



Passing on the Message: Improving Patient Handoffs Among Psychiatric Residents

Emee Ta, MD¹; Israel Labao, MD, MPH¹; Frederick Langheim, MD^{1,2}

¹University of Wisconsin Department of Psychiatry, UW Hospital & Clinics, Madison, WI, ²SSM Health St. Mary's Hospital, Madison, WI

PURPOSE

Investigate and address areas of weakness in the sign out process at our institution among the day team and night team. Improve the average general impression, satisfaction, simplicity, efficiency, accuracy and consistency of the sign out process via a visual modality for psychiatric residents on a Likert Scale from 1 to 5.

BACKGROUND & INTRODUCTION

Transitions of care are prone to miscommunication, which can lead to inefficiencies. Most particularly, handoffs that take place from the day team to night team are at elevated risk for adverse events (Mariano et al, 2016). At our institution, the Psychiatric Consult & Liaison day team and evening on-call resident routinely hand off patient care via a sign out process. This process usually consisted of either reading off an electronic screen and/or templated paper patient-trackers. We developed a root case analysis to examine deficiencies in the sign out process (Figure 1). An initial survey regarding assessment of needs at our institution identified weaknesses in the handoff process, particularly issues with efficiency and accuracy that prompted momentum for change (Bisantz et al, 2012). The survey suggested that a different visual modality was preferred to improve handoffs. As such, a new intervention based on a structured whiteboard was implemented in the resident common workspace.

