

Comparison of FAST and BE-FAST Performance Among the General Public

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Introduction

- Stroke symptom awareness and recognition improved over the last decade but remains suboptimal.
- Retrospective studies compared sensitivity of FAST (Face drooping, Arm weakness, Speech difficulty, Time to call 911) to BE-FAST (adds Balance loss, Eye changes to FAST).
- Rigorous studies comparing effectiveness in motivation to call 911 and testing recall of key symptoms are lacking.

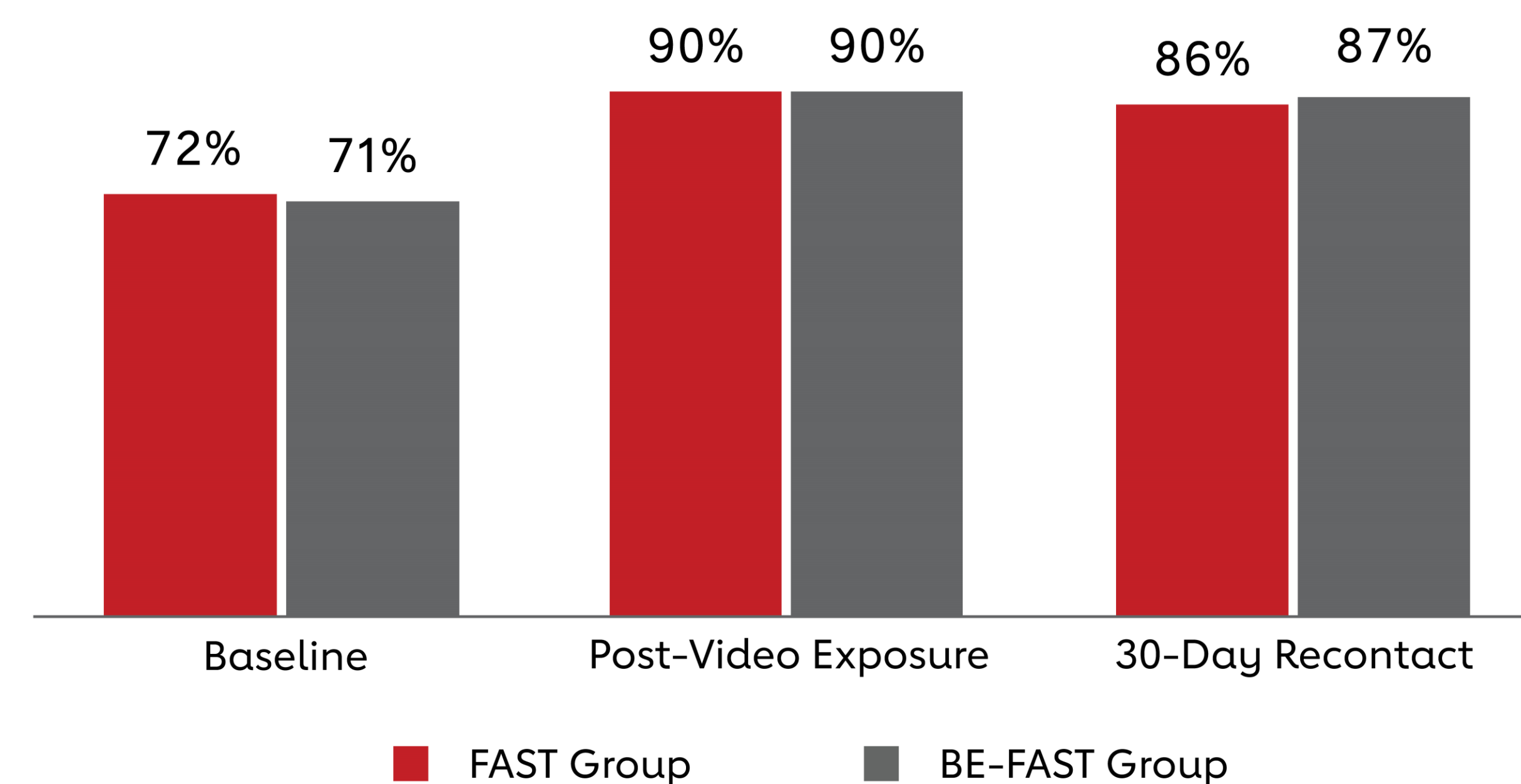
Purpose

- Determine whether FAST or BE-FAST is more likely to prompt calling 911 and is associated with better symptom recall at 30-days.
- Determine whether BE-FAST increases number of symptoms public recalls without reducing recall of key symptoms (Face drooping, Arm weakness, Speech difficulty).

