



# OVERCOMING PATIENT-DOCTOR COMMUNICATION BARRIER: A PROSPECTIVE OBSERVATIONAL STUDY

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## Introduction

More than 25 million Americans speak English 'less than very well,' according to the U.S Census Bureau.<sup>1</sup> Hispanics account for over 60% of the U.S. population growth and 25% speak little-to-no English.<sup>2</sup> This population might have a language barrier in accessing healthcare and consequently, is at a higher risk of adverse outcomes related to understanding the proposed diagnostic tests and treatment options. Patient safety and satisfaction could be negatively affected as well.

**The aim** of this study was to compare various modes of communication in patient-physician encounters among Spanish speaking, Limited English Proficiency (LEP) patients in a tertiary health care emergency room setting.

## Methodology

Study protocol was approved by the Texas Tech University Institutional Review Board (IRB) and other appropriate authorities.

Self-reported surveys were used to collect information from the patients and physicians after initial medical contact in the Emergency Room (ER).

Independent observers also completed a checklist after each meeting.

The patient population consisted of UMC hospital Emergency Room (ER) Spanish speaking LEP patients who confirmed at triage that they preferred to receive medical care in Spanish due to poor English proficiency.

The patient-physician interactions were categorized into three groups based on mode of communication:

- Use of professional medical interpretation
- Use of ad hoc medical interpretation, and
- Use of bilingual physician interaction

Age of participants was summarized using mean and standard deviation (SD) while categorical variables were described using frequency and percentages. Age was compared among interpreter types using ANOVA and categorical variables were compared among interpreter type using Fisher's exact test.

We will like to acknowledge **Indika Mallawaarachchi, MS** for his assistance with Statistical Analysis

## Results

Interim analysis results consist of 64 patient-physician interactions. Ad hoc medical interpretation, professional medical interpretation, and bilingual physician interaction comprised 35%, 12% and 53% of these interactions, respectively.

The average age of the respondents was 54.4 (SD=16.3). Majority of the respondents were females (69%), Hispanic (94%), and with less than high school education (57%).

34 (67%) of the patients were extremely satisfied with the interaction while 28 (49%) of the physicians were extremely satisfied with the interaction. Only 7% of the physicians had to wait more than 5 minutes to get help from an interpreter. Majority of examinations were completed within 5-10 minutes (48%) followed by >10 minutes (33%). Table 1 shows the comparison of selected cofactors among interpreter type. Only physician satisfaction with the interaction and time to get help with interpreter showed statistical significant differences among the interpreter types (P-values 0.013 and 0.015 respectively).

