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## RESEARCH ARTICLE

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### KNOWLEDGE AND PRACTICES OF NURSES TOWARDS PREOPERATIVE CARE OF SURGICAL PATIENTS AT KAMPALA INTERNATIONAL UNIVERSITY TEACHING HOSPITAL BUSHENYI DISTRICT

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#### Abstract

The study was focused on the knowledge, and practices of nurses towards preoperative care of surgical patients at KIU-TH Bushenyi districts. The purpose of the study was to assess nurse's knowledge and practices towards preoperative care of surgical patients at KIU -TH Bushenyi district. This study adopted a cross sectional study design using quantitative research approach to collect data and 35 respondents were involved, nurses on surgical, orthopaedic, and accident and emergency wards were involved in the study. According to the study, nurses have good quite good knowledge about preoperative care based on the fact that most of them clearly defined it well. The study found out that the majority of the respondents agreed that the aim of preoperative care is to prepare patients for surgery while the least strongly agreed. Response on whether there is need for nurses to establish good rapport with patients before they go for surgery in order to promote trust between the nurse and the patient showed that the majority of the patients strongly agreed while the least strongly disagreed. A big number of respondents disagreed on developing nursing care plans for the patients, while only a few strongly agreed with it. Few respondents strongly agreed that they always monitor vital observations prior to surgery while the majority strongly disagreed with it.

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#### Introduction:-

Globally, more than 235 million surgeries are conducted annually [1] with an estimated additional 143 million surgeries required each year and many of which are in Africa [2]. According to careful estimations, approximately 7 million injuries and 1 million deaths result from these surgeries [3], this could result from surgical patient needs provided by nurses not being met sufficiently in practice. Furthermore, nurses have reported having lack of adequate education skills and insufficient knowledge about preoperative care [4]. According to patients' bill of rights and joint commission for accreditation of health care organisations (JCAHO), all patients have a right to quality care and in this regard, preoperative care of patients is not only a strategy to mitigate abatable risks to surgical patients, but also a roadmap for enhancing care and patients surgical safety. When providing preoperative care to patients, the nurse is responsible for preparing, establishing and developing several practices according to specificity of the surgery and these practices are performed in accordance with specialized knowledge in order to meet patient

satisfaction and safety [5]. Such practices include preoperative education of patient, physical and emotional preparation, starving the patient, hygiene, consenting among others with a view to reducing surgery risk, allay anxiety and promoting recovery [7].

In developed countries, preoperative care is mainly done in pre-surgical clinics by physicians, anaesthetists and registered nurses such that problems associated with surgical procedures are well recognised before they occur. In a survey of Turkish surgery nurses, 80% believed that patient care before surgery was not their primary task due to insufficient staffing and inadequate knowledge about preoperative care Sayin [7].

In sub-Saharan Africa, the need for patients surgical care in preoperative period remain alarmingly high and world health organisation stated that the rates of avoidable deaths associated with surgery could be 100-1000times higher in sub Saharan Africa than in industrialised countries where preoperative care is inadequately practiced. This study in Zambia showed that nurses in the four district hospitals had knowledge deficits regarding preoperational care. Eighty-one representing 48% of nurses had low knowledge on preoperative care [8].

## **Methodology:-**

### **Study design and rationale**

This chapter adopted a cross sectional study design using quantitative research approach. The rationale for the design is to obtain a detailed description of knowledge and practices of nurses towards preoperative care of surgical patients. The quantitative approach was used because it is more reliable and objective, it also saves time and cost.

### **Study area**

The study was conducted at KIU-TH found in Ishaka town approximately 62km by road, west of Mbarara, the largest city in the Ankole sub region about 6km west of Bushenyi district.

### **Study population**

For this study, it was conducted among nurses within surgical ward, orthopaedic ward, accident and emergency during the month of data collection willing to participate, mentally and physically capable. Because the above-mentioned wards, perform surgeries to patients which need preoperative care that is provided by nurses.

