

ORGANIZATION OF RESIDENTS RESEARCH ACTIVITIES: AN AUDIT OF RADIOLOGY TRAINEES PERCEPTION

Shaista Saeed Afzal, Imrana Masroor

Department of Radiology, Aga Khan University Hospital (AKUH), Karachi, Pakistan.

PJR July - September 2019; 29(3): 202-204

ABSTRACT

The academic radiology departments as well as radiology societies promote residents early research training with the aim to develop researchers who are skilled to carry out hypothesis driven research. **OBJECTIVE:** The purpose of the audit was to determine the resident's perception regarding the organization of the research activities for trainees in the radiology department of an academic institution. **METHODOLOGY:** This audit was conducted in the department of radiology AKUH from 1st to 31st November 2018. A survey questionnaire was designed and circulated to all residents in the radiology department of AKUH to determine their perception regarding the organization of the research activities for trainees in the department. A Likert –scale format was designed to assess resident's response. **RESULTS:** The response rate was 63%. The responses to the questions revealed that the residents were satisfied with the provision of statistical help (n=14), and the availability of latest journals (n=13) and up to date text books in the department (n=10). In response to provision of protected time for research, almost half (n=7) responded that no dedicated time is allocated for research. In response to availability of mentors for research activity 73 % (n=11) residents responded positively. **CONCLUSION:** The survey carried out to determine the resident's perception of the organization of research activities in an academic department highlighted the deficiencies that needs to be addressed to improve and enhance the resident's research training and output.

Background

Medical imaging has become an essential tool for patient's diagnosis and treatment response evaluation. The emergence of new imaging technologies like CT, MRI, PET etc. over the last 30 years has led to focus on modality specific imaging signs of disease leading to descriptive research that led to further development and maturation of these sophisticated imaging modalities.¹ The academic departments as well as radiology societies promote residents early research training with the aim to develop researchers who are skilled to carry out hypothesis driven research.²

However, the radiology residents encounter many challenges in their research efforts that includes clinical demanding rota resulting in time constraints,

limited protected research time availability and lack of mentorship. In addition, the lack of administrative and physical infrastructure also influences resident's efforts and involvement in research.³

Objective

The purpose of the audit was to determine the resident's perception regarding the organization of the research activities for trainees in the Radiology department of an academic institution

Methodology

This audit was conducted in the department of radiology AKUH from 1st to 31st November 2018.

Correspondence : Dr. Shaista Saeed Afzal
Department of Radiology,
Aga Khan University Hospital (AKUH),
Karachi, Pakistan.
Email: shaista.afzal@aku.edu

Submitted 23 Augsut 2019, Accepted 17 September 2019

A survey questionnaire was designed and circulated to all residents in the radiology department of AKUH to determine their perception regarding the organization of the research activities for trainees in the department.

A Likert - scale format was designed to assess resident's response. The survey comprises of questions as below:

- availability of dedicated research faculty for help and guidance in their research related endeavors
- allocation of protected time

- availability of statistical help, latest text books and journals

- Involvement of consultants/mentors in the department's research activity for support, encouragement, advice, ideas etc.

- involvement of trainees in research related activities like conferences

- provision of support provided to trainees for conference leaves, monetary support etc.

Statistical analysis:

Descriptive analyses was performed and the frequencies were determined for the responses to each questions

Results

A total of 15 out of 24 residents responded with response rate of 63%.

The responses to the questions revealed that the residents were satisfied with the provision of statistical help (n=14), and the availability of latest journals (n=13) and up to date text books in the department (n=10). They were aware of the presence of a research committee in the department (n=13) but most of them did not know about its organization details and meetings (n=5).

In response to provision of protected time for research, almost half (n=7) responded that no dedicated time is allocated for research. In response to availability of mentors for support, encouragement and advice regarding research activity 73 % (n=11) residents responded positively. For the question on residents involvement in research related activities and conferences and provision of monetary support/leaves for conferences etc. almost half (n=8) responded about the deficiency of such support.

Discussion

Radiology resident's pursuit of research is intrinsically challenging as limited dedicated time is allowed for research due ever increasing clinical responsibilities. Surveys have shown that less than 25% of residents are provided with protected time for research.³ In the present survey almost half of residents responded about the non-provision of protected for research. In our department two months were allotted for research to each resident and during this time they are expected to complete their dissertation and work on other research projects. However, due to clinical demands the residents also have to undergo displacements during this time period and hence the above response by residents is not 100% as expected by the provision of research month.

Proper physical and administrative structure is crucial for facilitation of departmental and institutional research. Formation of interdisciplinary teams not only enhances the research productivity but also facilitates the provision of resources for this purpose. An important component to enhance resident's research is the provision of monetary support and funding. This can be achieved through advocacy and effort for increased funding from resources like National Institutes of Health (NIH) /seed grants etc. The funds are thus utilized to provide space for equipment and laboratories, personnel like technologists, experts in informatics and statisticians etc and for documentation of methodology and results.⁴

An important and somewhat forgotten component of resident's research skill is mentorship. Provision of an academic background, factual feedback and protection from departmental distractions and politics are important components of mentorship programme. Important aspects of residents mentoring in academia and research are involvement of residents in research assignments, provision of guidance and support for projects completion and for manuscript writing⁵ and hence creating a research culture in a department.⁶ In the present survey, majority (n=11) responded positively to availability of a robust mentorship support to the residents.

Provision of a supportive environment for radiology residents is important for motivation to career in academics and meet the growing needs of biomedical and imaging technology and research.

Conclusion

The survey carried out to determine the resident's perception of the organization of research activities in an academic department highlighted the deficiencies that needs to be addressed to improve and enhance the resident's research training and output.

Conflict of Interest: Declared None

References

1. Arenson RL, Dunnick NR, Hillman BJ. Time for change: new emphasis on training for radiology research. *Academic radiology*. Jun 2002; **9(6)**: 695-9.
2. Yu JP, Kansagra AP, Thaker A, Colucci A, Sherry SJ, Subramaniam RM. Building for tomorrow today: opportunities and directions in radiology resident research. *Academic radiology*. Jan 2015; **22(1)**: 50-7.
3. Chithriki M. Research during radiology residency: challenges for the future. *Journal of the American College of Radiology*. May 2004; **1(5)**: 361-3.
4. Dunnick NR. Report of the 2002 Intersociety Commission meeting: radiology 2002 - today's research is tomorrow's practice. *American Journal of Roentgenology*. Apr 2003; **180(4)**: 925-8.
5. Sanfey H, Hollands C, Gantt NL. Strategies for building an effective mentoring relationship. *The American Journal of Surgery*. Nov 2013; **206(5)**: 714-8.
6. McLoud TC. Trends in radiologic training: national and international implications. *Radiology*. Aug 2010; **256(2)**: 343-7.