



**ASSESSMENT OF SUDANESE RADIOGRAPHERS ATTITUDE AND PRACTICE
TOWARD PATIENT CARE IN SPECIAL INVESTIGATIONS.**

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ABSTRACT

Taking care of the patients in the special tests and in the remaining tests are the most important points that must be committed by specialists during the performance of their work in hospitals. The patients should know his or her rights and the specialist who works in the department of radiation taking into account these rights and work under it and therefore we have this experience is the search and investigation of the care of patients during the special examination in sections of radiation specifically (HSG) (is a radiologic procedure to investigate the shape of the uterine cavity and The shape and patency of the fallopian tubes. also known as uterosalpingography) and IVU (is a radiological procedure used to visualize abnormalities of the urinary system, including the kidneys, ureters, and bladder. also called an intravenous urogram) In light of this, we have visited several hospitals and health centres that carry out these tests about 343 respondents 113 are Radiographer (57 female+ 58 male) and 228 are Patients in the special investigation in the radiographic department were surveyed through online questionnaires. We have followed the work of these specialists practice and attitude through a questionnaire that we fill out according to the studied steps, as well as with the patient after their approval or approval from their parents if they are not qualified to fill the questionnaire. For a particular pattern, we collected all these data and analyzed them in survey analysis and placed the data in tables. We also found that are many specialists in Sudan apply the standards required in the radiology department of patient care and respect their rights and clarify them in event of ignorance of them.

INTRODUCTION

Clinical radiography interests scientific knowledge and technical skills with effective patient interaction to provide excellent patient care and useful diagnostic information. Radiographers, therefore, should remain sensitive to among patient needs through sufficient and amount of knowledge responsibility, professional attitude and highest technical skills (Campeau, F.E. 1999). The patient cares skills, ethical duties and professional attitude of radiographers include examine Patient with respect, dignity and keep patient privacy and confidentiality at all times (Peer, F. 2003). Although radiography student receives knowledge and sufficient information about patient care. One of the bedrock of a good radiography department is the high quality of care rendered toward patients. And the good services rendered to the patient by the radiographer refers or called patient care in the Xray department. In other words, the Practice standards are authoritative statements enunciated and promulgated by the profession for judging the quality of practice, service, and education. They include desired and achievable levels of performance against which actual performance can be measured (ASRT, 2006). But when there are no standards of patient care, everyone will behave according

to his values, So this may negatively affect the patient satisfaction (On the other hand the patient satisfaction arises from their appraisal of experience in hospital services and measuring patient satisfaction in hospital has become a global phenomenon (Gill L, White L,2009)(Hood C.,1980). , So that's may lead to a deficit in the cooperation between the radiographer and Patient.

MATERIAL AND METHOD

This is a cross-sectional descriptive study in which 343 respondents 113 are Radiographer (57 female+ 58 male) and 228 are Patients in a special investigation in the radiographic department were surveyed. A quantitative research study was conducted at Khartoum state in various special Radiographic Department. It was carried out in the period between 15/4/2019 to6/3/2020. consisted of radiographers who were working in among departments of the Khartoum state in Sudan and patients who were referred for special radiographic examinations.

Sample of Radiographers in Departments completed the questionnaire; resulting in a total of one hundred and Thirteen Radiographers participating in the assessment were selected randomly, regardless of their age (between less than 24 up to more than 50), race or gender. two

hundred and twenty-eight patients who had undergone special radiological examination were surveyed to understand their level of satisfaction with the ethical and professional attitude of radiographers after the examination.

Surveys are used to identify trends in attitudes, and practice. Based on this information a questionnaire was deemed the most appropriate method for data collection (gill I, white I,2009)(hood C1980). The questionnaires consisted of four sections each section contains a certain number of questions. The questions were formulated after reviewing the American Standard (ASRT) for attitude and practice and patient Satisfaction standard in the USA.

All the questions allowed for Very dissatisfaction, dissatisfaction, satisfaction, very satisfaction and Neutral option. Only a few open-ended questions were included to gain information on the patients' or Radiographer specific opinions and preferences. According to (gill I, white I, 2009)(hood C.,1980) questionnaires need to be pre-tested, meaning pilot exercise should be carried out.

The research questionnaire was piloted before data collection. Sixteen Radiographers at the National University in Sudan participated in the pilot study and they were requested to provide feedback on the clarity of the questions in the questionnaire.

The researcher also consulted four radiographers for feedback on the relevance of the content of the questionnaire and the questionnaire was then finalized. The questionnaire design by use GOOGLE FORUM 2019 to make Online Surveys at (<https://goo.gl/forms/vjWrmEEVrmU0kbDJ2>) for radiographers and Patients (<https://goo.gl/forms/kKQX519DVOoGj7ru2>) as Official link.

Data collection took place through questionnaires that were distributed via social media, SMS and a direct survey by using smartphones to 113 randomly selected Radiographers. 228 Patients also were surveyed directly after they had undergone radiographic examinations. Data analysis was achieved through the use of Microsoft Excel.

The radiographer and Patients had the right to refuse to complete the questionnaires. Radiographers and Patients willingly completed the questionnaires and shall not coerce into doing so. No identification of them was required, which ensured anonymity.

RESULT

This study adaptive as a cross-sectional descriptive design. To assesses the attitudes and practice of radiographers towards their patients in special

procedures (IVU&HSG) also the patient's satisfaction with it. Statistical analyses of data were performed using Excel Microsoft 2007 Data were expressed as percentage and frequencies. The findings from the questionnaires are presented in the following set of tables and figures.

The questionnaires (for radiographers)
Table (4-1): demonstrate Count of Gender.

Gender	Male	57	50.4 %
	Female	56	49.6 %
		113	100

Table (4-2): demonstrate the Age Groups for the total data.

Age Group	Less than 24 years	28	24.8 %
	(24- 29) years	40	35.4 %
	(30 - 34) Years	28	24.8 %
	(35 - 39) Years	3	2.7 %
	(40 - 49) Years	6	5.3 %
	More than 50 Years	8	7.1 %
		113	100

Table (4-3): demonstrate the qualification of the participants.

Qualification	B.Sc	56	49.6 %
	M.Sc	53	46.9 %
	Diploma	0	0 %
	Phd	4	3.5 %
		113	100

Table (4-4): demonstrate the Years of experience of the participants.

Years experience of	Less than 2 Years	25	22.1 %
	(2- 4) Years	38	33.6 %
	(5 - 10) Years	35	31 %
	(11 - 19) Years	6	5.3 %
	More than 20 Years	9	8 %
		113	100

***Classification of Department?**

113 responses

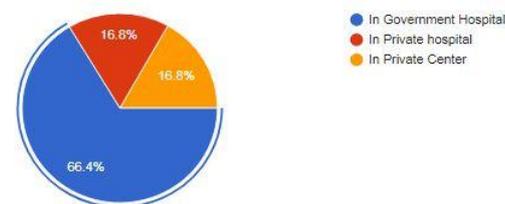


Fig (4-1): Pie chart demonstrate the classes of the special investigation department.

