



Implementation of Student Pharmacist-Led Anticoagulation Counseling

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Disclosure Statement

Authors of this presentation have the following to disclose concerning possible financial or personal relationships with commercial entities that may have a direct or indirect interest in the subject matter of this presentation:

- Jamielynn Sebaaly: Nothing to disclose
- Jenna M. Huggins: Nothing to disclose

Background

Anticoagulation medications are at an increased risk of causing harm compared to others

National Patient Safety Goal 03.05.01
from the Joint Commission on
Accreditation of Healthcare Organizations

- “Reduce the likelihood of patient harm associated with the use of anticoagulant therapy”

Background

- Patient education is a vital component of anticoagulation therapy as it mitigates the risks of therapy
 - Pharmacists play a key role in patient counseling
- Student pharmacists can increase the available workforce for counseling

Objectives

Primary

- Retrospectively assess the percentage of documented patient anticoagulation counseling before and after student pharmacist assistance at the facility

Secondary

- Assess student pharmacists' opinions on counseling anticoagulation patients before and after their participation

Methods & Design

Study Population

- Patients discharged from WakeMed Health & Hospitals, Raleigh Campus on anticoagulation therapy (warfarin, dabigatran, and rivaroxaban) during the study period of January 1, 2012 to January 1, 2013

Design

- Retrospective audit
- Randomized sample each month, for 12 months of:
 - 50 patients on warfarin
 - 30 patients on dabigatran
 - 30 patients on rivaroxaban

Methods & Design

- Design (cont.)
 - Number of patients who received counseling and by whom (pharmacy or nursing) was recorded at the end of each month from documentation in patients' medical records
 - Compared using a paired student's t test

Methods & Design

Survey Population

- Fourth year student pharmacists on Advanced Hospital, Internal Medicine, and Cardiology APPEs at WakeMed Health & Hospitals, Raleigh Campus

Design

- Student pharmacist counseling was implemented in the last 6 months of the study
- Student pharmacists were asked to complete an anonymous pre- and post- participation survey to assess their interest and comfort with anticoagulation counseling
- This study received IRB approval

*1. Please indicate if you are completing this survey at the beginning or end of your rotation.

Beginning

End

*2. How comfortable do you feel counseling patients on anticoagulation therapy?

Very Comfortable

Somewhat Comfortable

Neither comfortable nor uncomfortable

Somewhat Uncomfortable

Very Uncomfortable

*3. How well do you feel you understand anticoagulation counseling?

Very well

Somewhat well

Somewhat not well

Not well at all

*4. How receptive to anticoagulation counseling do you feel patients will be or were from student pharmacists?

Very receptive

Somewhat receptive

Somewhat unreceptive

Very unreceptive

*5. How beneficial do you feel anticoagulation discharge counseling will be or was for your patients?

Very beneficial

Somewhat beneficial

Somewhat not beneficial

Not beneficial at all

*6. How beneficial do you feel performing anticoagulation discharge counseling will be or was to you?

Very beneficial

Somewhat beneficial

Somewhat not beneficial

Not beneficial at all

*7. How interested are you in performing discharge counseling to patients in the future?

