

# Shifting patients' perception of radiologists as technologists to physicians

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- None

# Introduction

- Radiologists serve an integral role in providing health care, but reading with PACS often results in radiologists becoming less visible to patients and referring physicians.
- There are few studies directly addressing patient perceptions of the radiologists.
- It is important that radiologists educate patients further about the scope of radiology and the contributions of subspecialized radiology to their care.
- The support of patients and referring physicians is critical for radiology to continue to flourish as a specialty.

# Purpose

- To assess our patients' comprehension of the radiologist's role in health care.
- To identify methods to improve patient understanding of radiologists and their role.

# Methods

- Prospective single institution survey was administered to patients “pre-education” in the main department radiology waiting room from 11/30/13 to 07/01/14.
- After implementation of educational techniques with a radiologist profile poster and an informational powerpoint displayed in the waiting room, a “post-education” survey was administered from 8/15/15 to 03/15/16.
- Surveys of less than 4 responses were excluded.
- Pearson Chi Square Exact test evaluated differences between “pre-education” and “post-education” surveys to identify changes in patients’ perceptions of radiologists.

# Results

1. What is a radiologist (pick one)?  
 Technologist  Nurse  Doctor  Physician's Assistant  Don't know

2. Who takes your images for your xrays, CT scan, MRI, Ultrasound, and/or Mammograms (pick one)?  
 Technologist  Nurse  Doctor  Physician's Assistant  Don't know

3. How many years of training are involved to become a radiologist (starting after college)? \_\_\_\_\_

4. What is the radiologist's primary responsibility (pick one)?  
 Take X-rays/CT/MRI/US/mammogram pictures  
 Read X-rays/CT/MRI/US/mammogram pictures  
 Help diagnose a patient's illness/health problem  
 Treat a patient's illness/health problem  
 Other \_\_\_\_\_  
 Don't know

5. How else do radiologists participate in health care (may choose multiple answers)?  
 Take X-rays/CT/MRI/US/mammogram pictures  
 Read X-rays/CT/MRI/US/mammogram pictures  
 Help doctors choose the correct type of imaging to use  
 Help diagnose a patient's illness/health problem  
 Help decide how to treat a patient's illness/ health problem  
 Treat a patient's illness/health problem  
 Write a report about your xray/CT/MRI/US/mammogram  
 Teach (trainees/students)  
 Research  
 Other \_\_\_\_\_  
 Don't know

6. Is there a formal, written report somewhere of your imaging studies (mammogram, US, xray, CT, or MRI)?  
 Yes  No  Don't know

7. How important is the role played by a radiologist in your healthcare? (Please circle one)  
(1= Not at all, 5 = Extremely important) 1 2 3 4 5  Don't know

8. Do radiologists work more than normal business hours (8am-5pm)?  Yes  No  Don't know

9. Do radiologists work "on call" or at night?  Yes  No  Don't know

10. Is a radiologist part of the medical team taking care of you?  Yes  No  Don't know

11. Who formally interprets your x-rays, US, CT, mammogram, or MRI?  
 Surgeon  
 Your family medicine doctor/ pediatrician/ internal medicine doctor  
 Radiologist  
 Emergency Room Doctor  
 Don't know

12. From whom would you like to hear the results of your x-rays, US, CT, mammogram, or MRI?  
 Your doctor  Nurse  The person who formally reads your imaging

13. How would you like to hear about the results of your x-rays, US, CT, mammogram, or MRI?  
 E-Mail  Internet  US mail  Telephone  Don't want to know results

14. Have you taken this survey previously?  Yes  No

15. Did you watch the television while you were waiting in the radiology department?  Yes  No

16. Did you look at any posters/pamphlets while waiting in the radiology department?  Yes  No

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Gender: Male Female

Age: \_\_\_\_\_ Ethnicity: Caucasian African American Asian Hispanic

How many radiology studies (xrays, CT scans, ultrasounds, MRIs, mammograms) have you had in your life?  
(circle one) 0-5 6-10 11-20 21-50 50+

