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KNOWLEDGE ATTITUDE AND PRACTICES ABOUT ENDOSCOPY PROCEDURES AMONG NURSES OF NISHTAR HOSPITAL MULTAN.

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Abstract

Purpose: To assess Knowledge and practices of nurses regarding endoscopic procedures and to identify associated factors towards effective endoscopy procedures

Methodology: A descriptive cross sectional study was designed. The population for this study was 250. There was selection of the population of nurses in Nishtar Hospital Multan. The target population or sample size consists of 150 participants. The nurses were selected from the Nishtar Hospital Multan for the completion of study. Likert scale close ended questionnaire was adopted for data collection from the study participants. Results were analyzed through SPSS.

Results: the nurse age, training and dealing period might have an effect on the level of nurses data relating to canal endoscopy including; general precautions, basic steps to wash and medical care in examination unit. The majority of nurses had positive attitude. While coaching and qualification can affect dealing with the patients additionally to nurses level of apply before, throughout and manual disinfecting of endoscopy.

Unique contribution to theory, practice and policy: Extensive training of staff involved in endoscope reprocessing is mandatory for quality assurance and for effective infection control and documentation of this tarring is required. The efficacy of manual cleaning and HLD operator dependent, thus assignment of personnel responsible for endoscope.

Key words: *Knowledge, practices of nurses, endoscopy procedures*

INTRODUCTION

Background of the study

Endoscopy procedures are much implemented in today's life because demand of such procedures is increasing nowadays. People are facing severe to mild range of gastrointestinal issues and complications. Endoscopy itself is a non-surgical process in which there is thorough examination of human inner digestive tract. This procedure is carried out with the aid of instrument called an endoscope (Alfa MJ et al., 2016). Endoscope is a tube with much flexibility and there is a camera with light attached to this tube. The film or pictures of endoscopy are displayed on specified

monitor. When there is upper endoscopy, instrument of endoscopy or endoscope is easily entered through mouth region then passed to throat and then reach esophagus (Ali R et al., 2013).

It can continue to stomach and upper region of small intestine of body. Simultaneously, for the purpose of lower endoscopy the endoscopes can be entered from rectum region and pass to the large intestine (colon) region in order to examine this portion of intestinal tract. The basic purpose of endoscopy is to examine whether there is any type of abnormalities in body gastrointestinal tract or not. Moreover, complications like stomach aches, history of gastro ulcers, gastric inflammation, difficulty in swallowing process, bleeding from digestive tract, disturbed bowel movements e.g., severe constipation or diarrhea can leads us to the endoscopy procedures (Bertleff M et al., 2019). There is proper preparation for endoscopy including gut preparation in this type of preparation patient is supposed to undergo an upper digestive tract examination and for this examination there is strict requirement of fasting or NPO (Nil Per Oral) for 6-8 hours before the endoscopic procedure due to the reason that food intake can disturb the entry of endoscope during endoscopy because patient can face reflux when the endoscope is entered through mouth (Carl J, 2019).

In other situation when there is lower endoscopy in order to clear the colon or large intestine patients are given laxatives a day prior to the endoscopy to clear the stool. In addition sedation is also very important for this process hence for most of endoscopic procedures sedative is given to the patient for enhancing the comfort and relaxation of patient. The sedation is given through intravenous route into the veins of body (Cotton PB et al., 2018).

This administered sedation produces relaxation and sleep. Patients usually wake up within an hour after sedation, but side effects of sedatives are more delayed hence it's not safe to use them. In very special conditions type of anesthesia or sedation i.e., General anesthesia is administered which actually puts patient to totally asleep for a period of time it is given in young children, and in situation when very complex procedures are planned according to patients treatments. Gastrointestinal Endoscopy is itself very significant instrument especially for identifying the GI tract disorders and also their treatments (Cowen AE, 2014).

GI endoscopy helps in final diagnosing of several diseases and also aids in allowing minimal application of invasive curable techniques such invasive therapeutic techniques usually replace more aggressive intervention e.g., surgical procedures. Such innovations and advancements gradually reduce mortal rate of people and also minimized hospitalization of patients with GI disorders experiencing treatment procedures (Day T, 2015).

Paramedical staff in any of the setting where GI (gastrointestinal) endoscopy procedures are performed must stick themselves to infection control ethics that will surely create and uphold a safe and secure environment. Such safe environment is actually free from the risk of spreading diseases in patients and the health workers. This is truly despite of the settings like hospitals clinics, ambulatory or mobile care centers and health care offices, all kinds of gastrointestinal (GI) procedures performed in them. Nursing health professionals who continuing work in endoscopy units and providing pre-operative and post-operative care to the patients according to their requirements should have precise training or learning courses. In order to become capable in carrying out their assigned clinical duties in these endoscopy units and also to be able in managing

the required materials and equipments. So that these all measures can effectively contribute to the optimal success of these treatment procedures (El-Shamaa et al., 2010).

The definite knowledge and the progression of the functions of nurse's goals to develop a secure association with the endoscopy expert to diminish the impediment of the technique implemented, reduction of the patient's possible anxiety, and improvement of the applicability or implementation plus the results of gastrointestinal (GI) endoscopy (Gómez M et al., 2013). Nurses specifically for endoscopy usually plays a critical and significant role in the terms of safe, high quality preparation of endoscopy. Nurses constitute various tasks. For instance preparing the appropriate room for endoscopy, having accurate instrument and necessary equipments or devices is very important for examining the upper or lower Gastrointestinal tract. It is also essential and included in nurse responsibilities that the nurse must provide accurate information about the undergone procedure to the patient, in respect to lessen patient's anxiety. Further to give clarifications regarding the modality of the endoscopic procedure (Kennedy J et al., 2016).

Nurses are called backbone of hospitals and in other healthcare systems. They play vital and effective role in management of several diseases. During endoscopic procedures nurses have strong responsibilities regarding patient's treatment and their cures. However, this important section is still hidden and specifically no researches done on this topic especially in Pakistan Role of nurses and their data collection is absent (Majeski J et al., 2019).

In this high concerned topic research will attempt to perform a KAP study regarding this conceptual topic. Knowledge Attitude and Practices of nurses will be considered in order to highlight the endoscopic treatment and their protocols. This study will have much importance in this regard. The nurses of Nishtar hospital Multan will be study group for the purpose of collecting information and data.

Significance of the study

The study aimed to provide broad variety of information on endoscopy procedures among nurses of Nishtar Hospital Multan. This study provided appropriate knowledge and practices of nurses in endoscopy procedures. This study improved implementation of nurses and plays an essential role in order to maintain health status of patient with endoscopic procedures and treatments.

Problem of the statement

A gap aroused between the nurses knowledge and their practices regarding endoscopy procedures and this results in negative impacts or effects on patients with endoscopic complications. Hence their improvement and development is also hindered.

Purpose of the study

The study provided comprehensive concepts illustrating the knowledge, attitude, and practices regarding endoscopy procedures among nurses in Nishtar Hospital Multan. It helped out to design and implement evidence- based interventions in order to achieve betterment in endoscopic procedures.

Objectives of the study

General Objectives

To assess Knowledge and practices of nurses regarding endoscopic procedures and to identify associated factors towards effective endoscopy procedures

Specific Objectives

To assess Knowledge Attitude and practices of nurses towards effective endoscopic procedures

Research Question

How to investigate the gap between the current knowledge and actual practices of endoscopy procedures among nurses in Nishtar Hospital Multan.

Operational Definition

Knowledge is known as awareness or familiarity gained by experience of a fact or situation (Merriam Webster Dictionary, 2018).

Attitude is known as a settled way of thinking or feeling about something (Merriam Webster Dictionary, 2018).

Practice is known as the actual application or use of an idea, belief, or method, as opposed to theories relating to it (Merriam Webster Dictionary, 2018).

Endoscopy is the insertion of a long, thin tube directly into the body to observe an internal organ or tissue in detail. It can also be used to carry out other tasks including imaging and minor surgery (Merriam Webster Dictionary, 2018).

Procedures are a series of actions conducted in a certain order or manner. (Oxford Dictionary, 2020).

Conceptual Definition

Knowledge is defined as the process of awareness through education on specific topic or subject.

Attitude is defined as thinking and emotional process about something.

Practice is defined as the process of performing theories in particle life

Endoscopy is defined as the process of entering a long tube with camera to visualize the inner body organs clearly.

Procedures are specific protocol of doing something it is also called plan of actions.

