



Connecting the Dots: Evaluating the Use of Graphic Medicine to Empower Patient-Centered Technology Use



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BACKGROUND

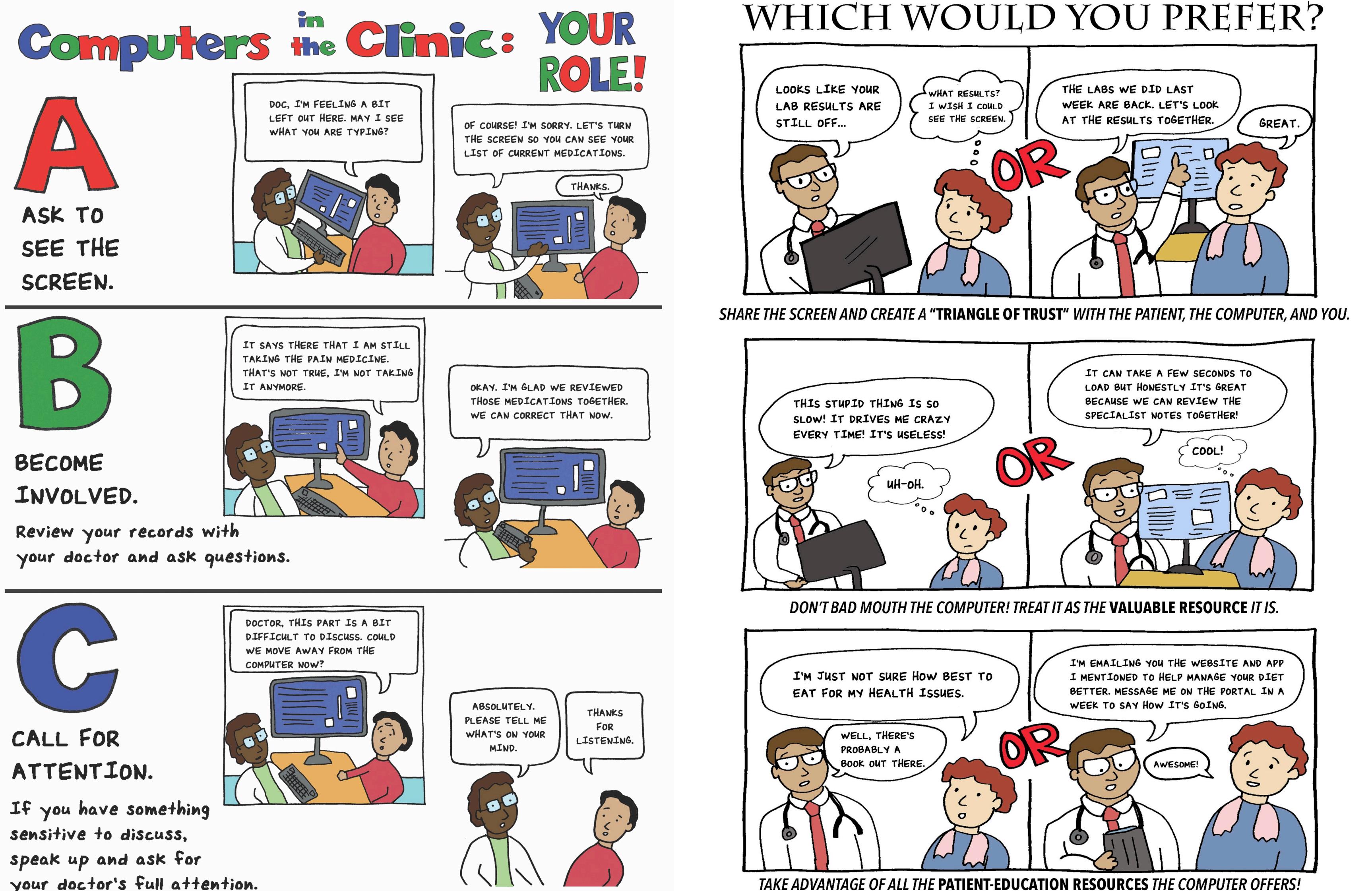
- Electronic Health Record (EHR) use is ubiquitous in many developed nations worldwide
- EHR use in the exam room can be detrimental to the patient-doctor relationship
- Patients may perceive the EHR as an intrusive third party when doctors focus more attention on their devices
- Providers receive little training on communication skills specific to EHR-related behaviors
- Prior studies have not assessed if patient-advocacy studies increase patient involvement, engagement, and satisfaction with the EHR
- Graphic art is shown to be effective in health education
- Use of graphic comics that advocate for patient-centered technology use may improve how doctors and patients engage with the EMR during office visits

