

## **Assessment of perioperative nurses' surgical instructions to patients undergoing abdominal surgery in the two teaching hospitals in Lagos State, Nigeria.**

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### **Abstract**

**Objective:** This study was carried out to assess the level of perioperative nurses' surgical instructions to patients undergoing abdominal surgery in the two teaching hospitals in Lagos State, Nigeria. This study will help perioperative Nurses to know the level of surgical instructions given to patients undergoing abdominal surgery.

**Methods:**Total enumeration sampling technique was used in the two institutions of study. The target population for the study was 1300 nurses. A sample of 160 nurses working in the theatres of the two hospitals was used for the study. A self-structured questionnaire was used to assess the perioperative nurses' surgical instructions to a patient undergoing abdominal surgery comprised of 6 sections which contained 41 items and indicated by never, seldom, sometimes, and always. Data were analysed using SPSS version 21.0 statistical software.

### **Results:**

A majority of the respondents 149(96.1%) have an adequate level of surgical instruction while 6(3.9%) of the respondents had an inadequate level of surgical instructions. There is no significant relationship between nurses' years of experience in perioperative nursing and their extent of surgical instructions to patients undergoing abdominal surgery in the two teaching hospitals in Lagos state  $p$ -value=0.344. There is no significant difference in the perioperative nurses' surgical instructions to patients undergoing abdominal surgery between the two teaching hospitals in Lagos State with a  $p$ -value = 0.377. There is no significant relationship between nurse's educational status in perioperative nursing and their extent of surgical instructions to the patient undergoing abdominal surgery in the two teaching hospitals with a  $p$ -value= 0.457.

**Conclusions:** A majority of the nurses showed that they administer adequate surgical instruction to their patient undergoing surgery but improvements can be made especially in the aspect of nutrition which had the lowest number of nurses who always administer the instructions appropriately.

**Keywords:** Surgical Instructions, Perioperative Nurses, Abdominal Surgery, Teaching Hospital.

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### **I. Introduction:**

Surgical instructions are those given to surgical patients to reduce complications, through teaching by the perioperative nurses to the patients including, do not drink or eat before surgery, no smoking or alcohol 24 hours before surgery, keep good hygiene, ask questions related to the operative process and signing of the informed consent among others. It is important because it increases patient's knowledge regarding preparing for abdominal surgery, reduces anxiety, enhances the ability to cope with the perioperative experience and recovery. It may decrease the risk of postoperative complications.

The instructions are in phases; before, during, and after surgery, failure to give the patients these instructions may lead to complications including, aspiration, pain, paralytic ileus, constipation, bleeding, depression, and infections. It is important to improve the quality of surgical instructions to achieve high-quality health services.

It shortens patients to stay in the hospital, reduces the cost of care, and prevents complications of abdominal surgery such as burst abdomen.

Surgical instructions to patients around the world depend on the skills and knowledge of perioperative nurses and the other surgical team (Istomina, 2011). Perioperative nurses give and emphasize the importance of surgical instructions before, during, and after the surgical operation to the patient through the World health organisation checklist. Effective and consistent surgical instruction by the perioperative nurses to the patients in all perioperative phases will improve postoperative outcomes. Surgical instructions to patients begin when they

present for treatment and continues to discharge from the hospital. This care involves skillful coordination between the perioperative and other surgical specialists to provide high levels of health care. It is given to patients undergoing different surgical operations but the focus of this study is on abdominal surgery.

It was observed by the researcher, that despite perioperative surgical instructions given to patients undergoing abdominal surgery, 80% of the patients develop risks such as infection, pain, emotional and psychological depression, the complaint of irritation from Nasogastric tube, and urethral catheterization postoperatively. The effect of these risks leads to altered body image, prolonged hospitalisation, financial constraint on the patients, and loss of revenue generation from the hospital.

Worldwide, more than 234 million surgeries are mandatory each year to encounter the global need and among 143 million annual surgeries, 6% occur in low to medium income countries, with the highest rate of surgical need in Western Sub-Saharan Africa with 6,495 operations per 100,000 inhabitants (Rose., Weiser., Hider., et al., 2015). More than 80% of patients who undergo abdominal surgery procedures experience acute postoperative pain and wound infection (Apfelbaum, 2013). Approximately 75% of patients with postoperative pain, constipation, and paralytic ileus report the severity as moderate, severe, or extreme because of inadequate surgical instructions (Kelhet, 2016).