LITERATURE REVIEW

A study was conducted by Wafaa Mohamed Amer, Nadia Mohamed Taha , Howida Kameel Zaton in Medical Surgical Nursing Department, Faculty of Nursing, Zagazig University, Egypt in 2015. All the nurses included in the study were females and their age ranged from 26-58 years. Robinson, Moreau and McCann reported that the common pattern representing nurses' characterized with increased number of female nurse as compared with males. This study revealed that 80% had of them diploma degrees. More than half of nurses had experience of working in gastrointestinal endoscopy unit range from 8-28 years. Two fifths of them attended training courses during their

work in GIT Endoscopy and the majority of them had got (HBV) Vaccine. Ramsey and his colleague founded in their study that, most of the nurses did not receive any special education or in- service training about endoscope reprocessing practices. Most of the authors reported that education and training, including competency testing, at least annually. This helps professional nurse to keep up to date on the most recent developments in nursing and to be able to manage the demands of nursing practice. Educational program and training courses are two components of staff development. It is recommended that continuous education in nursing is needed to promote development of knowledge, skills and attitudes of nurses and to improve the quality of care given for their patients. Also the formed training courses played an important role in enhancing and updating nurses' knowledge and performance. There is considerable variation in the field of endoscopy, hence the quality assurance procedures are gaining more significance in the eyes of patients, endoscopists and health care providers. Patient satisfaction questionnaires are a helpful method for detecting opportunities to improve quality based on patient opinion. Assessing patient experiences is thus helpful in identifying areas that require improvement such as the proper delivery of pre-and postprocedural information. Patient satisfaction related to endoscopy procedures is imperative for quality assurance and it may be influenced by various factors as patient characteristics, endoscopists' technique and procedural or organizational features. Numerous societies suggested sedation as a quality indicator for colonoscopy, while the British Society for Gastroenterology and Canadian Association of Gastroenterology associated patient comfort as a supplementary performance indicator. A wide range of well-validated patient comfort scales (varying from generic to colonoscopy specific) are available. One of the most usefull tool is the Nurse-Assessed Patient Comfort Score (NAPCOMS) which was endorsed in the United Kingdom and Canada, being designed in endoscopy units employing minimal to moderate sedation. It records the intensity, frequency, and duration of pain episodes, but it also records the level of sedation and perceived global comfort. In study conducted by Daniela Burtea et al, sedation seemed to play a significant role as a predictor for satisfaction, endoscopy with sedation being well known to reduce anxiety and pain. On the other hand, patients who are committed to cope with un-sedated gastroscopy or colonoscopy described little difference between the pain experienced during the endoscopic examination and pain or anxiety expected before procedure. Several studies outlined that patient satisfaction was associated with the technical abilities of the endoscopist, which was also consistent with our findings. Regarding overall satisfaction or procedure quality as perceived by patients, questionnaires enable the recognition of the most frequent causes for dissatisfaction.

This study revealed that the majority of nurses had satisfactory level of knowledge regarding basic steps to clean and disinfect GI Endoscope. Levels of knowledge among the nurses in the present study about (wearing protective clothes, transferring endoscope for cleaning, pre-manual cleaning stage, test leak, manual cleaning stage, rinsing, sterilization and dryness, dangerous of inadequate endoscope disinfection, storage and documentation). California Department of Health Services (CDHS) stressed up on that nurses need to know how to do it properly without harming themselves by follow the Universal precaution during the procedure. This also was confirmed by Alfa et al.

On the other hand this was not satisfactory for Ramsey and his colleagues, who recommended that continues educational and training guideline program for endoscopies reprocessing will help in effective performance and control infection and they proved this by the significant improvements

in the post-guidelines program phase. This study revealed that the majority of nurses had a positive attitude towards providing care in endoscopy unit. These results are in agreement with those reported in a survey in the UK, which predicted an important albeit restricted role for nursing endoscopy. Clinicians from the UK considered diagnostic gastro-scopy and sigmoido-scopy appropriate and diagnostic colonoscopy and therapeutic endoscopies inappropriate for NE. The UK audit however did not specifically investigate the attitude towards screening endoscopies.

METHODOLOGY

Study design

A descriptive cross sectional study was designed to figure out assessing the knowledge attitudes and practices of nurses regarding endoscopy procedures.

Sample size

The population for this study was 250. There was selection of the population of nurses in Nishtar Hospital Multan. The target population or sample size consists of 150 participants.

Study setting

The nurses were selected from the Nishtar Hospital Multan for the completion of study.

Study Population

The nurses were selected for the study population

Research tool

Likert scale close ended questionnaire was adopted for data collection from the study participants. Results were analyzed through SPSS.

Inclusion Criteria

Inclusion criteria included all nurses of Nishtar Hospital Multan especially who were willing to participate in this study and who gave informed consent.

Exclusion Criteria

Exclusion criteria included who were not willing to participate in this study. This segment also excluded the absentees' nurses at the time of data collection process.

Research Variables

Independent Variables

Knowledge, Attitude and Practices

Dependant Variables

Endoscopy Procedures

Sample Size

Slovian's Sampling was used to find the sample size of the study population if the total population is 240

If N = Popoulation n=sample size E= Margin of Error

$n=N / 1+(N)(E)^2$

$n=240/1+(240)(0.05)^2$

n=240/1+(240)(0.0025)

n=240/1+0.6

n=240/1.6

n=150

hence total 150 nurses were under consideration in this research.

Ethical consideration

In this research ethical consideration was preferred. For this purpose the permission was obtained from the ethical committee of the health care institution, before data collection. Permission will acquire a written approval from head of department of Lahore school of nursing in the form of consent. Furthermore inform written and verbal consent was taken before data collection from participants. Students were given with the right of autonomy and the nature and purpose of the study will informed prior to the implementation of any action. The risk related to this study was discussed before. Participants will have right to leave the study participation at any time. In this case other participants were added for the accomplishment of data information. Participants were informed about the aims of the study and secrecy of the collected data was assured. A written consent was taken from respondent those who were willing to participate in this study. All respondent were informed that their participation is highly appreciated and they can participate voluntarily. Participants were taken in confidence that all the collected information and records will remain confidential.

Results and data analysis

Results and data analysis was taken up through systematically and logically techniques after the accomplishment of data collection process.

Budgets

Expression of a financial plan for future expenses.

RESULTS

Demographic Data

Variables		Frequency (Percentage)
Age	> 25 years	46(30.7%)
	35 years	47(31.3%)

	< 45 years	57(38%)
	Total	150(100%)
Sex	Female	84(56%)
	Male	66(44%)
	Total	150(100%)
Qualification	Diploma degree	120(80%)
	Associate degree	21(14%)
	Bachelor degree	9(6%)
	Total	150(100%)

Work duration (years)	8	123(82%)
	18	12(8%)
	>28	15(10%)
	Total	150(100%)
Endoscopy Experience	<10 years	109(72.7%)
	>/= 10 years	41(27.3%)
	Total	150(100%)
Training	Yes	121(80.7%)
	No	29(19.3%)
	Total	150(100%)
Vaccination (HBV)	Yes	123(82%)
	No	12(8%)
	Total	150(100%)

Tables and Figures:

Age	Frequency	Percent	Valid Percent	Cumulative Percent
>25	46	30.7%	30.7%	30.7%
35	47	31.3%	31.3%	62%
<45	57	38%	38%	100%
Total	150	100%	100%	

Table 1

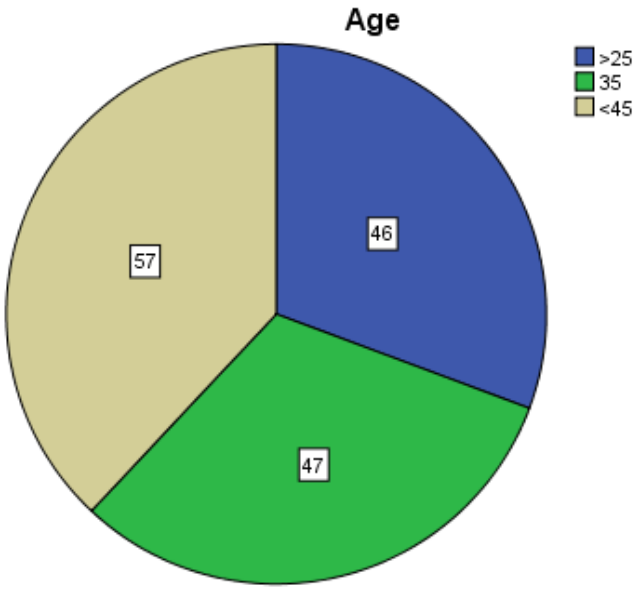

FIG 1

Figure 1 show that participants were more than 45 years old (38%) while many of them were 35 years old (31.3%) and some of them were less than 25 years old (30.7%).

Sex	Frequency	Percent	Valid Percent	Cumulative Percent
Female	84	56%	56%	56%
Male	66	44%	44%	100%

Total	150	100%	100%	

Table 2

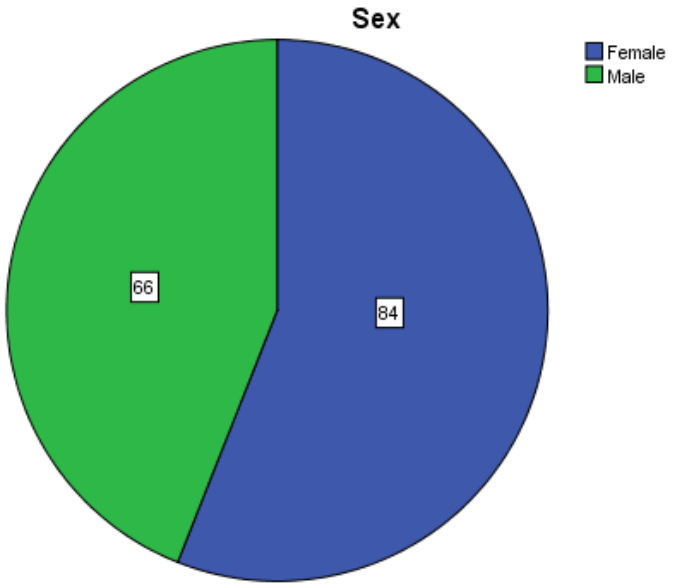

Figure 2 shows that participants were more females (56%) than males (44%).