Methods

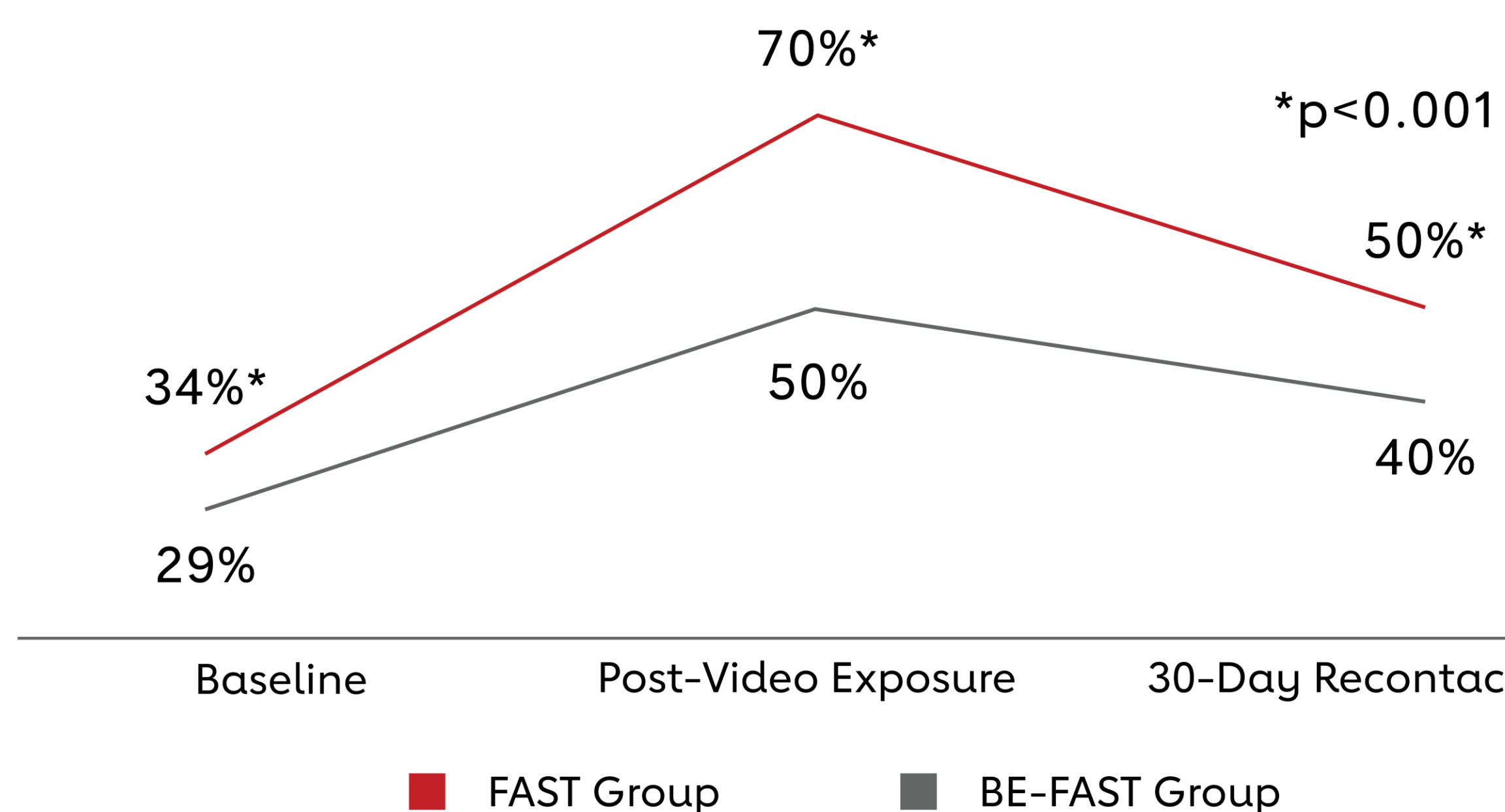
- Nationally representative online survey of English-speaking members of U.S. general public.
- Randomized parallel 2-group design compared efficacy of FAST and BE-FAST after 1-minute educational videos.
- Look, feel, and messaging in each video were the same except for the mnemonics.
- Assessments: immediately (n=1,900) and 30-days later (n=1,393; 73% recontact rate).
- T-Tests and ANOVA used to estimate differences between groups on intent to call 911 and stroke symptom knowledge at baseline, immediately after education, and at 30-days.
- Analyses were adjusted for age, stroke knowledge/experience, education level and baseline familiarity with mnemonic.

Figure 1. Intent to Call 911 by Mnemonic



Description: Bar chart comparing performance of FAST and BE-FAST groups with respect to participants' intent to call 911 at baseline, immediately post-video exposure, and 30 days later.

Figure 2. Stroke Symptom Unaided Recall of F,A,S Common Letters By Mnemonic



Description: Line chart comparing FAST and BE-FAST performance with respect to participants' ability to recall on an unaided basis what the common letters F, A, and S mean at baseline, immediately post-video exposure, and 30 days later.

Results

Immediately after educational video:

- Likelihood of calling 911 if stroke was suspected increased in both groups with no difference between the groups (Figure 1).
- Participants' ability to identify what the common letters F, A, and S represent was significantly higher immediately after video than at baseline for both mnemonics. FAST had significantly higher common letter performance than BE-FAST (Figure 2).

At 30-days:

- Likelihood of calling 911 had declined slightly in both groups but remained significantly increased compared to baseline with no difference between groups (Figure 1).
- Participants' ability to recall what the common letters (F, A, and S) meant declined for both groups but remained significantly higher than at baseline. Again, FAST had significantly higher common letter performance than BE-FAST after 30-days (Figure 2).

Conclusions

- Among the U.S. general public, FAST and BE-FAST were equally effective in increasing participants' likelihood of calling 911 immediately if they suspected stroke; this effect persisted at 30-days.
- FAST performed significantly better than BE-FAST in participants' ability to recall face, arm and speech symptoms at all time points, even after adjusting for differences in baseline familiarity with each acronym.
- Results suggest that incremental cognitive load of additional letters (BE) interfered with recall of letters common to both mnemonics (FAST), possibly negating the intended advantage of providing a more complete list of stroke symptoms for learners.

References

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