### **Sample size determination**

The minimum required sample size was determined using Silven (1962) formula with precision of +/-5% at a confidence level of 95%. The formula is given by the expression below;

$$N = \frac{n}{1 + n(E)^2}$$

Where

N=Number of respondents

n=target population, n=34 (estimated number of nurses)

E=fixed error, E=0.05

Therefore  $N = \frac{34}{1 + 34(0.05)^2}$

N= 34 respondents will be recruited in the study

### **Sample procedure**

Convenient sampling was used in this study to collect quantitative data. This method is preferred because it is appropriate according to my study population, and it is time saving

### **Inclusion criteria**

In this study, the researcher included;

1. Nurses who were present onwards at that time and month of data collection
2. Nurses who were to participate mentally and physically capable.

### **Exclusion criteria**

This study excluded;

1. Nurses who were mentally and physically incapable to stand the interview and were no willing to participate.
2. Nurses who were absent on wards at the time and month of data collection.

### Data collection procedure

The researcher got an introductory letter from the school which she presented to the principle nursing officer of the hospital and later to in charges of different wards who gave permission for data collection. The researcher introduced herself to the participants and explained to them the purpose of the research. Consent forms were given out and signed by willing participants. Questionnaires were given to respondents to fill and those who were not be able to read and write were guided by the researcher, then the researcher checked through the filled questionnaires before leaving the data collection area to ensure completeness

### Data analysis

Data analysis was performed by manual tallies and was later analysed using electronic calculators and entered into excel spread sheet summarised using tables, pie charts, bar graphs, line graphs and figures.

### Ethical considerations

An introductory letter issued by research and ethics committee of KIU-SONS was obtained and used to introduce the research to surgical wards on research day. Nurses were included in the study upon giving their consent to participate after a thorough explanation was given by the researcher on the purpose of the study and they were requested to consent, the researcher informed participants that they have a right to withdraw from the study if one feels uncomfortable during the course of study. Participants were assured of maximum confidentiality that were informed that there is no hidden intention behind the study but research purposes only.

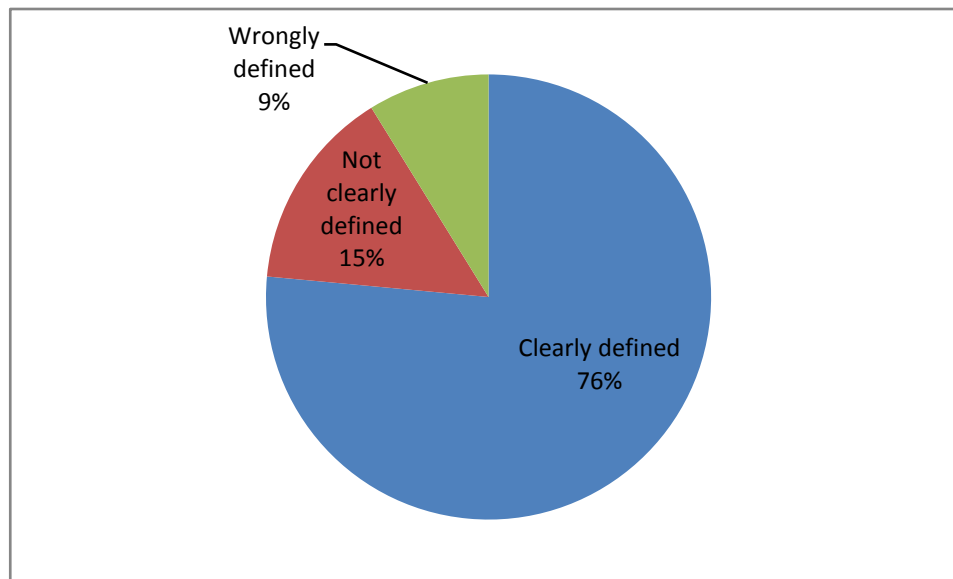
### Results:-

Table 1 below show that half of respondents (58.8%) were of age range 25-29 years while only (14.7%) were between 20-24 years. Majority of respondents (70.6%) were males whereas only 29.4 were females. A big percentage (67.4%) worked on accident and emergency ward, 35.3% on orthopaedic and 23.5% worked on surgical ward. Majority of respondents (67.4%) had a working experience of 3 years and above, and only 32.4% had 2 years of experience. Most of the respondents (52.9%) had diploma as their qualification, 35.5% had certificate and only 11.8% respondents had bachelors