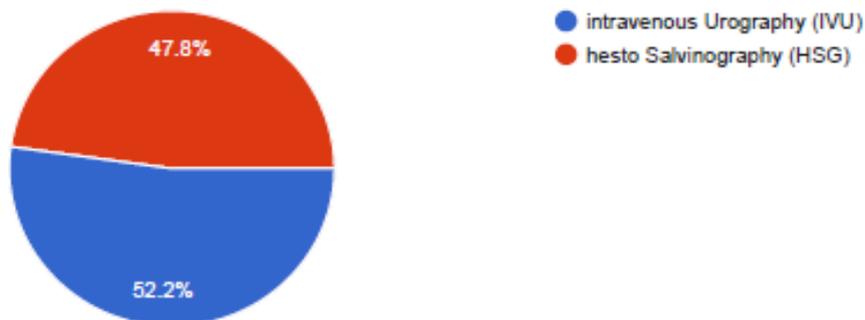


Fig (4-2): Pie chart demonstrates the types of investigation were done.

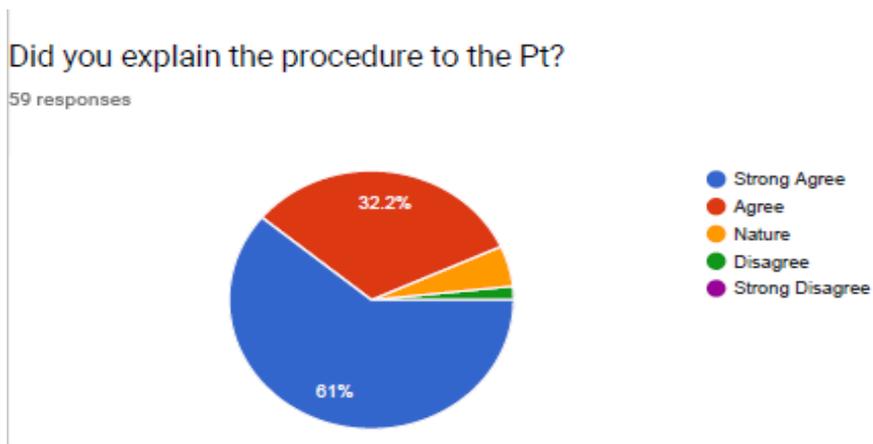


Fig (4-3): Pie charts demonstrate the first professional question (IVU) for radiographer.

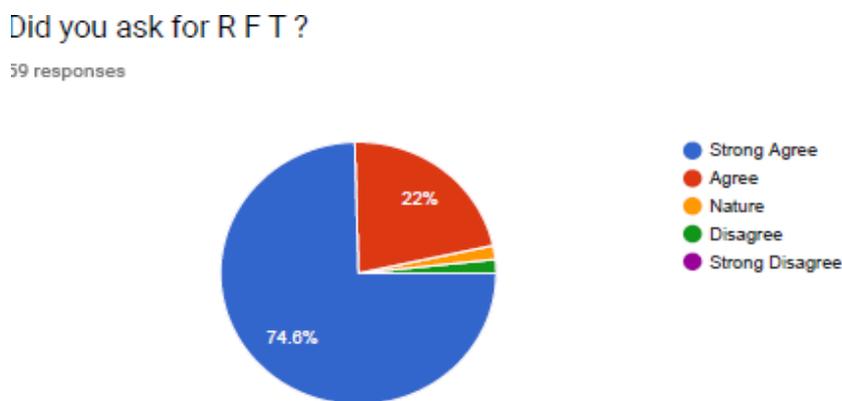


Fig (4-4): Pie chart demonstrates the second professional question (IVU) for radiographer.

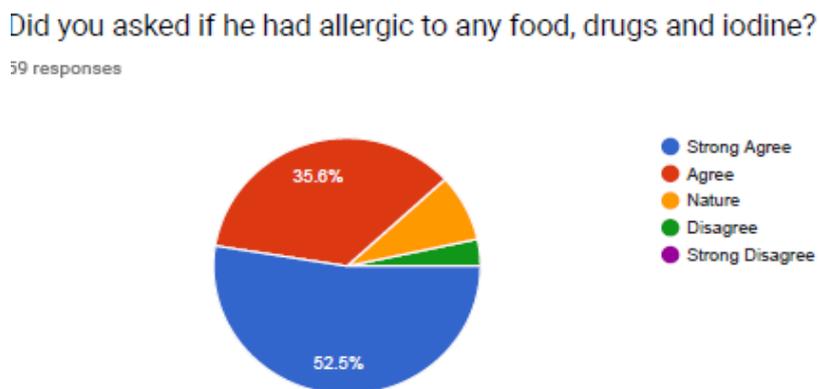


Fig (4-5): Pie chart demonstrate the third professional question (IVU) for radiographer.

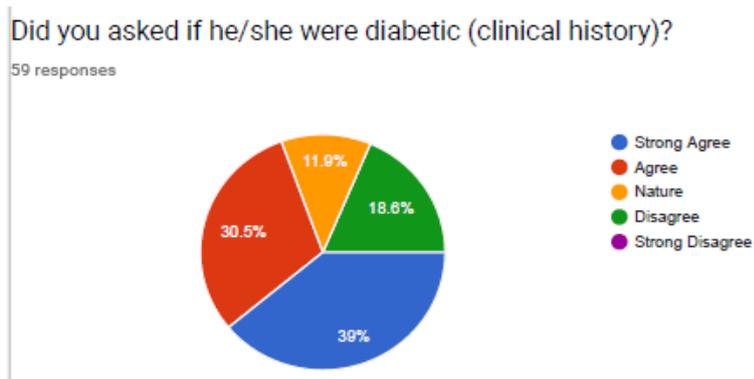


Fig (4-6): Pie chart demonstrate the 4th professional question (IVU) for radiographer.

Did you asked if he/she had any abdominal surgery, trauma or pain Before (clinical history)?

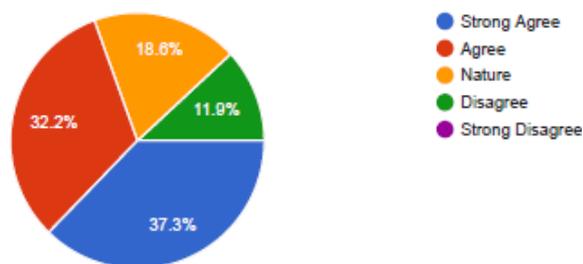


Fig (4-7): Pie chart demonstrate the 5th professional question (IVU) for radiographer.

