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Language Discordance in Emergency Department Delirium Screening: Results from a Qualitative Interview-Based Study

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Introduction

Delirium, a syndrome of acute brain failure, affects approximately 10% of older adults in emergency departments (EDs).¹ ED delirium is recognized in only one third of cases.² Delirium can negatively impact patients' future cognition and function, and undetected ED delirium may be associated with increased mortality.² A small but growing number of EDs is adopting delirium screening.³ In a recent study, inpatient healthcare providers reported

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Author Contributions

All authors were involved in conceptualizing and designing the study, data analysis, interpretation, and manuscript preparation.

Conflicts of Interest

None.

Category

Research letter

Sponsor's Role

None.

difficulty using delirium screening tools when there is language discordance with patients, i.e. a difference between the primary language spoken by clinicians and patients.⁴ Patients whose primary language differs from the language of healthcare delivery may be more likely to develop delirium. We aimed to determine current practices and identify concerns about ED delirium screening in situations of language discordance among early adopter EDs.

Methods

We conducted 20 semi-structured qualitative interviews with health professionals leading ED delirium initiatives. We recruited participants through email invitations sent to list-servs of three geriatric emergency medicine organizations; as such, a response rate cannot be determined. We asked interviewees how their ED screens patients for delirium when there is clinician-patient language discordance. Interviews were conducted by videoconference, audio-recorded, and transcribed. We analyzed all transcripts using an inductive approach, in which information gathered from interviewees is used to define codes.⁵ We iteratively reviewed coded data for common themes by consensus. After 12 interviews, no new themes emerged, indicating data saturation.

The Institutional review boards of Partners Healthcare (2021P001558) and Baylor College of Medicine (H-50838) approved this research.

Results

Twenty-three interview participants represented 20 EDs; three sites had two participants. Participant and site characteristics are described in Table 1. About half of sites used the Delirium Triage Screen (DTS) coupled with the Brief Confusion Assessment Method (bCAM). The 20 EDs used three approaches to screening with language discordance: employing interpreters (n=13, 65%), omitting screening (n=6, 30%), and basing a delirium evaluation on collateral information rather than formal screening tools (n=4, 20%), shown in Figure 1. Four sites used more than one approach when language discordance was present. Two major themes emerged: (1) uncertainty over evidence-based practices (n=8), and (2) challenges screening patients through an interpreter (n=8). Illustrative quotations appear in Table 2.

Uncertainty about evidence-based recommendations.

Participants expressed concerns regarding the validity of delirium screening tools in non-English languages. Interviewees felt that tests of attention may not translate easily across languages. Some recommended that tools involving spelling tests, such as the DTS, include adaptations to ensure similar complexity of the test across languages. Some participants attempted to find literature about delirium screening in the presence of language-discordance or learn about practices in other institutions to shape their ED protocols, but continued to feel unsure about best practices.

Challenges screening patients through an interpreter.

Interviewees described that some patients had difficulty engaging with audio interpreters, making screening results seem unreliable. When employing interpreters, interviewees

reported uncertainty about whether positive screens reflected a patient's acute confusion vs. poor comprehension of instructions. Some sites lacked consistent interpretation services. Overall, these challenges led to inconsistency in performing screening in the presence of language discordance.

Discussion

In our study, participants raised concerns about evidence-based recommendations and using interpreters to screen for delirium with clinician-patient language discordance. These findings have important implications. As delirium is missed in two-thirds of ED cases with language concordance,^{1,6,7} delirium is likely missed when there is language discordance. As our participants suggest, ad hoc translation of an English-based delirium screening tool into non-English languages may inadvertently affect its diagnostic performance. Validation of translated delirium assessments is needed, though conducting such studies may be difficult and labor-intensive. Additionally, protocols need specific instructions about screening with language discordance. If staff believe that a screening tool is not appropriate to use across languages, they may omit screening.⁴

To address these concerns, alternatives to existing delirium tools are needed for situations of clinician-patient language discordance. Delirium assessments that are based on observing without directly communicating with a patient may be feasible. The Richmond Agitation Sedation Scale is one such observational tool with diagnostic accuracy in the ED, though inter-rater reliability is moderate.⁸ An interactive electronic device-based game that relies on patient reaction times has shown promise in detecting clinically unrecognized ED delirium,⁹ and could potentially be used with instructions delivered in a patient's primary language. Finally, as our participants and other studies suggest, in situations of language discordance, collateral information can be crucial in determining the presence of acute confusion.⁴ The Single Question in Delirium is a simple collateral-based delirium assessment tool that can be used in these situations.¹⁰

Limitations

This study elicited leaders' perspectives and did not directly assess ground-level practices. Data are from North American EDs and may not apply to other practice settings.