Very interested

Somewhat interested

Somewhat not interested

Not interested at all

Results

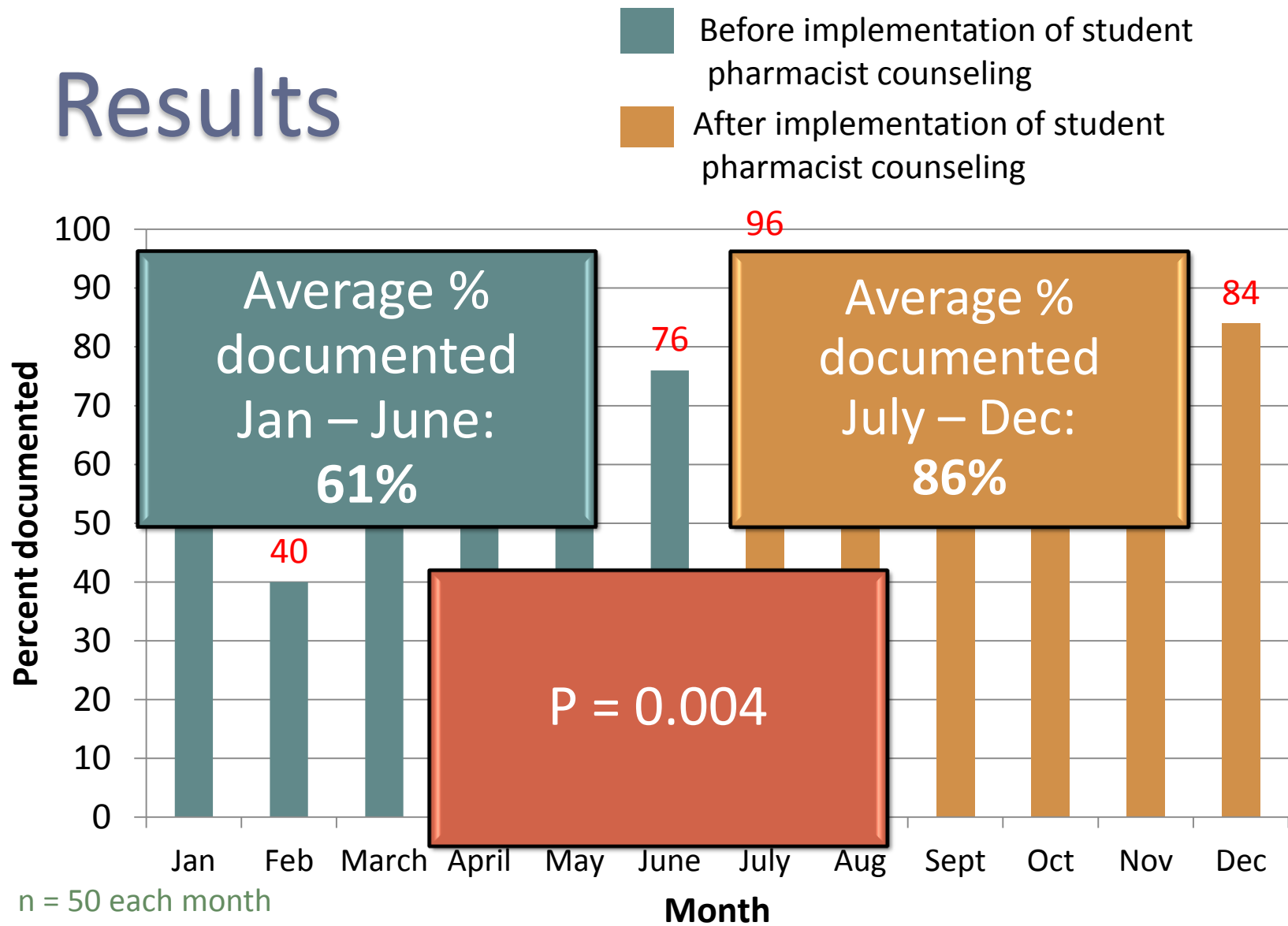


FIGURE 1.

Percent of sampled patients on warfarin with counseling documented

Results

- Before implementation of student pharmacist counseling
- After implementation of student pharmacist counseling