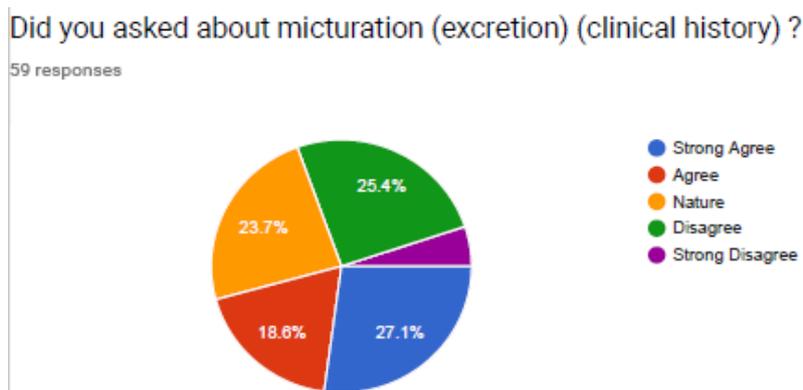


Fig (4-8): Pie chart demonstrate the 6th professional question (IVU) for radiographer.

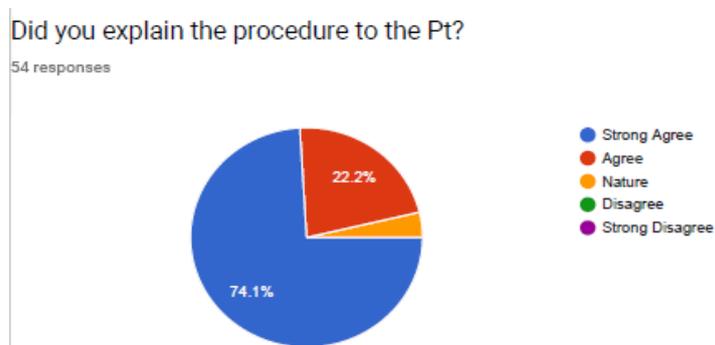


Fig (4-9): Pie chart demonstrate the First professional question (HSG) for radiographer.

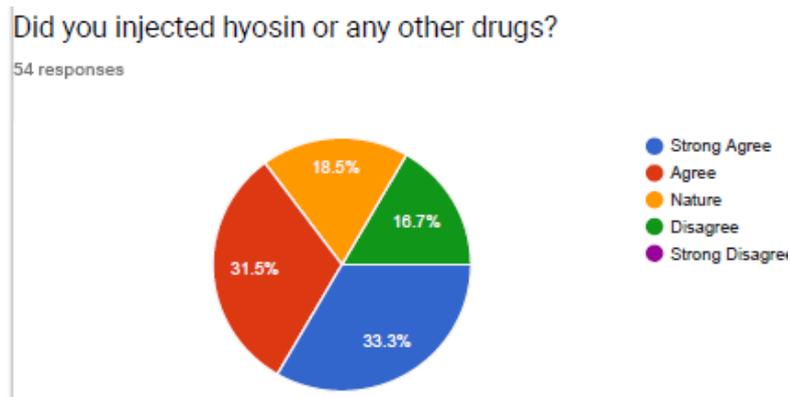


Fig (4-10): Pie chart demonstrates the second professional question (HSG) for radiographer.

Did you ask if she had pelvic inflammation or any purulent discharge during?

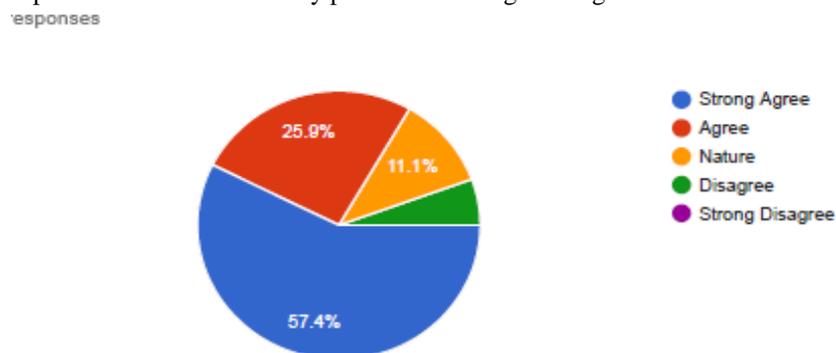


Fig (4-11): Pie chart demonstrate the third professional question (HSG) for radiographer.

Do you asked her if she had any pain or bleeding after the procedure ?

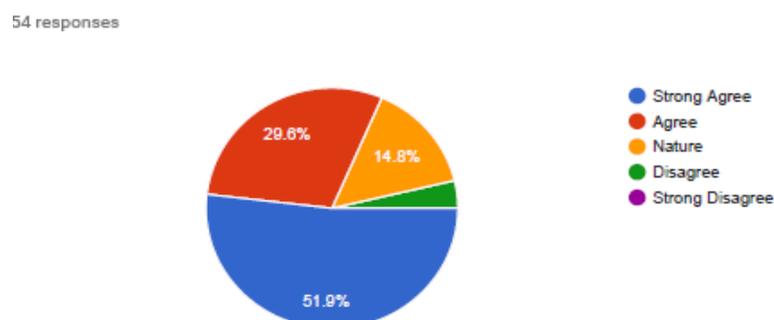


Fig (4-12): Pie chart demonstrates the 4th professional question (HSG) for radiographer.

Did you ask if she had any significant bleeding before she left?

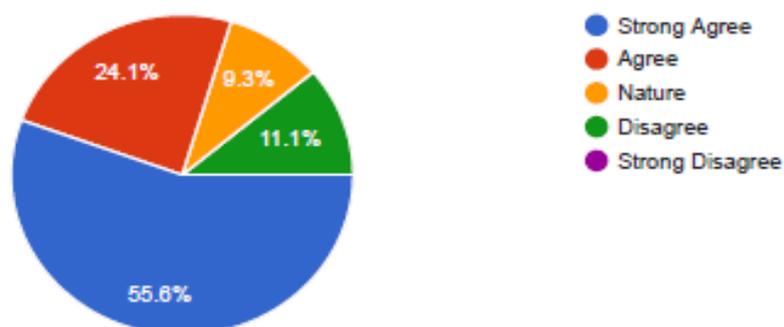


Fig (4-13): Pie chart demonstrate the 5th professional question (HSG) for radiographer.