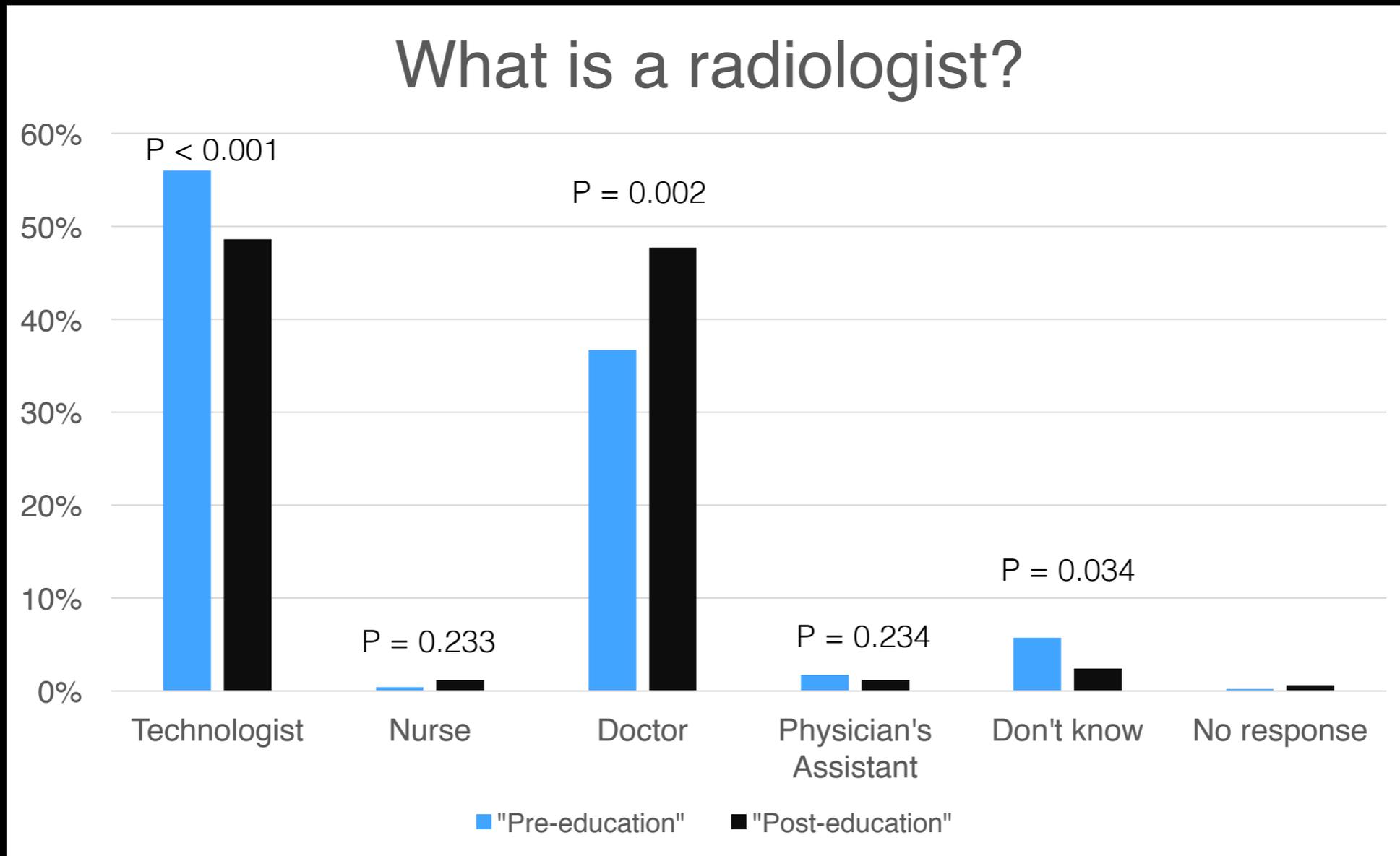
Do you have previous medical experience or training? No Yes (if so, what type?) \_\_\_\_\_

Where do you get the majority of your health care information (pick one)?  
 Television  Internet  Newspaper  Doctor  Other

What is your highest level of education?  
 Grade School  Middle School  High school  College  Masters Degree  Doctoral

- 477 “pre-education” and 333 “post-education” surveys.
- Gender and age matched groups.
- 271 (61.4 %) “pre-education” and 180 (58.7%) “post education” had a college degree or higher education.

