

Background

- Based on the link between tobacco use and oral health and the frequent contact between dental providers and patients, the dental clinic is an ideal setting to address tobacco use.¹
- Many dentists feel unprepared providing tobacco cessation education, particularly pharmacologic treatment options.¹⁻³
- Pharmacists promote safe and effective pharmacologic treatment options for tobacco dependence and patients' perceptions toward pharmacist-provided tobacco cessation education have been positive.⁴⁻⁶
- A novel interprofessional education (IPE) program involving dental and pharmacy students may address the need for tobacco cessation education in the dental clinic setting.

Objectives

- To compare the difference between IPE care and standard care (SC) groups regarding dental patients' perceptions of knowledge gained about tobacco cessation, intentions to quit tobacco use, and quit attempts at follow-up.
- To evaluate perceptions of IPE care.

Methods

Study Design: Pilot prospective study.

Participants: Dental patients (N = 50) seen at the dental admissions clinic on IPE or SC clinic days who identified as tobacco users participated in the study.

Study Groups:

- IPE (N = 25):** Dental students advised tobacco users to quit and referred them to the pharmacy student for tobacco cessation education, including pharmacologic treatment information.
- SC (N = 25):** Dental students screened patients for tobacco use and offered a referral to the PA Free Quitline.

Data Collection:

- Both groups completed an initial survey during their dental appointment and a four-week follow-up phone survey.
- Initial surveys* assessed baseline demographics, tobacco use, previous quit attempts, and quit intentions. Additional items assessed post-appointment perceptions of knowledge gained, intentions to quit, set a quit date, and use medication, and perceptions of IPE care (IPE group only).^{6,7}
- Follow-up surveys* assessed perceptions of knowledge, quit intentions, and quit attempts since the dental appointment.

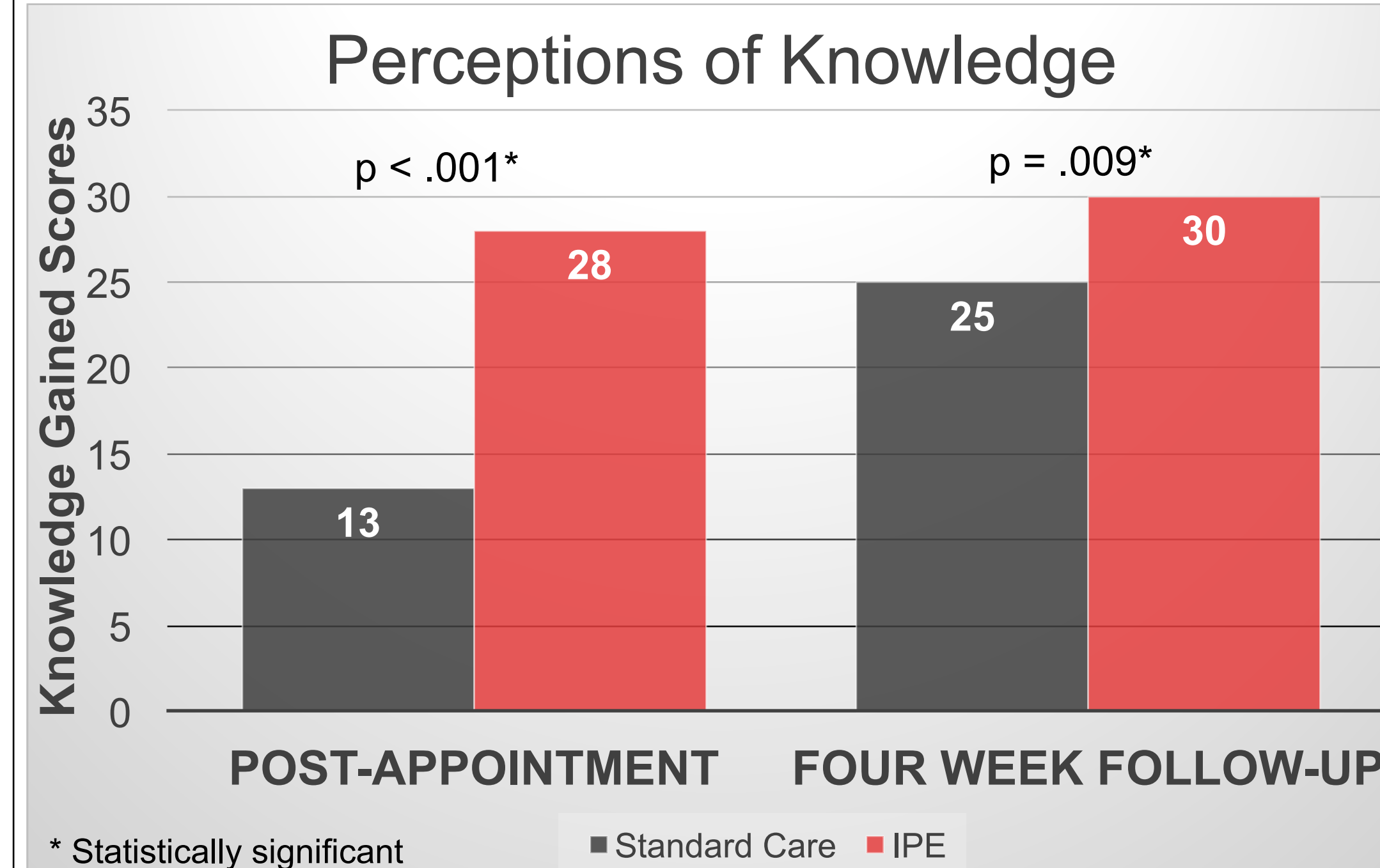
Data Analysis:

