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Review Article

### LEVEL OF KNOWLEDGE AMONG MEDICAL STUDENTS ABOUT INTERVENTIONAL RADIOLOGY IN SAUDI ARABIA

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**Abstract:**

**Background:** *Interventional radiology (IR) is a clinical specialty that utilizes image guidance to perform minimally invasive diagnostic and therapeutic procedures. In the setting of rapid advances in the worldwide health care industry and healing arts, there has been a shift of the role of radiology from a peripheral entity to a much more involved, central core specialty. The aim of this study is to report the views of the level of awareness and knowledge of interventional radiology among medical students and medical interns in Saudi Arabia regarding their perception of IR.*

**Methods:** *A cross-sectional descriptive study was conducted among Medical students and interns in Saudi Arabia during the period from July to October 2018. An online questionnaire was used to assess level of awareness and knowledge of interventional radiology.*

**Results:** *A total of 71 participants from three different academic levels included in this study, 69% were female and 31% were male. Most of medical students and interns believe that their level of knowledge is poor. The source of respondents' information on IR was mostly radiology elective rotation followed by self-directed research, ward rounds and multidisciplinary meetings.*

**Conclusion:** *Steps such as education about interventional radiology and its services are required to improve the medical students and interns knowledge.*

**Keywords:** *Radiology, Saudi Arabia, Interventional Radiology*

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**INTRODUCTION:**

Interventional radiology (IR) is a clinical specialty that utilizes image guidance to perform minimally invasive diagnostic and therapeutic procedures [1]. In the setting of rapid advances in the worldwide health care industry and healing arts, there has been a shift of the role of radiology from a peripheral entity to a much more involved, central core specialty [2].

Now interventional radiologists see patients in clinics, provide clinical consultations to other doctors and actually manage patient care with respect to the therapies that they provide [3]. However, despite the growing of clinical dependence on interventionalist techniques, radiology teaching especially the interventional radiology is still highly under-represented in the medical school curricula.

The aim of this study is to report the views of the level of awareness and knowledge of interventional radiology among medical students and medical interns in Saudi Arabia regarding their perception of IR. Hopefully, this study will make change on the future of IR in Saudi Arabia by helping to attract more medical students to this field and increasing the awareness of a sub specialty of radiology.

**METHODOLOGY:**

A cross-sectional descriptive study was conducted among Medical students and interns in Saudi Arabia during the period from July to October 2018. An online questionnaire was used to assess level of awareness and knowledge of interventional radiology among medical students and medical interns at, the survey includes data about awareness, knowledge of IR procedure, route of training, hospital duties.

**Statistical Analysis**

The collected Data were entered and analyzed using the Statistical Package for Social Sciences (SPSS) statistical program version 19.

**RESULTS AND DISCUSSION:**

A total of 71 participants from three different academic levels included in this study, 69% were female (n=49) and 31% were male (n= 22). (Table 1) As shown in figure 1, most of female participants rating their level of knowledge in interventional radiology as poor level, and most of male participants rating there level of knowledge in interventional radiology as adequate. 16% of female participants and only 4% of male participants rate their level of knowledge as an excellent level. (Figure 1)

As shown in figure 2: most of 5th year medical students rate their knowledge as poor level, 44% of 6th year medical students and medical interns (40%) rate their knowledge as adequate.

As observed in table 2 (42.4%) of the participant ether complete or planning to complete an elective rotation in interventional radiology and about (39.4%) would consider a career in interventional radiology and only (28.4%) seen patients who were treated by interventional radiology.

Majority of the respondents did not think IR has outpatient clinics (56.3%), (45.1%) of the respondents did not think IR admit patients and (28.2%) think IR did not treat patients.

The source of respondents' information on IR was mostly radiology elective rotation (18.3%), self-directed research (15.5%), ward rounds and multidisciplinary meetings (9.9%) each. And about 23.9% had no exposure at all. (Figure 3)

Table 1: Characteristic of study participants

	Male	Female	Total
5th year	3	21	24
6th year	11	14	25
Interns	8	14	22
Total	22	49	71

Table 2: Assessment of participant's awareness about interventional radiology (IR).