Qualification	Frequency	Percent	Valid Percent	Cumulative Percent
Diploma Degree	120	80%	80%	80%
Associate Degree	21	14%	14%	94%
Bachelor Degree	9	6%	6%	100%
Total	150	100%	100%	

Table 3

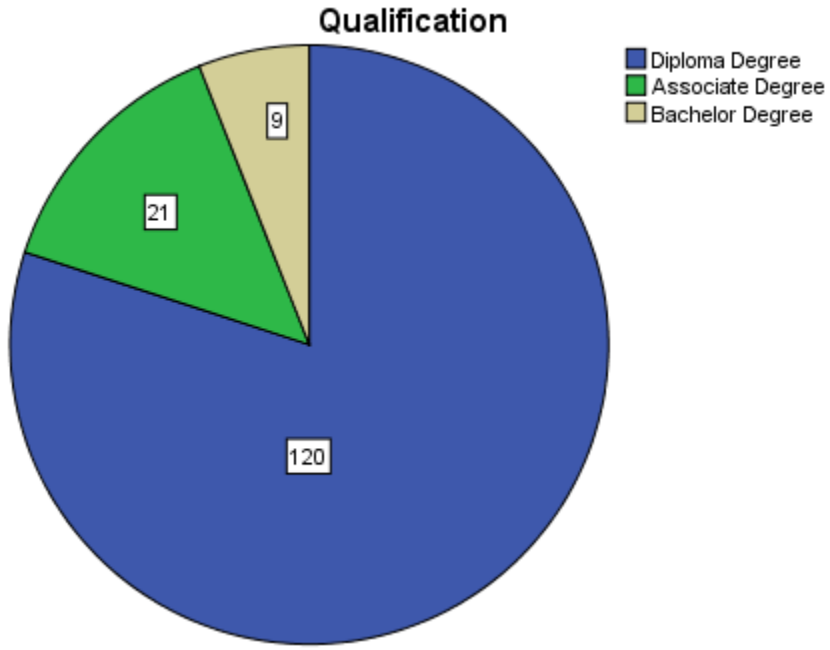

FIG 3

Figure 3 shows that participants were more qualified in diploma degree (80%) while some of them have associate degree (14%) but very few are graduated in bachelors degree (6%).

Work Duration (years)	Frequency	Percent	Valid Percent	Cumulative Percent
8	123	82%	82%	82%
18	12	8%	8%	90%
>28	15	10%	10%	100%
Total	150	100%	100%	

Table 4

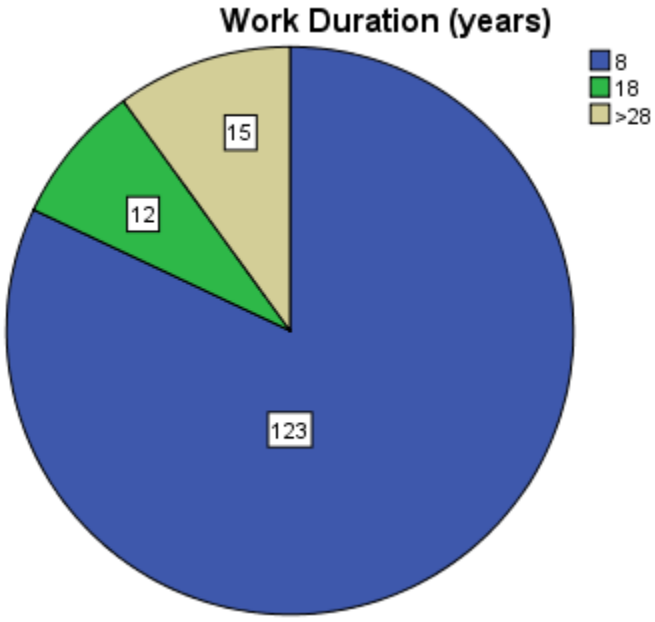

FIG 4

Figure 4 shows that the work duration of participants is mostly 8 years (82%), while some have >28 years duration (10%) but few of them have 18 years of work duration (8%).

Endoscopy Experience	Frequency	Percent	Valid Percent	Cumulative Percent
<10 years	109	72.7%	72.7%	72.7%
>10 years	41	27.3%	27.3%	100%
Total	150	100%	100%	

Table 5

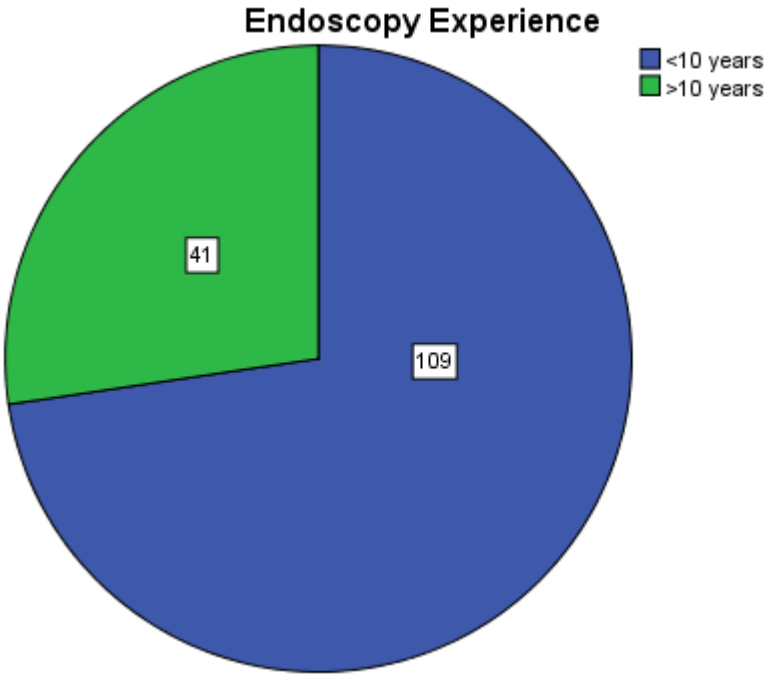

FIG 5

Figure 5 shows that endoscopy experience of participants is mostly less than 10 years (72.7%) while some of them have experience greater than ten years (27.3%).

Training	Frequency	Percent	Valid Percent	Cumulative Percent
Yes	121	80.7%	80.7%	80.7%
No	29	19.3%	19.3%	100%
Total	150	100%	100%	

Table 6

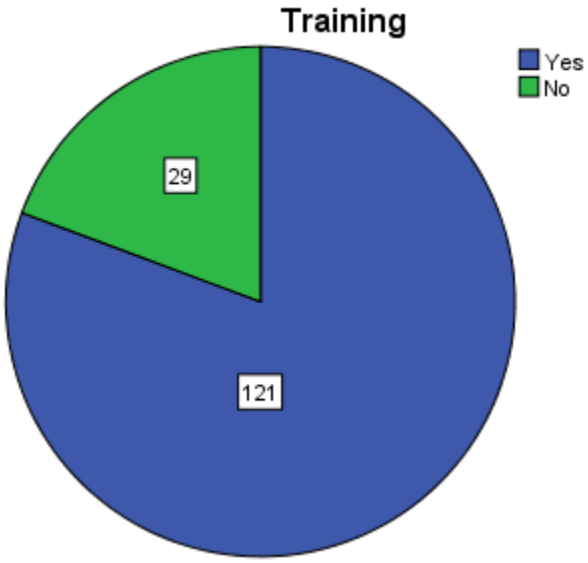

FIG 6

Figure 6 shows that large percentage of participants have received training for endoscopy procedures (80.7%) while many of them disagreed to this statement (19.3%).

Vaccination (HBV)	Frequency	Percent	Valid Percent	Cumulative Percent
Yes	150	100%	100%	100%
Total	150	100%	100%	

Table 7

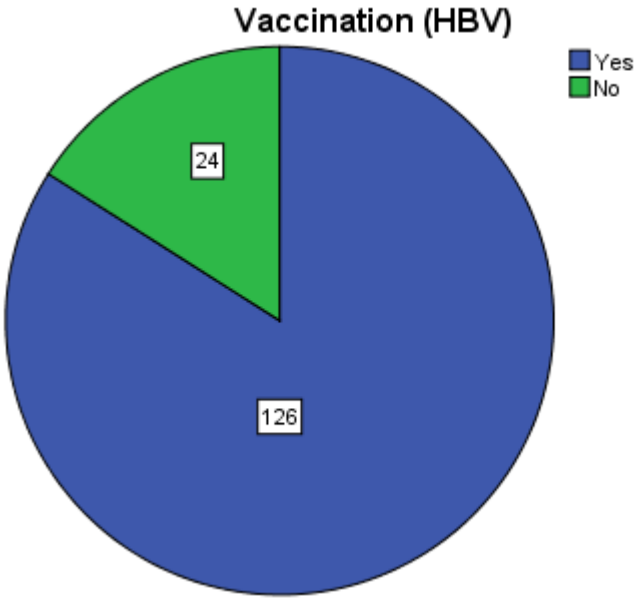

FIG 7

Figure 7 shows that all of participants have received vaccination of HBV (100%).

	Frequency	Percent	Valid Percent	Cumulative Percent
Yes	150	100%	100%	100%
Total	150	100%	100%	

Table 8

FIG 8

Figure 8 shows that all participants agreed to it that hand washing after using toilet is necessary (100%).

	Frequency	Percent	Valid Percent	Cumulative Percent
Yes	150	100%	100%	100%
Total	150	100%	100%	

Table 9

FIG 9

Figure 9 shows that all participants agreed to it that hand washing before drinking and eating is important (100%).