- Non-parametric tests (Mann-Whitney U, chi-square) were utilized to determine between-group differences in knowledge gained, quit intentions, and quit attempts at follow-up.
- Descriptive and correlation analyses were conducted to describe patients' perceptions of the IPE program.

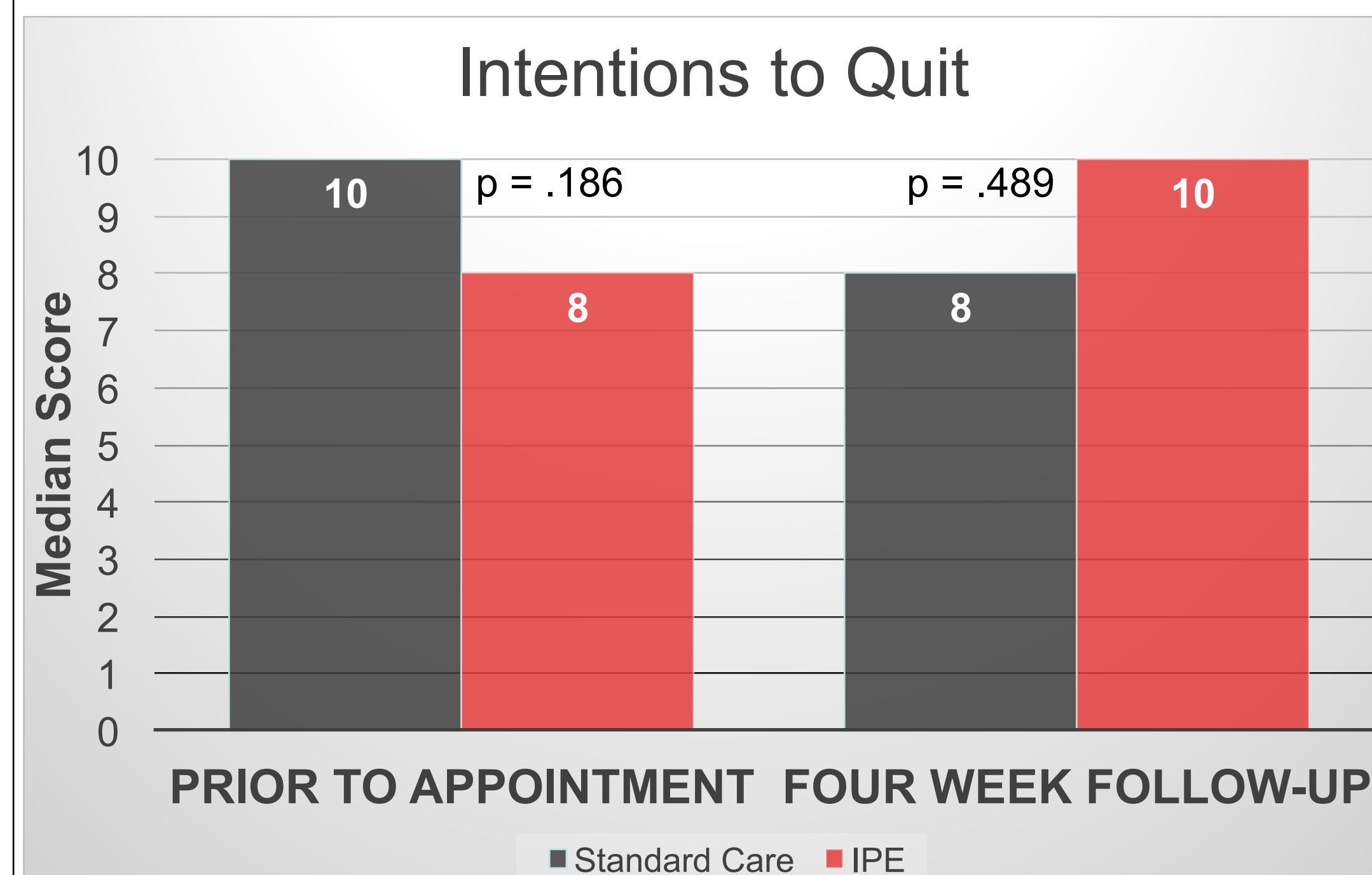
Results

Demographics: The mean age was 48.02 (± 12.93). The majority were female (64%) and Black/African-American (66%).