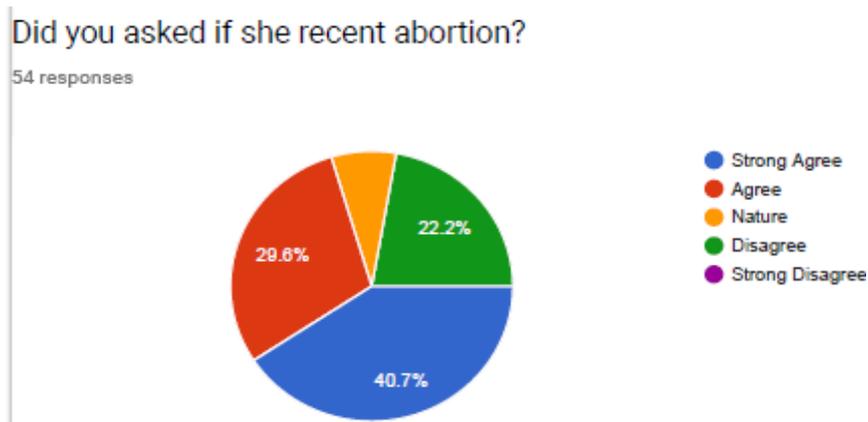


Fig (4-14): Pie chart demonstrate the 6th professional question (HSG) for radiographer.

Did you ask if she had any sensitivity to contrast media?

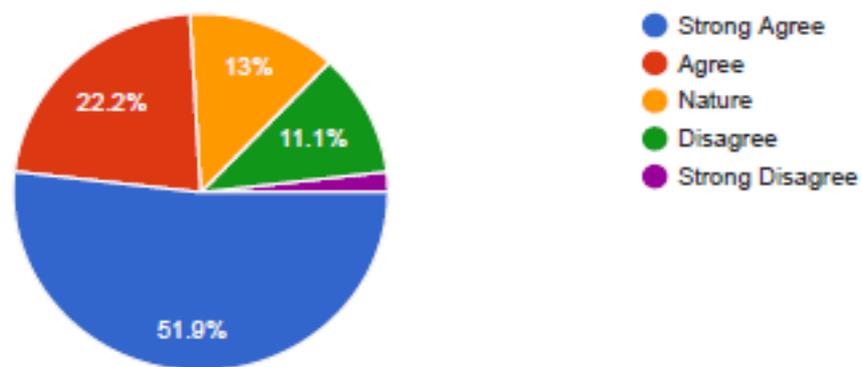


Fig (4-15): Pie chart demonstrate the 6th professional question (HSG) for radiographer.

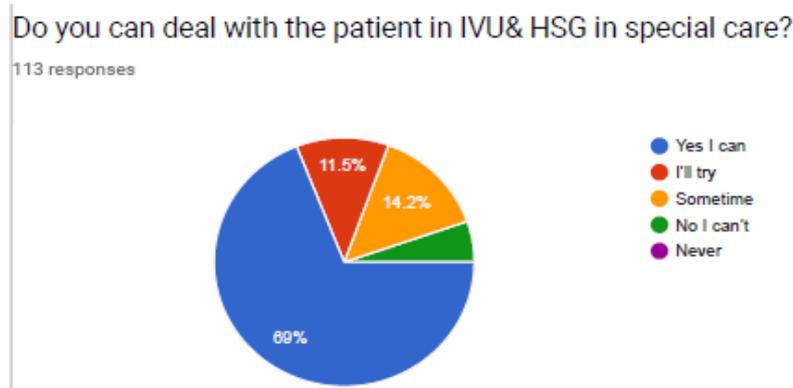


Fig (4-16): Pie chart demonstrate the Attitude question of (HSG & IVU) for radiographer.

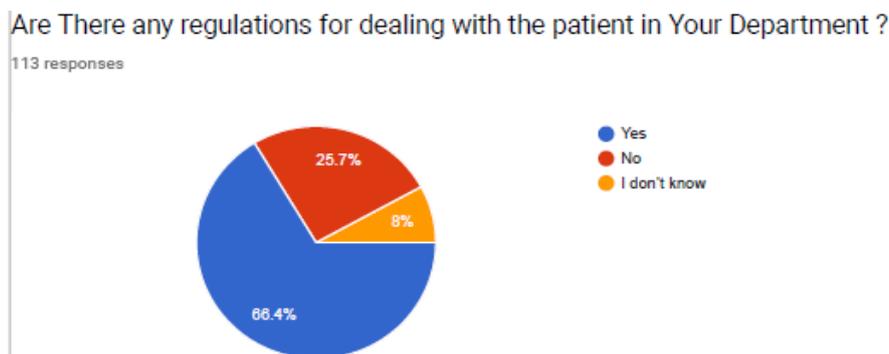


Fig (4-17): Pie chart demonstrate the Professional Attitude question of (HSG & IVU) for radiographer.

If There Is a Problem(like misunderstanding) with a patient , what is your Reaction ?

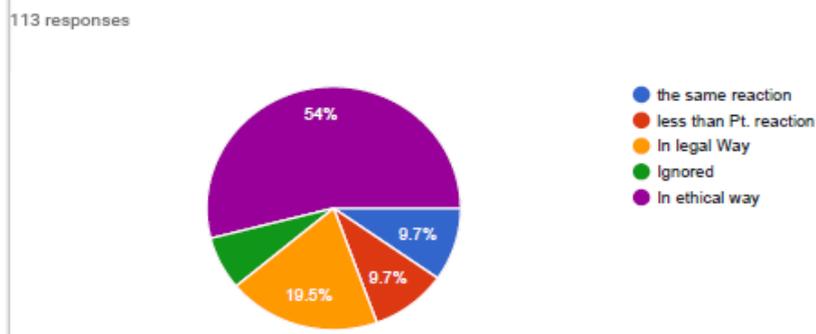


Fig (4-18): Pie chart demonstrate the Professional Attitude question of (HSG & IVU) for radiographer.

You Can Deal with Patient with Different Situations, Like :Patient with mental Disorders, Aggressive Patient, Pediatric

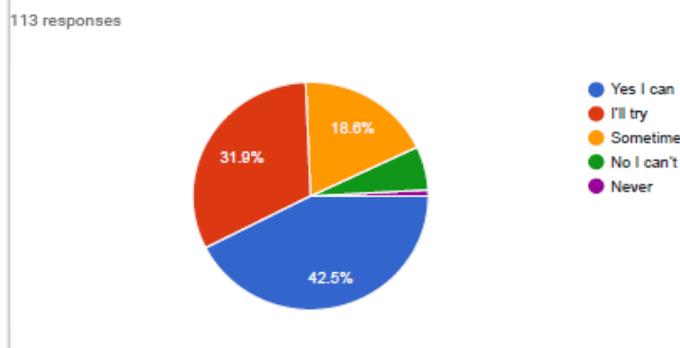


Fig (4-19): Pie chart demonstrate the Professional Attitude question of (HSG & IVU) for radiographer.

Do you applying Infection Control Procedure?

