

# Survey of Satisfaction, Educational Impact, and Education Preferences Following an Anaphylaxis Simulation in Pre-Hospital Providers



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## Background

- The prevalence of anaphylaxis in the United States is 1.6%<sup>1</sup>
- There is a low rate of pre-hospital epinephrine administration for anaphylaxis<sup>2</sup>

## Purpose

As part of a larger educational intervention, an anaphylaxis simulation session (SIMS) was created for a large metropolitan emergency medical services (EMS) agency

## Methods

- SIMS were led by 4 teams of 1 physician and 1 simulation coordinator who rotated through 8 locations
- EMS crews were called out of service for 30-minute intervals to participate
- A simulation scenario focusing on a case of atypical anaphylaxis was administered:
  - ✓ Mother called EMS for 2 year-old with a known nut allergy
  - ✓ Child developed rapid onset of emesis with unknown ingestion at a party
  - ✓ Wheezing present on initial exam
  - ✓ If crew did not administer epinephrine within 3 minutes, child developed change in behavior and hypotension
- Debrief focusing on reviewing diagnostic criteria, IM epinephrine use as initial treatment, epinephrine dosing, and demonstration of epinephrine auto-injector use
- Surveys were distributed to participants 4 months later via REDcap™

## Results

- 507 individuals completed the simulation
- 95/507 (19%) completed the survey
- See data summary in figures 1-4

## Discussion

- As a tool for knowledge and skill acquisition, SIMS are preferred by pre-hospital providers
- SIMS performed during active duty hours were well-received and associated with self-reported increase in knowledge and application of this knowledge in the field

## References

1. Wood et al Anaphylaxis in America: The prevalence and characteristics of anaphylaxis in the United States. *J Allergy Clin Immunol* 2014; 133: 461-7
2. Jacobsen et al. Anaphylaxis Knowledge Among Paramedics: Results of a National Survey. *Prehospital Emergency Care* 2012; 16: 527-534