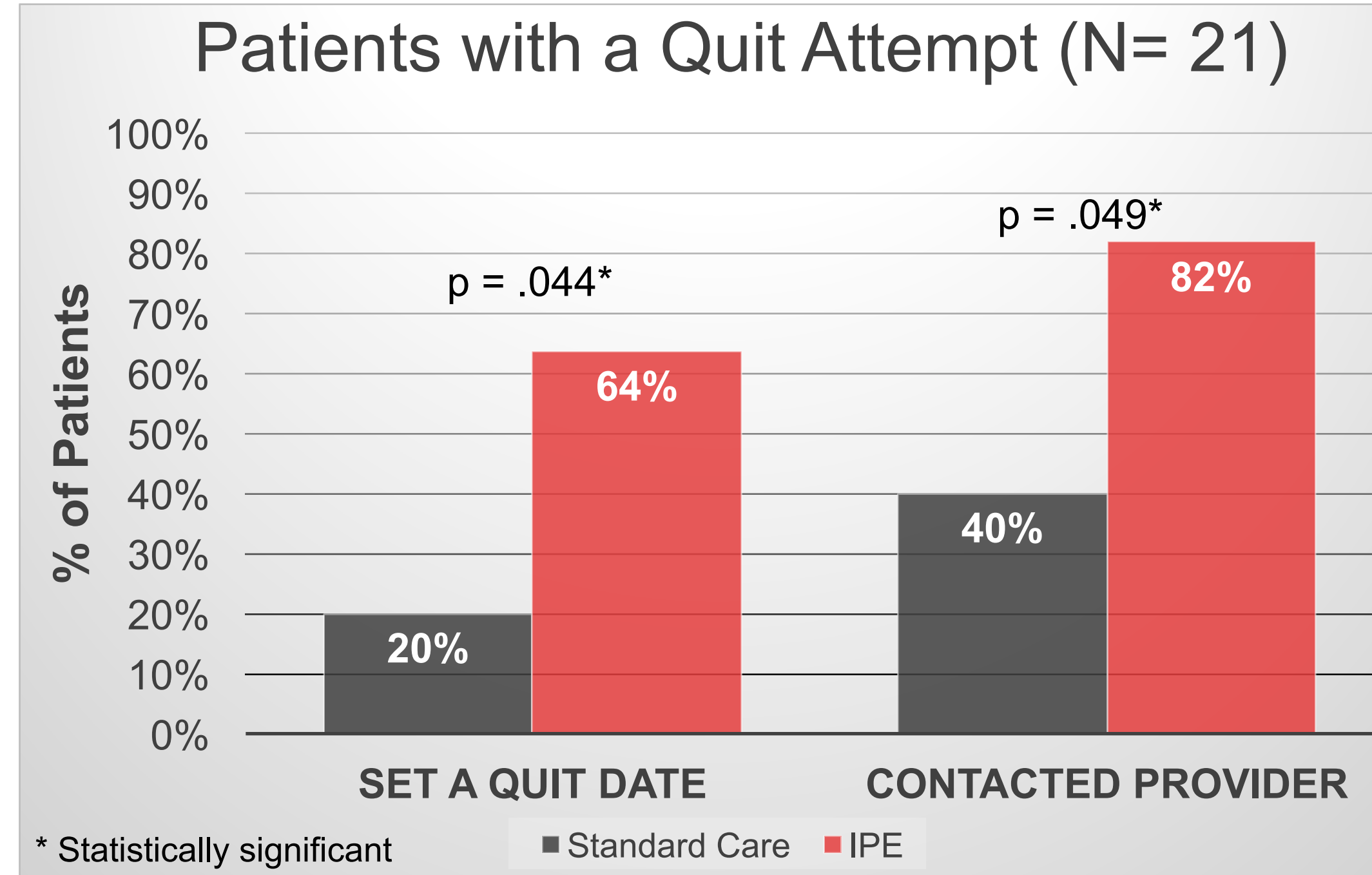
Tobacco Use: The average use was 7.16 (± 4.96) cigarettes per day. Average length of use was 20.61 years (± 12.54). The majority had at least one prior quit attempt (68%).