SPECIFIC AIMS

1. Address negatives of EHR use by using graphic medicine to educate and empower patients & providers on the best practices of patient-centered computer use
2. Understand doctors' and patients' responses to an advocacy and educational graphic comic
3. Assess whether exposure to the patient comic changed patient perceptions and behaviors related to EHR use in clinical care
4. Assess whether the provider comic resulted in improved patient perceptions related to their provider's EHR use in clinical care
5. Use study results to improve educational materials for maximal parent and provider impact

Background References

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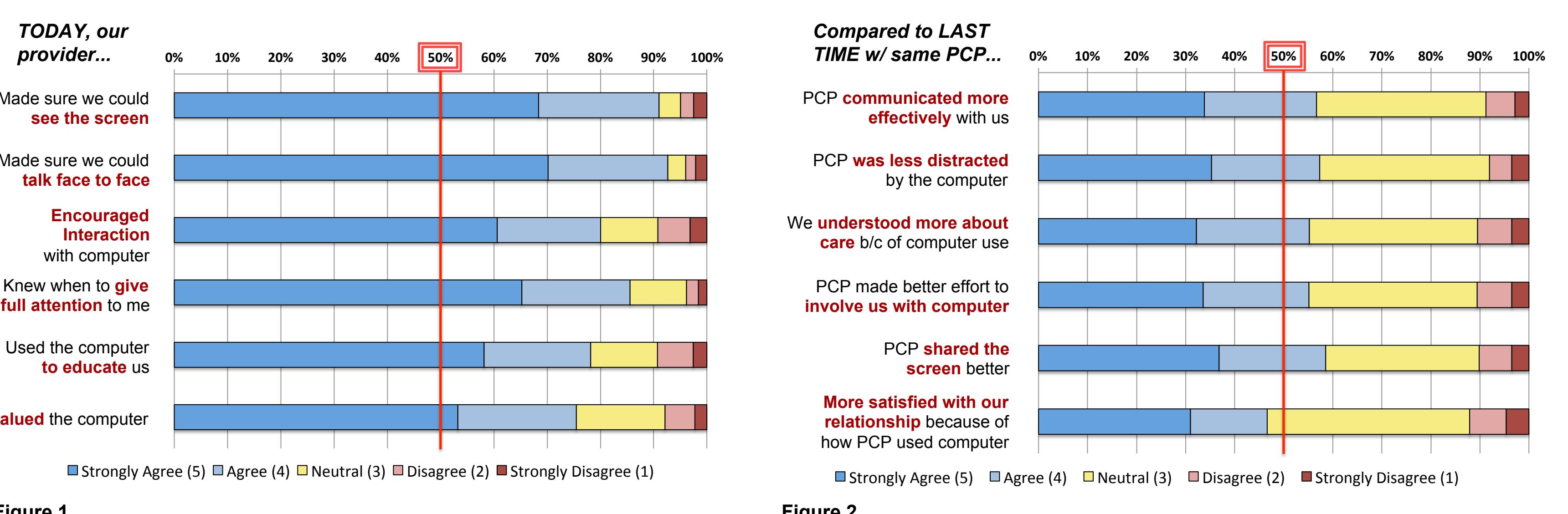