Figure 1

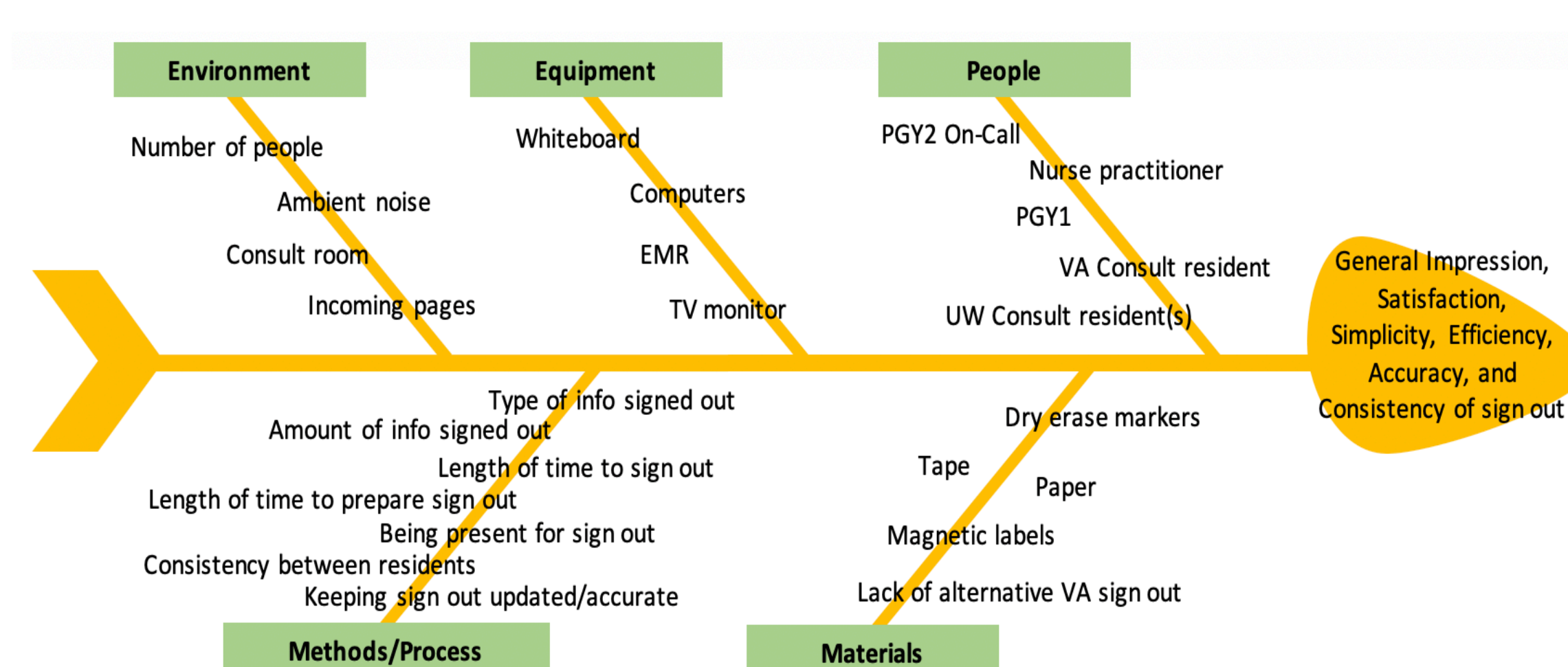
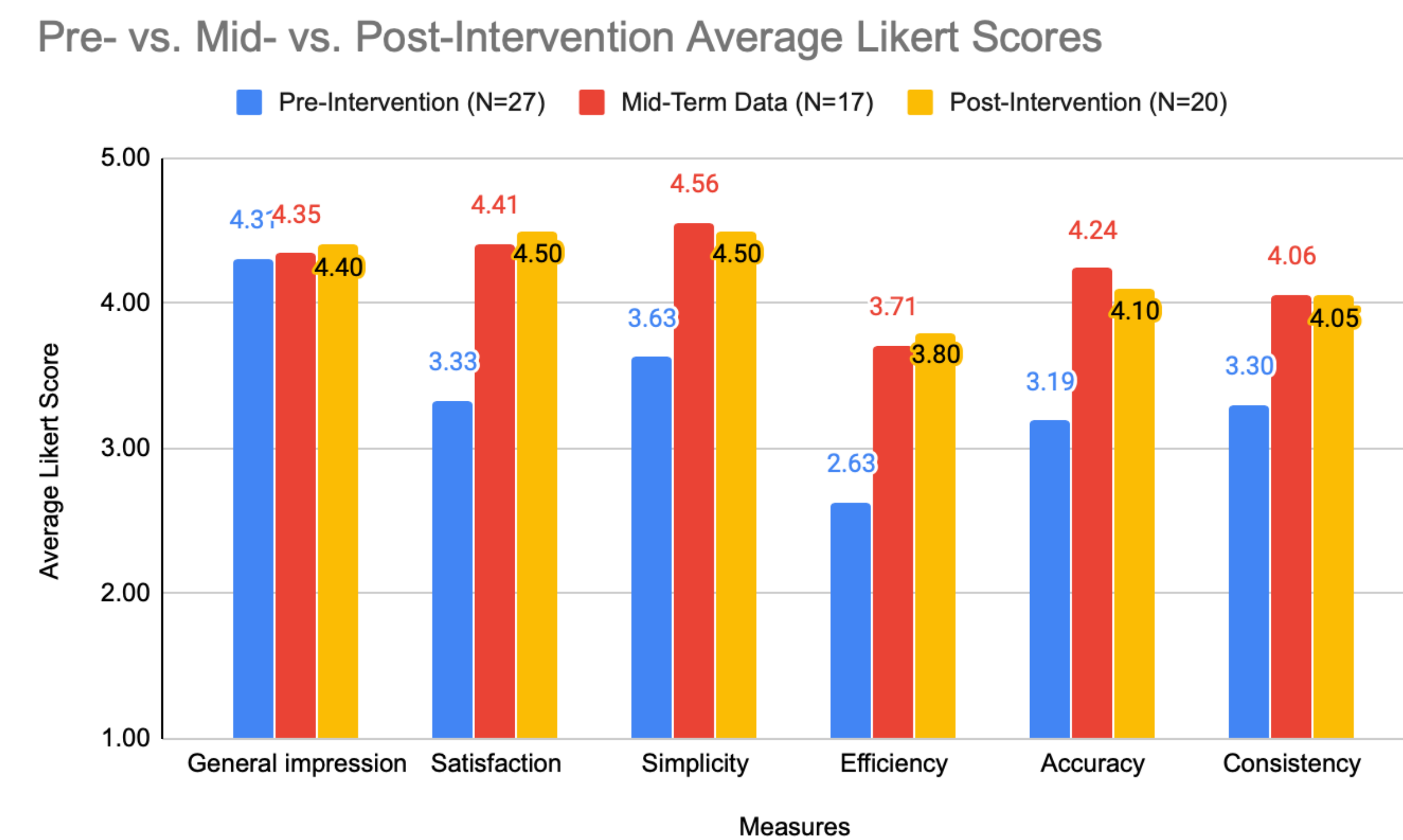