	Frequency	Percent	Valid Percent	Cumulative Percent
Yes	133	88.7%	88.7%	88.7%
No	4	2.7%	2.7%	91.3%
Don't know	13	8.7%	8.7%	100%
Total	150	100%	100%	

Table 10

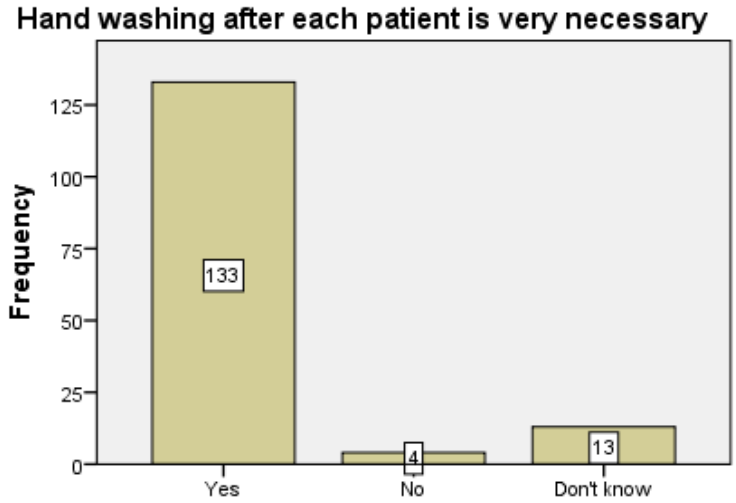

FIG 10

Figure 10 shows that all participants agreed to it that hand washing after each patient care is necessary (100%).

Table 11

	Frequency	Percent	Valid Percent	Cumulative Percent
Yes	150	100%	100%	100%
Total	150	100%	100%	

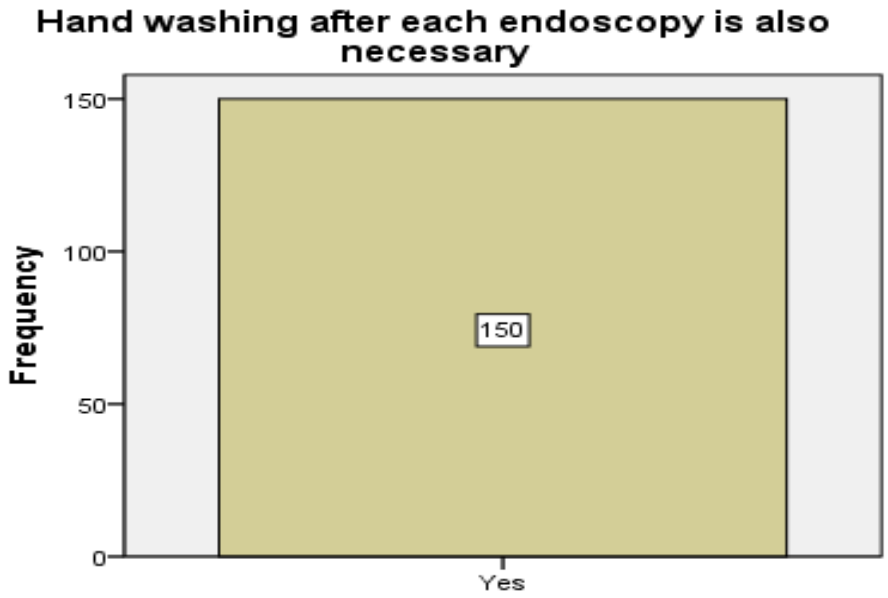

FIG 11

Figure 11 shows that all participants agreed to it that hand washing after each endoscopy is necessary (100%).

Table 12

	Frequency	Percent	Valid Percent	Cumulative Percent
Yes	131	87.3%	87.3%	87.3%
No	2	1.3%	1.3%	88.7%
Don't know	17	11.3%	11.3%	100%
Total	150	100%	100%	

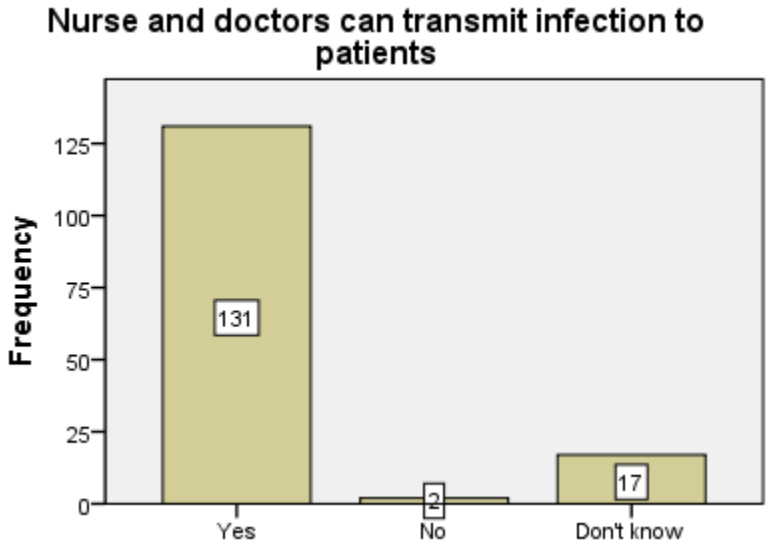

FIG 12

Figure 12 shows that many participants agreed to it that nurses and doctors can transmit infections to the patients (87.3%) some answered that they don't know (11.3%) but few said no to it (1.3%)

Table 13

	Frequency	Percent	Valid Percent	Cumulative Percent
Yes	124	82.7%	82.7%	82.7%
No	1	.7%	.7%	83.3%
Don't know	25	16.7%	16.7%	100%
Total	150	100%	100%	

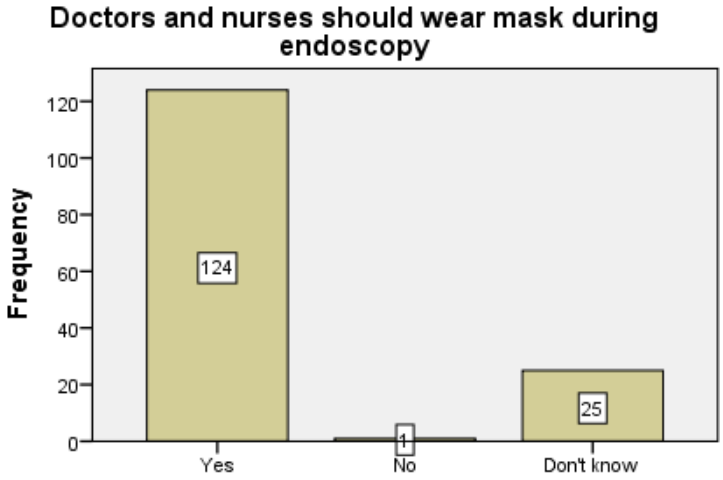

FIG 13

Figure 13 shows that many participants agreed to it that nurses and doctors should wear masks during endoscopy (82.7%) some answered that they don't know (16.7%) but few said no to it (0.7%)

Table 14

	Frequency	Percent	Valid Percent	Cumulative Percent
Yes	131	87.3%	87.3%	87.3%
Don't know	19	12.7%	12.7%	100%
Total	150	100%	100%	

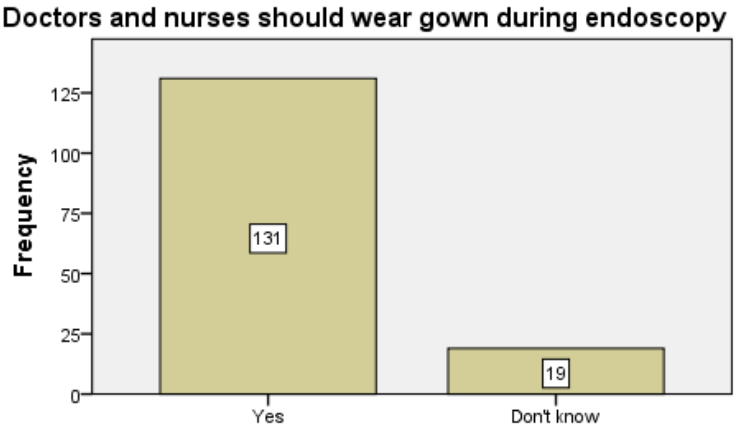

FIG 14

Figure 14 shows that many participants agreed to it that nurses and doctors should wear gowns during endoscopy (87.3%) some answered that they don't know (12.7%).

	Frequency	Percent	Valid Percent	Cumulative Percent
Yes	129	86%	86%	86%
Don't know	21	14%	14%	100%
Total	150	100%	100%	

Table 15

FIG 15

Figure 15 shows that many participants agreed to it that nurses and doctors should wear surgical gloves during endoscopy (86%) some answered that they don't know (14%).

	Frequency	Percent	Valid Percent	Cumulative Percent
Yes	144	96%	96%	96%
Don't know	6	4%	4%	100%
Total	150	100%	100%	

Table 16

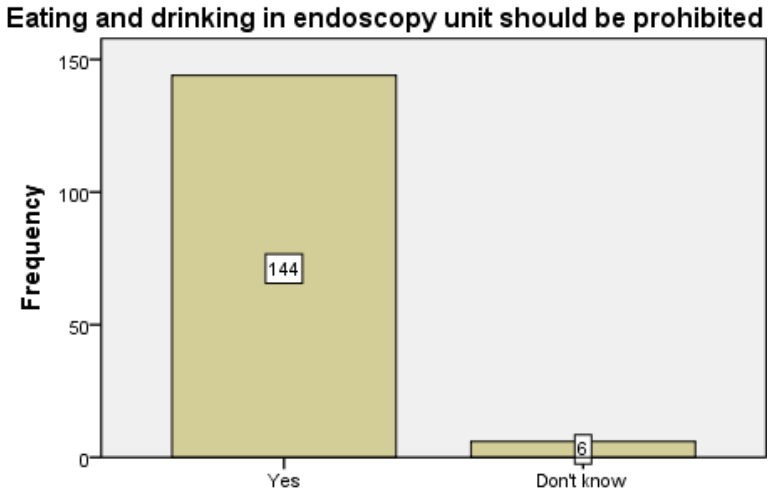

Figure 16 shows that many participants agreed to it that eating and drinking in endoscopy unit should be prohibited (96%) some answered that they don't know (4%).