**Table 1:-** Socio-demographic data of the respondents (n=34)

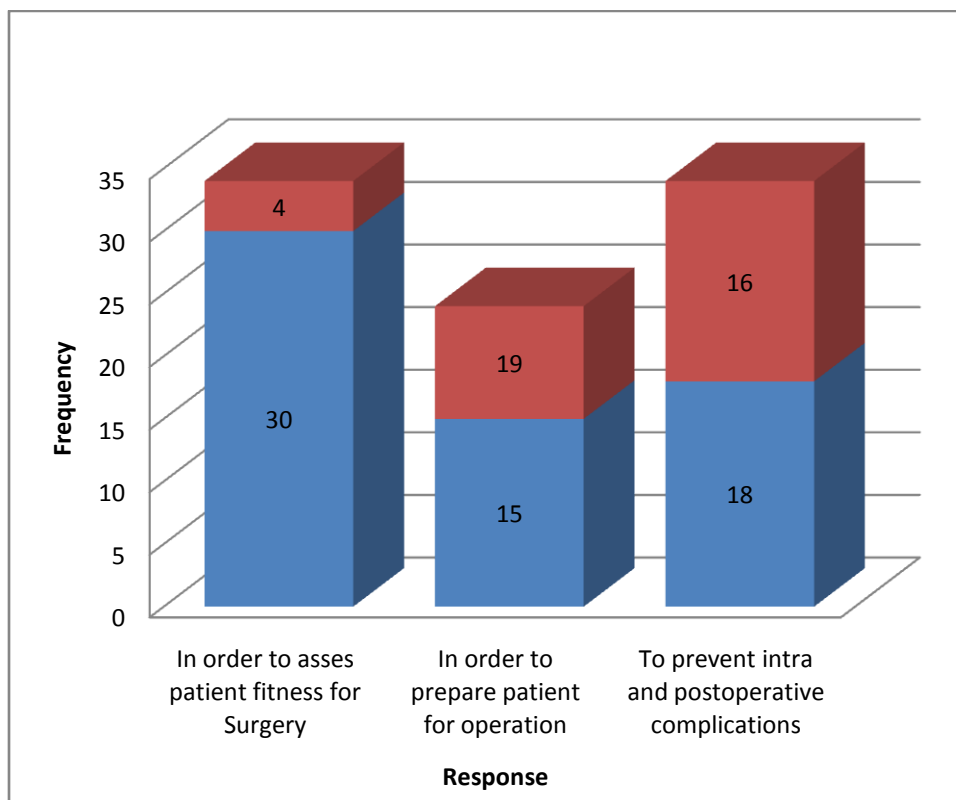
| Socio-demographic characteristics | Filters      | Frequency(n) | Percentage (%) |
|-----------------------------------|--------------|--------------|----------------|
| Age (yrs)                         | 20-24        | 5            | 14.7           |
|                                   | 25-29        | 20           | 58.8           |
|                                   | 30 and above | 9            | 26.5           |
|                                   | <b>Total</b> | <b>34</b>    | <b>100</b>     |
| Sex                               | Male         | 24           | 70.6           |
|                                   | Female       | 10           | 29.4           |
|                                   | <b>Total</b> | <b>34</b>    | <b>100</b>     |
| Department                        | Surgical     | 8            | 23.5           |
|                                   | Orthopaedic  | 12           | 35.3           |
|                                   | A/E          | 14           | 41.1           |
|                                   | <b>Total</b> | <b>34</b>    | <b>100</b>     |
| Years of experience               | 1 year       | 00           | 00             |
|                                   | 2 years      | 11           | 32.4           |
|                                   | 3 years      | 23           | 67.4           |
|                                   | <b>Total</b> | <b>34</b>    | <b>100</b>     |
| Qualification                     | Certificate  | 12           | 35.3           |
|                                   | Diploma      | 18           | 52.9           |
|                                   | Bachelors    | 04           | 11.8           |
|                                   | <b>Total</b> | <b>34</b>    | <b>100</b>     |

**4.2 Knowledge of nurses towards preoperative care of surgical patients**



**Figure 1:-** Definition of preoperative care n=34.

According to the figure above, the majority 76% clearly defined preoperative care while the least 9% defined it wrongly.



