

# Improving No Show Rates Among Adult Patients in Primary Care

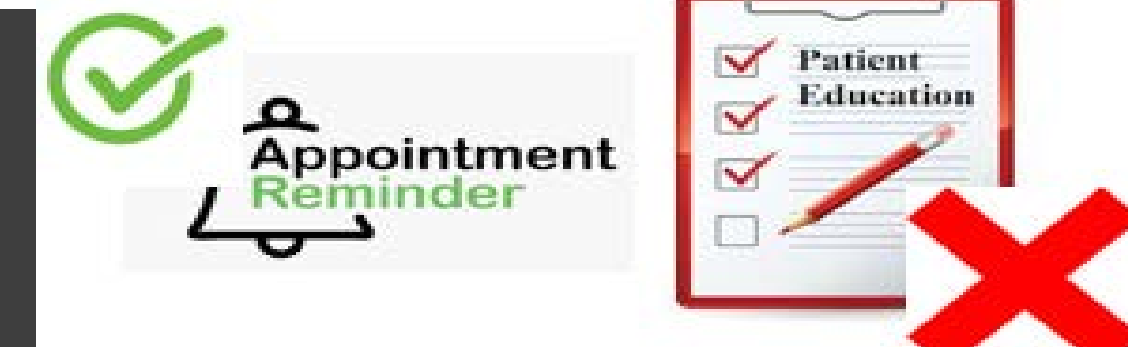
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## Background

- No shows impact patients and health care systems: effects on patient outcomes and wasted resources<sup>1</sup>
- 23% to 34% annual no show rates<sup>2</sup>
- Patients who no show are likely to exhibit poorer health outcomes<sup>2</sup>
- Annual cost of \$150 billion from missed healthcare appointments<sup>3</sup>
- Patient focused interventions to address missed appointments<sup>4,5</sup>
- Reminder systems<sup>6,7</sup> and patient navigators<sup>4</sup>
- Gap in the literature that address effective methods for no shows

## Purpose & Aims



**Purpose:** To examine if a nursing education program improves the rate of nursing compliance with patient education on follow-up visits.

**Aim 1:** Assess nursing compliance with patient education on follow-up visits;

**Aim 2:** Determine the impact of a 12-week evidence-based nursing education program on improving nurses' attitudes, beliefs, and knowledge regarding patient teaching on the importance of adhering to follow-up appointments; and,

**Aim 3:** Compare the rate of nursing compliance on providing patient education on follow-up visits pre and post intervention

## Methods

**Design:** Pre-intervention/post-intervention

**Setting:** Primary care practice in a suburban community in the East Coast

**Sample:** Nursing staff and primary care patients

**Intervention:** Education program focused on educating patients on the importance of adhering to follow-up visits

**Measures:**

- 15-item Likert scale Attitudes, Beliefs, and Knowledge Questionnaire focused on no shows
- Retrospective chart review for nursing compliance on patient education