	Frequency	Percent	Valid Percent	Cumulative Percent
Yes	150	100.0	100.0	100.0
Total	150	100%	100%	

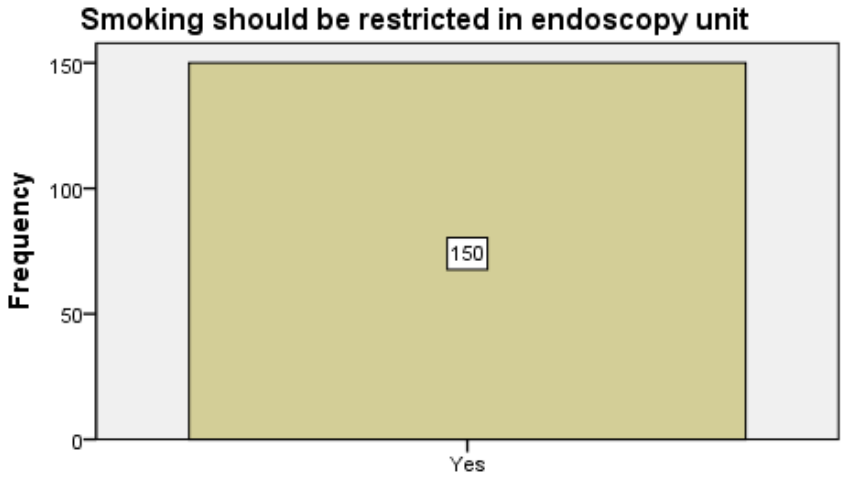

Figure 17 shows that all participants agreed to it that smoking in endoscopy unit should be strictly restricted (100%).

	Frequency	Percent	Valid Percent	Cumulative Percent
Agree	84	56%	56%	56%
Sometimes	66	44%	44%	100%
Total	150	100%	100%	

Table 18

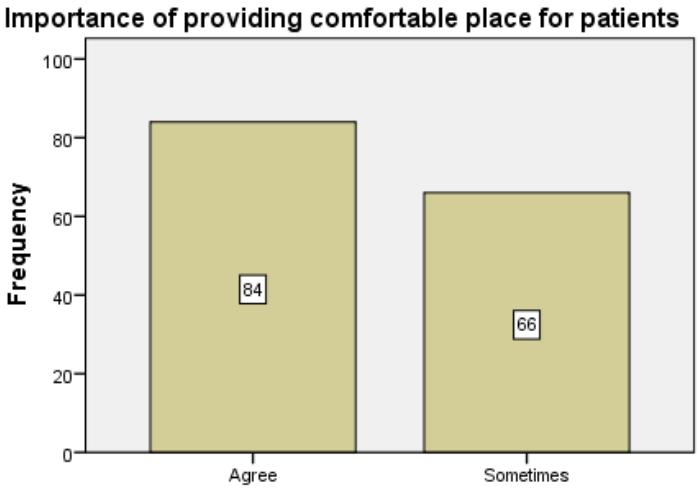

FIG 18

Figure 18 shows that many participants agreed to it that it is very important to provide comfortable place to patient (56%) some answered that sometimes its important (44%).

	Frequency	Percent	Valid Percent	Cumulative Percent

Agree	53	35.3%	35.3%	35.3%
Sometimes	35	23.3%	23.3%	58.7%
Disagree	62	41.3%	41.3%	100%
Total	150	100%	100%	

Table 19

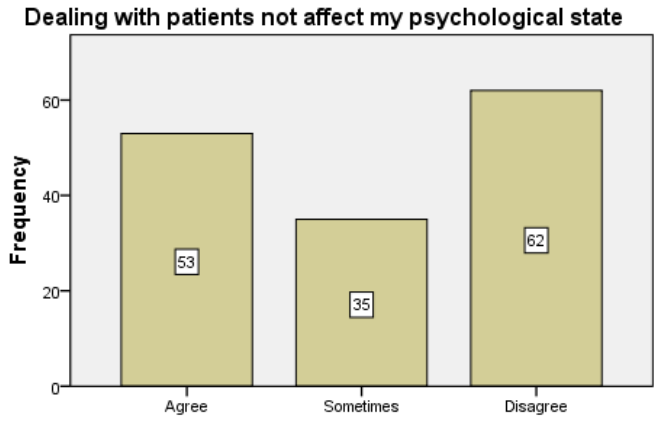

FIG 19

Figure 19 shows that many participants disagreed to it that patient dealing do not effects psychological state (41.3%) many of them agreed to it (35.3%) while some answered sometimes (23.3%).

	Frequency	**Percent**	**Valid Percent**	**Cumulative Percent**
Agree	21	14%	14%	14%
Sometimes	41	27.3%	27.3%	41.3%
Disagree	88	58.7%	58.7%	100%
Total	150	100%	100%	

Table 20

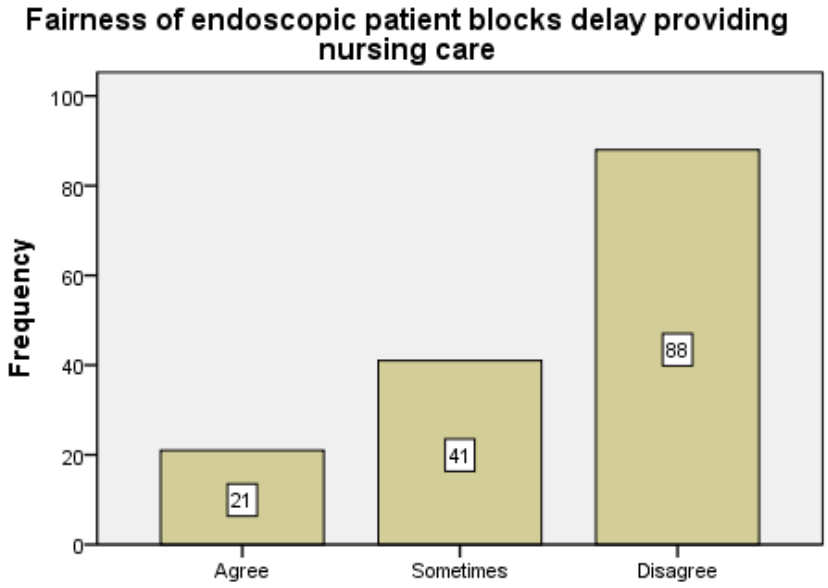

FIG 20

Figure 20 shows that many participants disagreed to it that fairness of endoscopic patient blocks delay in providing nursing care (58.7%) many of them answered sometimes (27.3%) while some agreed to it (14%).

	Frequency	Percent	Valid Percent	Cumulative Percent
Agree	88	58.7%	58.7%	58.7%
Sometimes	51	34%	34%	92.7%
Disagree	11	7.3%	7.3%	100%
Total	150	100%	100%	

Table 21

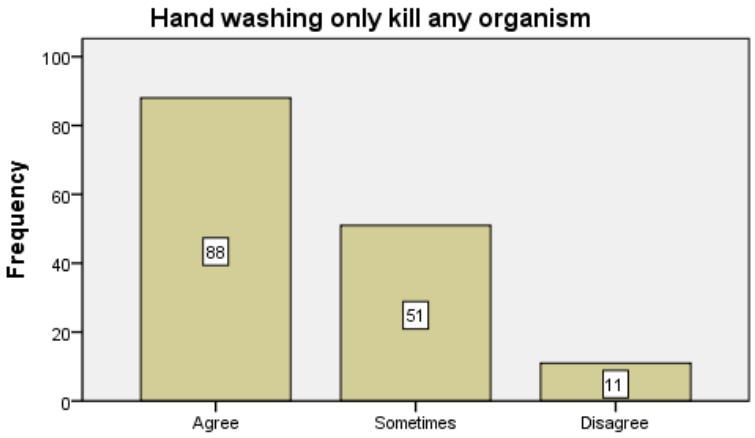

FIG 21

Figure 21 shows that many participants agreed to it that hand washing kills only organisms (58.7%) many of them answered sometimes (34%) while some disagreed to it (7.3%).

	Frequency	Percent	Valid Percent	Cumulative Percent
Agree	120	80%	80%	80%
Sometimes	30	20%	20%	100%
Total	150	100%	100%	

Table 22

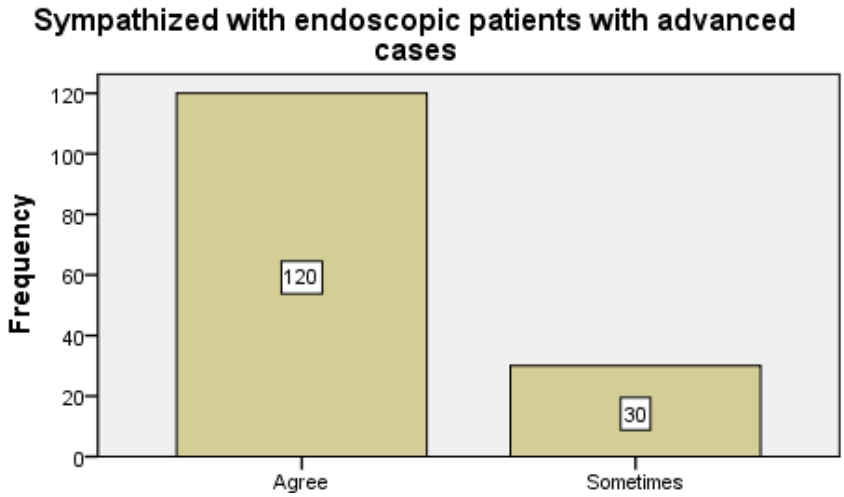

FIG 22

Figure 22 shows that many participants agreed to it that they show sympathy with endoscopic patient having advanced cases (80%) but some of them answered sometimes (20%).