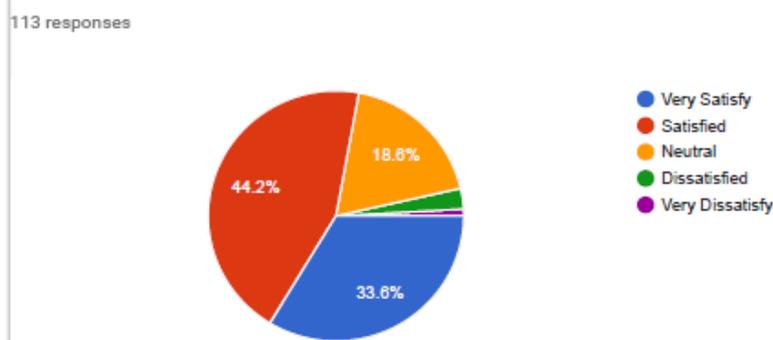


Fig (4-20): Pie chart demonstrate the Code of Conduct question Radiographer toward his/her Pt

Do you applying Radiation Safety Procedure ?

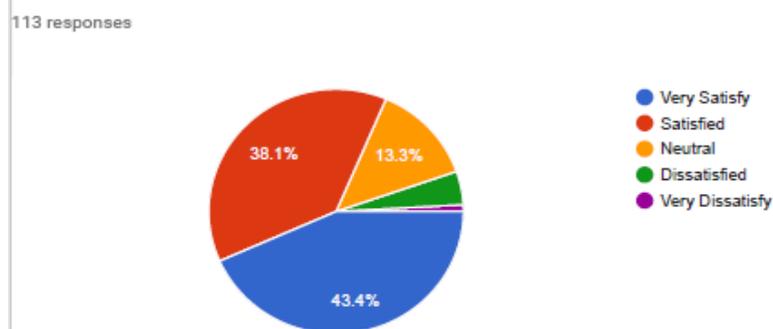


Fig (4-21): Pie chart demonstrate the Code of Conduct question Radiographer toward his/her Pt.

Do you keep the privacy of the patient during the examination

113 responses

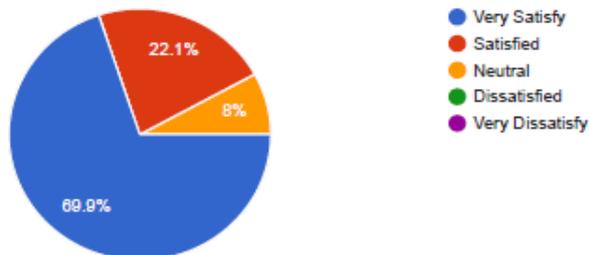


Fig (4-22): Pie chart demonstrate the Code of Conduct question Radiographer toward his/her Pt.

Do you think that the environment in Radiographic Depart. is suitable for perform the examination in Ideal Method ?

113 responses

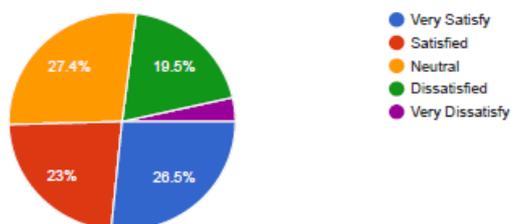


Fig (4-23): Pie chart demonstrate the Code of Conduct question Radiographer toward his/her Pt.

Do you performing the examination in Academic method (Technique) ?

113 responses

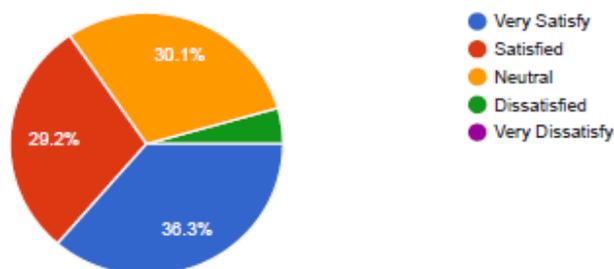


Fig (4-24): Pie chart demonstrate the Code of Conduct question Radiographer toward his/her Pt.

The questionnaires (for patient satisfactions)

Table (4-5): demonstrate Count of patient Gender.

Gender	Male	96	42.1%
	Female	132	57.9%
		228	100

Table (4-6): demonstrate Age Group of patient.

Age Group	Less than 24 years	28	12.3%
	(24- 29) years	69	30.3%
	(30 - 34) Years	66	28.9%
	(35 - 39) Years	35	15.4%
	(40 - 49) Years	22	9.6%
	More than 50 Years	8	3.5%
		228	100

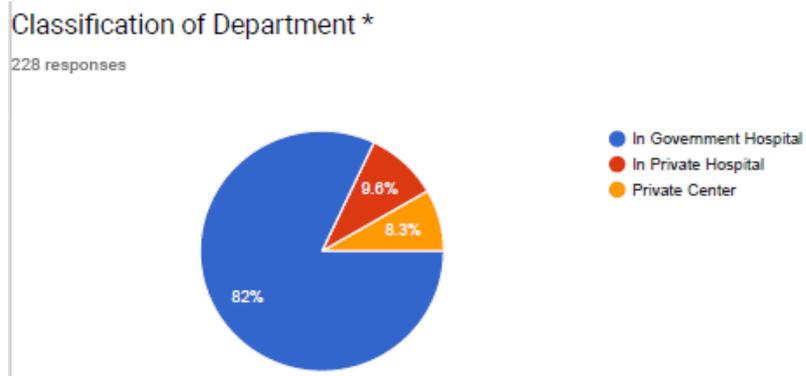


Fig (4-25): Pie chart demonstrate Department Classification which Pt were surveyed over there" Government hospital" has the highest value (82)%.

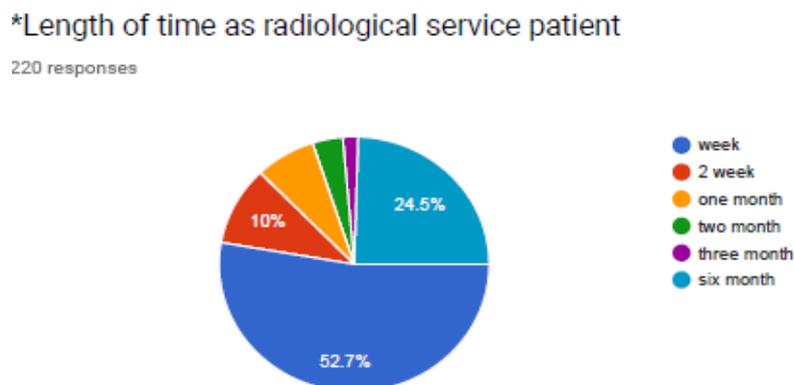


Fig (4-26): Pie chart demonstrate length time patient receive radiographic.



Fig (4-27): Pie chart demonstrate the Patient satisfaction toward scheduling and appointment service.