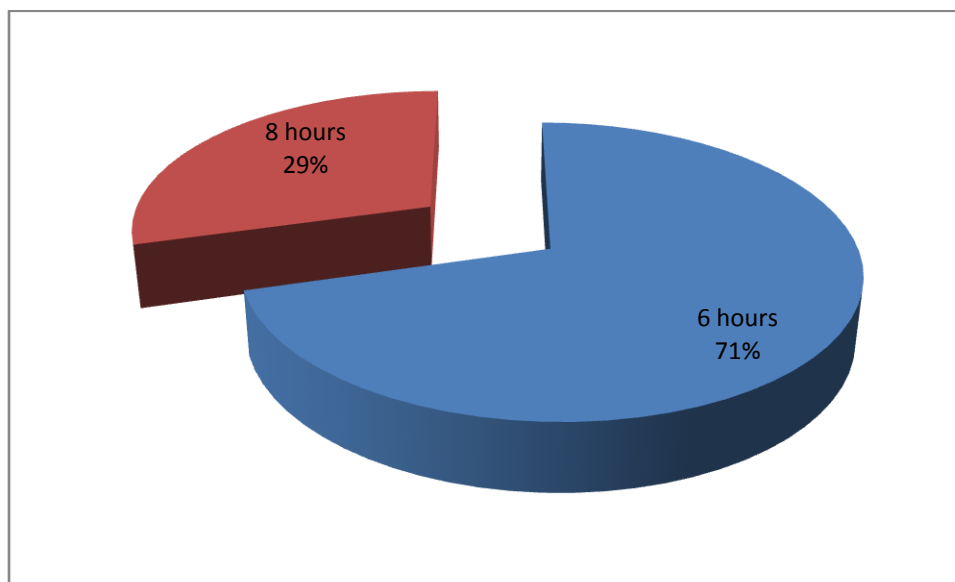
**Figure 2:-** Responses on whether it is important to carryout preoperative care.

According to figure 2 above, most of the respondents believed that it is important to carryout preoperative care in order to asses patient fitness for Surgery given by 30(88.3%), in order to prepare patient for operation given by 18(44.1%), and to prevent intra and postoperative complications given by 18(52.9%).

**Table 2:-** Responses on where preoperative care is done from n=34.

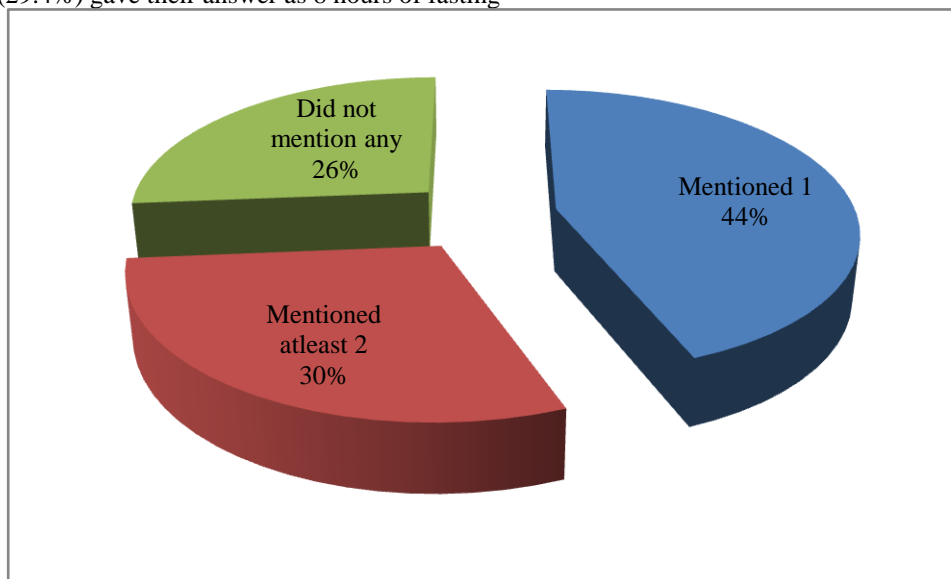
| Response | Frequency(n) | Percentage (%) |
|----------|--------------|----------------|
| Ward     | 34           | 100            |
| Home     | 00           | 00             |
| Theatre  | 00           | 00             |
| total    | 34           | 100            |

