Decreasing No-Show Rates in an Academic Center by Targeting the Closure of Patient Encounters

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Introduction

Patients missing scheduled appointments, or no-shows, remains a challenge to delivering care in all academic centers. This can negatively impact health outcomes for patients in the long term:

- Inability to implement preventative health screenings
- Difficult to manage chronic illnesses appropriately
- Limits learning opportunities for residents
- Needlessly takes time away from other patients

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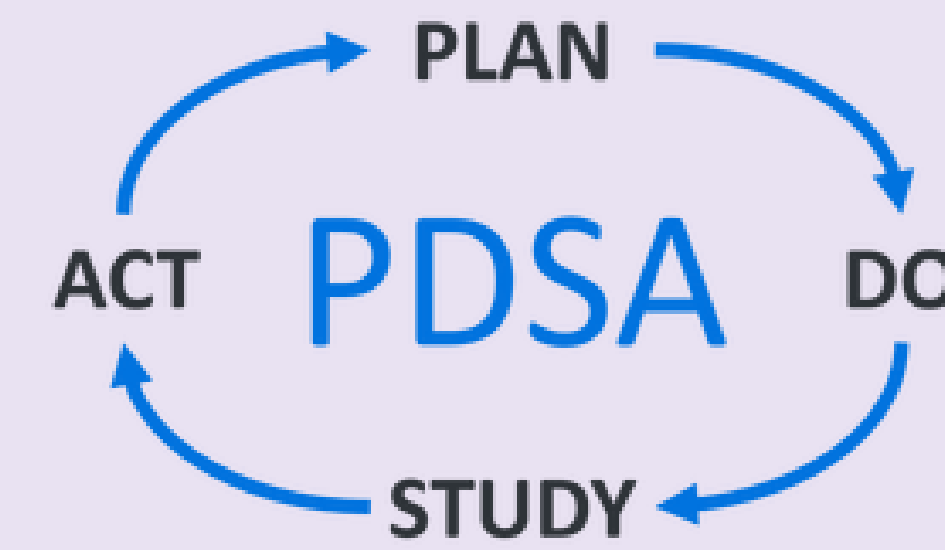
The medical management association estimates the average no-show rate to be 5-7% across medical outpatient practices in 2012 [1], but more recent data suggests rates are likely closer to 15-18% for among academic centers[2,3].

A previous quality improvement study at our residency program looked at reducing no-show rates from June to September 2018. Five different interventions were implemented and evaluated among 2nd and 3rd year residents, with 1st year residents excluded. None of the interventions achieved a target no-show rate under 10%, but the most effective intervention focused on improving the closing of patient interviews.

My study adapted strategies from this most effective intervention. The goal of this study will be to reduce patient no-show rates **to under 10%** over a 6-month period at our academic center.

Methods

- 'No-show rate' = the number of scheduled patient visits wherein a patient misses a scheduled appointment without cancelling as a percent of the total number of patient visits scheduled
- Population (N) = 2nd and 3rd year residents at SIU Decatur FCM, 10. Excluded 1st year residents for 2020-21
- Maintained consistency in groups with changing of academic year
    - i.e. Data for 1st and 2nd year residents in the 2019-20 academic year were compared with data for 2nd and 3rd year residents in the 2020-21 year respectively
- Study measure: No-show rates for 2nd and 3rd year Decatur FCM residents and each resident individually
- Will compare no-show rates 3 months post-intervention to rates 3-months pre- intervention via two-tailed t-test

Intervention

- A 10-minute PowerPoint presentation during resident didactics that reviewed techniques to improve the closing of patient encounters: stress importance and purpose of next appointment, explain to patients how to correctly cancel or reschedule appointments; offer text or call reminders for next appointments, provide written instructions if needed/requested
- Emailed slides from presentation to all 2nd and 3rd year Decatur FCM residents within 2 days of presentation
- Principal investigator met with each resident once within 3 days of presentation
- Reviewed individual no-show rates with each resident and re-iterated techniques from presentation

Objectives

After reading this poster, readers should be able to:

- Identify patient barriers toward patients attending appointments.
- Implement interventions to improve closing of patient encounters among 2nd and 3rd year residents
- Identify future interventions for academic centers for improving no-show rates

Results

Figure 1a. Number of No-Shows and Scheduled Appointments, Pre- and Post-Intervention

		Total Number of No-Shows			Total Number of Scheduled Appointments		
		PGY-2	PGY-3	All Residents	PGY-2	PGY-3	All Residents
Pre-Intervention	Feb '20	24	34	58	118	231	349
	March '20 ⭐	19	34	53	86	167	253
	Jun '20 ⭐	36	36	72	100	261	361
Post-Intervention	July '20	56	73	129	275	477	752
	Aug '20	50	102	152	237	501	738
	Sept '20	49	77	126	245	488	733