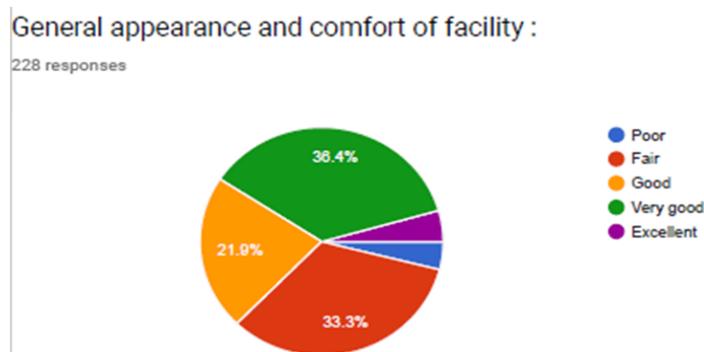


Fig (4-28): Pie chart demonstrate the Patient satisfaction toward department general appearance.

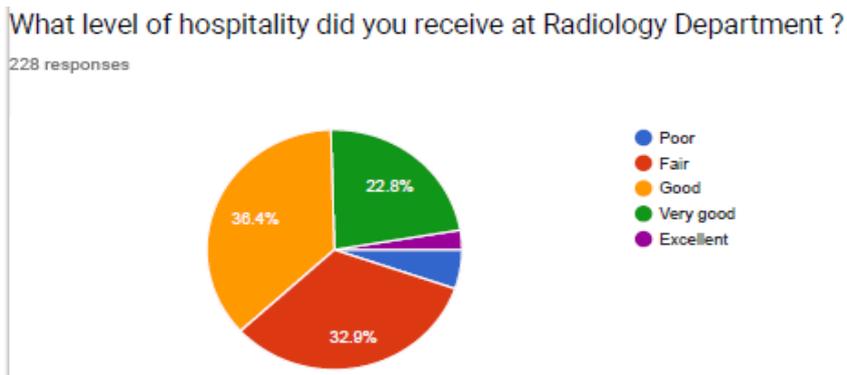


Fig (4-29): Pie chart demonstrates Patient satisfaction toward a level of hospitality in Radiographic Department.

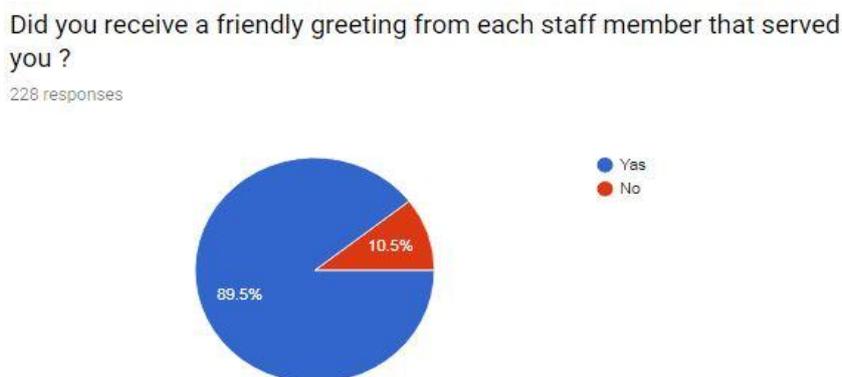


Fig (4-30): Pie chart demonstrates Patient satisfaction toward Staff member.

Table (4-7): frequent examination Done.

Investigation	IVU	128	56.1%
	HSG	100	43.9 %
	228	100	



Fig (4-31): Pie chart demonstrates the IVU procedure explained for patient

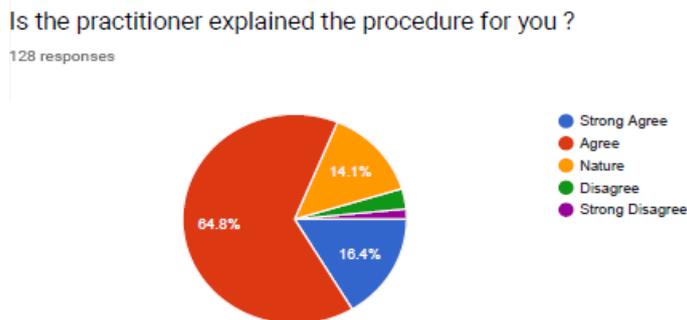


Fig (4-32): Pie chart demonstrates the history of the patient.

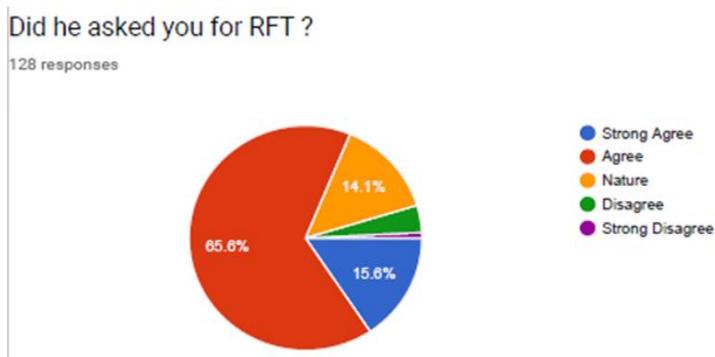


Fig (4-33): Pie chart demonstrates Patient verbally Preparation in (IVU) RFT.

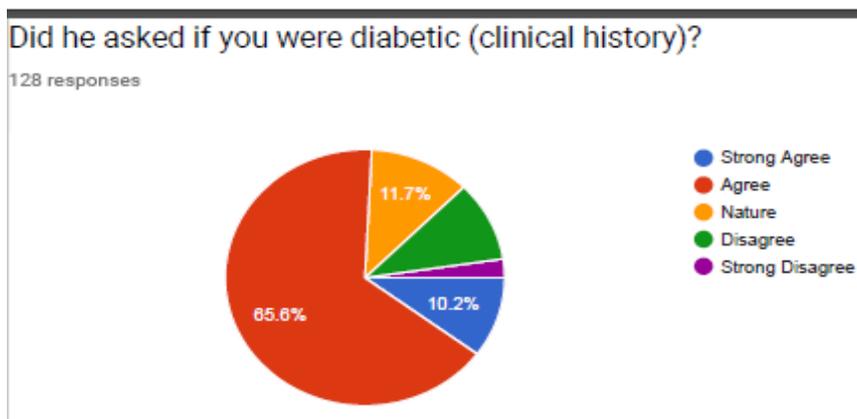


Fig (4-34) Pie chart demonstrates Patient Preparation in (IVU) Clinical History.