Fig 1: Interpretation type

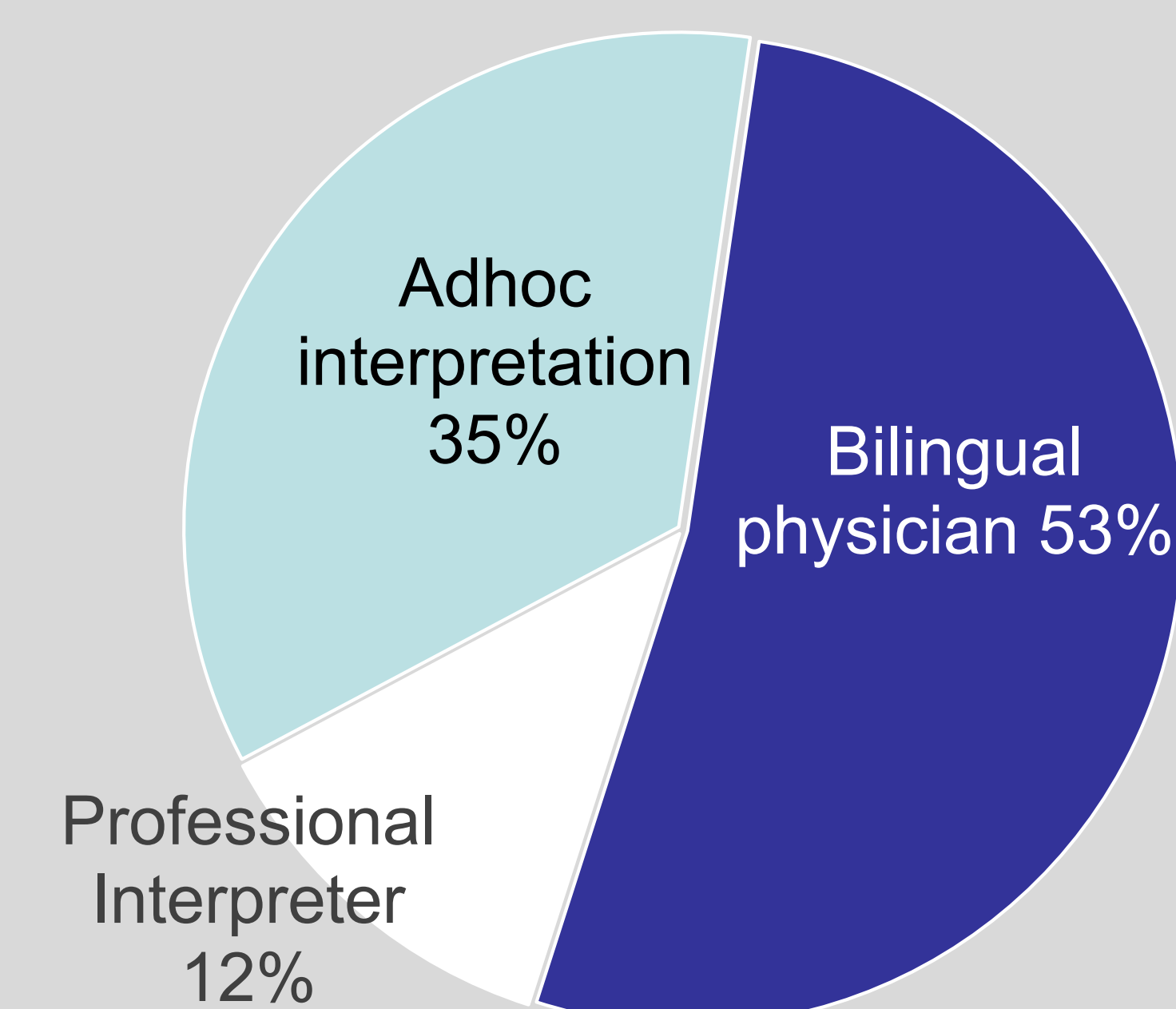


Fig 2: Physician satisfaction with Interaction

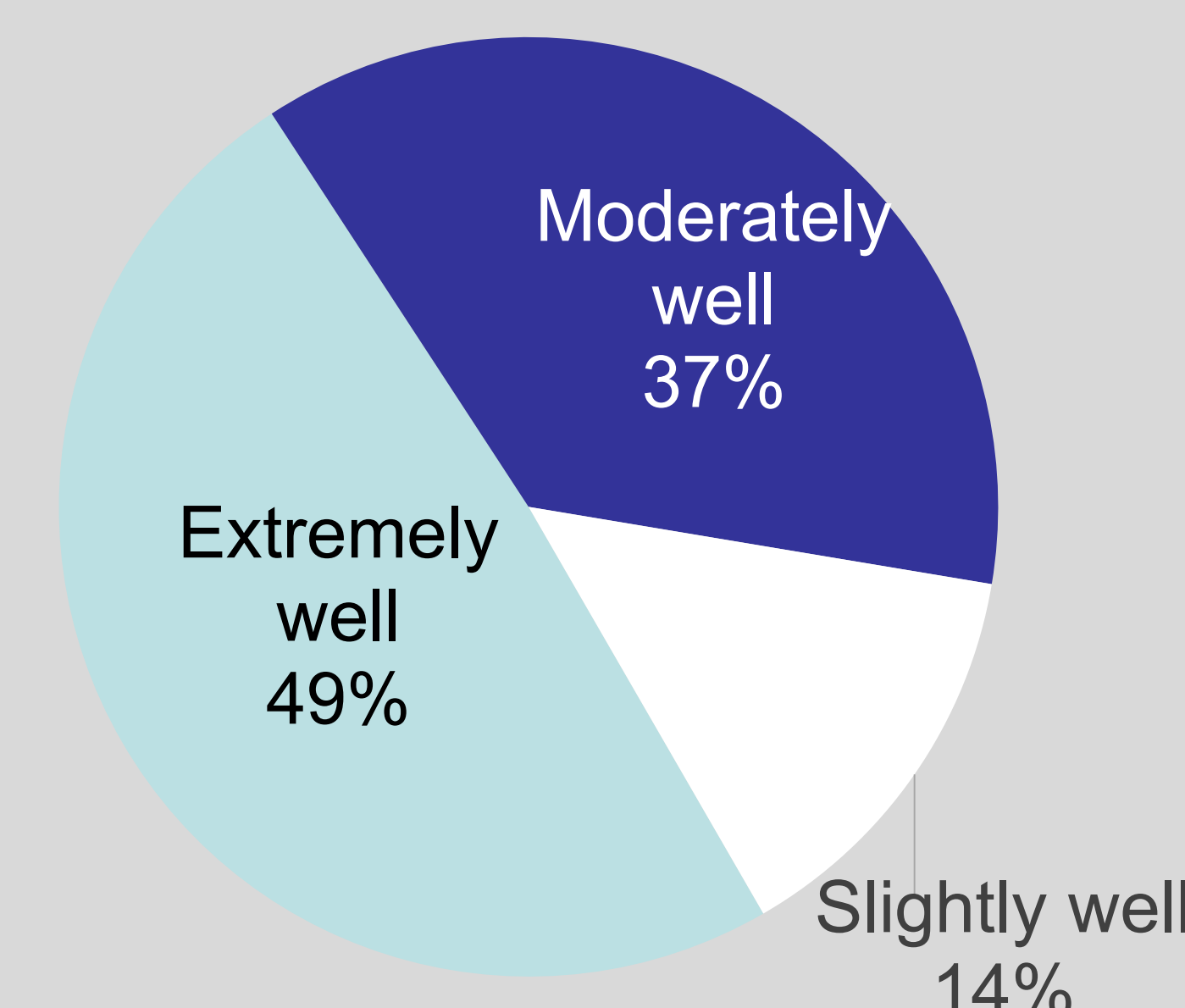


Fig 3: Patient understanding of physician instructions

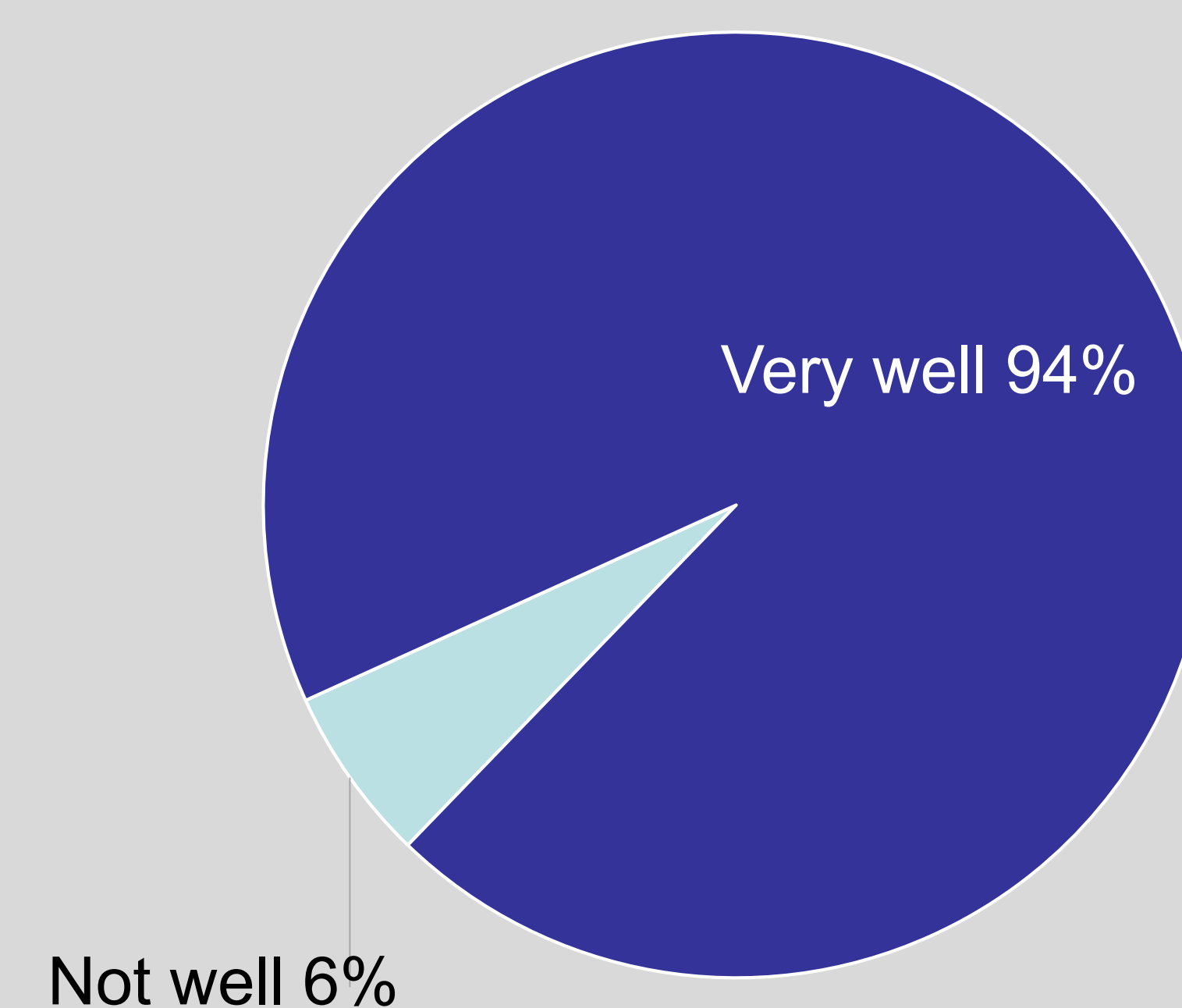


Fig 4: Patient satisfaction with Interaction

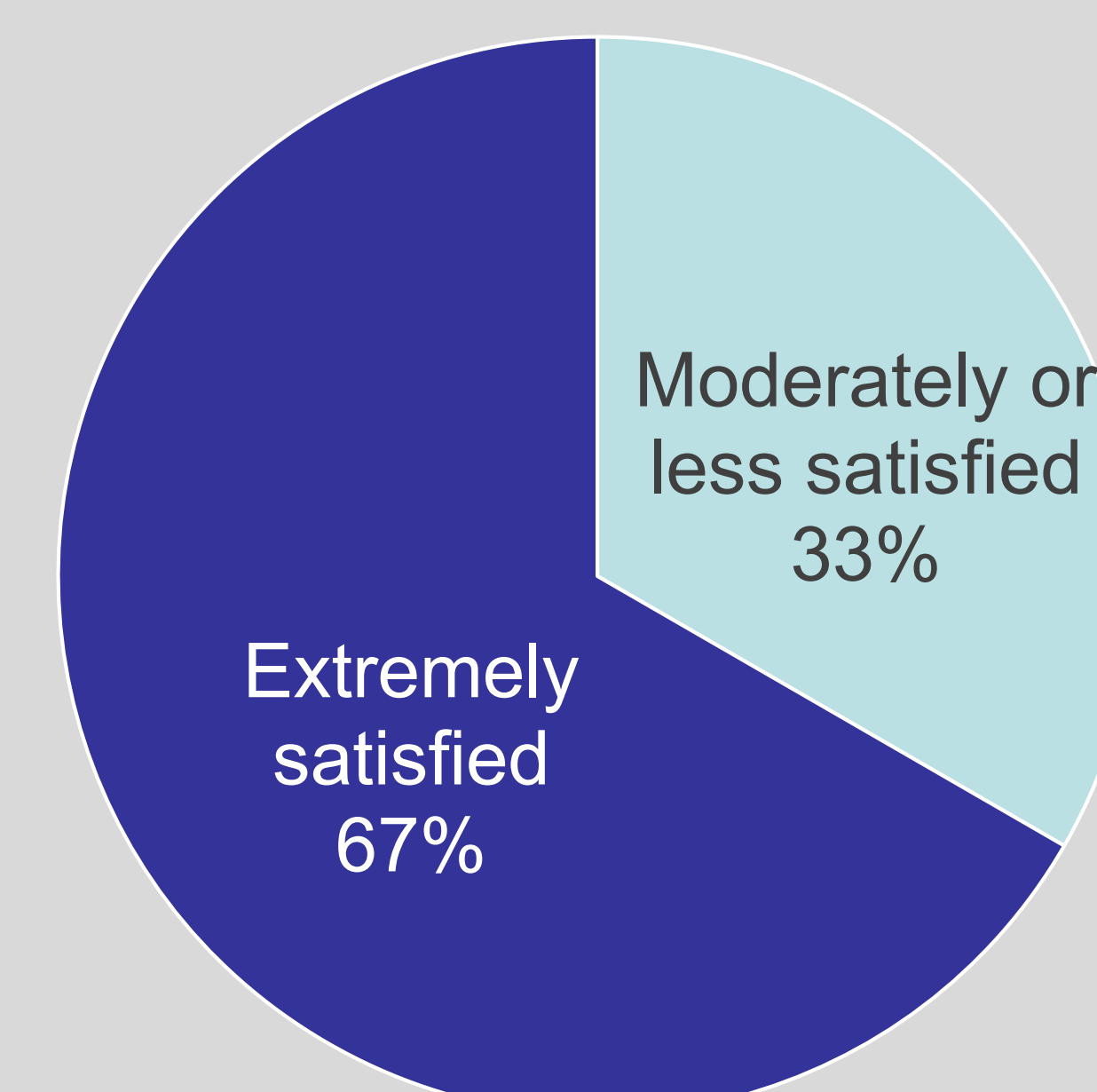


Table 1: Comparison Of Selected Cofactors Among Interpreter Type

Variable	Adhoc medical interpretation		Professional medical interpretation		Bilingual physician		P-value
	N	%	N	%	N	%	