Table 2 shows that all the respondents (100%) knew preoperative care is carried out from the ward



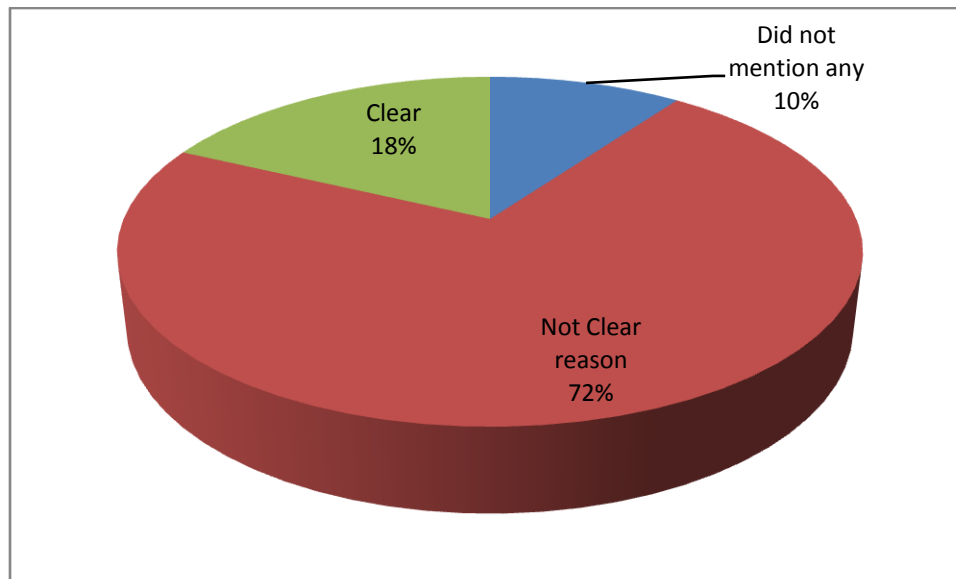
**Figure 3:-** Responses on the knowledge on recommended hours of preoperative fasting. n=34.

Figure 3 above shows that majority of respondents (70.6%) gave their answer as 6 hours while the remaining respondents (29.4%) gave their answer as 8 hours of fasting



**Figure 4:-** Shows knowledge on examples of preoperative exercises. n=34

Figure 4 above shows that majority of respondents (44%) mentioned only 1 example of preoperative exercises namely breathing exercise, 30% mentioned at least 2 examples while 26% did not mention any.



**Figure 5:-** Reasons on why patients are maintained on Nil per oral before surgery n=34.

According to the figure above, 72% did not give clear reason on why patients are maintained on Nil per oral which is to reduce the volume and acidity of stomach contents before surgery while 10% did not mention any reason.

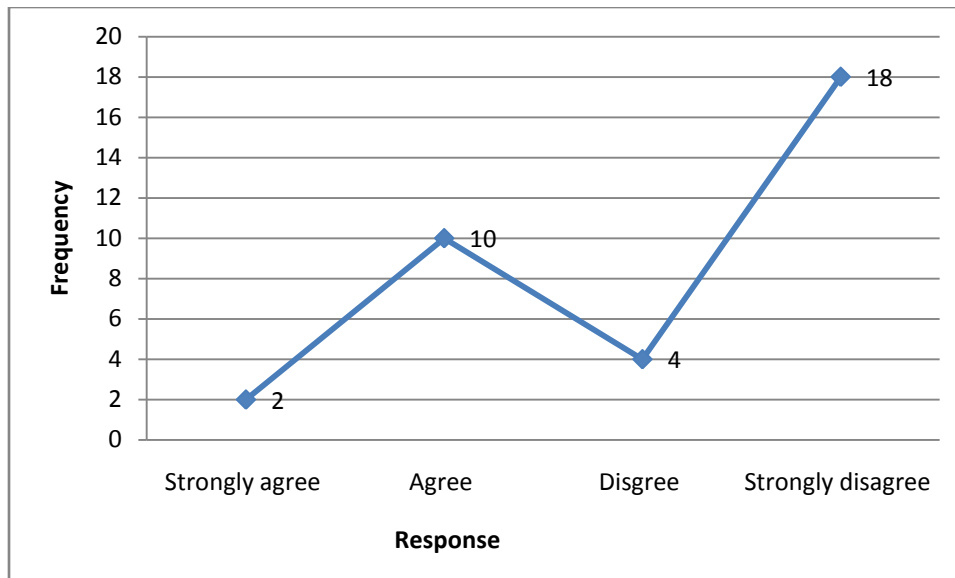
#### Nurses practices towards preoperative care