Figure 1. Educational Impact

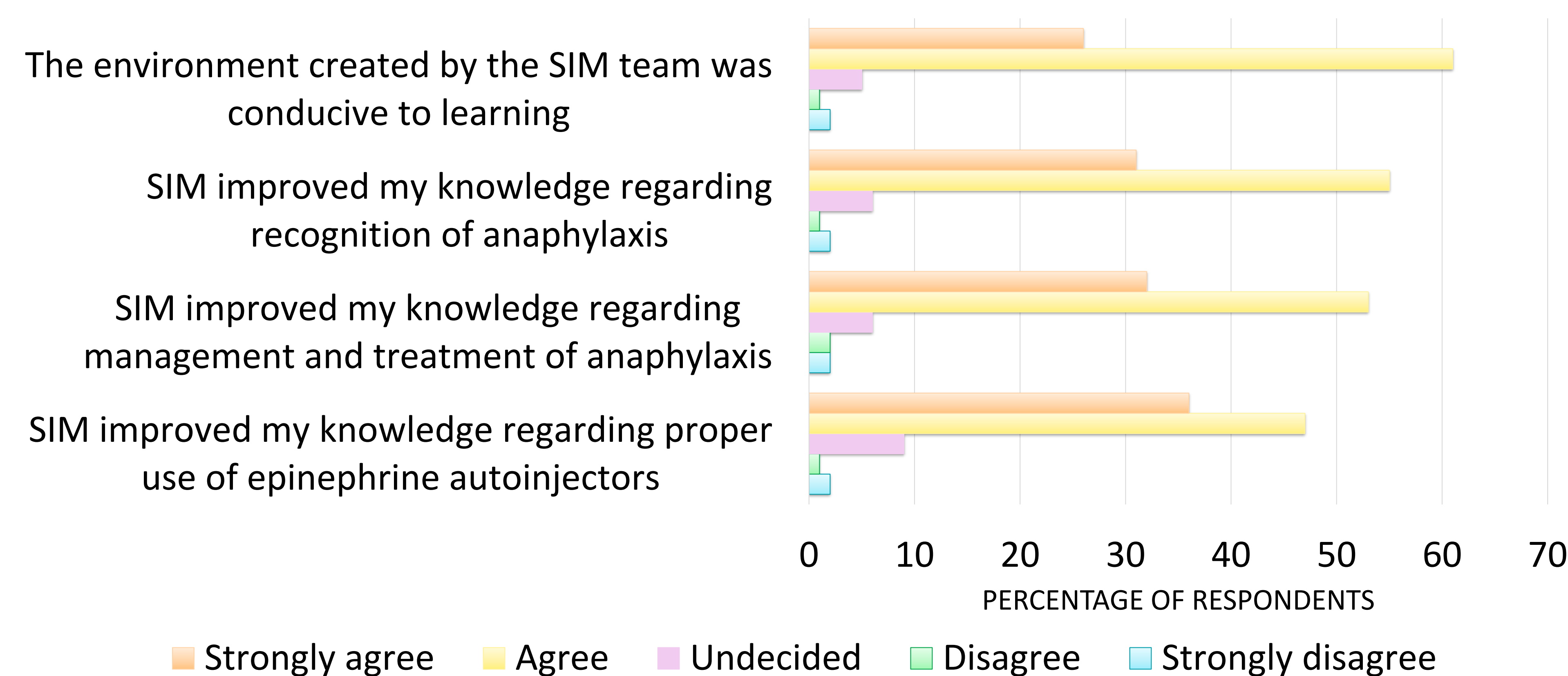
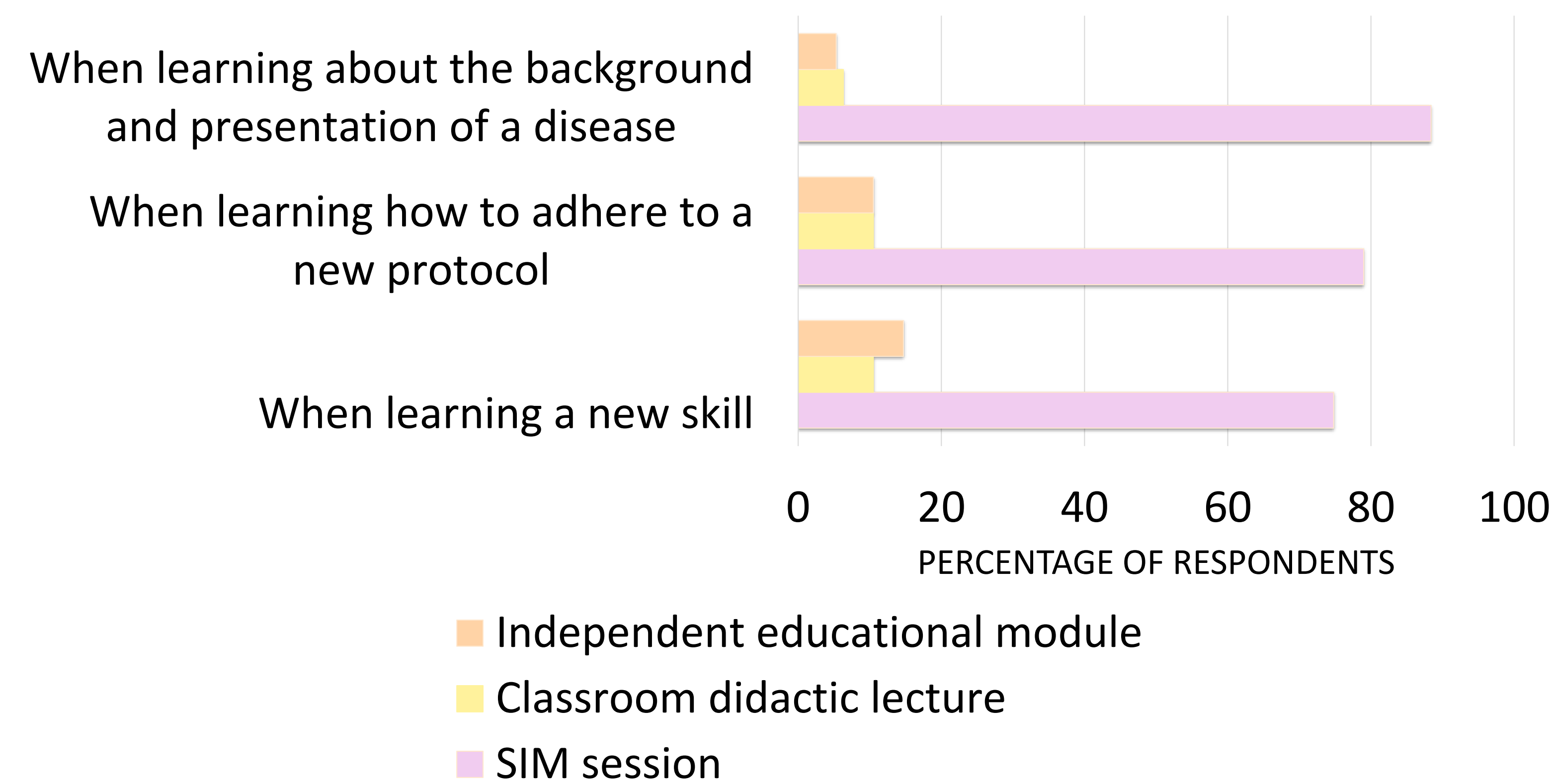