	Yes	No	I don't know
Have you completed (or planning) an elective rotation in Radiology?	42.4	28.2	40.8
Would you consider a career in IR?	39.4	35.2	53.5
Have you seen patients who were treated by an IR?	28.4	36.6	5.6

Table 3: Assessment of participants believe about interventional radiology.

	True	False
Interventional radiologist has an outpatient clinic.	43.7	56.3
Interventional radiologists admit patients to the hospital.	54.9	45.1
Interventional radiologists do not treat patients at all.	28.2	71.8

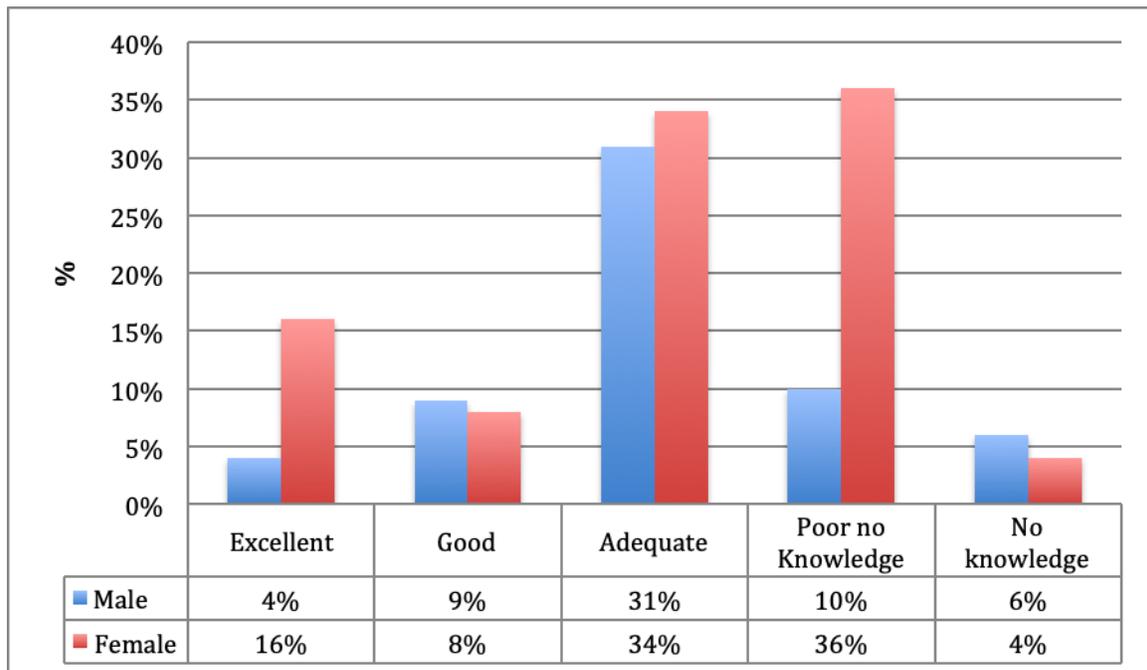


Figure 1: Comparison between male and female level of knowledge in interventional radiology according to gender.

