

INSIGHTS INTO APPOINTMENT-RELATED FACTORS ON ATTENDANCE IN PERSONS WITH MULTIPLE SCLEROSIS

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Background

- Short-notice cancellations (cancelled <24 hours before the appointment) and no shows (non-attendance with no prior cancellation) are both issues in the multiple sclerosis (MS) population^{1,2}.
- While there is information about the influence of appointment-related factors, such as season, day of the week, time slot, and lead time, on attendance in other populations³⁻⁵, this has yet to be explored in persons with MS (PwMS).

Objective

- To identify whether attendance behaviors in PwMS are related to the season, day of the week, time slot, or lead time of the appointment.

Methods

Participants:

- 110 persons with MS who were part of a self-management study⁶.
 - Seen between June 2019 and early March 2020.

Measures:

- Appointment attendance data were extracted from the electronic medical record.
 - Limited to MS-related appointments (i.e., neurology, case management, infusions, and rehabilitation).
 - Limited to the year prior to their study evaluation.
 - Characterized as “attended,” “short-notice cancellation,” or “no show.”
 - Appointments that were cancelled >24 hours in advance were not analyzed.
- Four appointment-related factors examined:
 - Season:
 - Winter: December, January, and February
 - Spring: March, April, and May
 - Summer: June, July, and August
 - Autumn: September, October, and November
 - Day of week (Monday through Friday)
 - Time slot:
 - Early morning: 7 am to 9 am
 - Mid-morning: 9:15 am to 11:45 am
 - Early afternoon: 12 pm to 2 pm
 - Late afternoon: 2:15 pm to 5:15 pm
 - Lead time (time between appointment and scheduling)

Statistical Analyses:

- Chi-squares and Kruskal-Wallis tests were used to examine differences between the three appointment behaviors, with Bonferroni post-hoc corrections.

Results

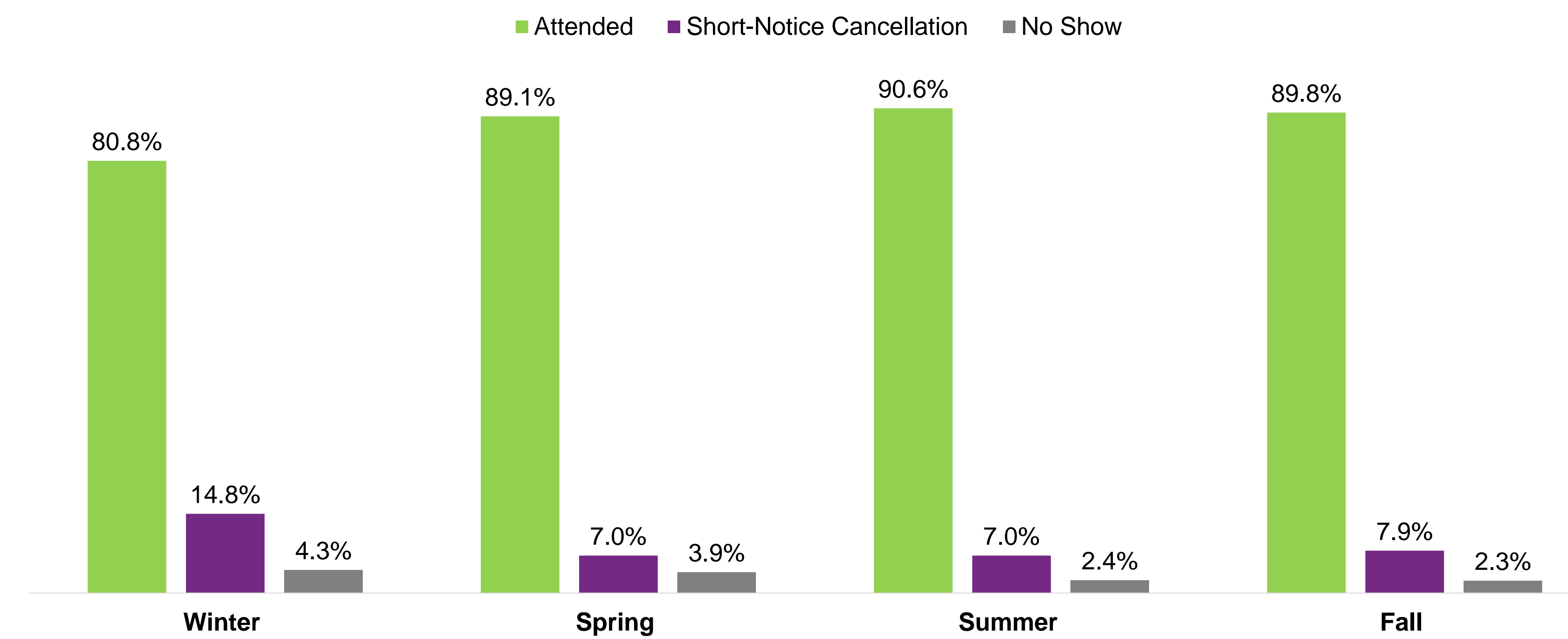


Figure 1: Appointment behaviors by season
 Winter: n = 391; Spring: n = 387; Summer: n = 458; Fall: n = 393