Most studies carried-out are focused on the patients alone giving little to no attention to the perioperative nurses' surgical instructions, in Nigeria, there is an increase in postoperative complications of abdominal surgery because perioperative nurses are not adequate hence a dearth in surgical instructions to patients.

This is in congruence with the researcher's experience with post-operative patients who had abdominal surgery despite perioperative surgical instructions given to them, and there are no known studies done about perioperative nurse surgical instructions to a patient undergoing abdominal surgery in Nigeria hence the motivation of the researcher to conduct the study assessing the perioperative nurses' surgical instructions to patients undergoing abdominal surgery in two teaching hospitals in Lagos State, Nigeria.

## **II. Method**

This study was a descriptive cross-sectional study that used a questionnaire (research instrument) to assess perioperative nurses' surgical instruction to patient-facing abdominal surgery among perioperative nurses in two tertiary hospitals in Lagos state.

### **Research Setting and Sample**

The setting of this study was Lagos University Teaching Hospital Idi-Araba and Lagos State University Teaching Hospital Ikeja Lagos. Lagos University Teaching Hospital is situated in Idiaraba, Mushin Local Government Area of Lagos State. It was formerly Surulere Mainland hospital built on 92 acres of farmland in 1962. There are six operating theatres with 18 operating rooms for different surgical specialties. It has 130 perioperative nurses.

The Lagos State University Teaching Hospital was formerly Ikeja General Hospital commissioned in July 2001 situated at Oba Akinjobi way in Ikeja Local Government Area of Lagos state. It has two operating theatres with 30 perioperative nurses.

All the registered nurses working in the theatres of Lagos university teaching hospital Idiaraba and Lagos state university teaching hospital Ikeja, who give perioperative instructions to patients undergoing abdominal surgery, which totalled 160 (LUTH- 130 and LASUTH- 30) were used for this study, willingly consented to participate after carefully going through a detailed procedure of conducting the research study.

### **Data Collection and Coding**

The instrument for data collection was a self –developed questionnaire consisting of 49 items. The questionnaire was made up of 6 sections; A, B, C, D, E, F .Section A consists of: Socio-demographic data of respondents, Section B; Perioperative nurses' surgical instructions on nutrition to patients undergoing abdominal surgery. There are 8 questions under section B. Section C; Perioperative nurses' surgical instructions on informed consent to a patient undergoing abdominal surgery. It consists of 7 items.

Section D; Perioperative nurses' surgical instructions on bowel preparation to patients undergoing abdominal surgery; this section has 6 questions. Section E; Perioperative nurses' surgical instructions on safety measures to a patient undergoing abdominal surgery. It comprises 4 questions while Section F consists of 6 questions on Perioperative nurses' surgical instructions on recovery to a patient undergoing abdominal surgery.

Perioperative nurses' surgical instructions to a patient undergoing abdominal surgery section contained 41 items and indicated by never, seldom, sometimes, and always. The following represents scores that were awarded to every responded question:

Never – 1, Seldom – 2, Sometimes – 3, and Always – 4. Therefore, the total score attainable in this section was 164. Respondents that had a total score within 80-164 had adequate surgical instructions and those that had a total score between 0-79 had inadequate surgical instructions.

The questionnaire was written in English Language and the participants were informed about the aim of the study. The questionnaire was measured according to the number of correct options the respondents choose.

### Analysis

The data obtained were coded and analysed using SPSS version 21.0 statistical software. Variables and research questions were analysed using descriptive statistics such as mean, frequency distribution, bar chart, and standard deviation. The hypotheses 1 to 5 were tested using Chi-square at 0.05 probability level.

### Ethics

Ethics approval was given by Lagos University Teaching Hospital(ADM/DCST/HREC/APP/3865) and the Lagos State University Teaching Hospital (LREC/06/10/1521) Health Research Ethics committees. Following ethics approval for the study, permission was sought from interested participants, anonymity and confidentiality were maintained both during and after collection of data. The participants were also assured that they could withdraw without providing any explanation.

