

## Abstract

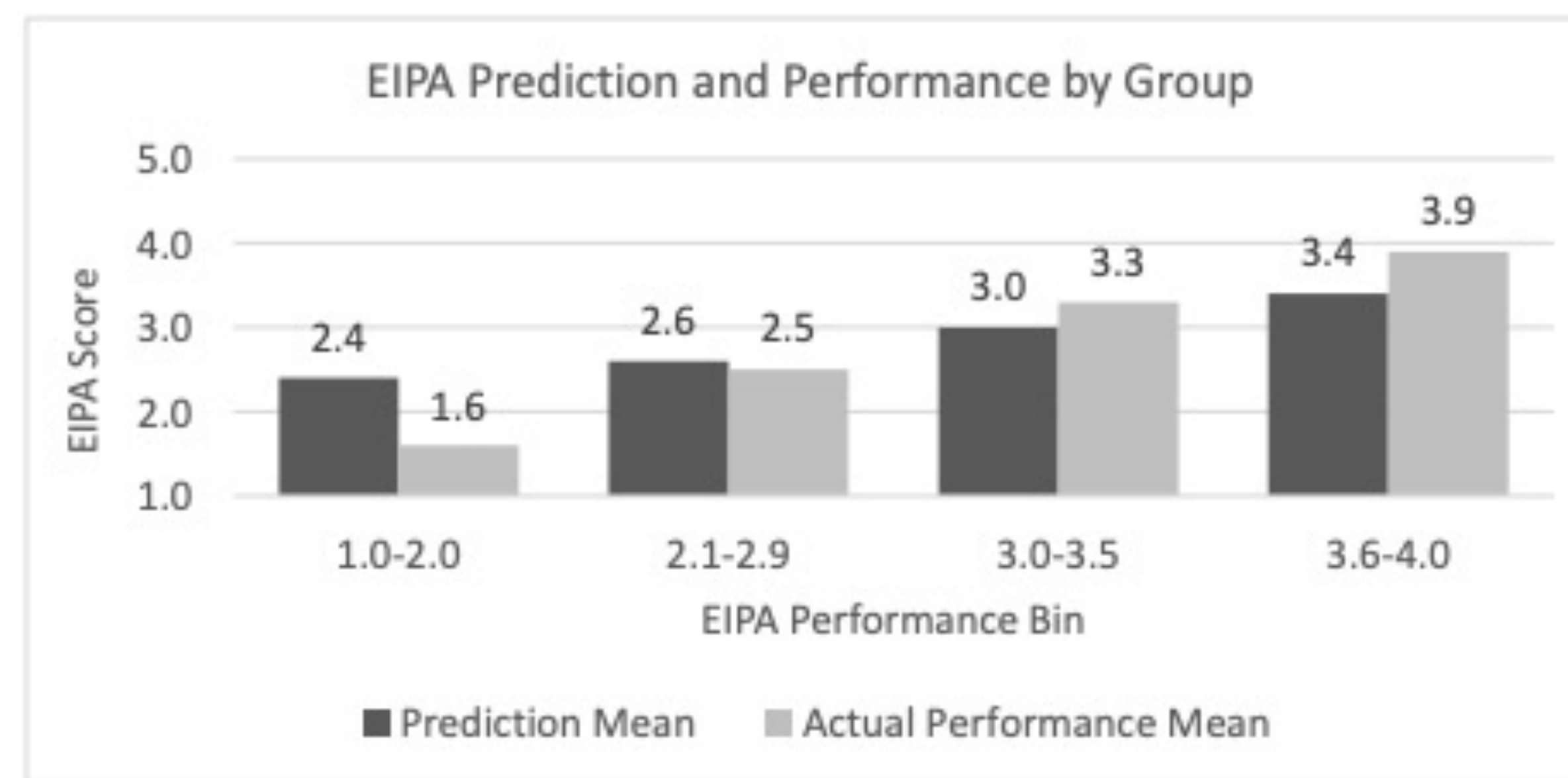
This qualitative research investigates the impacts of American Sign Language (ASL)/English interpreters on d/Deaf patients care in medical settings. The literature reviewed considers the history of ASL/English interpreters, their role within the deaf community, and how it has evolved into the profession it is today. Specifically, literature related to medical interpreting, ASL/English translation technology, and the complexities of mental health interpreting conclude the need for qualified interpreters through the establishment of minimum possession of credentials. Current standard practices, conduct guidelines, and laws for qualified interpreters are also reviewed to preface the qualitative research proposal. This theoretical research proposes the question: What are the impacts of interpreters on deaf patients care? Through surveys and analyzing themes in responses of deaf individuals, the expected conclusions are: Insufficient medical attention, communication breakdown between care provider and patient, misdiagnoses, and unequal access to medical care through the use of ASL/English interpreters. The methodology includes a survey to be sent out to deaf persons who have experience with medical interpreters which is to be analyzed for similarities and impacts in quality of care received due to the interpreter(s). These impacts and themes may implicate the proposal of internal (medical hiring agencies) and external (federal and state law) addition of minimum requirements for medical interpreters with the purpose of equal access to medical care for the deaf community. Future quantitative research may be conducted through data collection of medical interpreters' accuracy of interpretation in healthcare settings.