	Frequency	Percent	Valid Percent	Cumulative Percent
Agree	121	80.7%	80.7%	80.7%
Sometimes	29	19.3%	19.3%	100%
Total	150	100%	100%	

Table 23

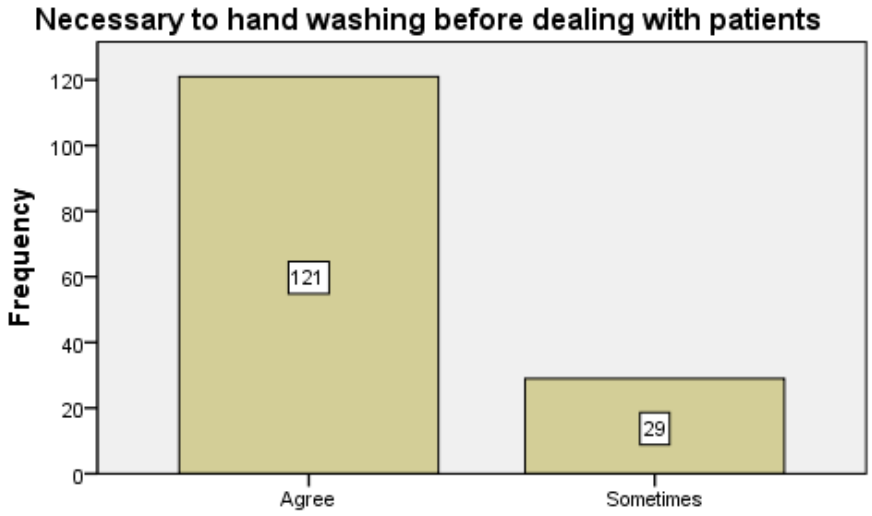

FIG 23

Figure 23 shows that many participants agreed to it that its necessary to wash hands before dealing with patients (80.7%) some of them answered sometimes (19.3%).

	Frequency	Percent	Valid Percent	Cumulative Percent
Agree	118	78.7%	78.7%	78.7%
Sometimes	14	9.3%	9.3%	88%
Disagree	18	12%	12%	100%
Total	150	100%	100%	

Table 24

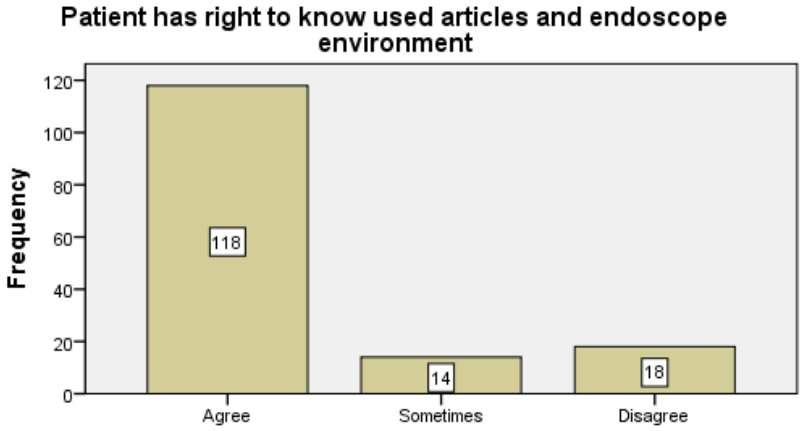

FIG 25

Figure 25 shows that many participants agreed to it that its patient right to know the used articles and endoscopy environment (78.7%) some of them disagreed (12%) while few answered sometimes (9.3%).

	Frequency	Percent	Valid Percent	Cumulative Percent
Agree	114	76%	76%	76%
Sometimes	10	6.7%	6.7%	82.7%
Disagree	26	17.3%	17.3%	100%
Total	150	100%	100%	

Table 26

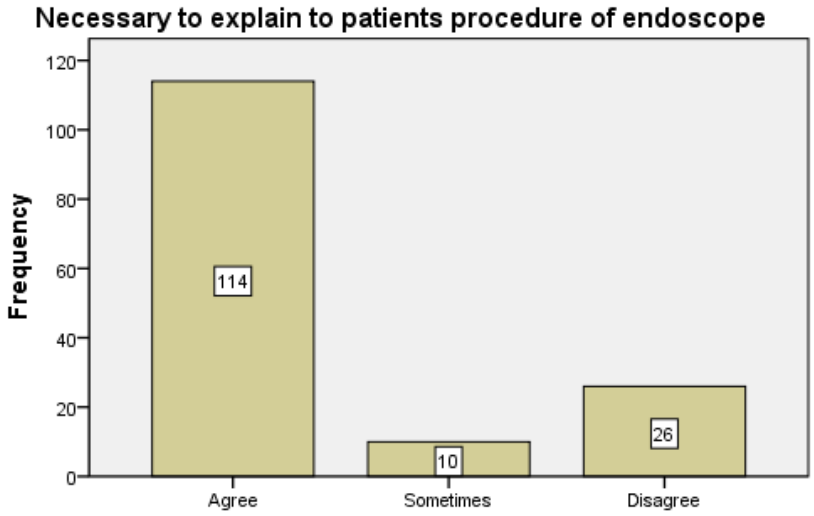

FIG 26

Figure 26 shows that many participants agreed to it that its patient right to know the used articles and endoscopy environment (76%) some of them disagreed (17.3%) while few answered sometimes (6.7%).

	Frequency	Percent	Valid Percent	Cumulative Percent
Sometimes	49	32.7%	32.7%	32.7%
Disagree	101	67.3%	67.3%	100%
Total	150	100%	100%	

Table 27

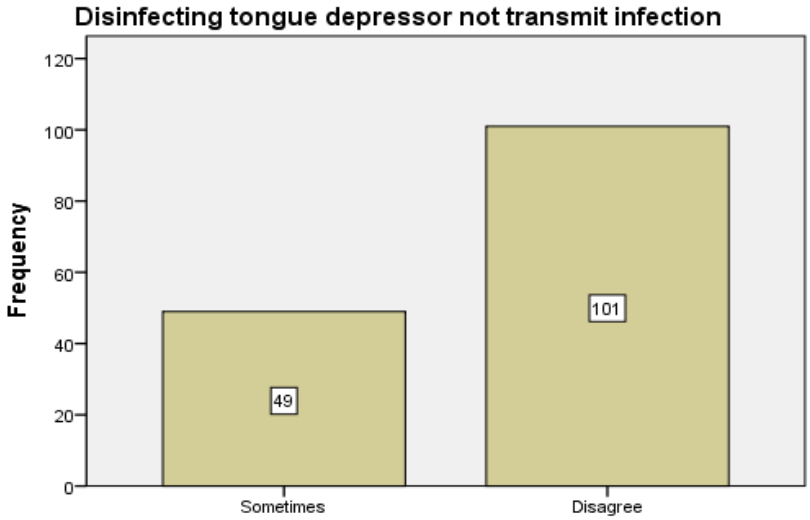

FIG 27

Figure 27 shows that many participants disagreed to it that disinfecting tongue depressors not transmit infections (67.3%) while other answered it as sometimes (32.7%).

	Frequency	Percent	Valid Percent	Cumulative Percent
Agree	130	86.7%	86.7%	86.7%
Sometimes	20	13.3%	13.3%	100%
Total	150	100%	100%	

Table 28

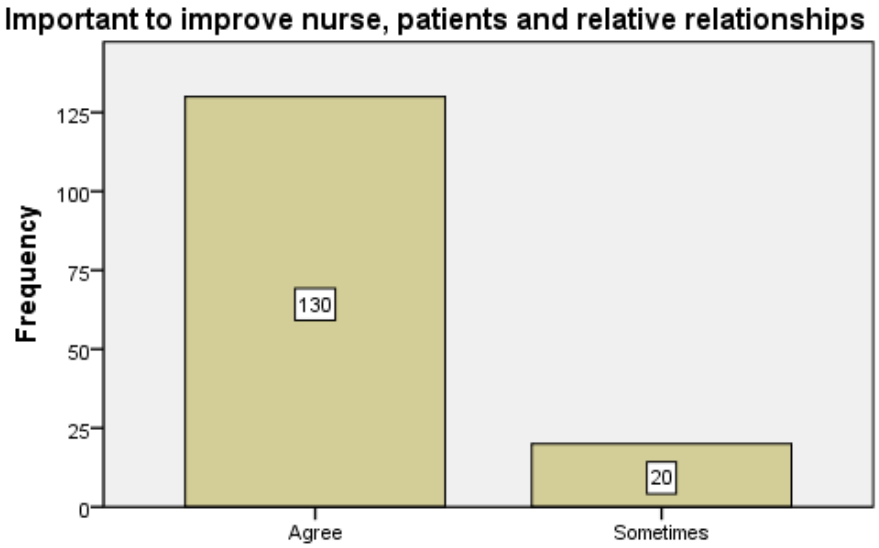

FIG 28

Figure 28 shows that many participants agreed to it that its important to improve nure, patient and relative relationships (86.7%) while few answered sometimes (13.3%).