### III. Results

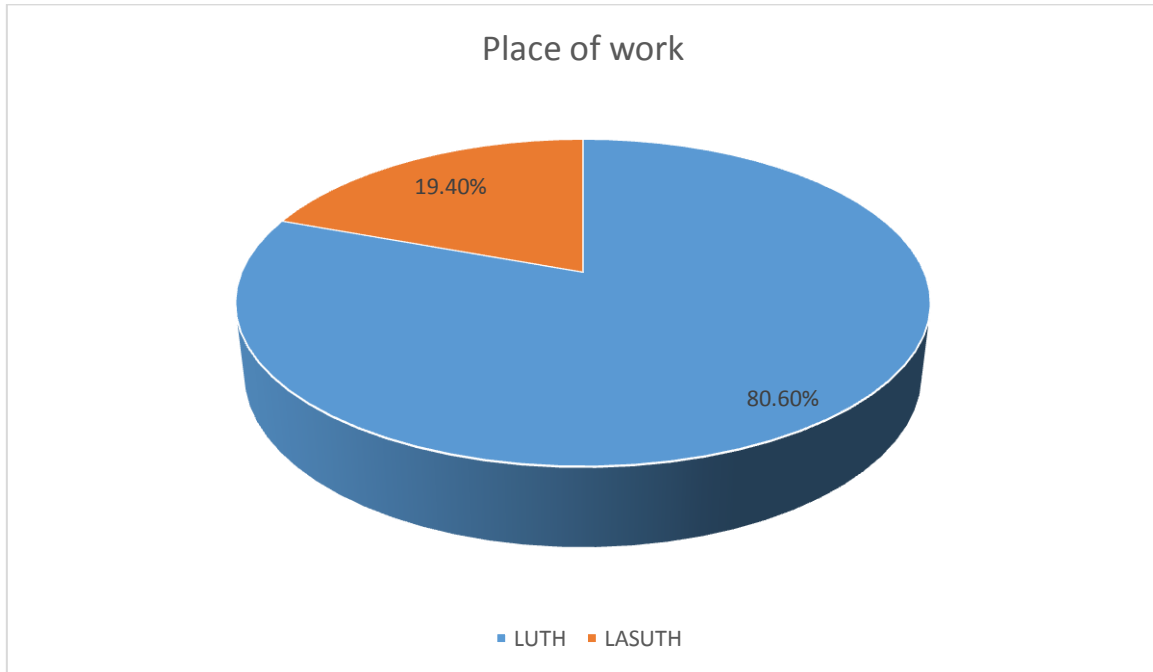
A total number of 160 questionnaires were distributed to the nurses working in the operating room of the two teaching hospitals in Lagos state. (Lagos University Teaching Hospital Idi-Araba, Surulere, Lagos and Lagos State University Teaching Hospital, Ikeja, Lagos.). A total of 155 questionnaires were adequately filled and returned, a total of 5(3.1%) questionnaires were not returned from LUTH. This gave a response rate of 96.9 %.

