A Pilot Implementation and Evaluation of Speech Recognition Technology for Nurses and Health Disciplines

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Abstract. This pilot study addresses the pervasive issue of burnout among nurses and health disciplines, often exacerbated by the use of electronic health record (EHR) systems. Recognizing the potential of dictation to alleviate documentation burden, the study focuses on the adoption of speech recognition technology (SRT) in a large Canadian urban mental health and addiction teaching hospital. Clinicians who participated in the pilot provided feedback on their experiences via a survey, and analytics data were examined to measure usage and adoption patterns. Preliminary feedback reveals a subset of participants rapidly embracing the technology, reporting decreased documentation times and increased efficiency. However, some clinicians experienced challenges related to initial setup time and the effort of adjusting to a novel documentation approach.

Keywords. dictation, speech recognition, technology adoption, nursing informatics

1. Introduction

Nurses and other health disciplines are experiencing high rates of burnout [3]. One contributor to burnout is excessive time spent using electronic health record (EHR) systems [5], resulting in hospitals prioritizing decreasing documentation burden [4]. One approach to reducing documentation burden is the use of speech recognition technology (SRT) to permit clinicians to dictate notes rather than type them. Studies show that dictation can significantly reduce time spent documenting [1]. While adoption of SRT has been widely described among physicians, less has been written about SRT use among nurses and health disciplines. However, research shows that dictation can be useful and pragmatic for nurses working in various practice settings [2].

The purpose of this pilot study was to invite nurses and other health disciplines to use SRT to dictate their clinical notes in a large, Canadian urban, mental health and addictions teaching hospital.

2. Methods

Nurses and health disciplines across the hospital were invited to participate in the pilot. Clinicians who expressed interest in participating received standardized

education about how to use the SRT software. Clinicians who participated in the pilot received permanent access to the SRT software, and were sent surveys to gather their feedback and experiences using the technology. In addition, analytics data was gathered in aggregate to objectively measure usage patterns among the pilot group.

3. Results

Data collection is ongoing. Preliminary feedback shows that a subset of pilot participants rapidly adopted the technology and report high levels of satisfaction with the software and the ability to dictate notes, describing decreased documentation times and increased efficiency. Some pilot participants experienced barriers related to time required to set up the software and trying a new approach to documenting.

4. Conclusions

As with many technologies, use and adoption across different groups of clinicians can vary. While SRT for dictation has been widely adopted by some disciplines and settings, its use is less ubiquitous among nurses and other health disciplines. This poster will outline key learnings and feedback from mental health and addiction clinicians who piloted the use of SRT in their settings.

Acknowledgements

References

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