	Frequency	Percent	Valid Percent	Cumulative Percent
Agree	116	77.3%	77.3%	77.3%
Sometimes	34	22.7%	22.7%	100%
Total	150	100%	100%	

Table 29

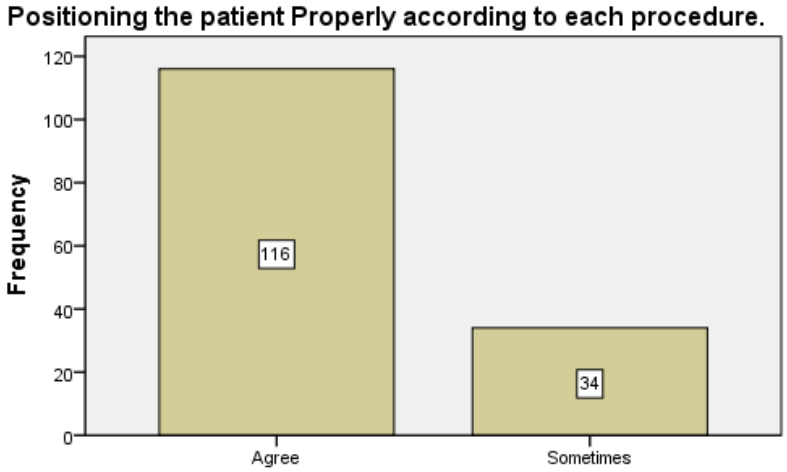

FIG 29

Figure 29 shows that many participants agreed to it that its essential to position the patient properly to each procedure undergone (77.3%) while few answered sometimes (22.7%).

	Frequency	Percent	Valid Percent	Cumulative Percent
Agree	123	82%	82%	82%
Sometimes	12	8%	8%	90%
Disagree	15	10%	10%	100%
Total	150	100%	100%	

Table 30

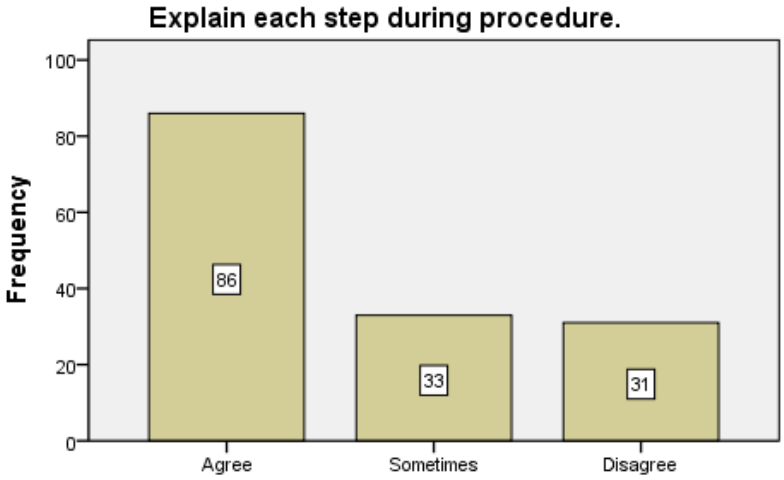

FIG 30

Figure 30 shows that many participants agreed to it that its important to explain each step during procedure (82%) some of them disagreed (10%) while few answered sometimes (8%).

	Frequency	Percent	Valid Percent	Cumulative Percent
Agree	114	76%	76%	76%
Sometimes	33	22%	22%	98%
Disagree	3	2%	2%	100%
Total	150	100%	100%	

Table 31

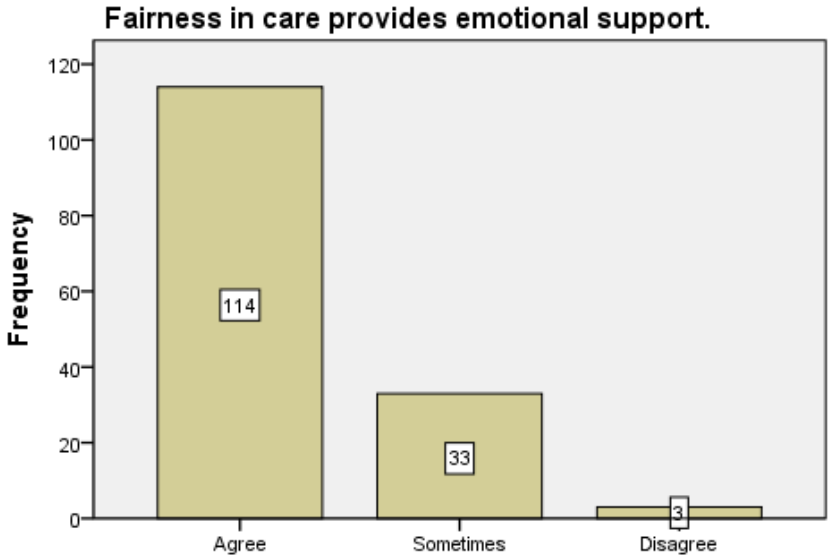

FIG 31

Figure 31 shows that many participants agreed to it that its fairness in care provide emotional support to patient (76%) while several answered sometimes (22%) but few disagreed to it (2%).

	Frequency	Percent	Valid Percent	Cumulative Percent
Agree	119	79.3%	79.3%	79.3%
Sometimes	31	20.7%	20.7%	100%
Total	150	100%	100%	

Table 32

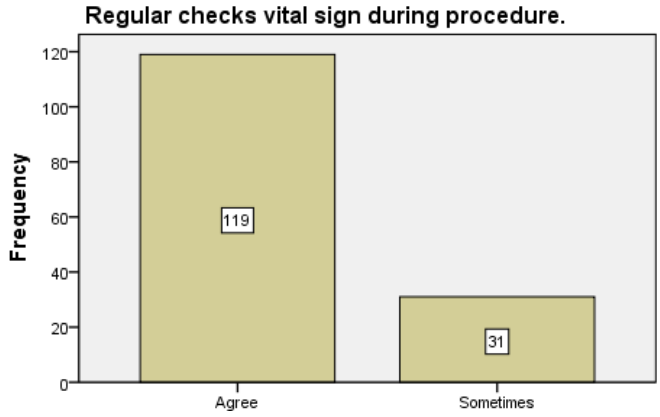

FIG 32

Figure 32 shows that many participants agreed to it that its essential regularly check vital signs during procedure (79.3%) while few answered sometimes (20.7%).

	Frequency	Percent	Valid Percent	Cumulative Percent
Agree	133	88.7%	88.7%	88.7%
Sometimes	17	11.3%	11.3%	100%
Total	150	100%	100%	

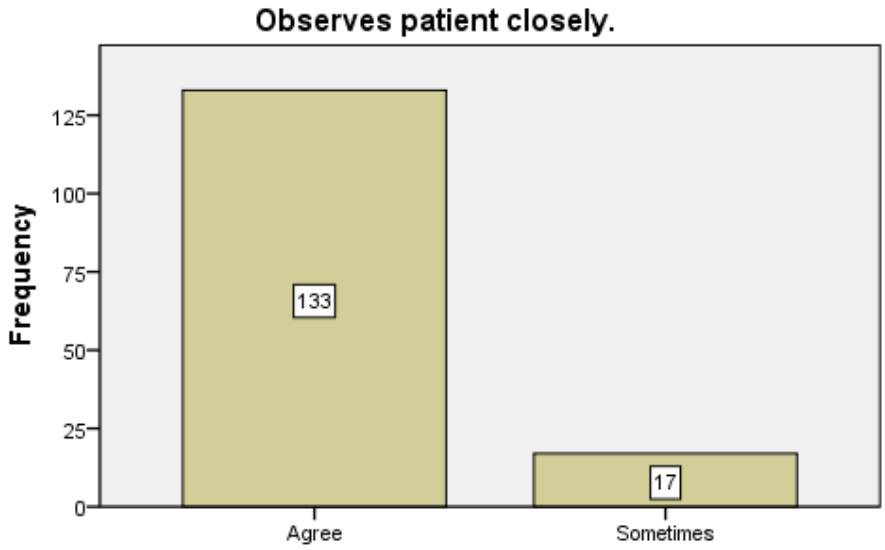

Table 33

FIG 33

Figure 33 shows that many participants agreed to it that its essential observe patient closely (88.7%) while few answered sometimes (11.3%).

	Frequency	Percent	Valid Percent	Cumulative Percent
Agree	128	85.3%	85.3%	85.3%
Sometimes	22	14.7%	14.7%	100%
Total	150	100%	100%	

Table 34

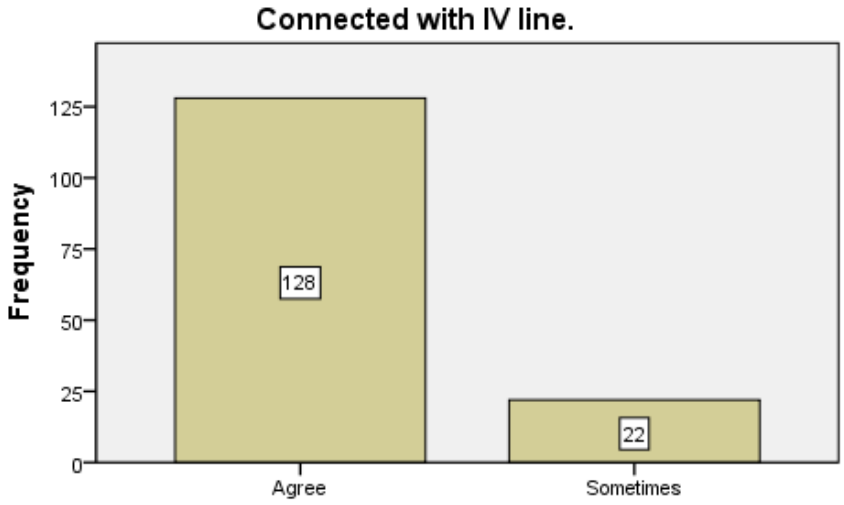

FIG 34

Figure 34 shows that many participants agreed to it that its essential to check whether patient is connected with IV line (85.3%) while few answered sometimes (14.7%).