**Table 1: Socio-demographic data**

| Variable                          | LUTH      |            | LASUTH    |            | Total             |            |
|-----------------------------------|-----------|------------|-----------|------------|-------------------|------------|
|                                   | Frequency | Percentage | Frequency | Percentage | Frequency (n=155) | Percentage |
| <b>Age</b>                        |           |            |           |            |                   |            |
| 20-29                             | 12        | 7.7        | 0         | 0.0        | 12                | 7.7        |
| 30-39                             | 35        | 22.6       | 18        | 11.6       | 53                | 34.2       |
| 40-49                             | 47        | 30.3       | 17        | 11.0       | 59                | 38.1       |
| 50-59                             | 27        | 17.4       | 4         | 2.6        | 31                | 20.0       |
| Mean age = 41.48±8.99             |           |            |           |            |                   |            |
| <b>Gender</b>                     |           |            |           |            |                   |            |
| Male                              | 18        | 11.6       | 4         | 2.6        | 22                | 14.2       |
| Female                            | 107       | 69.0       | 26        | 16.8       | 133               | 85.8       |
| <b>Religion</b>                   |           |            |           |            |                   |            |
| Christianity                      | 111       | 71.6       | 27        | 17.4       | 138               | 89.0       |
| Islam                             | 14        | 9.0        | 3         | 1.9        | 17                | 11.0       |
| <b>Ethnicity</b>                  |           |            |           |            |                   |            |
| Yoruba                            | 92        | 59.4       | 25        | 16.1       | 117               | 75.5       |
| Igbo                              | 28        | 18.1       | 5         | 3.2        | 33                | 21.3       |
| Hausa                             | 1         | 0.7        | 0         | 0.0        | 1                 | 0.6        |
| Others                            | 4         | 2.6        | 0         | 0.0        | 4                 | 2.6        |
| <b>Educational status</b>         |           |            |           |            |                   |            |
| RN                                | 42        | 27.1       | 9         | 5.8        | 51                | 32.9       |
| BSC                               | 76        | 49.0       | 20        | 12.9       | 96                | 61.9       |
| MSc                               | 6         | 3.9        | 1         | 0.7        |                   |            |
| PhD                               | 1         | 0.7        | 0         | 0.0        |                   |            |
| <b>Marital status</b>             |           |            |           |            |                   |            |
| Single                            | 9         | 5.8        | 3         | 1.9        | 12                | 7.7        |
| Married                           | 109       | 70.3       | 27        | 17.4       | 136               | 87.7       |
| Widowed                           | 7         | 4.5        | 0         | 0.0        | 7                 | 4.5        |
| <b>Years practiced as a nurse</b> |           |            |           |            |                   |            |
| <1 year                           | 3         | 1.9        | 1         | 0.7        | 4                 | 2.6        |
| 1-3 years                         | 4         | 2.6        | 2         | 1.3        | 6                 | 3.9        |
| 4-10 years                        | 27        | 17.4       | 11        | 7.1        | 38                | 24.5       |
| >10 years                         | 91        | 58.7       | 16        | 10.3       | 107               | 69.0       |
| <b>Designation</b>                |           |            |           |            |                   |            |
| NOI                               | 23        | 14.8       | 9         | 5.8        | 32                | 20.6       |
| SNO                               | 15        | 9.7        | 3         | 1.6        | 18                | 11.6       |
| ACNO                              | 37        | 23.9       | 7         | 4.5        | 44                | 28.4       |
| CNO                               | 21        | 13.6       | 11        | 7.1        | 32                | 20.6       |

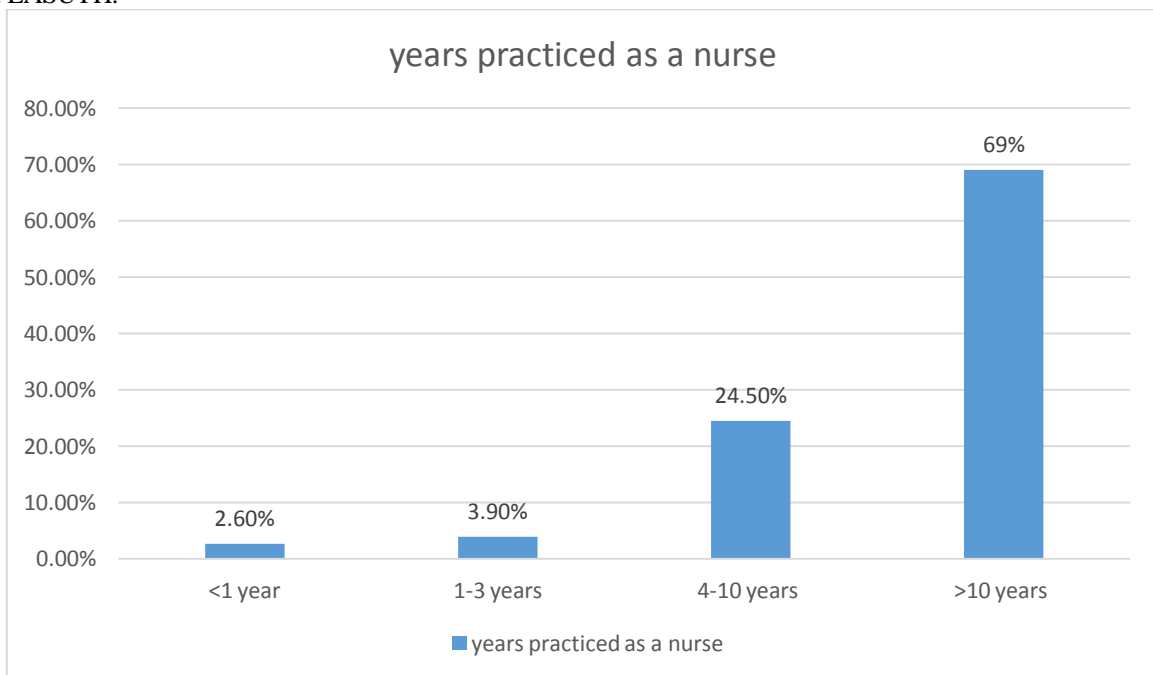
|      |    |      |   |     |    |      |
|------|----|------|---|-----|----|------|
| ADNS | 21 | 13.6 | 0 | 0.0 | 21 | 13.5 |
| DDNS | 8  | 5.2  | 0 | 0.0 | 8  | 5.2  |