METHODS

- Comics highlighted 3 best-practices for patient-centered EHR use, based on a published systematic review and qualitative patient perception study
- Parents of patients at the Comer Pediatrics Primary Care Group (PPCG) were approached for inclusion in the study
- Parents who consented to study were handed the comic with a survey to complete after their visit with provider
- Willing participants were randomized for selection for a 50-person follow-up phone survey 1-2 months after visit
- Provider comics were posted in work areas of the Comer Pediatrics Primary Care Group (PPCG)
- 7 PPCG providers took pre-post for perceptions on comic

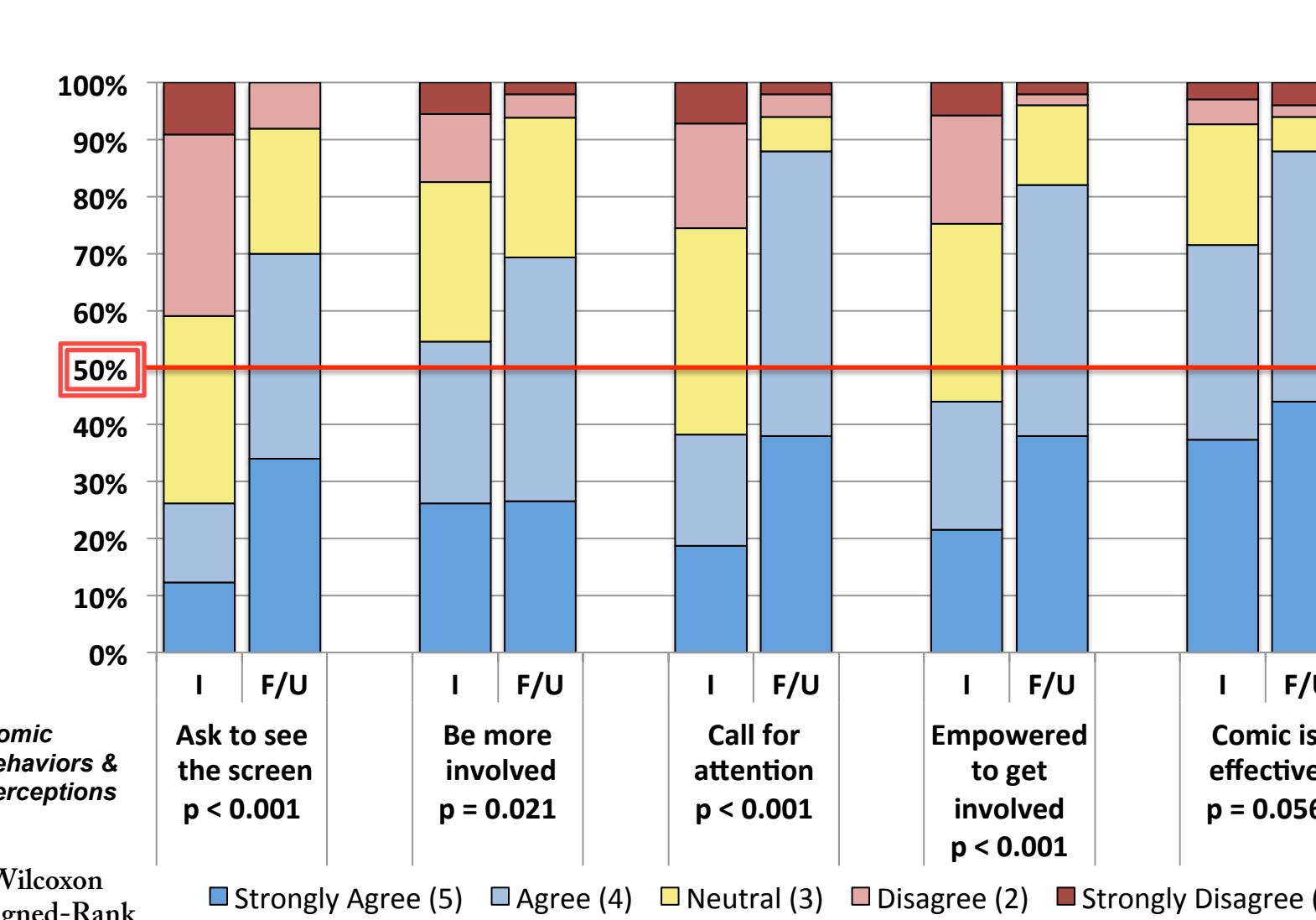
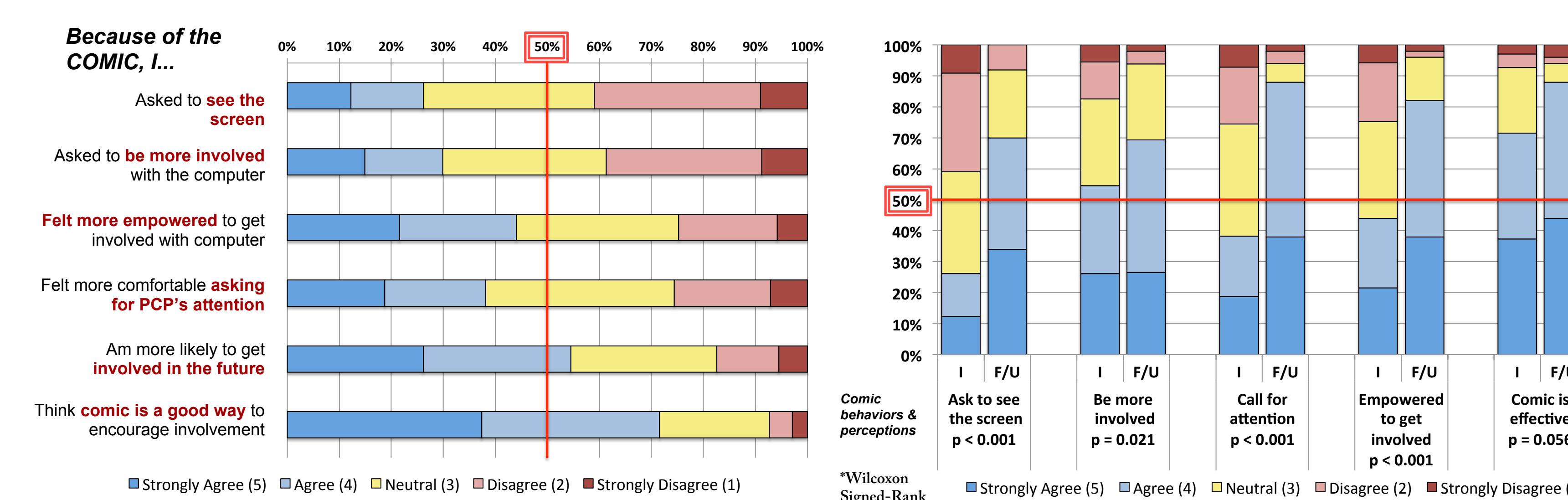
RESULTS

- 325 completed surveys (325/417, 78% response) received



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- At least 70% ($n \geq 231$) of parents rated providers positively in terms of EHR-related communication (Figure 1)
- Over 50% ($n \geq 158$) agreed that provider communication was improved compared to last visit (Figure 2)
- Over 68% ($n = 224$) agreed that the comic was effective in encouraging involvement with computer use (Figure 3)
- Black and Hispanic parents were more likely to ask to see the screen and ask to be involved ($p = .023$, $p = .006$)
- Negative correlation observed between educational status & 4 advocacy behaviors ($r_s = -0.125$ – -0.180], $p \leq 0.04$).



- On follow-up, 100% of parents remembered the comic; 42% ($n=21$) recalled at least one best-practice behavior
- Significant median increases ($p < .001$) were seen in self-rated performance of 3 advocacy behaviors (Figure 4)

CONCLUSIONS

- First study to evaluate the impact of a graphic art intervention on patient and providers' impressions and behaviors in regards to EHR use in the clinical setting
- Advocacy comic was effective in encouraging involvement
- Increase of ratings on follow up indicate an improving impact of the comic on patient self-advocacy with time
- Graphic comic may be especially effective in minority and/or low-to-average education populations

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