**Table 3:-** Response on the aim of preoperative care is to prepare patients for surgery and whether nurses maintain patients on nil per oral. n=34

| The aim of preoperative care is to prepare patients for surgery |               |                |
|---|---------------|----------------|
| Response  | Frequency (n) | Percentage (%) |
| Strongly agree  | 11            | 32.4           |
| Agree   | 16            | 47.1           |
| Disagree  | 5             | 14.7           |
| Strongly disagree   | 2             | 5.9            |
| <b>Total</b>  | <b>34</b>     | <b>100</b>     |
| Responses on whether nurses maintain patients on nil per oral   |               |                |
| Response  | Frequency (n) | Percentage (%) |
| Strongly agree  | 05            | 14.7           |
| Agree   | 20            | 58.8           |
| Disagree  | 09            | 26.3           |
| Strongly disagree   | 00            | 00             |
| <b>Total</b>  | <b>34</b>     | <b>100</b>     |

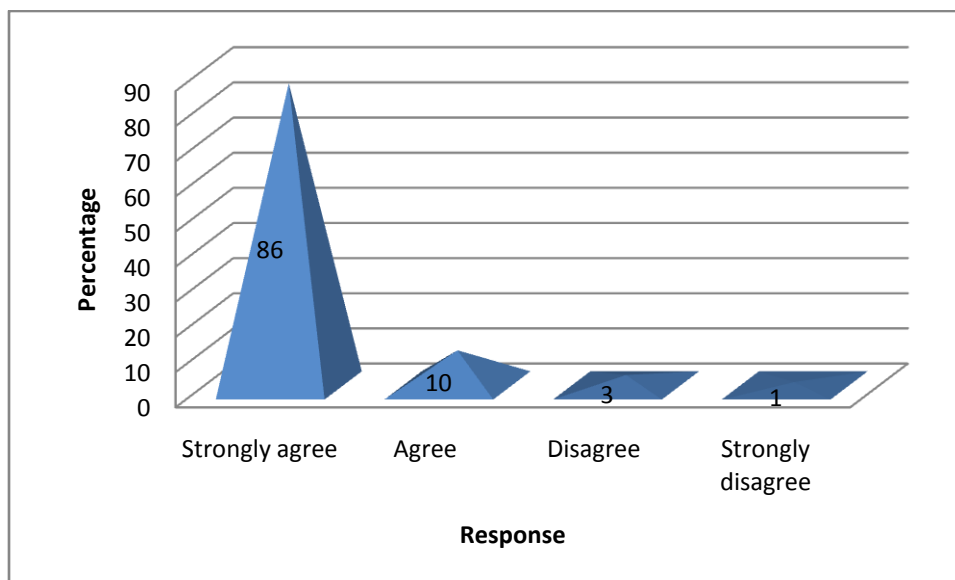
From table 3 above, the majority of the respondents agreed that the aim of preoperative care is to prepare patients for surgery while the least 32.4% strongly agreed.

Majority of respondents (70.6%) agreed on maintaining patients nil per oral while only (14.7%) strongly agreed with and other respondents (26.3%) disagreed with it.



**Figure 6:-** Responses on whether the nurses always educate patients about their condition and reassure them to allay anxiety n=34.

