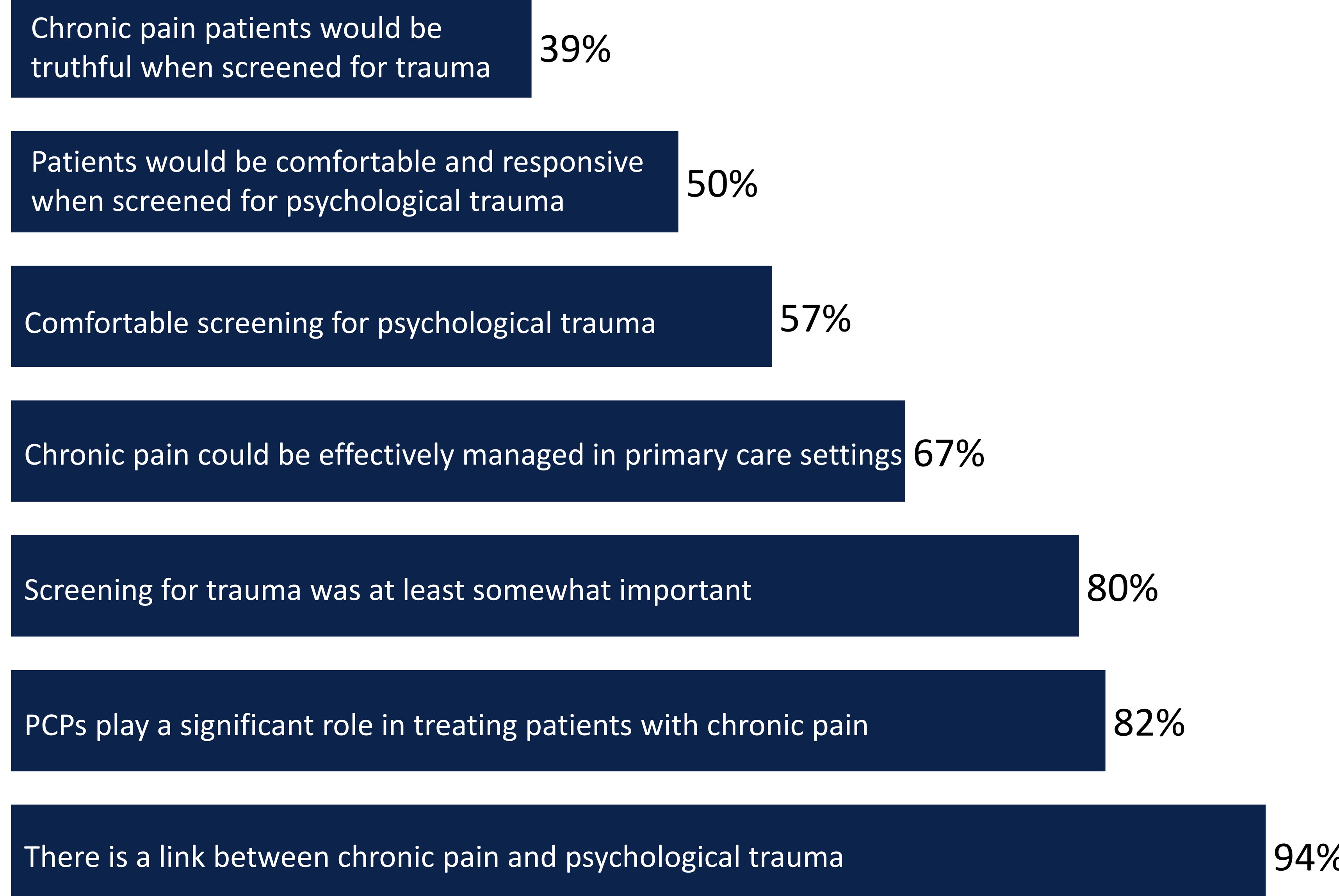
82% of survey respondents screened patients for trauma **insufficiently**, **significantly less consistently** compared to anxiety/depression (A/D), social determinants of health (SDOH), and substance use disorder (SUD) (all p-values < 0.05)

29% of respondents did ***not*** screen ***at all*** for trauma, while only **8%** did not screen for SUD, **9%** did not screen for SDOH, and **1%** did not screen for A/D.

