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## Medical Students Attending Schools Along The US-Mexico Border: Experiences From Bilingual and Monolingual Students

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**Title:** Medical Students Attending Schools Along The US-Mexico Border: Experiences From Bilingual and Monolingual Students

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## **Abstract**

We present a study that aims to capture experiences of bilingual and monolingual medical students exposed to patient populations with limited English proficiency along the US-Mexico border. The study surveyed US-Medical students at The University of Texas Rio Grande Valley in the clerkship years of medical education. A total of 121 medical students were surveyed consisting of both bilingual and monolingual students of which 32 responded (26%). Of the students surveyed, 0% reported being certified as medical language interpreters. 24% reported feeling somewhat uncomfortable and 10% extremely uncomfortable while interpreting, 48% reported sometimes making errors in translation, and 33% reported guessing at the interpretation of a word.

## **Background**

The Rio Grande Valley (RGV) is a region composed of a large Hispanic population (>94%) that sits along the Texas-Mexico border. Border communities across the U.S., such as the RGV, are some of the most medically underserved regions in the nation and their people are often primarily Spanish-speaking. Despite this, the healthcare providers in this region are often primarily English-speaking.

## **Methods**

We surveyed 121 bilingual and monolingual U.S. medical students at the UTRGV School of Medicine in the clerkship years of their medical education on their medical Spanish interpretation experience, comfort level while interpreting, reported errors in translation, and situations in which they were asked to serve as medical Spanish interpreters.

## **Results**

Of 121 surveyed third and fourth-year medical students, 32 responded (26%). 90% of bilingual students reported having been asked to serve as medical Spanish interpreters during clinical rotations despite 0% having a medical language interpretation certification. 77% of bilingual students report being asked to interpret “sometimes”, “often”, or “very often” and 34% report feeling “somewhat uncomfortable” or “uncomfortable” interpreting. 53% report making an error “sometimes” or “very often.”

Overall student sentiment is that serving as a medical interpreter made their clinical learning experience better and gave an advantage in evaluation over English-only speakers. Further, students felt that they would have benefited from some form of formal medical language interpreter training before beginning 3rd and 4th year clerkships.

## **Conclusions**

U.S. Medical students attending medical school at the UTRGV School of Medicine are often asked to serve as medical Spanish interpreters during their clerkship rotations despite feeling unprepared for the role and feel they would benefit from some form of formal training.

**Keywords:** Rio Grande Valley, Border health, physician deficit, medical Spanish interpretation

## Highlights

- There is a lack of Spanish-speaking healthcare providers along border communities
- Medical students are being asked to serve as medical Spanish interpreters despite feeling unprepared for the role
- Highlighting the need for medical Spanish interpretation courses in U.S. medical education may facilitate the introduction of such courses

## Introduction

The United States Census Bureau estimates 8.3% of the US population speak English less than “Very Well”, with the highest concentrations of limited English proficiency found in counties along the US-Mexico border.<sup>1</sup> Although healthcare institutions are required to provide interpretation services by a certified medical language translator, medical students without proper training or certification often fill this role. The use of medical students as ad hoc interpreters poses the risk of error in interpretation and potentially diminishing the learning experience of students. Previous studies have concluded that professional interpreters make significantly less errors of potential consequences when compared to ad hoc or no interpreters.<sup>2</sup> Also, a similar study to ours was conducted in 2016 at two US medical schools which reported on over half of students describing incidents where acting as interpreters made them feel uncomfortable.<sup>3</sup>

The aim of this study is to report on the experiences of both bilingual and monolingual medical students with exposure to populations with limited English proficiency.

## Methods

**Survey Design:** Using Qualtrics software an electronic questionnaire was developed using survey scales. The questionnaire was written in English. Experiences of participants were captured using a five-point Likert scale assessing for frequency and quality. Demographic data collected included sex, race/ethnicity, and languages spoken.

**Sampling:** Third and fourth year medical students were voluntarily recruited via email from the University of Texas Rio Grande Valley School of Medicine.

**Procedure:** A link to the survey was then distributed to third and fourth year medical students. Consent was agreed upon before beginning the survey. Participation was voluntary and anonymous.