## Introduction

The following content is intended as theoretical research on the impacts of interpreters on d/Deaf patients care in medical settings based on the current literature available which displays the current abilities and practices of medical interpreters. These current findings suggest medical providers do not provide adequate access to medical care for all d/Deaf patients based on the skills and knowledge brought to the interpreting jobs. Some interpreters are "qualified" on paper yet that does not mean they possess the skills and knowledge to interpret for all d/Deaf patients given that many d/Deaf patients are dysfluent signers. Additionally, medical professionals often lack cultural and linguistic understanding of ASL and Deaf culture, knowledge which lends helpful to effective communication. Current ADA (The Americans with Disabilities Acts of 1990) law necessitate the need for qualified interpreter(s), yet this term is unclear due to the variety of linguistic skills, use, and preference of d/Deaf individuals. This qualitative research may analyze the impacts of interpreting on d/Deaf patients care through highlighting themes across a selection of d/Deaf patient's experiences.

## Literature Review

Current research of impacts of interpreters on patients' care is available with spoken-to-spoken languages. The research has found that these impacts can lead to misdiagnoses, injuries, and non-optimal care of the patient. The goal of ASL/English interpreting is rooted in effective communication by qualified interpreters and having specific standards for those interpreters to adhere to. Issues arise when interpreters are not equipped with the skills and knowledge to interpret the various communication needs of d/Deaf individuals nor able to accurately perceive their ability to interpret (Fitzmaurice, 2020). Several solutions have already been proposed based off the current literature available to improve the current practices of equal access to d/Deaf patients in medical settings. First, a team approach would be most conducive to an environment promoting effective communication, specifically a professional deaf-hearing interpreter team (Montoya, 2004) with at least 100 hours of medical training (Flores, 2012). Secondly, prioritizing accuracy of the interpretation through consecutive interpreting as opposed to simultaneous interpreting would be appropriate depending on the urgency of the medical situation among other factors (Vernon & Miller, 2001). Thirdly, the standard of a "qualified interpreter" and "quality care" for d/Deaf patients must be routinely discussed in order to determine if current laws, procedures, codes of ethics, and assessments accurately reflect this diction (Flores, 2012). The researcher proposes the need for both federal and medical setting implementation of requirements for ASL/English interpreters. Such requirements include an expanded and dynamic definition of "qualified" supported by current literature and quantitative research proposed by the researcher above.



**Figure 1. EIPA prediction and performance by group.** Predictions of ASL/English interpreters shown in dark gray on right. Actual performance results shown in light gray on left. Results display the Dunning-Kruger Effect in educational interpreters. From Fitzmaurice, S. (2020). Educational interpreters and the Dunning-Kruger Effect. *Journal of Interpretation*, 28(2). <https://digitalcommons.unf.edu/joi/vol28/iss2/1/>

Error Category	Type of Interpreter, %		
	None	Ad Hoc	Professional
Omission*	54.2	46.3	41.9
False-fluency error†	35.9	31.6	13.6
Addition†	1.5	6.5	17.9
Substitution†	2.5	9.0	13.3
Editorialization†	5.9	6.6	13.3