Figure 2



METHODS

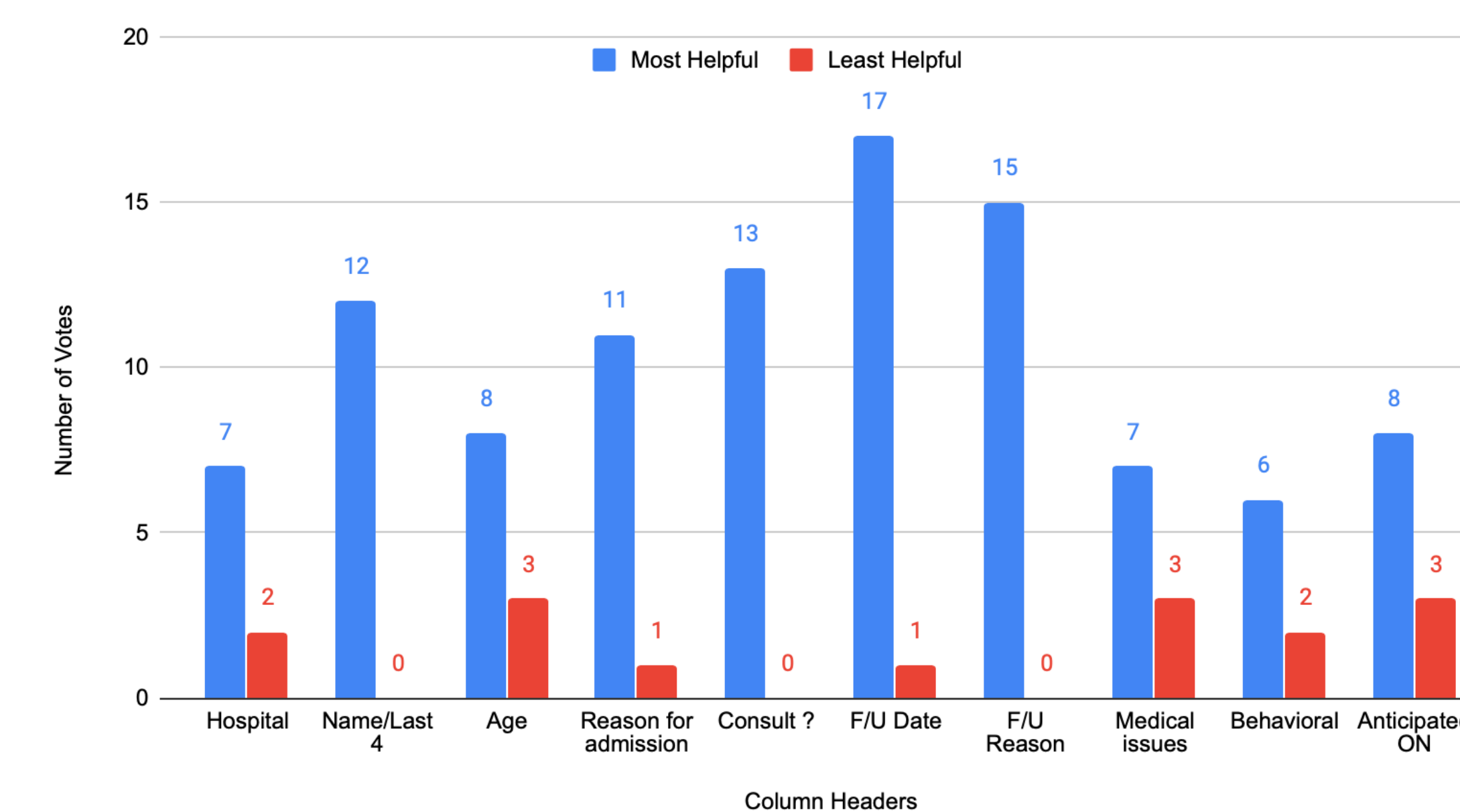
A Pre-Intervention Survey was distributed via email to 37 general psychiatry residents, 4 CAP fellows, and one nurse practitioner to measure Likert scales (scale of 1 to 5, 1 being the most negative and 5 being the most positive) for general impression, satisfaction, simplicity, efficiency, accuracy, and consistency of the current system. Participants also selected what type of information would be most helpful to include in a standardized handoff, with an optional free response section. A whiteboard with column headers was then configured using preferences from the Pre-Intervention Survey (Version 1).

