

Evaluating the Effectiveness of Novel Online Educational Tool to Increase Health Literacy and Reduce Loss to Follow-up in Diabetic Foot Ulcer Care

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Introduction

- About 80 million Americans experience low levels of health literacy in the US.
- Low health literacy leads to increased risk of developing diabetic foot ulcers (DFUs) and poor outcomes.
- Health Literacy + Innovation for Positive Patient Outcomes (HIPPO) is a newly-created digital platform with education for patients on caring for DFUs. We aimed to evaluate the effectiveness of HIPPO in decreasing attrition rate and improving wound care outcomes.

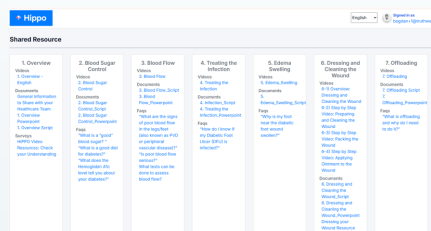


Figure 1A. Contents of HIPPO videos (about 3 minutes each), in English or Spanish



Figure 1B. Video: 4. Treating the Infection

Methodology

- From January 2023 to August 2024, 141 patients at an inner-city safety-net hospital with a large Hispanic population were randomly assigned to:
 - HIPPO (n=69): Standard of care + watch 7 HIPPO videos 3 times
 - Control group (n=72): Standard of care
- To compare effectiveness of HIPPO, the following factors were examined:

Transportation insecurity	Level of social support
Distance from home to hospital	Number of no-shows (Enrollment to wound closure)
Employment status	Lost to follow-up
Wound closure status by 90 days	Recurrent ulcer
- Statistical significance of differences were calculated using unpaired t-tests and 2-sample z-tests.

Results

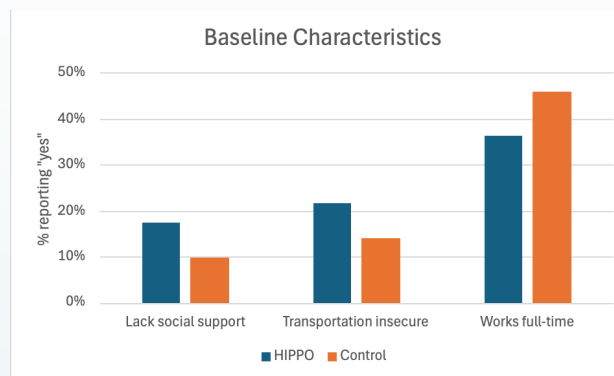


Figure 2. Baseline characteristics comparison between HIPPO and control groups.

- No significant difference in patient demographics.
- Both groups had social support, transportation insecurity, distance from home to hospital, and worked full-time similarly.

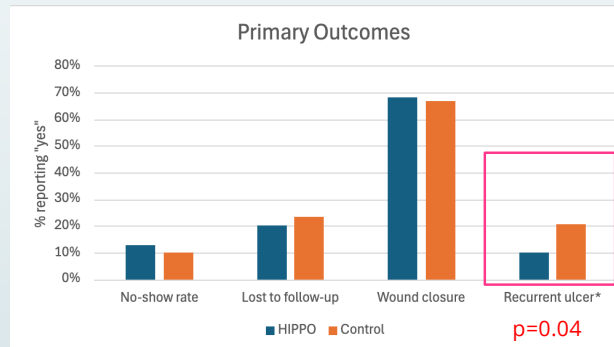


Figure 3. Differences in clinical outcomes between HIPPO and control groups. * denotes statistically significant difference.

Only rate of recurrent ulcer was significantly different (p=0.04).

Discussion/Conclusion

- HIPPO shows some promise in improving some patient outcomes but not others.
- This platform should be refined in the future to include the importance of follow-up in educational materials and in-clinic, face-to-face guidance.
- Next steps involve adding these new components and testing impact on patient retention.

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