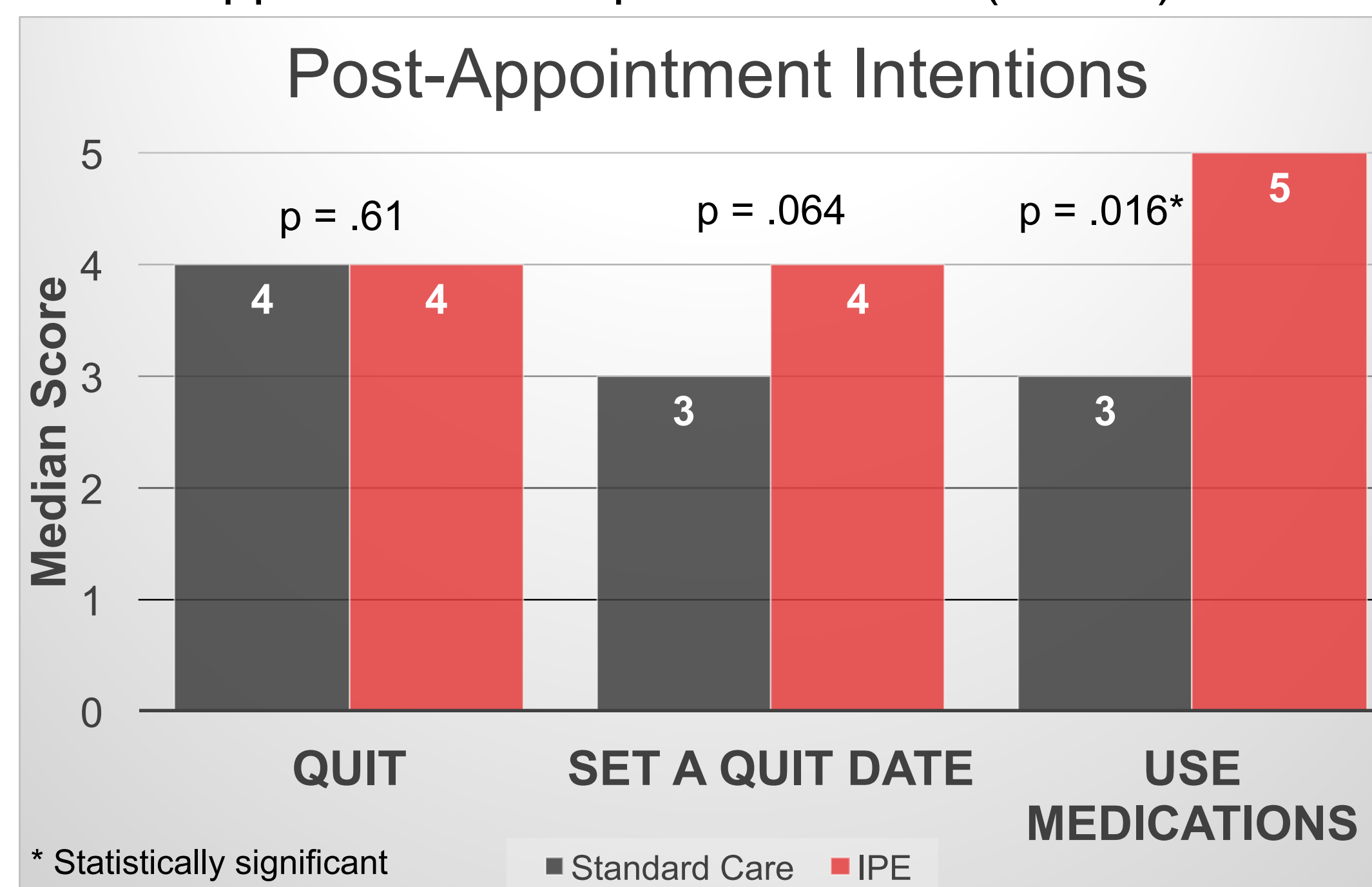
7-item Likert-type scale (5 = Strongly Agree; 1 = Strongly Disagree.)



