Effects of Language Status and Interpreter Use on Inpatient Rehabilitation Outcomes

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Introduction: Non-English-speaking patients are at a disadvantage during inpatient rehabilitation due to language barriers and medical conditions including strokes and brain injuries. A qualified interpreter is not always used for various reasons depending on the setting. Studies have shown a lower functional independence and greater disability of minorities when discharged from rehabilitation. Further research is needed to investigate the communication barrier gaps in care.
Question and Significance: Our goal was to determine if the use of interpreter services for non-English-speaking patients influences outcome measures from inpatient rehabilitation including CARE Tool scores, length of stay, and discharge disposition.

Methods: Our study was a retrospective chart review of patients admitted to the rehabilitation service at Corewell Taylor between 10/1/19-12/31/21, which included 2018 English-speaking patients and 105 non-English-speaking patients over 18 years old. We gathered information via UDSMR data set and chart review including demographic data, disposition factors, CARE Tool scores, language status, and if an interpreter was used. Data was examined via Fisher's exact tests. Analyses were performed using R Statistical Software.

Results: Our data showed the proportion of non-English-speaking patients who used a professional interpreter was 0.73 (95% CI [0.64 – 0.82]). The proportion of non-English-speaking patients using any interpreter (professional or family) was 0.85 (95% CI [0.76 – 0.91]). There was a statistically significant association between language spoken (English vs non-English) and both gender ($p=0.002$) and race/ethnicity ($p<0.001$). No significant associations between interpreter use and any demographic characteristics/outcomes of interest were found.

Conclusions: Our data showed no statistically significant association between interpreter use and CARE Tool scores, length of stay, or discharge disposition. We found that most of those needing interpretation used professional interpreter services. Therefore, interpreters are likely beneficial to improve communication with patients in inpatient rehabilitation, but further research is warranted regarding its effect on outcome.