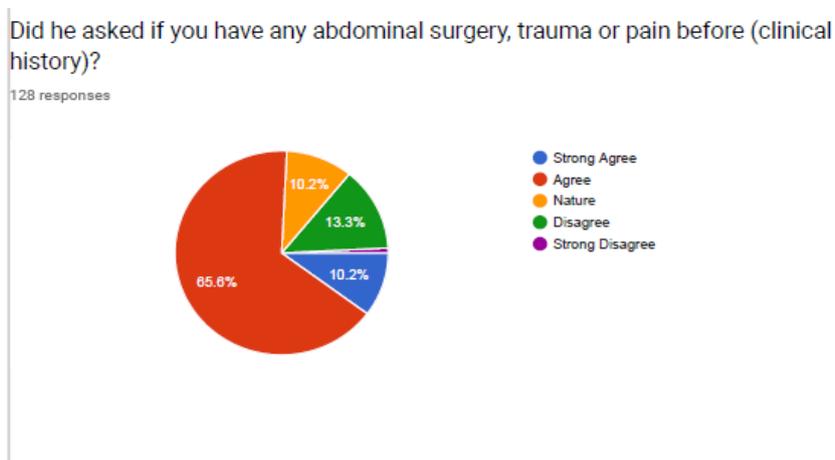


Fig (4-35) Pie chart Demonstrate Patient Preparation traumatic and abdominal clinical history of the patient.

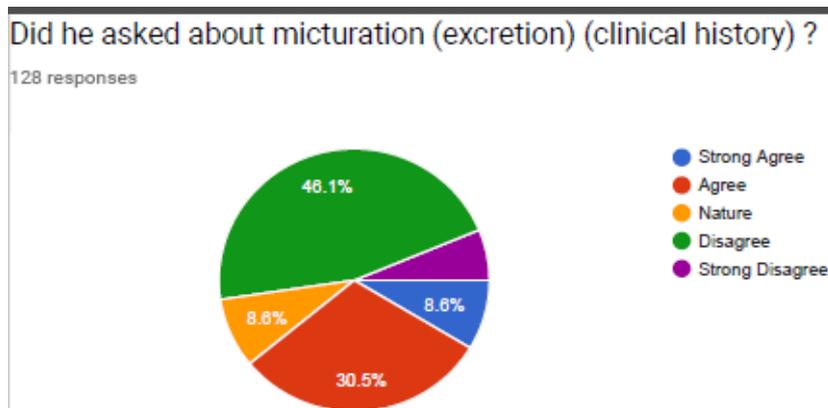


Fig (4-36) Pie chart Demonstrate Patient Preparation ability maturation (IVU).

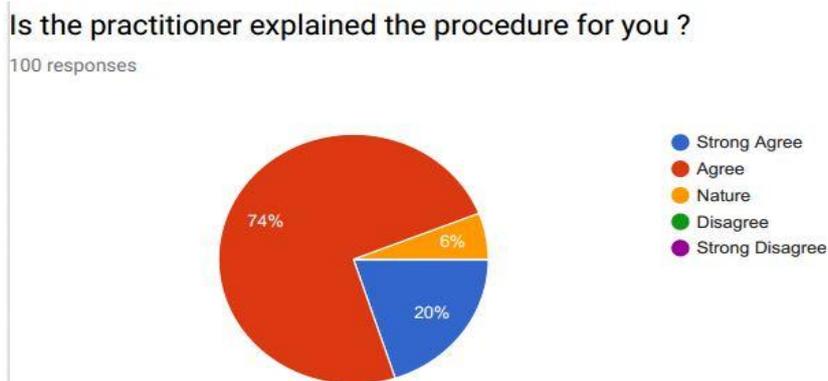


Fig (4-37): Pie chart demonstrates the IVU procedure explained for patient.



Fig (4-38): Pie chart demonstrates ask patient from allergic history.

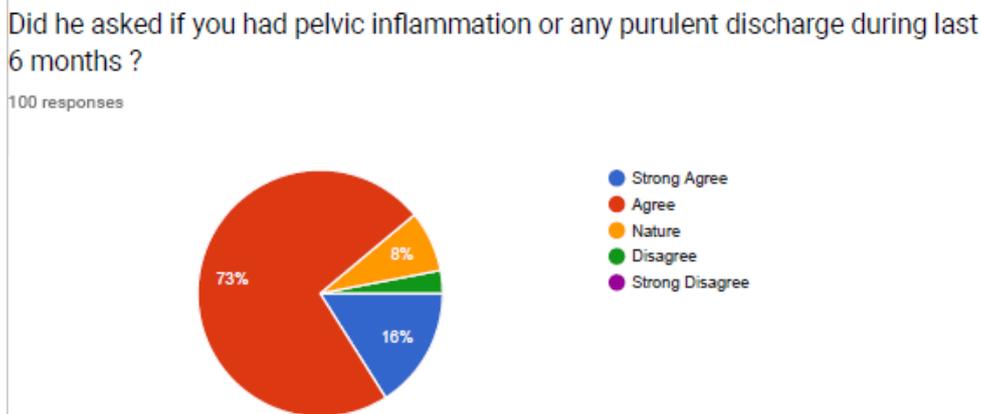


Fig (4-39) Pie chart Demonstrate Patient Preparation if he asked about history of pelvic inflammation or discharge during 6 months prior to the exam.

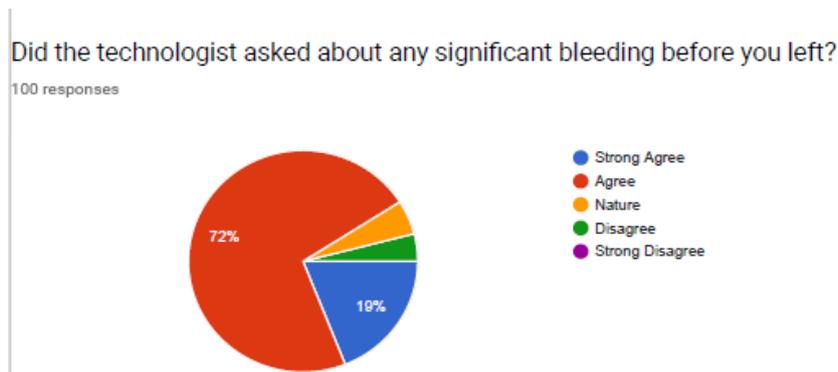


Fig (4-40) Pie chart Demonstrate Patient Preparation if he asked about bleeding before Patient left the department.

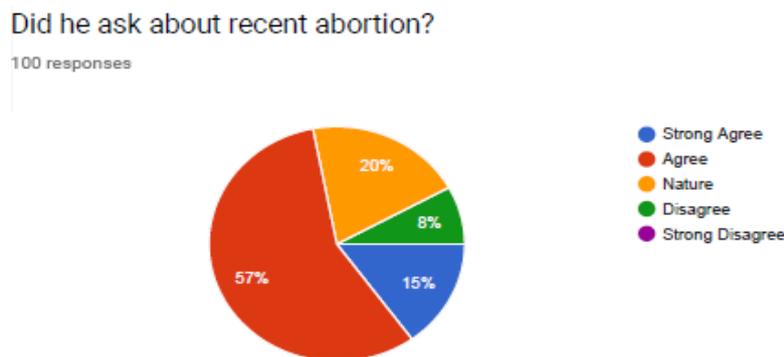


Fig (4-41) Pie chart Patient Preparation Shows (abortion) history of the patient.