Patient understanding the instructions							
Not well	0	0.0	1	14.3	2	7.7	0.249
Very Well	16	100.0	6	85.7	24	92.3	
Patient satisfaction with the encounter							
Extremely	11	68.8	5	71.4	18	66.7	1.000
Moderately or less	5	31.3	2	28.6	9	33.3	
Physician satisfaction with the encounter							
Extremely	5	25.0	4	57.1	18	62.1	0.013
Moderately	8	40.0	3	42.9	10	34.5	
Slightly or less	7	35.0	0	0.00	1	3.5	
Time to get help with an interpretation							
>5 minutes	2	10.5	2	28.6	0	0.0	0.015
< 5 minutes	17	89.5	5	71.4	30	100.0	
Time to complete examination							
< 5 minutes	6	30.0	0	0.00	5	16.7	0.480
5-10 minutes	9	45.0	5	71.4	14	46.7	
> 10 minutes	5	25.0	2	28.6	11	36.7	

## Conclusion

1. Verbal communication is an invaluable component of an effective clinical interaction.
2. Although professional medical interpretation is largely underutilized, there is no significant difference in patient satisfaction and patient understanding of instructions in the group who utilized professional medical interpretation
3. Although physicians were more satisfied with the professional medical interpretation mode of communication, it showed the most delay in beginning an interaction.
4. This is an interim analysis and a more extensive study is currently being conducted, with anticipation to provide more relevant information in the future.

## References

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2. Dunlap JL, Jaramillo JD, Koppolu R, Wright R, Mendoza F, Bruzoni M. The effects of language concordant care on patient satisfaction and clinical understanding for Hispanic pediatric surgery patients. *J Pediatr Surg*. 2015;50:1586-1589.