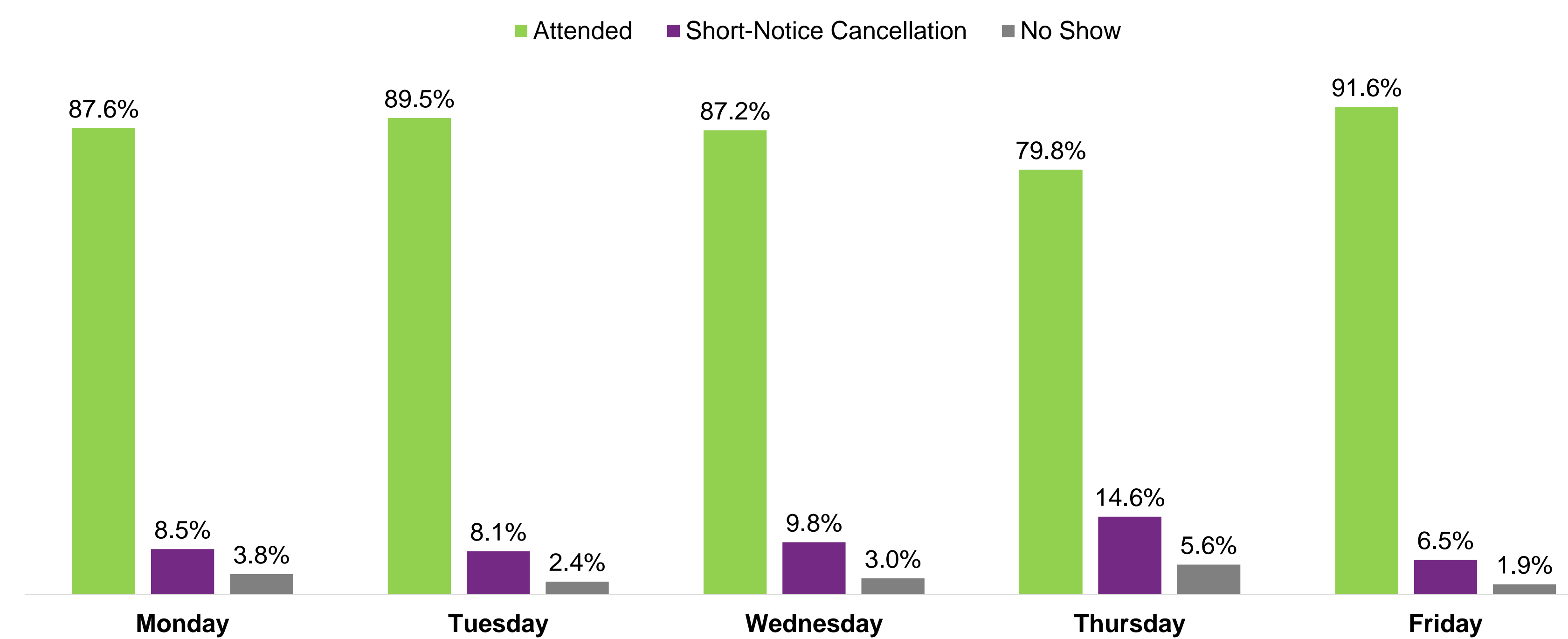


Figure 2: Appointment behaviors by day of the week
 Monday: n = 364; Tuesday: n = 458; Wednesday: n = 266; Thursday: n = 233; Friday: n = 308