Figure 2. Education Preferences



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Figure 3. Satisfaction

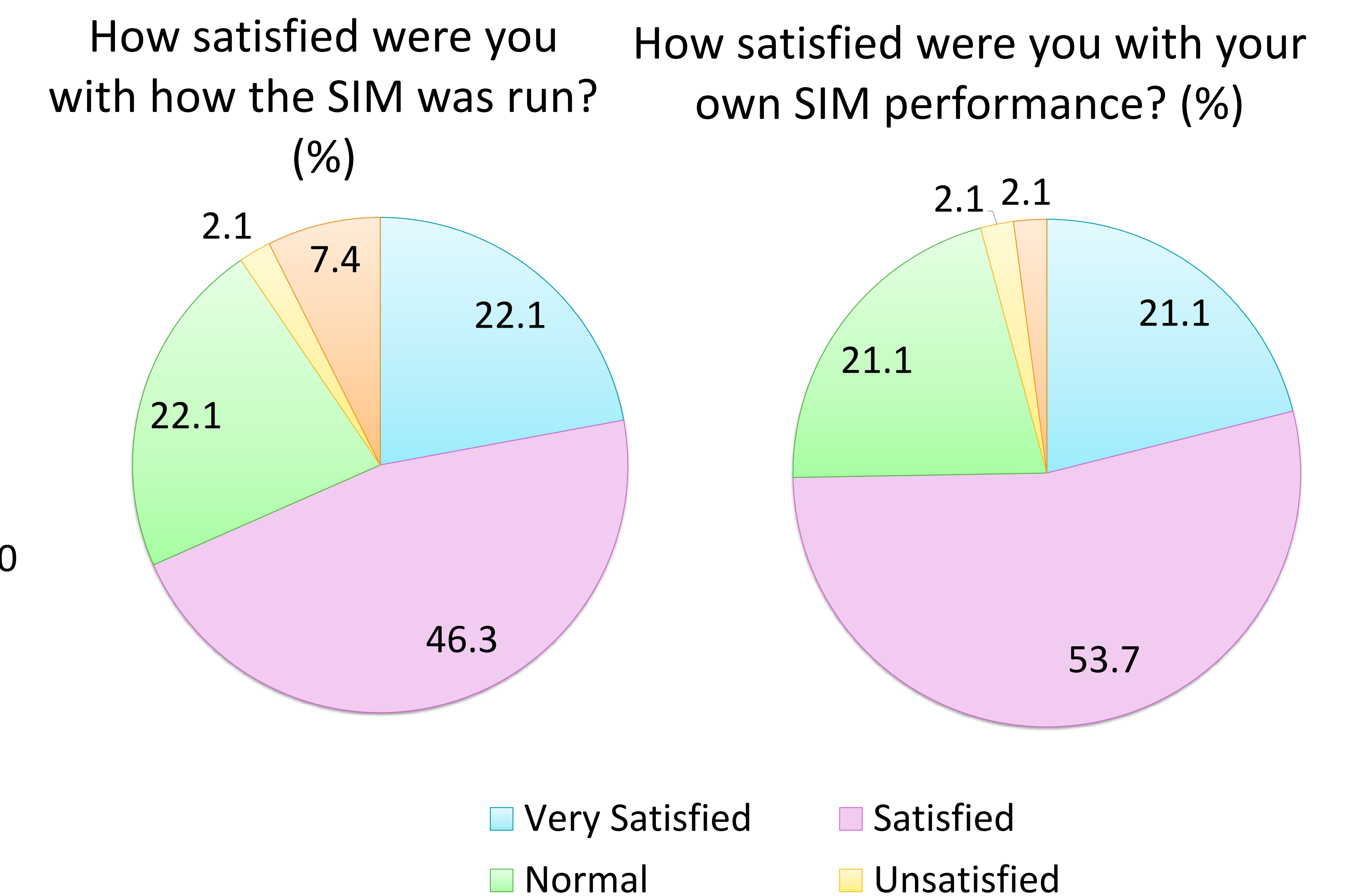


Figure 4. Patient Care Impact