## Results

### Baseline Characteristics of Patients:

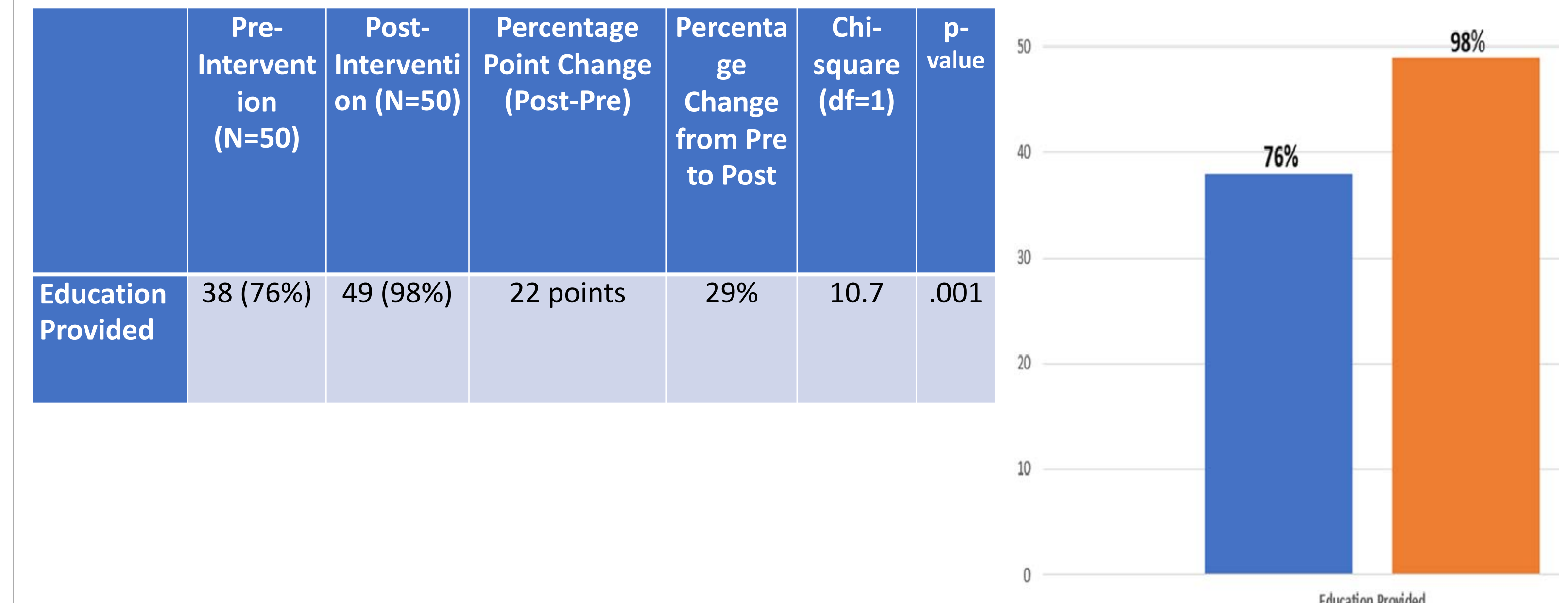
Demographic characteristics	(N=50) Pre-Intervention	(N=50) Post-Intervention	(N=100)
<b>Age, n (%)</b>			
18-24 years old	3 (6%)	3 (6%)	6 (6%)
25-44 years old	15 (30%)	15 (30%)	30 (30%)
45-65 years old	32 (64%)	32 (64%)	64 (64%)
<b>Gender, n (%)</b>			
Male	17 (34%)	21 (42%)	38 (38%)
Female	33 (66%)	29 (58%)	62 (62%)
<b>Medical Diagnosis, n (%)</b>			
0-1 Diagnosis	6 (12%)	11 (22%)	17 (17%)
2-3 Diagnoses	20 (40%)	24 (48%)	44 (44%)
>3 Diagnoses	24 (48%)	15 (30%)	39 (39%)
<b>Distance from clinic to home, n (%)</b>			
<10 miles	32 (64%)	39 (78%)	71 (71%)
10-19 miles	10 (20%)	7 (14%)	17 (17%)
20-30 miles	4 (8%)	3 (6%)	7 (7%)
>30 miles	4 (8%)	1 (2%)	5 (5%)

### Baseline Characteristics of Nurses:

- 26 to 54 years old; 6-20 years nursing experience; Associate's to Master's Degree