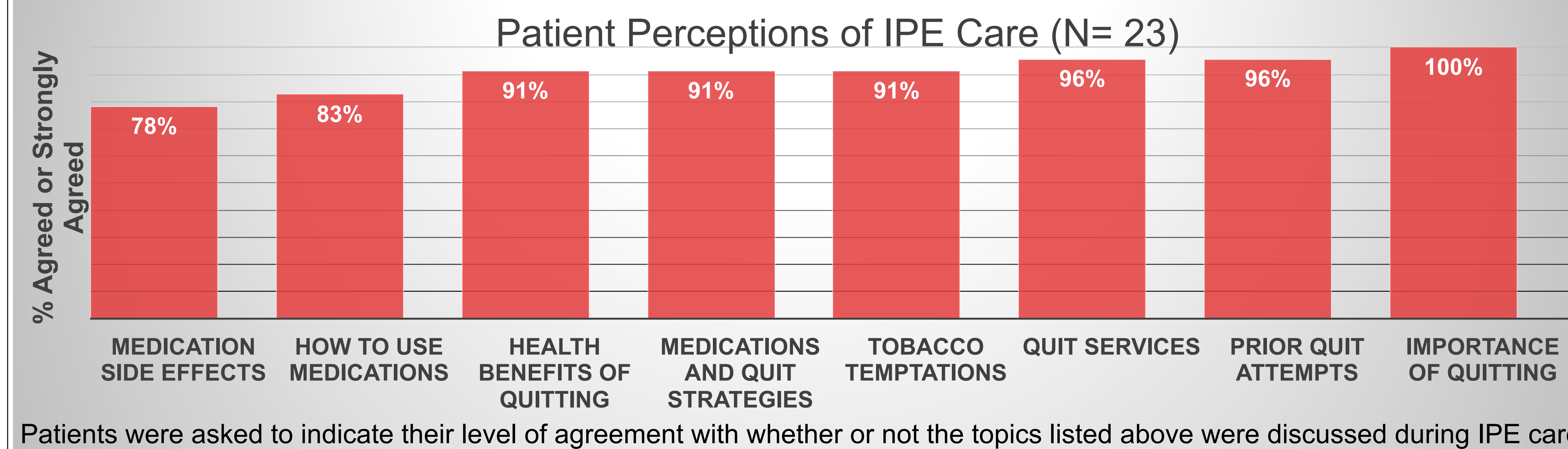
1-item 1-10 scale (1 = No intention to quit at all; 10 = Definitely intend to quit).