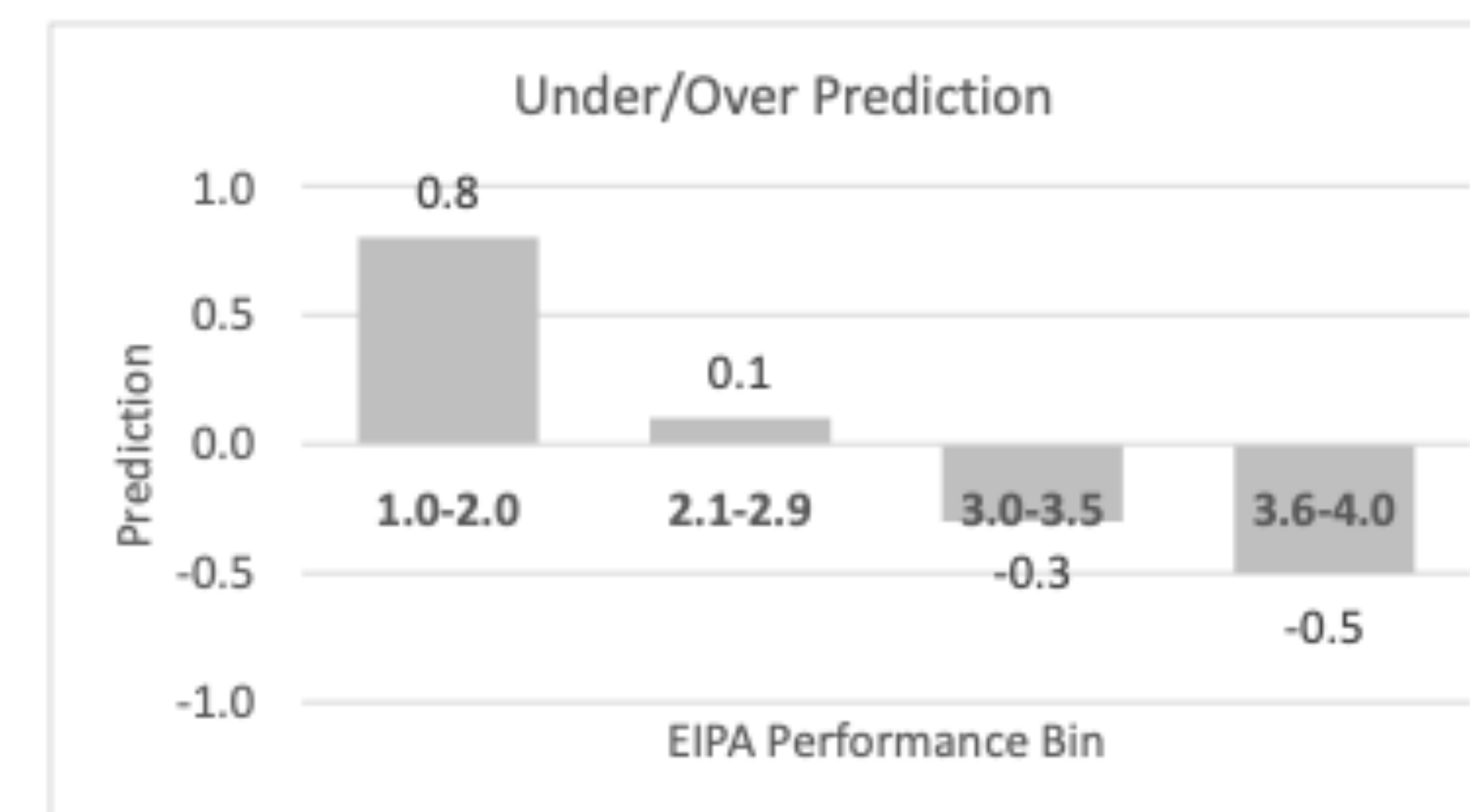
\*  $P=.001$  by  $\chi^2$  test for comparison of types of interpreters.

†  $P<.01$  by  $\chi^2$  test for comparisons of types of interpreters.

**Figure 3. Average of error type by Spanish/English interpreters is shown in percentage form.** There is a correlation between type of interpreter and increase in errors. From Flores, G., Abreu, M., Barone, C., Bachur, R., & Lin, H. (2012). Errors of medical interpretation and their potential clinical consequences: A comparison of professional versus ad hoc versus no interpreters. *Annals of Emergency Medicine*, 60(5), 545-553. <https://doi.org/10.1016/j.annemergmed.2012.01.025>

	1 No Need	2	3	4	5 High Need
Conference	20%	18%	23%	18%	21%
Consumer language assessment	14%	16%	27%	21%	22%
Deafblind interpreting	18%	19%	27%	16%	19%
Education, K-12	35%	18%	19%	12%	16%
Education, college/university	35%	22%	17%	11%	15%
Ethical decision-making	16%	18%	22%	19%	25%
International sign language	18%	14%	23%	21%	24%
Interpreting process	11%	14%	24%	24%	28%
Legal	12%	9%	20%	21%	38%
Medical	8%	7%	22%	28%	34%
Mental health	10%	9%	21%	31%	29%
Mentorship	12%	12%	24%	22%	30%
Interpreting with multicultural consumers	11%	11%	23%	25%	31%
Performing arts events	30%	18%	21%	13%	17%
Professional or business meetings, conferences, trainings	22%	15%	25%	20%	18%
Religious services	50%	17%	15%	9%	9%
Social services	19%	14%	23%	21%	23%
Substance abuse meetings, treatment	14%	14%	28%	19%	24%
Visual-gestural communication	14%	13%	23%	27%	23%
VR/work place/job training	21%	16%	28%	20%	16%