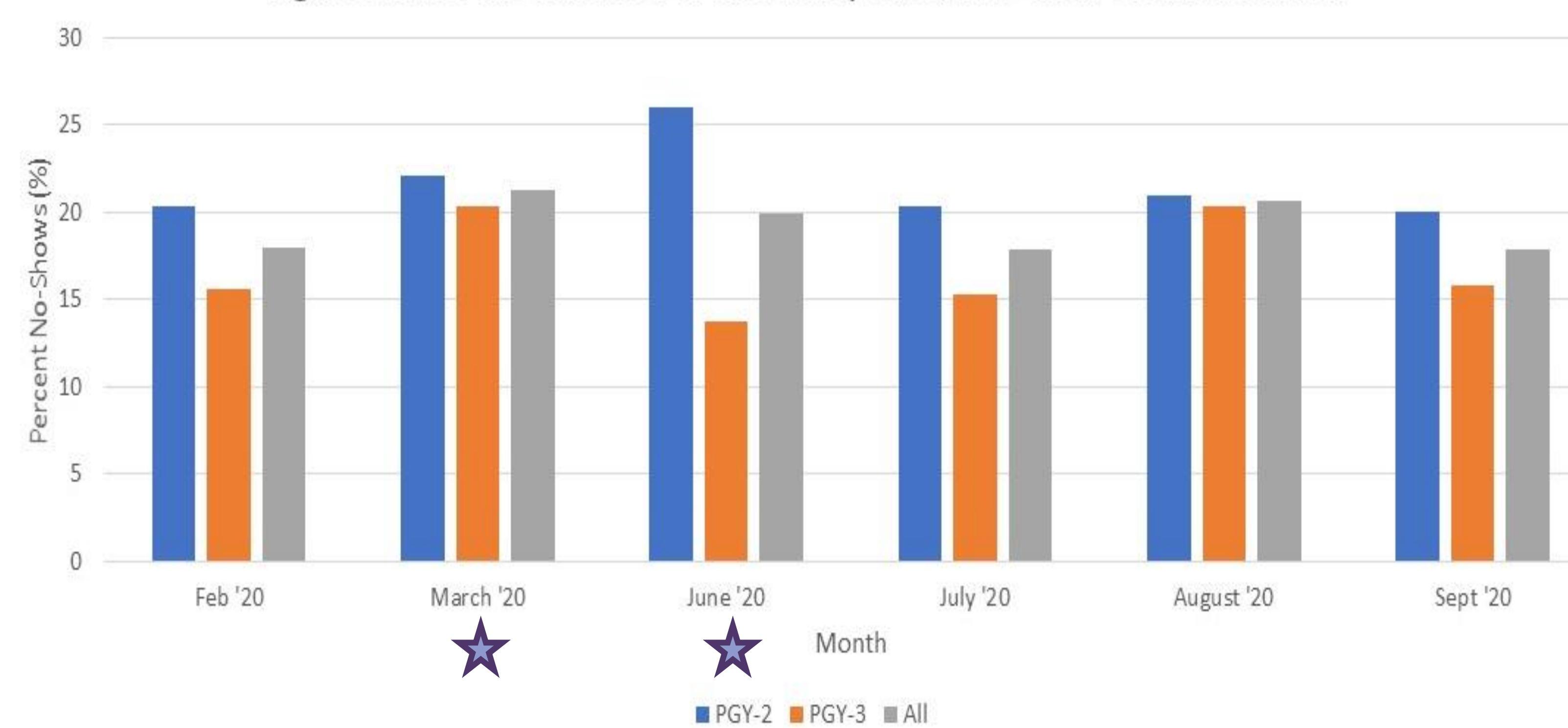Figure 1b. No-Show Rates Per Residency Class, Pre- and Post Intervention

Figure 1a and b: ⭐ Due to onset of covid-19 pandemic, patient visits were canceled instead of no showed from March 16, 2020 - June 8, 2020

Figure 2: There was no statistical difference in no-show rates among 2nd year/PGY-2 residents, 3rd year/PGY-3 residents or among all studied residents (p-value 0.2413, 0.8334 and 0.5444, respectively)

Discussion and Future Directions

- No statistical difference in no-show rates after initial intervention
- Three months may not be sufficient to see true effect of intervention
- Discussed progress after 3 months post-intervention with residents in open forum format. **Residents attempted to incorporate techniques given in intervention, but not on a consistent basis**
- Intervention utilized strategies from the most effective intervention, closing patient encounters, from prior project. Did not target social factors that effect no-show rates, such as lack of transportation, no caregivers for children, inability to take time off work; likely exacerbated during covid-19 pandemic
- With many schools offering remote learning, many well child visits were deferred. **Well-child visits accounted for over 15% of no-shows from July-September**
- There was a disruption in the automated system which provided reminders for patients for upcoming appointments in the month of August. SIU Decatur FCM clinic is currently exploring alternatives
- Have given presentation again after 3 months post-intervention. Plan to meet again with residents individually (2nd time). **Focus will be on formulating and implementing a more consistent systematic approach to closing patient encounters among residents**
- Will continue collecting no-show rates monthly over the next 3 months and analyze data 6 months pre- and post-intervention
- Will examine encounter types (well child visits, established patients) in no-show data to find trends that may be used for future projects
- Intend to use information and data obtained to guide future interventions

Figure 2. two-tailed t-test for statistical significance

	PGY 2	PGY 3	All Residents
Pre-Intervention No-Show rate (Nov '19-Jun '20) with SD	22.80 +/- 2.91	16.58 +/- 3.39	19.69 +/- 1.65
Post-Intervention (July '20-Sept '20) with SD	20.45 +/- 0.51	17.15 +/- 2.79	18.80 +/- 1.62
Mean Difference	2.35	-0.57	0.89
Confidence Interval (95%)	-2.39 to 7.09	-7.62 to 6.48	-2.83 to 4.61
P-Value	0.2413	0.8334	0.5444

References

1. https://www.aafp.org/journals/fpm/blogs/gettingpaid/entry/no_shows_lost_revenue.html

2. Kheirkhah et al. Prevalence, predictors and economic consequences of no-shows. BMC Health Services Research. 2016; 16:13 DOI 10.1186/s12913-015-1243-z

3. Sofka RM. Identifying the No Shows. Family Medicine Clerkship Student Projects, University of Vermont College of Medicine. 2016; 188. https://scholarworks.uvm.edu/fmclerk/188