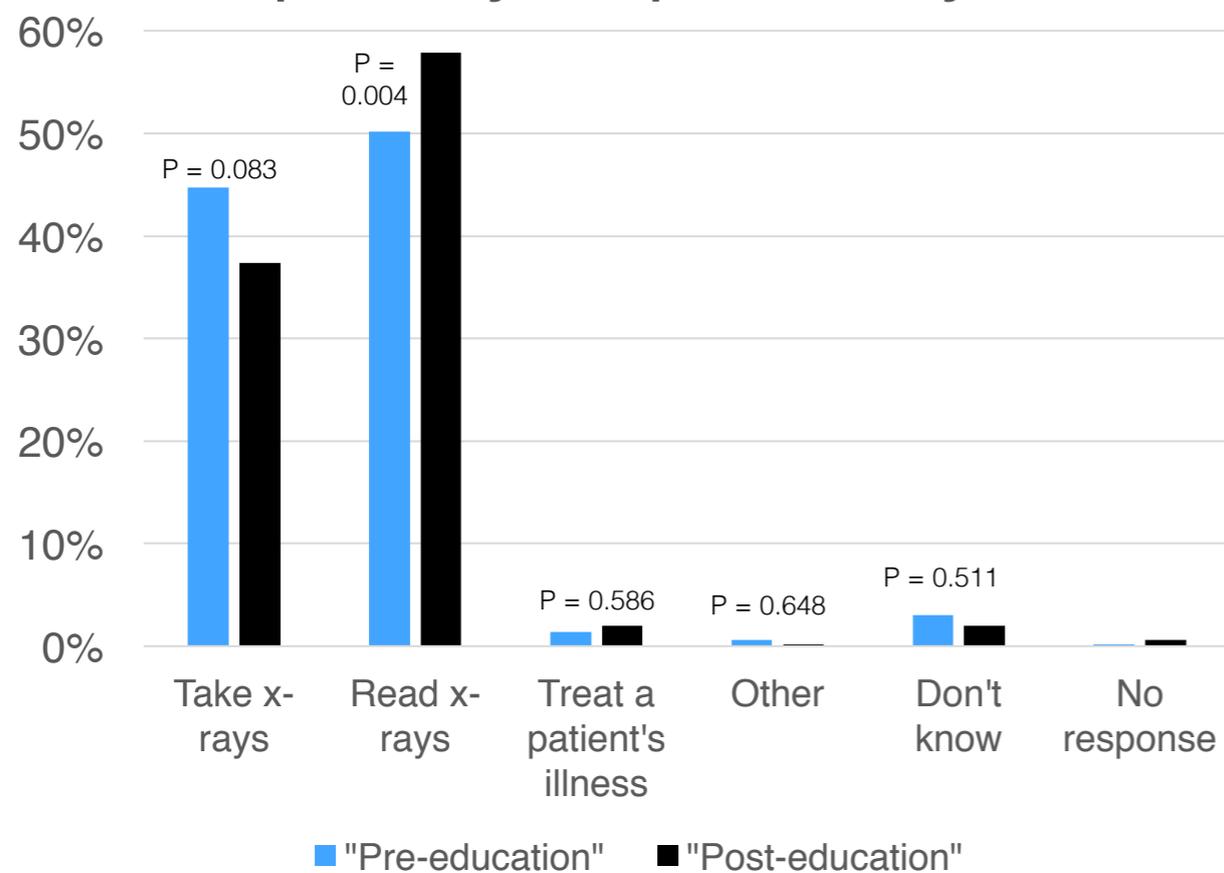
# Results



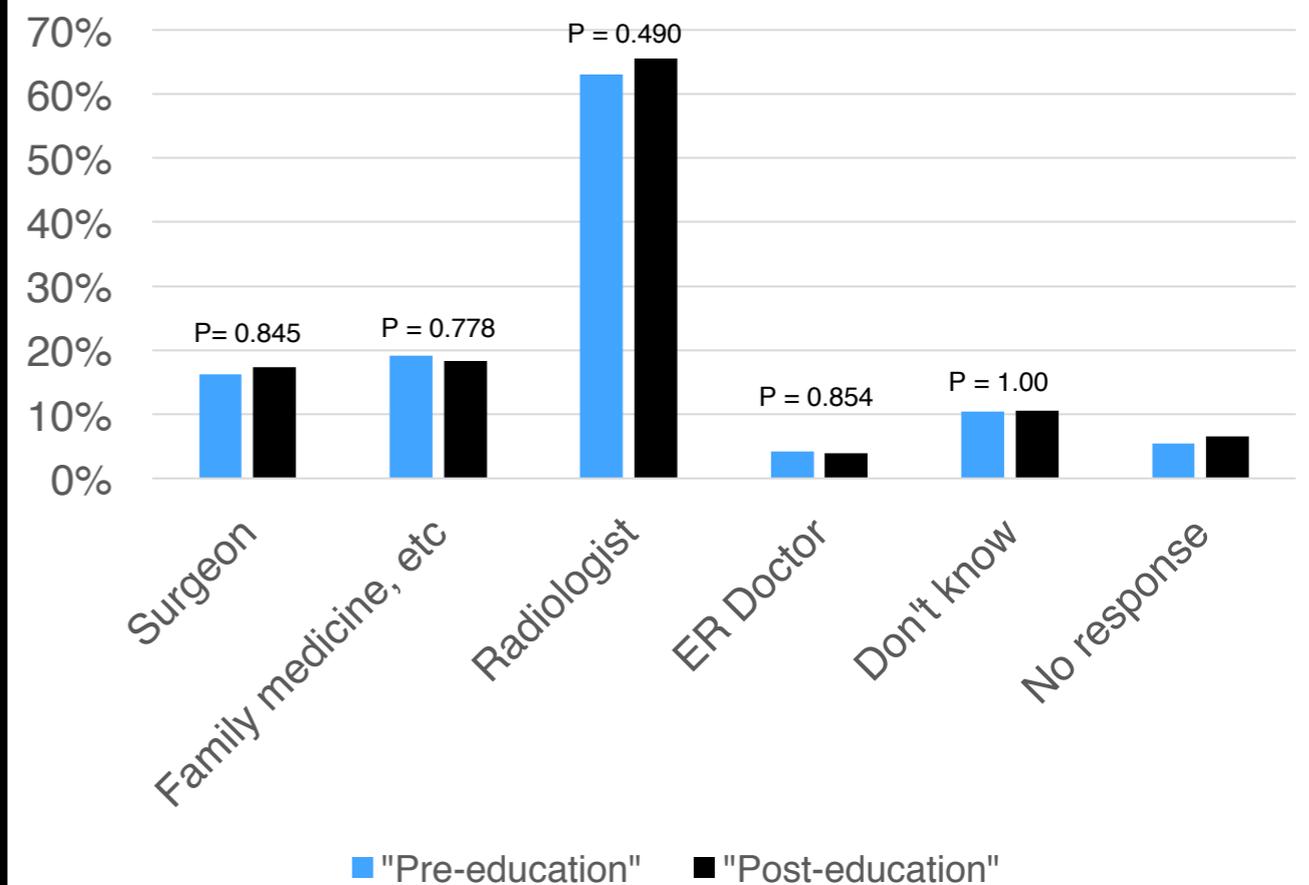
- 75 (35.7%) “pre-education” versus 158 (47.7%) “post education” ( $p < 0.002$ ) patients believed that a radiologist was a doctor.
- 267 (56%) “pre-education” versus 161 (48.6%) “post-education” ( $p < 0.001$ ) patients thought a radiologist was a technologist.

# Results

## What is the radiologist's primary responsibility?



## Who formally interprets your x-ray, etc.?



\* Adds up to more than 100% as some patients provided more than one answer

# Discussion

- The majority of patients have a limited, often skewed concept of the radiologist's role in health care.
- Simple measures can aid in educating patients to improve perceptions locally.
- Although education improves patient understanding of the radiologist's role, there are persistent misconceptions.

# Limitations

- Results are from a single academic institution, so results may vary with other practices and patient populations.
  - A large portion of our patients were highly educated with a college degree or higher, which may underestimate expected results in a different population subset.
- Data from surveys was collected manually with written paper surveys.
  - Some patients did not complete the entirety of each survey.
  - Some patients selected multiple answers for questions where a single response was indicated.
  - Not all patients entering the waiting room were requested to complete the survey.

# Further Inquiry

- Given the discrepancy between our findings and the limited amount of research available on the topic, additional evaluation with larger populations and multi-center studies are warranted.
- Further investigation could involve more extensive marketing and education campaigns as ours was restricted to a single general radiology department waiting room.

# References

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