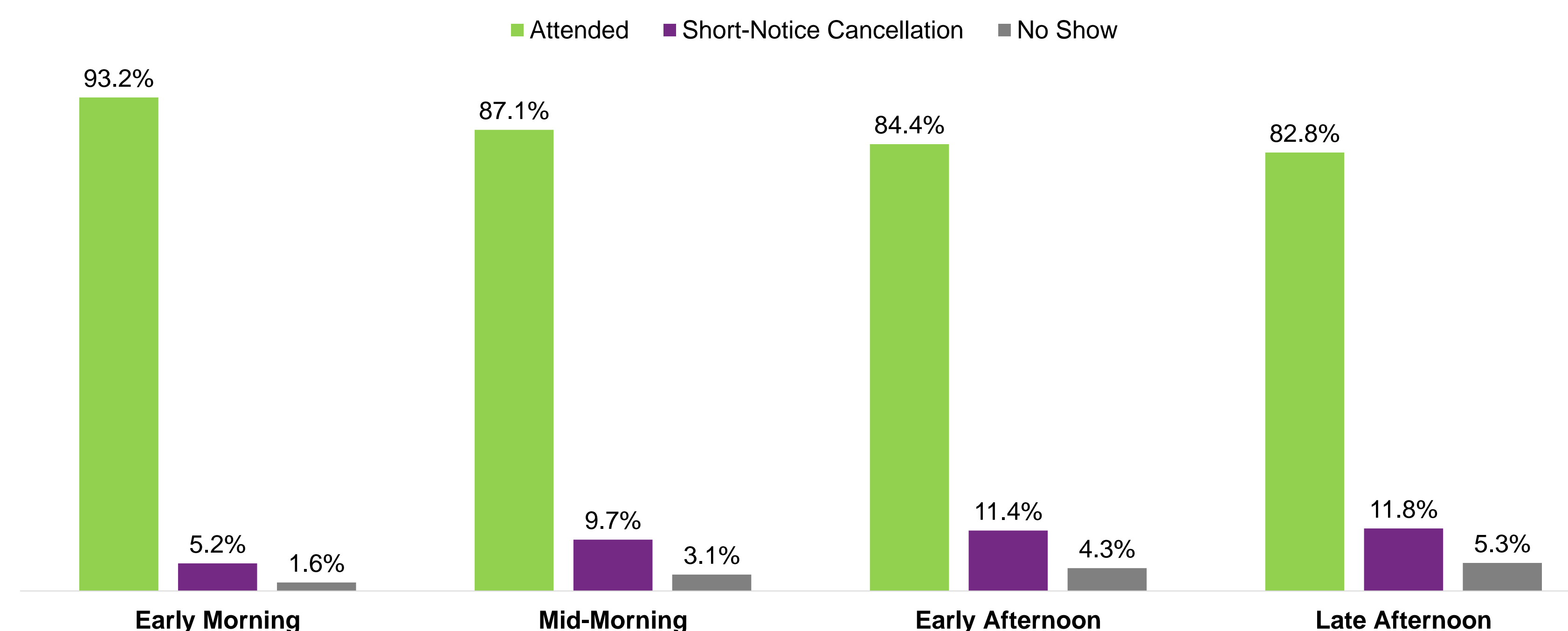


Figure 3: Appointment behaviors by time slot
 Early morning: n = 439; Mid-morning: n = 669; Early afternoon: n = 352; Late afternoon: n = 169

Results (Cont.)

- Overall difference by season ($\chi^2(6) = 25.90, p < .001$)
 - Lower number of attended appointments ($\chi^2(1) = 22.75, p < .001$) and higher number of short-notice cancellations ($\chi^2(1) = 20.61, p < .001$) in the winter (**Figure 1**).
- Overall difference by day of the week ($\chi^2(8) = 20.45, p = .009$)
 - Lower number of attended appointments ($\chi^2(1) = 15.76, p < .001$) and higher number of short-notice cancellations ($\chi^2(1) = 9.99, p = .002$) on Thursdays (**Figure 2**).
- Overall difference by time slot ($\chi^2(3) = 12.97, p = .005$)
 - Higher attendance ($\chi^2(1) = 16.56, p < .001$) and fewer short-notice cancellations ($\chi^2(1) = 10.76, p = .001$) during early morning time slots (**Figure 3**).
- While there was an overall difference in lead time by appointment attendance behaviors ($H(2) = 6.36, p = .042$), there were no significant differences between groups after corrections.
 - Attended: Mdn = 28 days (0 – 392 days)
 - Short-Notice Cancellation: Mdn = 23 days (1 – 215 days)
 - No Show: Mdn = 17 days (4 – 140 days)

Conclusions

- These findings provide insights into which types of appointments PwMS are more likely to attend.
- Certain strategies may help improve attendance behaviors, including:
 - Scheduling patients on preferred days
 - Providing reminders
 - Offering telehealth services

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Acknowledgements

The views and opinions expressed in this article reflect those of the authors and do not necessarily reflect those of the United States Department of Veterans Affairs.

This study was funded by a pilot grant from the National MS Society (PP-1901-33103). Additional support provided by VA Puget Sound Health Care System and the VA MS Centers of Excellence.