	Frequency	Percent	Valid Percent	Cumulative Percent
Agree	85	56.7%	56.7%	56.7%
Sometimes	63	42%	42%	98.7%
Disagree	2	1.3%	1.3%	100%
Total	150	100%	100%	

Table 35

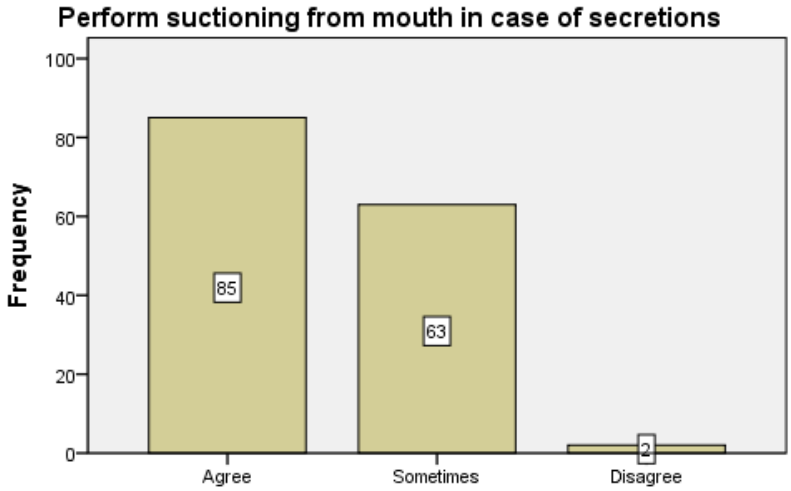

FIG 35

Figure 35 shows that many participants agreed to it that its essential to perform suctioning from mouth in case of secretions (56.7%) while many of them answered sometimes (42%) but few disagreed to it (1.3%).

	Frequency	Percent	Valid Percent	Cumulative Percent
Agree	150	100%	100%	100%
Total	150	100%	100%	

Table 36

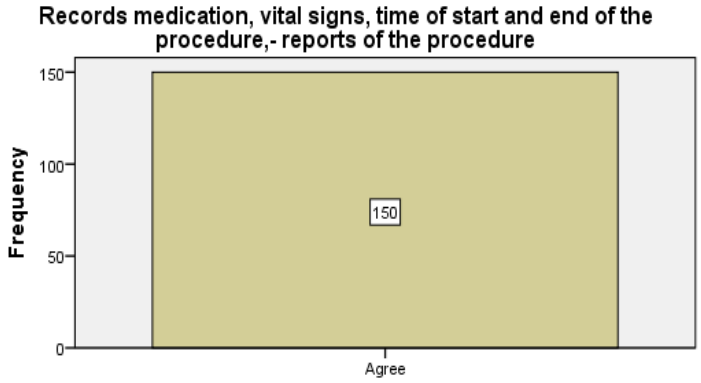

FIG 36

Figure 36 shows that all participants agreed to it that its essential to record medication, vital signs from start to the end of procedure and reports of procedure (100%)

Results

Data was collected from total 150 nurses of Nishtar Hopital Multan majority n=84 were females (56%). Majority n=57 age group of them was less than 45 years (38%). Majority n=120 qualification of them was diploma degree (80%). Majority n=123 or them have work duration equals to 8 years (82%). Majority n=109 of endoscopy experience of participants was less than 10 years (72.7%). Majority n=123 of them received training for endoscopy procedures (82%). Majority n=123 of them have received vaccination of HBV (82%). Majority n=150 of them agreed that hand washing after toilet is important (100%). Majority n=150 of them agreed to it that hand washing before drinking and eating is necessary (100%). Majority n=133 of them agreed that hand washing after attending each patient is very essential (88.7%). Majority n=150 of participants agreed that hand washing after each endoscopy is very necessary (100%).

Majority n=131 of them agreed that nurses and doctors can transmit infection to the patients (87.3%). Majority n=124 of them agreed that doctors and nurses should wear masks during endoscopy (82.7%). Majority n=131 of them agreed that doctors and nurses should wear gowns during endoscopy (87.3%). Majority n=129 of them agreed that doctors and nurses should wear surgical gloves during endoscopy (87.3%) Majority n=144 of them agreed that eating and drinking should be prohibited in endoscopy (96%). Majority n=150 of them agreed that smoking should be restricted in endoscopy (100%). Majority n=44 of them agreed to it that its important to provide comfortable place to patient (56%). Majority n=62 of them disagreed that patient do not effects psychological state (41.3%). Majority n=88 of them disagreed to that fairness of endoscopic patients blocks delay in providing nursing care to them (58.7%). Majority n=88 of them agreed hand washing only kills organisms (58.7%). Majority n=120 of them agreed that showing sympathy to endoscopic patient with advance cases is very important (80%). Majority n=121 agreed it is important to hand wash before dealing with patients (80.7%). Majority n=118 of them agreed that patient has right to know the used articled and endoscopy environment (78.7%). Majority n=114 of them agreed that it is important to explain the procedure of endoscopy to patient (76%). Majority n=101 of them disagreed that disinfecting tongue depressors do not spread

infection (67.3%). Majority n=130 of them agreed that it is important to improve nurses, patients, and relative relationship (86.7%). Majority n=116 of them agreed that it is important to position patient properly according to each procedure (77.3%). Majority n=123 of them agreed that it is important to explain each step during procedure (82%). Majority n=114 of them agreed that fairness in care of patients provides emotional support to them (76%). Majority n=133 of them agreed that it is important to check vital signs during procedure (79.3%). Majority n=128 of them agreed that its important to check whether patient is connected with IV line (85.3%). Majority n=85 agreed that perform suctioning from mouth in case of secretions (56.7%). Majority n=150 of them agreed that its important to record medications, vital signs from start till end of procedure and to record the reports of procedure (100%).

DISSCUSSION

Endoscopy nurses play a important role within the provision of safe, prime quality endoscopy. Nurses have several tasks. Prepare the scrutiny space with the proper instrument and necessary devices for examination of the higher or lower GI tract, is extremely important. it's additionally crucial that the nurse gives the proper information concerning the procedure to the patient, to alleviate anxiety and to give explanations about the modality of the scrutiny procedure. throughout the procedure the nurse must facilitate the endoscopist and, once indicated, the anesthesist. when the completion of the procedure, the nurse should carry-on with the reprocessing of the endoscopic instrument and of the devices.

Present study was conducted to assess the knowledge, attitudes and practices among nurses of Nishtar Hopital Multan. Several studies were conducted related to this topic but the current study showed different results. In past conducted study of Amer et al. majority of nurses were females and this presently conducted study also revealed similar results that large percentage of females were participants of this study. Moreover, again a similarity emerge that 80% of nurses in past study were diploma holder same in our study 80% of female nurses have qualification status as diploma education. But in study of Amer et al. nurses have endoscopic work experience equals to 8-28 years but in this present study nurses showed different results majority of them have 8 years experience. In past conducted study only two fifth of nurses received special training on endoscopy but in our study all of them have received appropriate endoscopy training. In addition in past studies only four fifth of nurses received vaccinations while this present study showed that majority of them have received vaccination HBV. In past studies four fifth of nurses has satisfactory knowledge related to endoscopy precautions and measures while in our present study knowledge of nurses by having appropriate training is improved optimistically to higher percentage In past study of Amer et al. poor knowledge of nurses in baseline observed while in present study this loop hole is minimized . Present study showed similar results to the Bertleff's et al. who noticed that after training or education the knowledge results in progressive practice of nurses. Ramsey and his colleague based of their have a look at that, maximum of the nursesdid now no longer acquire any unique training or Inservice education approximately endoscope reprocessing practices. Most of the authors stated that training and education, which include competency testing, as a minimum annually. This facilitates professional nurse to maintain updated at the maximum recent traits in nursing and to have the ability to control the needs of nursing practice. Educational application and education guides are additives of workforce

improvement. It is advocated that non-stop training in nursing is wanted to sell improvement of expertise, abilities and attitudes of nurses and to enhance the nice of care given for their patients. Also the fashioned education guides played an essential position in improving and updating nurses expertise and performance.

CONCLUSION

Finally we conclude that the nurse age, training and dealing period might have an effect on the level of nurses data relating to canal endoscopy including; general precautions, basic steps to wash and medical care in examination unit. The majority of nurses had positive attitude. While coaching and qualification can affect dealing with the patients additionally to nurses level of apply before, throughout and manual disinfecting of endoscopy. So, we tend to recommend adequate education and training of all nurses working with gastrointestinal endoscopy unit, with continuous analysis of nurses work practice. Periodic evaluation might indicate interference with training programs ought to be enclosed both theoretical and practical. more studies are necessary to spot effects of educational programs on nurses performance in endoscopy unit.

Extensive training of staff involved in endoscope reprocessing is mandatory for quality assurance and for effective infection control and documentation of this taring is required. The efficacy of manual cleaning and HLD operator dependent, thus assignment of personnel responsible for endoscope. Suggests the importance of using standard clinical guidelines and approaches to prepare educational curriculum, internship education in hospital, and educational courses in hospital.Guideline for HCWs especially radiology staff and health care policy makers.

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