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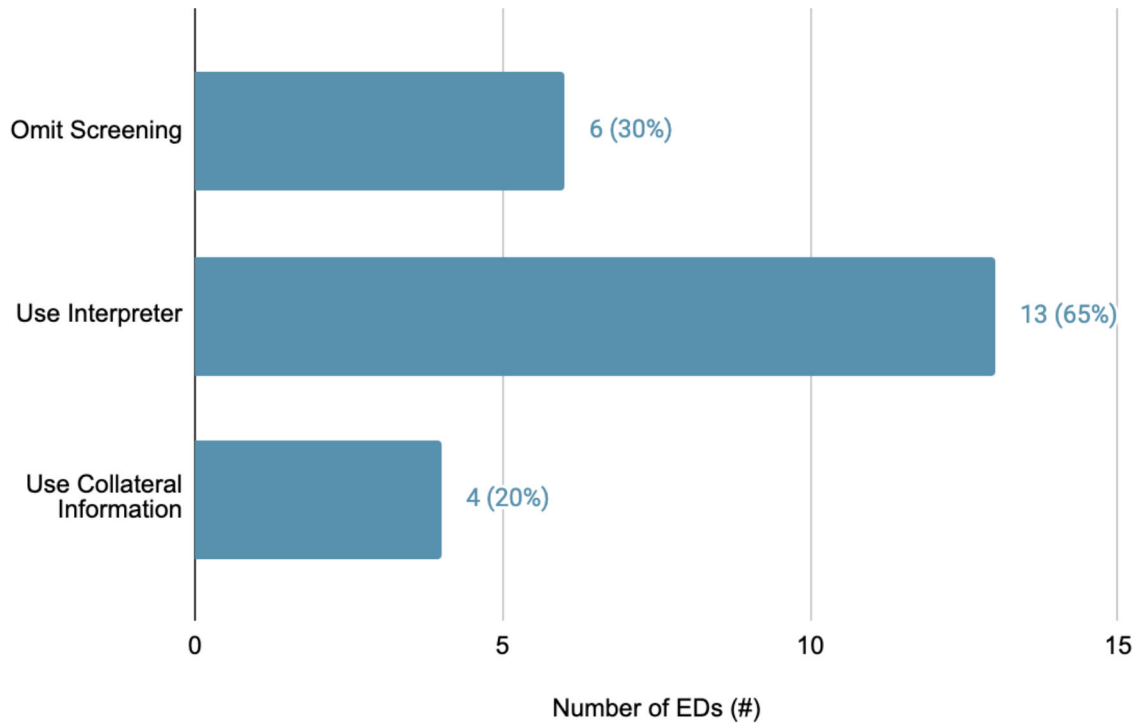


Figure 1. Emergenct Departments' Approaches to Delirium Screening with Patient-Clinician Language Discordance
Note: Four sites used more than one approach when language discordance was present.

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Table 1.**Characteristics of Interviewees and Represented Emergency Departments**

Characteristic	N (%)
Interviewee's professional role	
Physician	14 (70%)
Nurse	5 (25%)
Advanced practice clinician	3 (15%)
Allied health professional	1 (5%)
Country of Practice	
United States	18 (90%)
Canada	2 (10%)
Language of care delivery	
English	20 (100%)
French	2 (10%)
Teaching Institution	20 (100%)
Geographic Setting	
Urban	14 (70%)
Suburban	4 (20%)
Rural	2 (10%)
ED geriatric accreditation status	
Accredited	14 (70%)
Non-accredited	6 (30%)
ED delirium screening tool used	
bCAM	5 (25%)
CAM	2 (10%)
DTS	1 (5%)
DTS +bCAM	8 (40%)
DTS + bCAM, CAM, or CAM-ICU	1 (5%)
ISAR + bCAM	1 (5%)
ISAR + CAM-ICU	1 (5%)
NuDESC + RASS + bCAM	1 (5%)

The first row details identities of N=23 interviewees who represent 20 EDs. All subsequent rows detail attributes of N=20 EDs.

Table 2.

Illustrative Quotations about ED Delirium Screening with Clinician-Patient Language Discordance

Theme	Quotation
Uncertainty about Evidence-Based Practices	<p>“I’ve actually been trying to dig through some research on it [screening for delirium with language discordance] to figure out what we’re doing there.” (Participant 6)</p> <p>“Any tool needs to be adaptable to the patient population in addition to the ED environment. So you have to consider, can I use that with a patient who is illiterate, with a patient who doesn’t speak English?” (Participant 7)</p> <p>“There are very specific questions in the screens that are English-based that they don’t necessarily translate to Spanish. They ask you to spell LUNCH backwards, and the Spanish version of that is much longer and probably a lot more complex than it is in English. So it’s not clear cut.” (Participant 15)</p>
Challenges using Interpreters	<p>“So we do have very liberal use of the [interpreters], but at least my own experience in trying to evaluate a confused patient [who speaks another language] with a screen is complicated.” (Participant 21)</p> <p>“We like to be able to use the iPad so that the interpreter can see the patient and the patient can see the interpreter.” (Participant 5)</p>

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