According to the table above, responses on whether the nurses always educate patients about their condition and reassure them to allay anxiety showed that 18(52.9%) strongly disagrees while the least 2(5.9%) strongly agreed



**Figure 7:-** Response on whether there is need for nurses to establish good rapport with patients before they go for surgery in order to promote trust between the nurse and the patient n=34

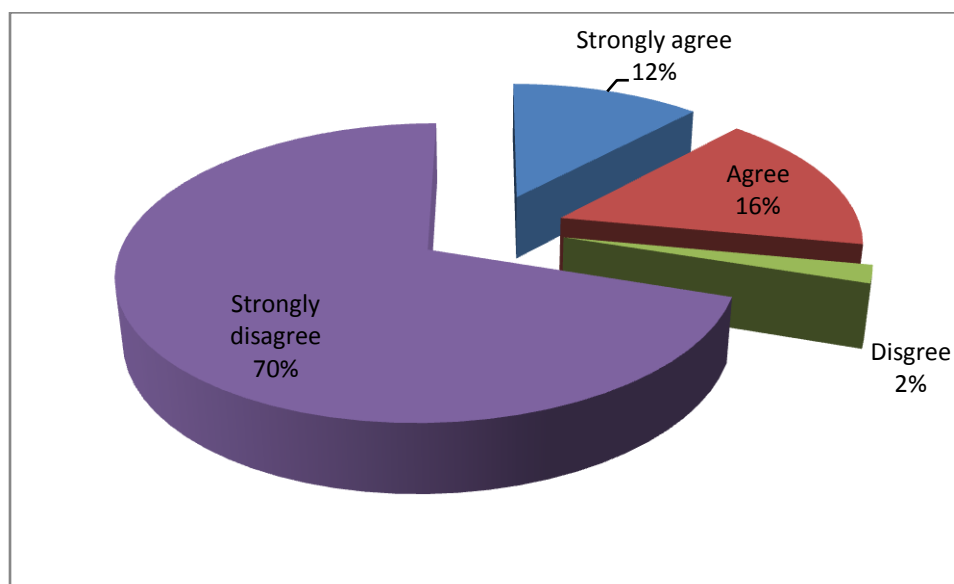
According to the figure above, response on whether there is need for nurses to establish good rapport with patients before they go for surgery in order to promote trust between the nurse and the patient showed that the majority of the patients 86% strongly agreed while the least 1% strongly disagreed.

**Table 4:-** Shows response on whether they develop nursing care plans for patients n=34.

| Response       | Frequency (n) | Percentage (%) |
|----------------|---------------|----------------|
| Strongly agree | 03            | 8.8            |
| Agree          | 05            | 14.7           |
| Disagree       | 24            | 70.6           |

|                   |           |            |
|-------------------|-----------|------------|
| Strongly disagree | 02        | 5.9        |
| <b>Total</b>      | <b>34</b> | <b>100</b> |

A big number of respondents (70.6%) disagreed on developing nursing care plans for the patients, 14.7% agreed and 5.9% of respondents strongly disagreed while only 8.8% strongly agreed with it.



**Figure 8:-** Nurses always monitor vital observations prior to surgery.

According to the figure above, the majority of the nurses, 70% strongly disagreed that they do not always monitor vital observations prior to surgery while the least 2% disagree.

### Discussion:-

From the study findings that half of respondents (58.8%) were of age range 25-29 years while only (14.7%) were between 20-24 years. Most nurses' lie in that age bracket of 25-29 years due to the fact that KIU-TH is private teaching hospital whereby those above that age bracket leave the institution to join the government. Majority of respondents (70.6%) were males whereas only 29.4% were females. This is because the most employed nurses in the wards were males. A big percentage (67.4%) worked on accident and emergency ward, 35.3% on Orthopaedic and 23.5% worked on surgical ward. Majority of respondents (67.4%) had a working experience of 3 years and above, and only 32.4% had 2 years of experience. Although this study did not correlate between age and knowledge and practice on nurses preoperative care, it's important to note that knowledge improves with time basing on experience. Most of the respondents (52.9%) had diploma as their qualification, 35.5% had certificate and only 11.8% respondents had Bachelors. This could be because most of the nurses had certificate and could upgrade immediately for diploma.