Among the 18% of respondents who consistently screened for trauma, **88%** screened for **domestic violence**, **69%** for **physical trauma**, **56%** for **interpersonal trauma**, **56%** for **sexual abuse**, **50% for adverse childhood experiences**, and **50%** for **medical-induced trauma**.

When asked about factors influencing their screening practices, **61%** of primary care providers indicated they were guided by **clinic policy requirements**, **40%** by **individual preference**, and **24%** by **informal clinic norms**.

SURVEY RESULTS: KNOWLEDGE, ATTITUDES AND BELIEFS



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BARRIERS AND FACILITATORS

Barriers

TIME/STAFFING *"When you discover these things, you have to do something about it – time is very expensive and challenging. You put the provider and healthcare team in a challenging position – the person has this thing and is hurting, and now I feel bad because I have this information and cannot ignore it but what do I do?"*

RELATIONSHIP OF TRUST NOT YET BUILT *"[Additional screening] could hurt more than help in some scenarios, it could hurt just to give out a survey before any trust is built. If [the patient] is very aware of their emotional pain, [and how] physical and emotional pain is tied together, just by talking about it, they might feel an increase in pain and not want to come back to clinic due to negative situation."*

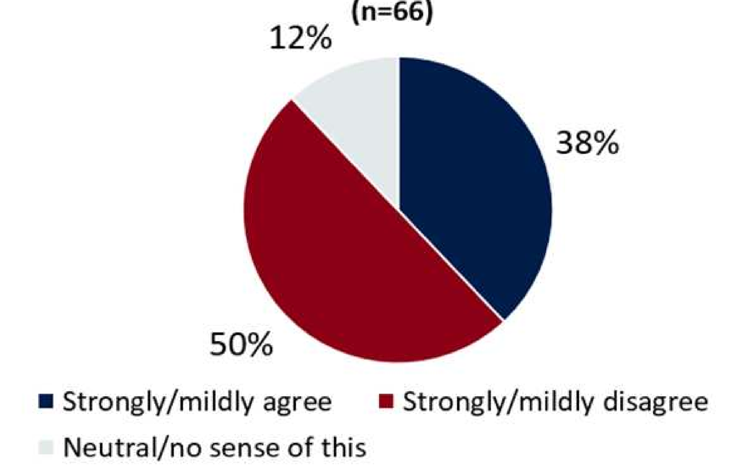
Facilitators

ESTABLISH EVIDENCE-BASED PROTOCOLS

"It would be most helpful if someone has brought an evidence-based screening tool to light and gave providers the opportunity to learn how to use it, feel confident knowing when to use it, and implementing it at their own discretion. Protocols in place [that require providers] to [screen] every patient can be a burden. Easy and palatable trainings, algorithms to know when to screen and how to make that decision, and infographics, providers would really love that."

50% of survey respondents mildly or strongly *disagreed* that it would be feasible to address needs identified by screening for psychological trauma.

With the current workload and staffing at my clinic, it is FEASIBLE to address needs identified by screening for psychological trauma (n=66)



DISCUSSION

- Our findings suggest that most primary care providers are aware of the associations between chronic pain and psychological trauma, believe that treating psychological trauma could improve chronic pain symptoms, and are interested in implementing screenings for psychological trauma into their clinical workflow
- Screening for psychological trauma remains comparatively low, especially compared to the use of other screeners for A/D, SDOH, and SUD
- There exists a gap between awareness of the chronic pain-trauma connection and actual implementation of trauma screening protocols in primary care
- Fifty percent of primary care providers felt that it would be unfeasible to address patient needs identified by psychological trauma
- The findings suggest that addressing the challenges in trauma screening goes beyond provider-level factors and requires systemic changes
- Interventions may include clinic-wide training in trauma-informed care, the integration of standardized trauma screening tools into electronic health records, and the establishment of standardized procedures for responding to positive screens

ACKNOWLEDGEMENTS

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REFERENCES

1. Moseley GL. Reconceptualizing pain according to modern pain science. *Phys Ther Rev*. 2007;12(3):169-178. doi:10.1179/108331907X223010
2. *Do I Have Chronic Pain?* WebMD; 2021. Accessed December 7, 2022. https://www.webmd.com/pain-management/guide/understanding-pain-management-chronic-pain
3. Lumley MA, Yamin JB, Pester BD, Krohner S, Urbanik CP. Trauma matters: psychological interventions for comorbid psychosocial trauma and chronic pain. Pain. 2022;163(4):599-603. doi:10.1097/j.pain.0000000000002425