Table 1 above shows that the mean age of the respondents is 41.48±8.99 years. A majority of the respondents 59(38.1%) are between the ages 40-49 years. Most of the respondents 133(85.8%) are females with a majority 138(89.0%) being Christians. A majority of the respondents 117(75.5%) are of the Yoruba ethnicity and a majority of the respondents 96(61.9%) have attained the BSc degree. Most of the respondents 136(87.7%) are married and a majority 125(80.6%) work at LUTH. A majority of the respondents 107(69.0%) have practiced for more than 10 years and a majority 44(28.4%) have attained ACNO cadre.



**Fig 1: Place of work of respondents**

The figure above shows that a majority of 125(80.6%) of the respondents work at LUTH while 30(19.4%) work at LASUTH.



**Fig 2 Bar chart showing the work experience of the respondents**

Figure 2 above shows that the majority of the respondents 107(69.0%) have practiced for more than 10 years, 38(24.5%) has practiced for 4-10 years, 6(3.9%) has practiced between 1-3 years and 4(2.6%) has practiced for less than a year.

**Table 2: Perioperative Nurses Surgical Instructions on Nutrition to Patients Undergoing Abdominal Surgery**

| Variable                                                                                                                                     | LUTH      |            | LASUTH    |            | Total     |            |
|----------------------------------------------------------------------------------------------------------------------------------------------|-----------|------------|-----------|------------|-----------|------------|
|                                                                                                                                              | Frequency | Percentage | Frequency | Percentage | Frequency | Percentage |
| <b>I tell the patient to eat enough fruits and vegetables daily at least 3 weeks before surgery otherwise specified.</b>                     |           |            |           |            |           |            |
| Never                                                                                                                                        | 19        | 12.3       | 2         | 1.3        | 21        | 13.5       |
| Seldom                                                                                                                                       | 19        | 12.3       | 5         | 3.2        | 24        | 15.5       |
| Sometimes                                                                                                                                    | 38        | 24.5       | 12        | 7.7        | 50        | 32.3       |
| Always                                                                                                                                       | 49        | 31.6       | 11        | 7.1        | 60        | 38.7       |
| <b>I tell the patient to eat a variety of protein-containing foods at least 3 weeks before surgery</b>                                       |           |            |           |            |           |            |
| Never                                                                                                                                        | 21        | 13.5       | 1         | 0.7        | 22        | 14.2       |
| Seldom                                                                                                                                       | 13        | 8.4        | 3         | 1.9        | 16        | 10.3       |
| Sometimes                                                                                                                                    | 35        | 22.6       | 10        | 6.5        | 45        | 29.0       |
| Always                                                                                                                                       | 56        | 36.1       | 16        | 10.3       | 72        | 46.5       |
| <b>I instruct the patient to use fats, oils, and sweeteners sparingly</b>                                                                    |           |            |           |            |           |            |
| Never                                                                                                                                        | 38        | 24.5       | 8         | 5.2        | 46        | 29.7       |
| Seldom                                                                                                                                       | 15        | 9.7        | 3         | 1.9        | 18        | 11.6       |
| Sometimes                                                                                                                                    | 37        | 23.9       | 9         | 5.8        | 46        | 29.7       |
| Always                                                                                                                                       | 35        | 22.6       | 10        | 6.5        | 45        | 29.0       |
| <b>I instruct the patient to drink plenty of water until 6-8 hours before surgery unless contraindicated.</b>                                |           |            |           |            |           |            |
| Never                                                                                                                                        | 10        | 6.5        | 2         | 1.3        | 12        | 7.7        |
| Seldom                                                                                                                                       | 21        | 13.5       | 0         | 0.0        | 21        | 13.5       |
| Sometimes                                                                                                                                    | 19        | 12.3       | 12        | 7.7        | 31        | 20.0       |