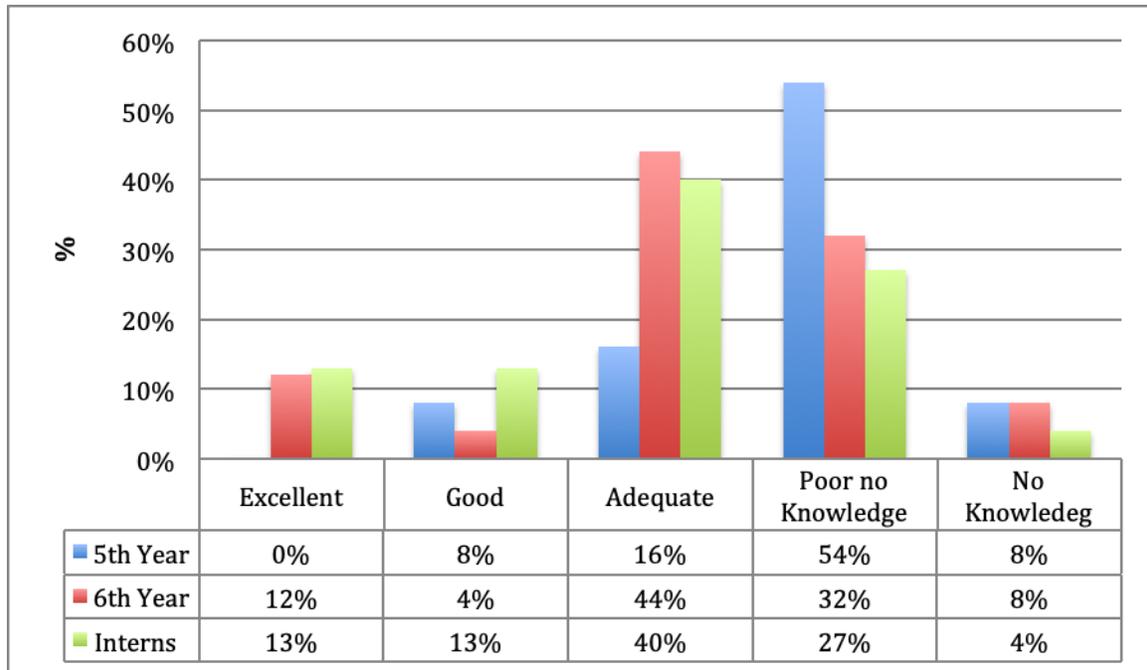


Figure 2: Comparison of level of knowledge according to academic level

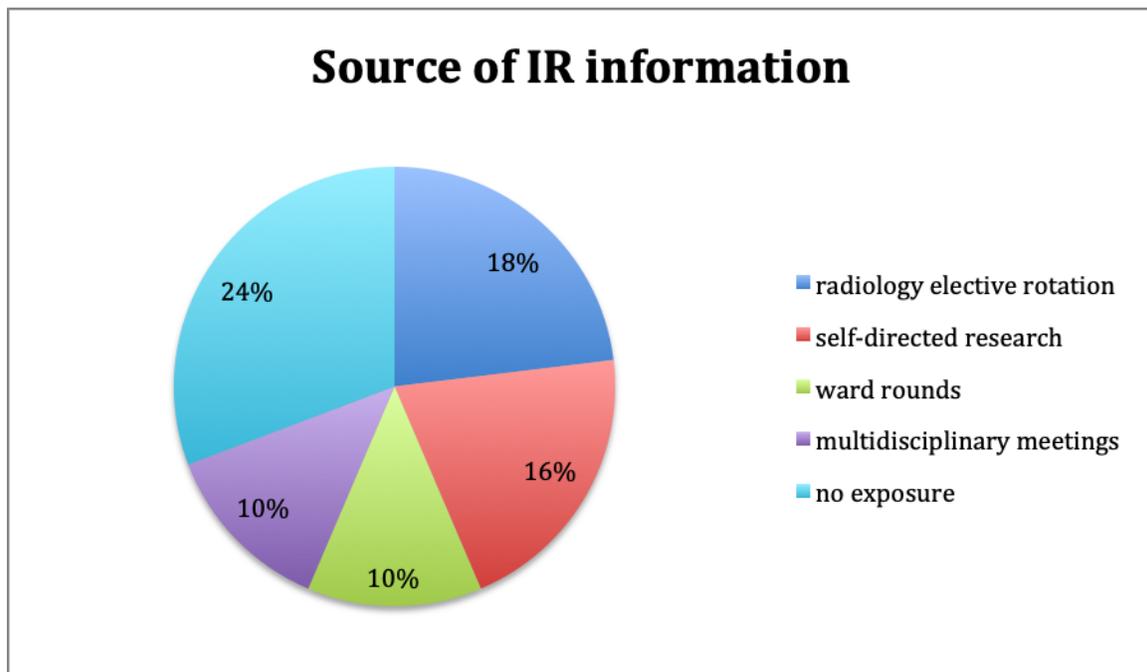


Figure 3: participants source of IR information

**CONCLUSION:**

Interventional radiology is an important specialty and providing a lot of services for patients. From our survey we notice that a lot of medical students and interns believe that their level of knowledge is poor, and this is may be due to low exposure to this particular specialty, lake of learning resources or

interventional radiology services not fully conducted in our area. Steps such as education about interventional radiology and its services are required to improve the medical students and interns knowledge.

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