

FOCUS ON RADIOLOGY MEDICAL EDUCATION: TEACHING PREFERENCES AMONG RADIOLOGISTS AND RESIDENTS IN PRIVATE AND PUBLIC RADIOLOGY DEPARTMENTS IN PAKISTAN

Ranish Deedar Ali Khawaja,¹ Naila Nadeem,² Madiha Beg²

¹ Medical College, Faculty of Health Sciences, Aga Khan University, Karachi, Pakistan

² Department of Radiology, Aga Khan University Hospital, Karachi, Pakistan

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Sir,

Dedicated radiology teaching is an integral part of both undergraduate and postgraduate medical training. Early exposure of good quality radiology instruction in medical school pays positively to the profession of radiology.¹ There is a dearth of well-organized and structured radiology teaching programs in most institutions of Pakistan.² We primarily aimed to determine the current status of teaching duties, and methodologies in radiology teaching departments in Pakistan.

We surveyed radiologists and radiology residents in two each of private and public teaching hospitals in Karachi, Pakistan. A component of our study aimed to determine the teaching preferences in both undergraduate and postgraduate radiology education. We hypothesized that differences exist in teaching preferences among private and public radiology departments. Differences may exist at the level of gender, designation and prior teaching experience and skills. We enrolled 121 available radiologists and residents in the participating institutions. The response rate was 78.51% (N=95/121).

Overall, radiologists preferred teaching residents followed by medical students. Residents preferred teaching their junior residents followed by radiographers/radiology staff and medical students (Tab.1). Radiologists were significantly more likely to teach undergraduate medical students than residents (92% vs. 52%, chi-square value: 17.471, df:1, p-value= < 0.001). Baker et al. surveyed radiology chairpersons

in the United States and reported that resident instruction was higher than educating students and fellows.³ However, another US study showed that the majority of teaching commitment was shown for medical students followed by residents and fellows.⁴

Training groups	Radiologists N=39	Residents N=56	Chi-square value	df*	P-value§
Fellows, n (%)	27 (69)	05 (09)	37.424	1	<0.001
Residents in radiology, n(%)	39 (100)	41 (73)	12.405	1	<0.001
Residents in other specialties, n(%)	31 (79)	12 (21)	31.278	1	<0.001
Undergraduate medical students, n(%)	36 (92)	29 (52)	17.471	1	<0.001
Elective medical students, n (%)	33 (85)	29 (52)	10.930	1	0.001
Other radiology staff e.g. radiographers, technicians etc., n(%)	28 (72)	31 (55)	2.639	1	NS°
Colleagues, n (%)	30 (77)	36 (64)	1.435	1	NS°

* Degree of freedom

§ P-value calculated via Pearson's Chi-square test

° NS: Non-significant

Table 1: Teaching preferences among various training groups by radiologists and residents in teaching hospitals, (N=95)

Male respondents were significantly more likely to teach residents than female respondents (97% vs. 73%, chi-square value: 10.710, df:1, p-value =0.001). No significant differences exist in teaching undergraduate medical students among males and female respondents. Both radiologists and residents in private teaching hospitals were significantly more involved in teaching all training groups their colleagues in public teaching hospitals (Tab.2).

Correspondence: Ranish Deedar Ali Khawaja
A-602, Al-Aman Housing Society,
Gulshan Iqbal, Block 14,
Karachi 75300 Pakistan.
Tel: 92 21 34121800
E-mail: ali.ranish@gmail.com

Training groups	Respondents in private teaching hospitals N=61	Respondents in public teaching hospitals N=34	Chi-square value	dF*	P-value§
Fellows, n (%)	27 (44)	05 (15)	8.538	1	0.003
Residents in radiology, n(%)	55 (90)	25 (73)	4.543	1	0.030
Residents in other specialties, n(%)	35 (57)	08 (23)	10.095	1	0.001
Undergraduate medical students, n(%)	50 (82)	15 (44)	14.475	1	<0.001
Elective medical students, n (%)	47 (77)	15 (44)	10.444	1	0.001
Other radiology staff e.g. radiographers, technicians etc., n(%)	48 (79)	11 (32)	19.916	1	<0.001
Colleagues, n (%)	55 (90)	11 (32)	33.070	1	<0.001

* Degree of freedom

§ P-value calculated via Pearson's Chi-square test

Table 2: Teaching preferences compared private and public teaching hospitals, (N=95)

Having prior training in teaching skills was significantly associated with lower teaching commitment towards fellows (p-value= 0.01), radiology residents (p-value= 0.01), undergraduate medical students (p-value= 0.02), radiology staff and radiographers (p-value=0.05). Having prior teaching experience was significantly associated with higher teaching commitment towards fellows, other specialty residents, undergraduate medical students, and colleagues.

In conclusion, both radiologists and residents in our radiology departments are involved in teaching. Radiologists prefer teaching residents, and residents prefer teaching their junior residents. Radiologists are more likely to teach medical students than residents. Our study demonstrated that male gender, practice in a private teaching hospital, and prior teaching experience is significantly associated with increased level of teaching activities in the department.

References

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Errata:

There were errors in the labelling of the Figures in the article titled "Radiographic Appearances of Rotator Cuff Tear by Employing MR Imaging Techniques to find the Degree of RCT" By Sajjad, Waheed and Zaidi. Figure 1: Read caption Figure: 4
Figure 4: Read caption Figure: 3
Figure 3: Read caption Figure 1
Corrected version has been uploaded to the website. We apologise for this inadvertent error.