### Aims 1 and 3:

- Nursing adherence to patient education increased **22%**

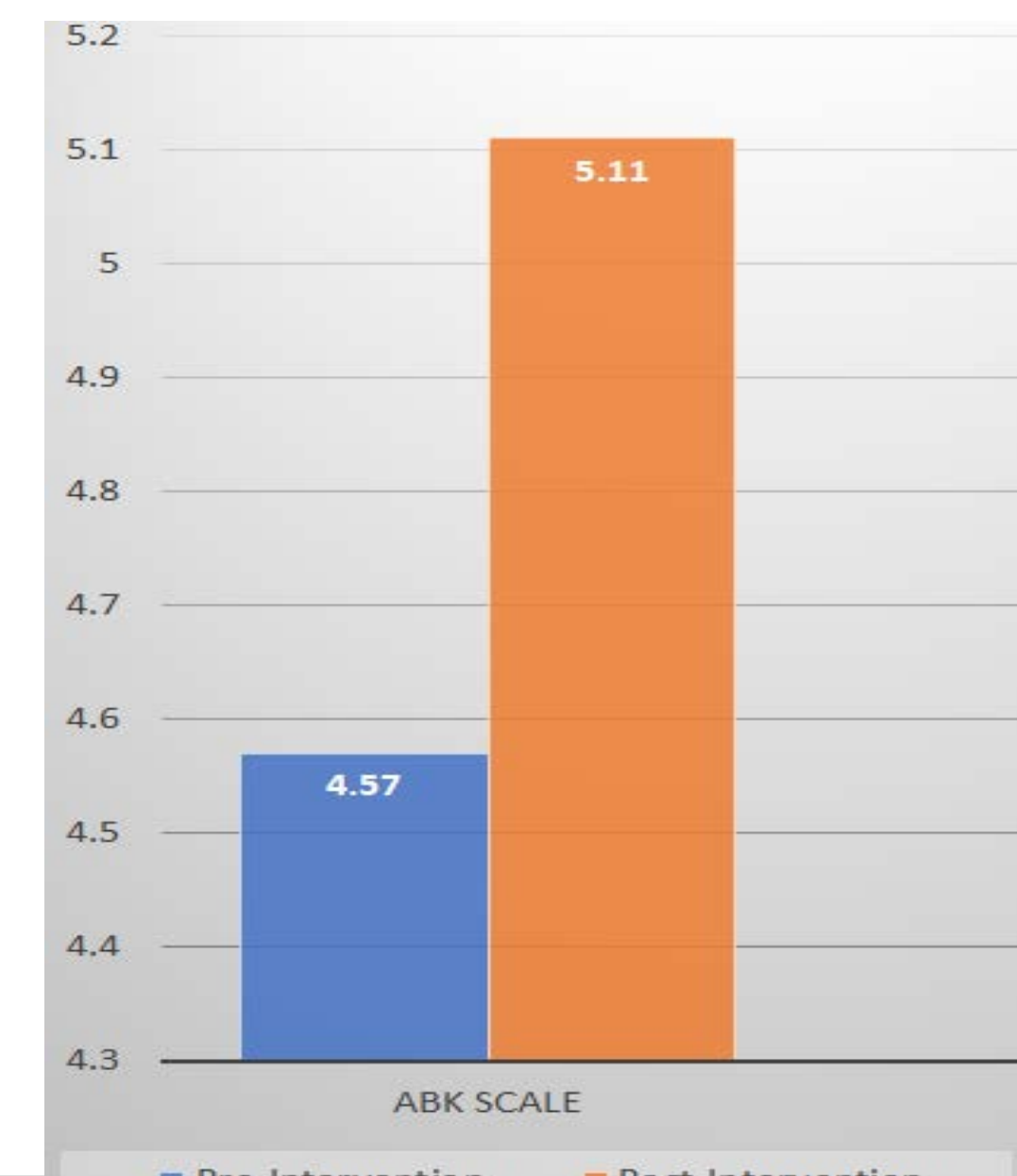


### Findings for Aim 2: t-test

- Significant difference between the mean scores of the Attitudes, Beliefs, and Knowledge Questionnaire from pre-intervention and post-intervention

	n	Pre-Intervention Mean (SD)	Post-Intervention Mean (SD)	Pre- Post Difference Mean (SD)	95% CI, LL	95% CI, UL	t	df	p-value
ABK Scale	3	4.57 (.23)	5.11 (.36)	.53 (.13)	.20	.86	6.9	2	0.02
Cohen's-d <sup>1</sup>				4.0	.37	7.82			

<sup>1</sup>Cohen's-d measures the pre-/post-change score in standardized units, where 1 Unit = 1 SD



## Discussion

- Many factors contribute to no shows and understanding these reasons in specific setting is crucial<sup>4,5,8,9</sup>
- Educating patients on adhering to follow-up appointments promote and maintain positive health outcomes and decrease no show rate<sup>10</sup>
- Involving the clinic staff and providers in patient education contributes to the improvement in patients' attendance<sup>10</sup>
- An education program highlighting Teach Back Method improved patient education in the practice

## Limitations

- Small nursing sample
- The ABK questionnaire is not validated
- 12-week project time frame: actual impact on no show rate cannot be determined as most follow-up visits are scheduled 3 – 6 months

## Conclusion

There is not a one-size fits all solution in addressing no shows. Interventions should be targeted to the patient's reasons for missing their appointments, and the characteristics of the healthcare practice. Patient education in improving patient adherence to follow-up visits can help improve no show rates.

### Translation to practice:

- Dissemination of findings within the organization
- Incorporating patient education at every visit (managing appointments)

### Future research:

- No shows in specialty practices
- Identify reasons for no shows

## References