**Data analysis method:** Statistical analysis was carried out using Qualtrics.

## Results

121 UTRGV School of Medicine third and fourth-year medical students were surveyed of which 32 responded (26%).

### Demographics:

Question	Results	N
What year of medical training are you in?	MS3 53% MS4 47%	32
What was your assigned sex at birth?	Male 47% Female 53% Non-binary/third gender 0% Prefer not to say 0%	32

What racial or ethnic group best describes you?	Hispanic or Latino 47% Black or African American 6% White 25% American Indian or Alaska Native 0% Asian 19% Native Hawaiian or Pacific Islander 0% Other 3%	32
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### Questionnaire:

Question	Results	N
Does your school offer a program or assistance for medical students to get certified as medical language interpreters?	Yes 0% No 53% Unsure 47%	32
Are you a bilingual medical student?	Yes 66% No 34%	32
What other language do you speak?	Spanish 86% Other 14% (Vietnamese, Hindi, Tagalog)	21
What is your level of proficiency?	Novice 0% Intermediate 24% Advanced 38% Superior 38%	21
How did you learn to speak your second language?	Native speaker 52% Learned at home 24% Grade School language classes 10% College language classes 5% Other 10% ( Lived abroad, self study)	21
How do you rate your knowledge of Spanish medical terminology in comparison to your knowledge of English medical terminology?	Much less proficient 19% Less proficient 48% About the same 29% More proficient 5% Much more proficient 0%	21
Are you certified as a medical language interpreter?	Yes 0% No 100%	21
Have you ever been asked to provide medical interpretation during clinical rotations?	Yes 90% No 10%	21
How often do you get asked to interpret during your clinical rotations?	Very often 29% Often 19% Sometimes 29% Rarely 19% Never 5%	21
How comfortable did you feel acting as a medical interpreter?	Extremely uncomfortable 10% Somewhat uncomfortable 24% Neither comfortable nor uncomfortable 19% Somewhat comfortable 19% Extremely comfortable 29%	21
At any point while acting as a medical interpreter, how often, if ever, did you make an error?	Very often 5% Often 0% Sometimes 48% Rarely 24% Never 24%	21

While acting as a medical interpreter, did you ever feel the patient's or medical provider's words got lost in translation?	Very often 5% Often 5% Sometimes 38% Rarely 24% Never 29%	21
Have you ever found yourself having to guess at the interpretation of a word?	Very often 5% Often 10% Sometimes 33% Rarely 43% Never 10%	21
If you were asked to interpret, did you feel it was out of convenience or was there no medical interpreter available at the time?	Out of convenience 62% No medical interpreter available 14% Unsure 24%	21
At any point, did you feel being asked to interpret in a clinical setting diminished your learning experience? (ie spending less time seeing patients of your own in comparison to your peers because you were pulled to translate)	Yes 14% No 76% Unsure 10%	21
Overall, do you feel being asked to act as a medical interpreter made your clinical learning experience better?	Definitely not 5% Probably not 10% Might or might not 38% Probably yes 19% Definitely yes 29%	21
Did you feel acting as a medical language interpreter gave you an advantage in terms of evaluations when compared to English only speakers?	Definitely not 10% Probably not 19% Might or might not 24% Probably yes 24% Definitely yes 24%	21
Do you feel you would have benefited from some type of formal medical language interpreter training before starting the 3rd and 4th year clerkships?	Definitely not 0% Probably not 0% Might or might not 16% Probably yes 19% Definitely yes 66%	32
Did you feel your bilingual peers had an advantage in terms of clinical evaluations?	Definitely not 0% Probably not 9% Might or might not 27% Probably yes 18% Definitely yes 45%	11

## Discussion

Our study has revealed that medical students at the UTRGV School of Medicine are often asked to interpret for their clerkship rotation preceptors despite not feeling prepared to interpret and sometimes making errors. Notably, students also feel that the overall experience gained from interpreting is to their benefit, and that it would be greater if they had some form of interpreter training before clerkship rotation.

There are two institutions in the U.S. that are allowed to certify healthcare interpreters, the Certification Commission for Healthcare Interpreters (CCHI), and the National Board of Certification for Medical Interpreters (NBCMI). Both certifications involve a written and oral test and require a very advanced knowledge in both the interpretation of the language and general topics such as the interpreting code of ethics, and cultural aspects in healthcare interpreting. As a result, achieving formal healthcare interpreting with no prior experience is an incredibly challenging task to complete as a medical student with no prior experience. Given this, we suspect that students may benefit most from introductory elective courses in medical interpretation to complete prior to clerkship rotations to cover the fundamentals of medical interpreting and non-English medical terminology.

Future plans for this study include increasing sample size by involving more medical schools across the border and/or with predominantly Spanish-speaking patient populations and involving students in other health profession career paths such as nurse practitioner and physician assistant students.

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