The aim of preoperative care is to do whatever is right to increase the success of the surgery. At some point before the operation the health care provider will assess the fitness of the person to have surgery. From the study findings most of the respondents believed that it is important to carryout preoperative care in order to asses patient fitness for Surgery given by 30(88.3%), in order to prepare patient for operation given by 18(44.1%), and to prevent intra and postoperative complications given by 18(52.9%). This study coincides with the study by Emmanel [9] who found, less than half (31.8%) of nurses gave clear responses to this.

All the respondents (100%) knew preoperative care is carried out from the ward. It could have been because they always prepare patients for the operation when they are onwards. The majority of respondents (70.6%) gave their answer as 6 hours while the remaining respondents (29.4%) gave their answer as 8 hours of fasting. This is related to the study carried out by Brady et al., (2010) suggested that, nurses had knowledge on how many hours of fasting the patient in the preoperative period where he found that majority gave their answer as 6 hours. The majority of respondents (44%) mentioned only 1 example of preoperative exercises, 29% mentioned at least 2 examples while the rest of respondents (26%) did not mention any. This could be because the ones they mentioned are what they



normally teach patients on the ward. 72% did not give a clear reason on why patients are maintained on Nil per oral before surgery, which is to reduce the volume and acidity of stomach contents, 18% still gave unclear reasons while 10% did not mention any reason.

The study found out that the majority of the respondents (47.1%) agreed that the aim of preoperative care is to prepare patients for surgery while the least 5.9% strongly disagreed. Majority of respondents (58.8%) agreed on maintaining patients nil per oral while only (14.7%) strongly agreed with and other respondents (26.3%) disagreed with it. This correlated with the study carried out by Bianca [10] an obstetrician noticed that some women who were given general anaesthetic experienced severe breathing problems during surgery. He realised this was because their stomach contents were rising back up their oesophagus, and being inhaled into the lungs, where the acid was causing damage. Thus 'nil by mouth', which is now embodied into surgical practice as no solid food or milky drinks from six hours before surgery, and no clear liquids from two hours before surgery. Responses on whether the nurses always educate patients about their condition and reassure them to allay anxiety showed that 16(47.1%) strongly disagreed that they do not educate patients while only 2(5.9%) strongly agreed. This study is in line with the findings of in a study done by Lee and Lee [11] discovered that 47% of surgical nurses believed that they do not provide all the education necessary to the patient and discrepancies between what they think should be provided and what was desired remain. Lee and Lee [11] stated "preoperative patient teaching may not be a top priority of all nurses.

Response on whether there is need for nurses to establish good rapport with patients before they go for surgery in order to promote trust between the nurse and the patient showed that the majority of the patients 86% strongly agreed while the only 1% strongly disagreed. To supplement on the above Nagpal et al. [12] believed that there is need for nurses to establish good rapport with patients before they go for surgery in order to promote trust between the nurse and the patient hence reducing the chances of patients labeling nurses as rude people and also will make patients feel at home. Nurses also need to acquire customer care skills through organized seminars/trainings by the hospital. A big number of respondents (70.6%) disagreed on developing nursing care plans for the patients, while only 8.8% strongly agreed with it. Crawford [13] stated that some nursing care procedures are being performed due to empirical knowledge, with no scientific studies that justify all the procedures that are performed. The majority of the nurses 70% strongly disagreed that they always do not monitor vital observations prior to surgery and only 12% strongly agreed. Nurses work at the frontlines of most healthcare systems, and their contributions are recognized as essential in delivering effective patient care. Nurses who are satisfied with their work and with the conditions under which care is provided are more likely to provide quality care that satisfies the patient.

### Conclusion:-

According to the study, nurses have good quite good knowledge about preoperative care based on the fact that most of them clearly defined it well. From the study findings most of the respondents believed that it is important to carry out preoperative care in order to assess patient fitness for surgery, in order to prepare patient for operation, and to prevent intra and postoperative complications. Few respondents gave a clear reason on why patients are maintained on Nil per oral before surgery. All the respondents knew preoperative care is carried out from the ward. The majority of respondents gave their answer as 6 hours while the remaining respondents gave their answer as 8 hours of fasting.

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