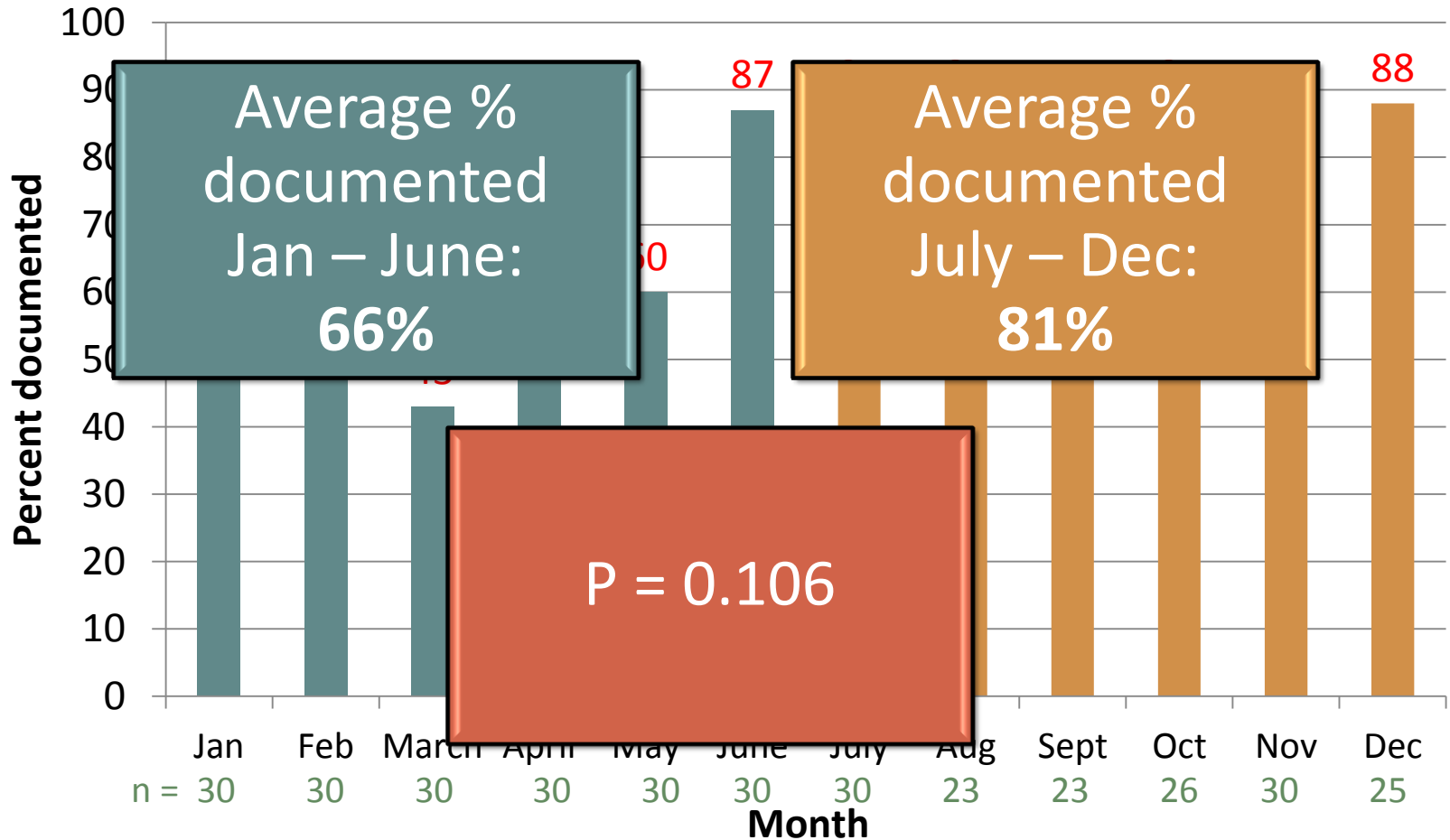


FIGURE 2. Percent of sampled patients on dabigatran with counseling documented

Results

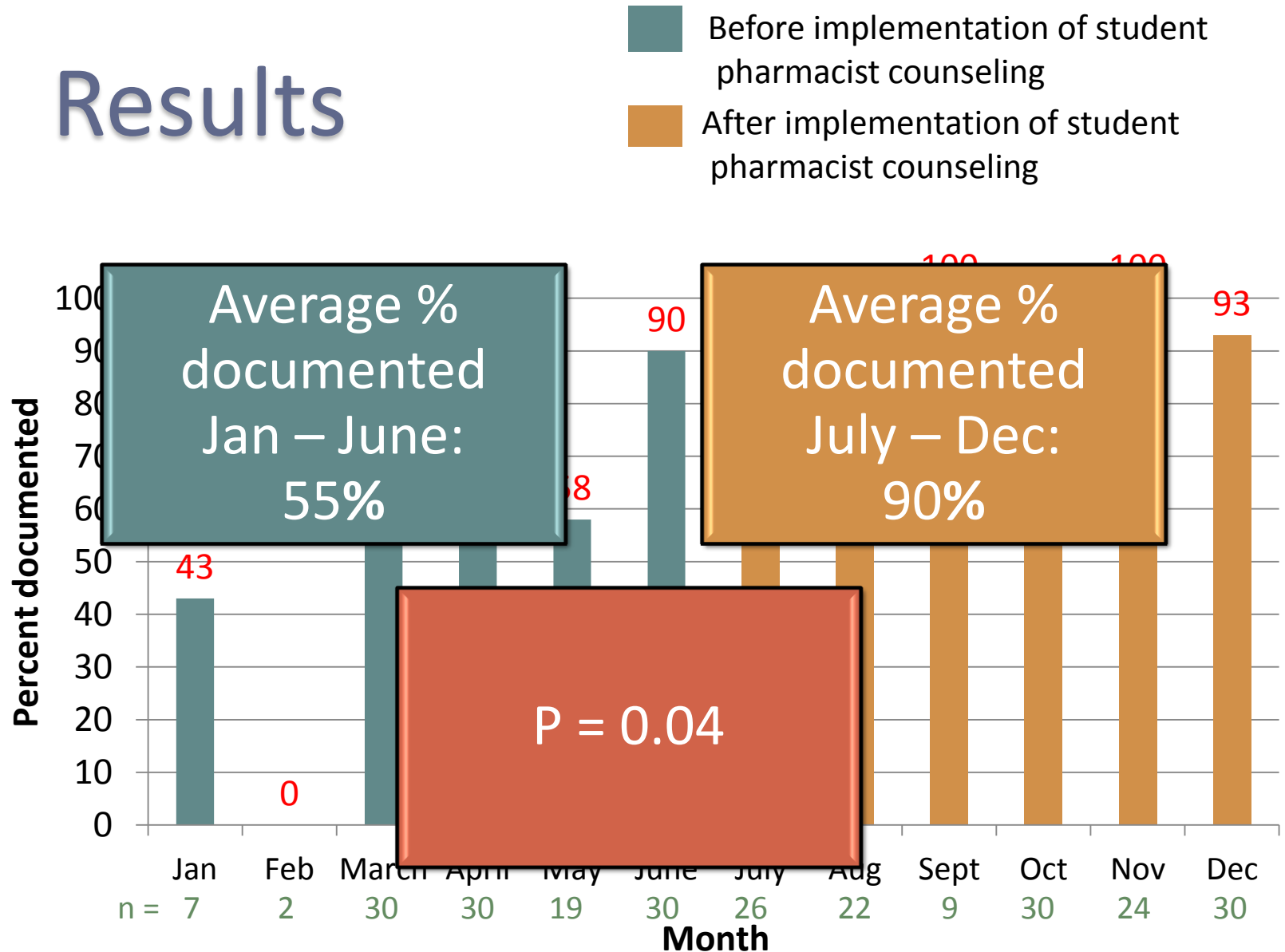


FIGURE 3. Percent of sampled patients on rivaroxaban with counseling documented

Results

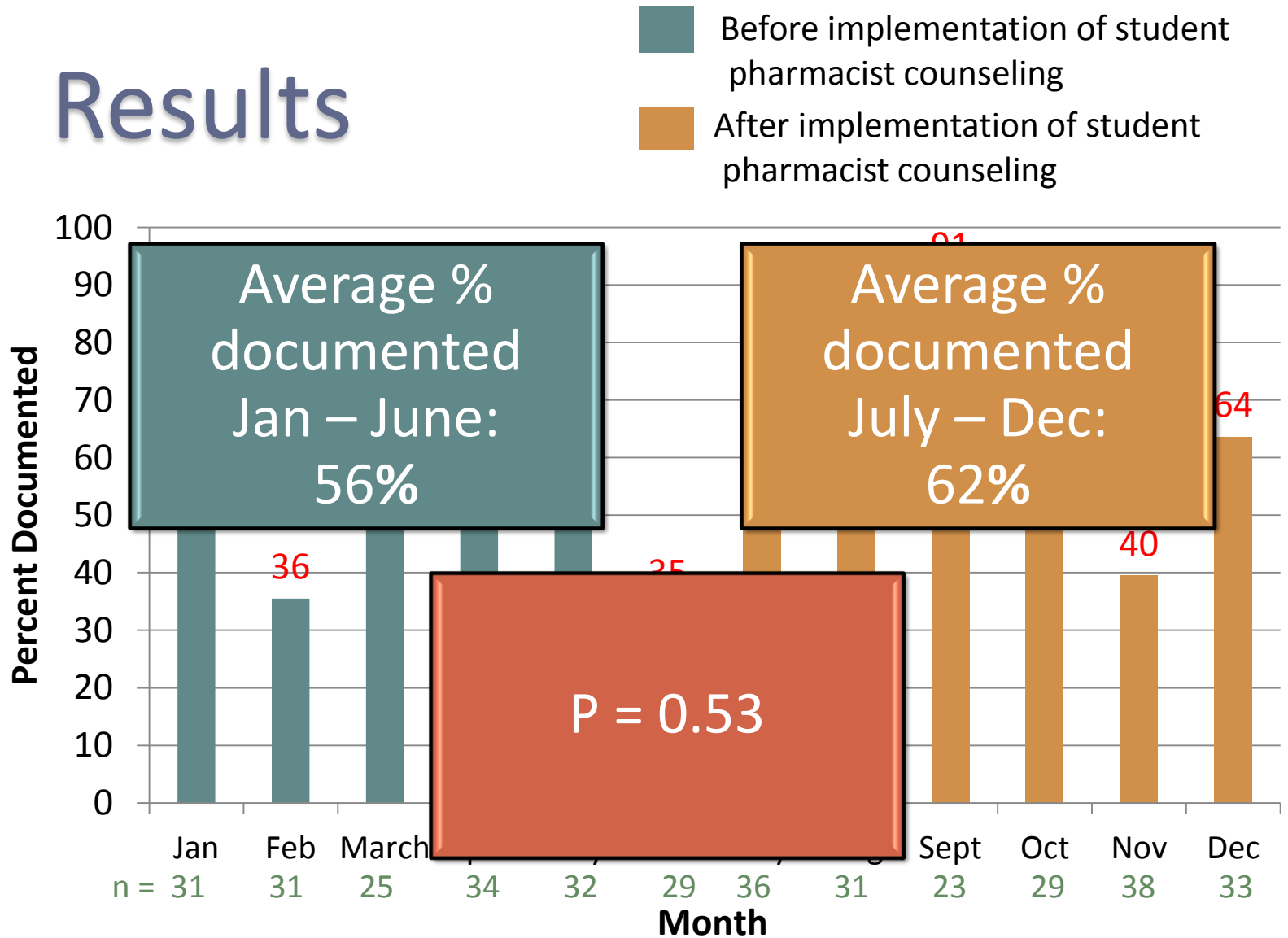


FIGURE 4. Percent of sampled patients on warfarin with counseling documented by PHARMACY where pharmacy was responsible

1: Very Positive; 2: Somewhat Positive; 3: Somewhat Negative; 4: Very Negative

	PRE (n=7)			POST (n=8)	
	Average	Median		Average	Median
Counseling Comfort	2.4	2.0		1.5	1.5
Counseling Understanding	2.0	2.0		1.5	2.0
Patient Receptiveness	1.9	2.0		1.5	1.0
Patient Benefit	1.1	1.0		1.3	1.0
Student Benefit	1.3	1.0		1.1	1.0
Future Counseling Interest	1.3	1.0		1.3	1.0

Discussion

- Limitations
 - Unable to determine pharmacist vs. student pharmacist in electronic medical record
 - Current nursing and pharmacy education initiatives for National Patient Safety Goals
 - Student pharmacists did not receive standardized training on anticoagulation counseling or standardized time to perform counseling
 - Some months did not have 30 patients on either dabigatran or rivaroxaban, limiting the sample size
 - 39% (15/38) survey response rate

Conclusions

- On average, after the implementation of counseling by student pharmacists, the percent of sampled patients with anticoagulation counseling documented increased
- Student pharmacists' comfort, understanding, and interest in anticoagulation counseling increased or remained the same

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- Jenna M. Huggins, PharmD, BCPS



Questions?