| Always                                                                                                                                       | 75        | 48.4       | 16        | 10.3       | 91        | 58.7       |
| <b>I instruct patients not to eat 6-8 hours before surgery</b>                                                                               |           |            |           |            |           |            |
| Never                                                                                                                                        | 10        | 6.5        | 1         | 0.7        | 11        | 7.1        |
| Seldom                                                                                                                                       | 5         | 3.2        | 0         | 0.0        | 5         | 3.2        |
| Sometimes                                                                                                                                    | 6         | 3.9        | 3         | 1.9        | 9         | 5.8        |
| Always                                                                                                                                       | 104       | 67.1       | 26        | 16.8       | 130       | 83.9       |
| <b>I instruct the patient to avoid taking medications 6-8 hours before surgery</b>                                                           |           |            |           |            |           |            |
| Never                                                                                                                                        | 21        | 13.5       | 1         | 0.7        | 22        | 14.2       |
| Seldom                                                                                                                                       | 7         | 4.5        | 3         | 1.9        | 10        | 6.5        |
| Sometimes                                                                                                                                    | 41        | 26.5       | 12        | 7.7        | 53        | 34.2       |
| Always                                                                                                                                       | 56        | 36.1       | 14        | 9.0        | 70        | 45.2       |
| <b>I tell patients to avoid smoking or drinking alcohol 24hours before surgery</b>                                                           |           |            |           |            |           |            |
| Never                                                                                                                                        | 10        | 6.5        | 0         | 0.0        | 10        | 6.5        |
| Seldom                                                                                                                                       | 14        | 9.0        | 2         | 1.3        | 16        | 10.3       |
| Sometimes                                                                                                                                    | 18        | 11.6       | 6         | 3.9        | 24        | 15.5       |
| Always                                                                                                                                       | 83        | 53.5       | 22        | 14.2       | 105       | 67.7       |
| <b>I instruct the patient to shower and brush their teeth, as usual, the morning of the surgery, ensuring they swish and spit not drink.</b> |           |            |           |            |           |            |
| Never                                                                                                                                        | 13        | 8.4        | 0         | 0.0        | 13        | 8.4        |
| Seldom                                                                                                                                       | 11        | 7.1        | 1         | 0.7        | 12        | 7.7        |
| Sometimes                                                                                                                                    | 17        | 11.0       | 6         | 3.9        | 23        | 14.8       |
| Always                                                                                                                                       | 84        | 54.2       | 23        | 14.8       | 107       | 69.0       |

The table above shows that less than half of the respondents 60(38.7%) always tell the patient to eat enough fruits and vegetables daily at least 3 weeks before surgery otherwise specified. Almost half of the respondents 72(46.5%) always tell the patient to eat a variety of protein-containing foods at least 3 weeks before surgery. The majority of the respondents 91(58.7%) always instruct patients to drink plenty of water until 6-8 hours before surgery unless contraindicated. Most of the respondents 130(83.9%) always instruct patients not to eat 6-8 hours before surgery.

**Table 3: Perioperative Nurses Surgical Instructions on Informed Consent to Patients Undergoing Abdominal Surgery**

| Variable                                                                                 | LUTH      |            | LASUTH    |            | Total     |            |
|------------------------------------------------------------------------------------------|-----------|------------|-----------|------------|-----------|------------|
|                                                                                          | Frequency | Percentage | Frequency | Percentage | Frequency | Percentage |
| <b>I ask the patient to mention the procedure to be performed on him/her</b>             |           |            |           |            |           |            |
| Never                                                                                    | 4         | 2.6        | 0         | 0.0        | 4         | 2.6        |
| