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

Elizabeth S. Gromisch1,4, Lindsay O. Neto1,2, Jodie K. Haselkorn5,8, and Aaron P. Turner7

1Mendell Center for Multiple Sclerosis Care and Neurosciences Research, Mount Sinai Rehabilitation Hospital, Trinity Health Of New England, Hartford, CT, USA
2Departments of Rehabilitation Medicine and 3Medical Sciences, Frank H. Netter MD School of Medicine at Quinnipiac University, North Haven, CT, USA
3Department of Neurology, University of Connecticut School of Medicine, Farmington, CT, USA
4Multiple Sclerosis Center of Excellence West, Veterans Affairs, Seattle, WA, USA
5Inpatient Rehabilitation Care, VA Puget Sound Health Care System, Seattle, WA, USA
6Department of Rehabilitation Medicine and 7Epidemiology, University of Washington, Seattle, WA, USA

Background

- Short-notice cancellations (cancelled <24 hours before the appointment) and non-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 populations,3-8, this has yet to be explored in persons with MS (PwMS).

Objective

1) 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 study.6
- 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 (Cont.)

- Overall difference by season χ²(6) = 25.90, p < .001
  - Lower number of attended appointments χ²(1)=22.75, p<.001 and higher number of short-notice cancellations χ²(1)=20.61, p<.001 in the winter (Figure 1).
  - Overall difference by day of the week χ²(1)=20.45, p = .009
  - Lower number of attended appointments χ²(1)=15.76, p < .001 and higher number of short-notice cancellations χ²(1)= 9.99, p = .002 on Thursdays (Figure 2).
  - Overall difference by time slot χ²(3) = 12.97, p = .005
  - Higher attendance χ²(1)= 18.56, p < .001 and fewer short-notice cancellations χ²(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) = 8.36, 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

References


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.