**Figure 5. Further training needed for Deaf interpreters (self-reported).** A survey was taken by a Deaf interpreter team at the The National Consortium of Interpreter Education Centers regarding the practices of Deaf interpreters. Above depict the self-reported responses by Deaf interpreters on the frequency of consumers they serve. Retrieved from [http://www.interpretereducation.org/wpcontent/uploads/2011/04/NCIEC\\_Deaf\\_Interpreter\\_Survey.pdf](http://www.interpretereducation.org/wpcontent/uploads/2011/04/NCIEC_Deaf_Interpreter_Survey.pdf)



**Figure 2. Under/over prediction of EIPA results by ASL/English interpreters.** The expectation versus reality of EIPA results shown by assessment result difference. From Fitzmaurice, S. (2020). Educational interpreters and the Dunning-Kruger Effect. *Journal of Interpretation*, 28(2). <https://digitalcommons.unf.edu/joi/vol28/iss2/1/>

	Never	Rarely	Occasionally	Regularly	Frequently
Consumer uses a foreign sign language	35%	31%	22%	7%	6%
Consumer has little or no language	14%	23%	36%	15%	12%
Consumer is a monolingual ASL user (i.e. has limited English)	6%	11%	31%	30%	22%
Consumer has mental retardation	35%	29%	25%	8%	4%
Consumer has mental illness	26%	22%	29%	16%	6%
Consumer has dementia or Alzheimer's	71%	20%	6%	2%	1%
Consumer is Deafblind	16%	26%	23%	16%	18%

**Figure 4. Consumer types that Deaf interpreters serve.** Self reported by Deaf interpreters. Retrieved from [http://www.interpretereducation.org/wpcontent/uploads/2011/04/NCIEC\\_Deaf\\_Interpreter\\_Survey.pdf](http://www.interpretereducation.org/wpcontent/uploads/2011/04/NCIEC_Deaf_Interpreter_Survey.pdf)

## Methods and Hypothesis

A series of questions will be utilized to survey d/Deaf individuals. These questions will be presented in both written English and ASL through recorded videos. The English questions will be formulated by the researcher and the ASL translation will be provided by a team of d/Deaf and hearing interpreters. The translation will utilize backtranslation to verify accuracy of translation. The questions will then be presented to a group of native d/Deaf signers to explain their perceived intent of the question. Their responses will be collected and reviewed by the d/Deaf and hearing interpreter translation team to determine if any adjustments to the translations must be made. The following survey will be presented to the participants:

- The following survey is intended to gather qualitative data on your experiences in medical settings with interpreters. The term "interpreter" will refer to both qualified medical interpreters and people acting as a medical interpreter including friends, relatives, and unqualified interpreters. Please answer the questions with as much or as little detail as you desire.
1. Do you have any experiences with interpreters providing interpreting services to you in a medical setting? If yes, continue to question #2.
  2. On a scale of zero to ten, how do you feel the interpreter effectively bridged communication between you and the medical professional(s)? Zero represents "completely ineffective" and ten represents "completely effective."
  3. On a scale of zero to ten, how do you feel the interpreter effectively bridged culture between you and the medical professional(s)? Zero represents "completely ineffective" and ten represents "completely effective."
  4. At any point during any of these appointments did you perceive and/or experience communication breakdown between you and the medical professional(s) due to the interpreter? If yes, please explain what happened. If no, please explain what was successful and why.
  5. If you answered "yes" to the previous question, please explain any impacts or consequences you experienced due to the communication breakdown.

The respondents may either respond in written English or ASL. The d/Deaf respondents' information will be analyzed for themes to display the impacts found across multiple experiences.

The researcher hypothesizes they will find themes in the d/Deaf participants responses including insufficient medical attention, communication breakdown between care provider and patient, misdiagnoses of d/Deaf patients, interpreter errors with potential consequences, and unequal access to medical care through ASL/English interpreters.

## Future Work

Further quantitative research may be conducted to identify the equivalency of interpreter accuracy based on a similar assessment with a focus in medical interpretation. Similar to research conducted by Flores and team, this research may implement a similar data collection strategy, but instead of English/Spanish interpreters, this research may pull data on ASL/English interpreters and their error rates which have potential consequences to the patient. This would require a survey of medical interpreters and data collection on d/Deaf patients experiences in medical settings with an interpreter. Specifically, the accuracy rates may be collected and analyzed for errors which have potential to impact the patient. These errors would be converted into percentage rates for errors that cause impact on the patient. These rates would be divided into three types of interpreters: unqualified, certified, and qualified without national certification. Other factors would be considered such as years of experience, graduation from an interpreter education program, and regular pursuit of improvement.

## References

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