There was no difference between groups on quit attempts ($\chi^2 = 0.54$, $p = .463$). In the IPE care group, 11/17 (64.7%) patients reported a quit attempt since their dental appointment compared to 10/19 (52.6%) in SC.



3-item Likert-type scale (5 = Strongly Agree; 1 = Strongly Disagree).



Response	Number of Responses (%)
Extremely Satisfied	19 (82.6)
Satisfied	3 (13)
Neutral	0 (0)
Unsatisfied	1 (4.3)
Extremely Dissatisfied	0 (0)

Discussion

- IPE patients reported more knowledge gained about tobacco cessation after their dental appointment and greater perceived knowledge at follow-up.
- There were no differences between groups in post-appointment quit intentions, except IPE patients had greater intentions to use medications.
- The results from the quit attempt group suggest that patients may be more likely to set a quit date and contact their provider after receiving tobacco cessation education from an IPE team.
- The majority of IPE patients were extremely satisfied with the program.

Limitations and Future Directions

- The small sample size of this study may limit generalizability.
- As this was a pilot prospective study, randomization was not possible; therefore, it was not possible to control for confounding variables.
- Data included in the analysis was self-reported, which can lead to subject bias.
- Future studies should evaluate the IPE program in larger sample size and include objective tobacco use data.

Conclusions

Overall, the IPE group reported more knowledge gained regarding tobacco cessation and those attempting to quit were more likely to take steps toward successful quitting. IPE patients were satisfied with the care. These findings suggest that a novel IPE program between dental and pharmacy students may enhance patient outcomes in the area of tobacco cessation.

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Disclosures

The authors have nothing to disclose.

References

- Ostroff JS, Li Y, Shelley DR. Dentists United to Extinguish Tobacco (DUET): a study protocol for a cluster randomized, controlled trial for enhancing implementation of clinical practice guidelines for treating tobacco dependence in dental care settings. *Implement Sci*. 2014;9:25.
- Genco RJ, Genco FD. Common risk factors in the management of periodontal and associated systemic diseases: the dental setting and interprofessional collaboration. *J Evid Based Dent Pract*. Jun 2014;14 Suppl:4-16.
- Albert D, Ward A, Ahluwalia K, Sadowsky D. Addressing tobacco in managed care: A survey of dentists' knowledge, attitudes, and behaviors. *Am J Public Health* 2002; 92(6):997-1001.
- Dent LA, Harris KJ, Noonan CW. Randomized trial assessing the effectiveness of a pharmacist-delivered program for smoking cessation. *Ann Pharmacother*. Feb 2009;43(2):194-201.
- Mdege ND, Chindove S. Effectiveness of tobacco use cessation interventions delivered by pharmacy personnel: a systematic review. *Res Social Adm Pharm*. 2014 Jan-Feb;10(1):21-44. doi: 10.1016/j.sapharm.2013.04.015. Epub 2013 Jun 3.
- Hudmon KS, Hemberger KK, Corelli RL, Kroon LA, Prokhorov AV. The pharmacist's role in smoking cessation counseling: perceptions of users of nonprescription nicotine replacement therapy. *J Am Pharm Assoc*. 2003;43:573-82.
- Allen, I. E., & Seaman, C. A. (2007). Likert scales and data analyses. *Quality Progress*, 40(7), 64-65.