Three months into implementing the whiteboard, a Mid-term Survey was distributed to measure the same Likert Scales as those stated above, as well as suggestions for changes to column headers, and a section for free response. The whiteboard was then modified based on preferences from the Mid-term Survey (Version 2).

Six months into implementing the whiteboard, a final Post-Intervention Survey was distributed to measure the same Likert scales as stated above, as well as voting for the most and least helpful header columns, and a section for free response.

Figure 3

Mid-term Survey: Most and Least Helpful Column Headers



Mid-term Survey Free Response excerpts:

"Just feels more systematic; I use the board to review my notes around an hour before sign out"

"Clear distinction of what needs to be discussed"

Post-Intervention Survey Free Response excerpts:

"The board was very helpful to keep track of new and old consults"

"Outgoing and oncoming teams can clearly see the board together and discuss"

RESULTS

Average Likert Scores from Pre- (N=27) to Mid- (N=17) to Post- (N = 20) Intervention Surveys, respectively (Figure 2)

- General impression: 4.31, 4.35, and 4.40
- Satisfaction: 3.33, 4.41, and 4.50
- Simplicity: 3.63, 4.56, and 4.50
- Efficiency: 2.63, 3.71, and 3.80
- Accuracy: 3.19, 4.24, and 4.10
- Consistency: 3.30, 4.06, and 4.05

Mid-term Survey Most Helpful Columns (Figure 3)

Follow-up Date (N=17), Follow-up Reason (N=15), Consult Question (N=13)

Mid-term Survey Least Helpful Columns (Figure 3)

Pertinent Medical Issues (N=3), Anticipated Overnight Issues and PRNs (N=3), Age (N=3), Behavioral Issues (N=2)

DISCUSSION

There was a minimal increase in average Likert Scores for the general impression of sign out from Pre- to Mid- to Post-Intervention surveys (4.31 -> 4.4). However, there was a significant change in Likert Scores (average increase of 0.97) for satisfaction, simplicity, efficiency, accuracy, and consistency. The largest quantitative increases in average Likert Scores were found in measures of satisfaction, efficiency, and accuracy, which were areas of greatest weakness identified in the initial survey. The largest increases in Likert Scores were also predominantly between the Pre- to Mid-term surveys, whereas there was minimal to slightly negative change in Likert Scores from Mid- to Post-intervention surveys. This suggests that the implementation of the whiteboard itself contributed most to increasing Likert Scores, whereas rearrangement of headers/formatting of the whiteboard was less important. Differences in the number of participants in each survey and the proportion of participants from each PGY class who responded could have affected results.

Based on responses from the Mid-term survey, changes from Version 1 to Version 2 of the whiteboard included: (1) 'Medical Issues', 'Behavioral Issues', and 'Anticipated Overnight Issues' columns in Version 1 were consolidated to only one large column called 'Medical/Behavioral/Other' in Version 2, and (2) 'Room number', 'MD/NP', and 'Last Recs [Recommendations]' columns were added to Version 2 that were not present in Version 1.

Overall, our results suggest that having a common, visual modality in the form of a whiteboard can help improve resident impressions of the sign out process. Following the completion of this project, the whiteboard will remain in the resident common workspace and sustainability will depend on continued resident use and maintenance.

References:

Bisantz, A. M., Carayon, P., Miller, A., Khunlertkit, A., Arbaje, A., & Xiao, Y. (2012, September). Using human factors and systems engineering to improve care coordination. In *Proceedings of the Human Factors and Ergonomics Society Annual Meeting* (Vol. 56, No. 1, pp. 855-859). Sage CA: Los Angeles, CA: SAGE Publications.

Mariano, M. T., Brooks, V., & DiGiacomo, M. (2016). PSYCH: A mnemonic to help psychiatric residents decrease patient handoff communication errors. *The Joint Commission Journal on Quality and Patient Safety*, 42(7), 316-320.

Patel, D. A., Arshed, A., Woulfe, J., Knowles, A., & Ozdoba, A. (2019). "PSYCH-PASS": the Development, Adaptation, and Implementation of a Psychiatric Handoff. *Academic Psychiatry*, 43(5), 503-506.