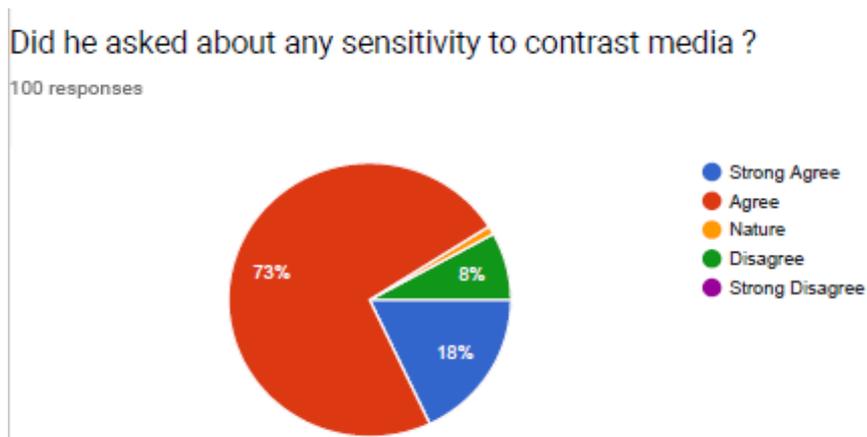


Fig (4-42): Pie chart Demonstrate if the RT asked patient about sensitivity to the contrast media.

DISCUSSION

In the present study, the questionnaires for radiographers as demonstrating in **Table (4-1)** statistical data presentation and the count of gender-equal 50.4% male radiographer and 49.6% female radiographer within age groups less than 24 to more than 50 years and the most frequent group (24-29) year equal 35.4 % **Table (4-2)** . **Table (4-4)** show the years of experience as a radiographer and the most frequent was 33.6 % for (2- 4) Years. **Fig (4-1)** most of the special investigation were done at government hospitals. **Fig (4-3)** Pie charts demonstrate the first professional question (IVU) for radiographer the answer was 61% radiographer strong agree with explanation the procedure to his/her patients as noted in (N Thomas el at ,2014). **Fig (4-4)** Pie chart demonstrates the second professional question (IVU) for radiographer. Radiographer the answer was 96.6% asked his/her patients from renal function test before the investigation (Smith's-2007). Above than 87.5% of radiographers are concern about discussing the clinical history with his/her patients Fig (4-5), Fig (4-6), Fig (4-7), and Fig (4-8). Which is much with (N Thomas el at, 2014).

Fig (4-9) Pie charts demonstrate the first professional question (HSG) for radiographer the answer was 96.3 % of radiographer does explain the procedures for his/her patients (Baramki T-2005) . In **Fig (4-10)**, **Fig (4-11)**, **Fig (4-12)**, **Fig (4-13)** and **Fig (4-14)** shows up to 80.6 % of radiographer concerns to ask the patient about

clinical history. **Figs (4-15)** demonstrate 74.3 % ask his/her patients about the sensitivity to contrast media like (Ljubin-Sternak el at – 2014) said.

In **Fig (4-16)**, **Fig (4-20)** and **Fig (4-21)** Pie charts demonstrate the Attitude question of (HSG & IVU) and the answer was 80 % of radiographer dealing with his/her patients in special care also up to 78 % applying the infection control and radiation safety procedure s with a special investigation, hence 92 % of radiographers keep the patient privacy during the examination (Ljubin-Sternak el at – 2014). **(4-23)** Pie chart demonstrates the Code of Conduct question Radiographer toward his/her Patients 42 % of radiographer guess the environment in the radiographic department it's not suitable to perform the special investigation.

questionnaires for patient satisfaction as demonstrated in **Table (4-5)** statistical data presentation and the count of gender-equal 42.1 % male patients and 57.9 % female patients within age groups less than 24 to more than 50 years and the most frequent group (24-29) year equal 30.3 % **Table (4-6)**. **Fig (4-25)** Pie chart demonstrate Department Classification which Patients were surveyed over there" Government hospital" has the highest value (82)%. The desired need for the measurement of patient satisfaction has been largely driven by the underlying politics of "new public management" (Hood C, 1995). The researcher found from (228) patient Randomly

selected . (84.8%) have fair feedback from scheduling and appointment service **Fig (4-27)**. **Fig (4-28)** most patients are not comfortable with the possibilities facility in the departments. Also (69%) Complain about the level of hospitality in radiographic departments **Fig (4-29)**. This is the opposite of what is required Experience in hospital services; it involves likes an dislikes which are internal and external to the patient s and also relate s to the extent to which general health care needs and condition-specific needs are met (*Campeau, F.E. 1999*).

as shown in **Fig (4-31) and (Fig (4-37)** the radiographer explained for both examinations i:e (IVH) (HSG) of up to (85%) patients was examined by them this is much with a mention in **Fig (4-3)**. This conflict with The National Patients Rights Charter makes provision that patients need to give informed consent for any procedure or examination. (*Peer, F. 2003*). **Fig (4-32)**, **Fig (4-33)**, **Fig (4-34)**, **Fig (4-35)**, **Fig (4-36)**, **Fig (4-38)**, **Fig (4-39)**, **Fig (4-40) and Fig (4-41)** more than 75 % from the patient prove the radiographer concern and ask about them clinical history this is much with **Fig (4-10)**, **Fig (4-11)**, **Fig (4-12)**, **Fig (4-13) and Fig (4-14)** therefore it's affected on the level of patients' satisfaction (*Olusina AK,2004*).

CONCLUSION

The overall conclusion drawn from the research is that the radiographers, who participated in the study, examine the patients with a professional attitude, high practice and very good patient care in the special investigation at among special investigation departments Khartoum state. The results of our study have demonstrated that attitude and professional conduct of radiographers do influence to patient s' satisfaction and dissatisfaction with a special radiological examination and so are the services offered in the radiology department by members of staff. Also, the patient thinks the radiographers have a very good experience and Patient care.

5-3 Recommendations

- ✓ Radiographers must regularly be made aware of the Patients Rights Charter.
- ✓ Radiographers must be reminded about their patient care duties and the code of conduct for radiographers that they must adhere to.
- ✓ Lastly, radiographers must be advised to practice good communication skills, portray good manners and display a positive disposition towards patients.
- ✓ increasing patient awareness about their care and rights.

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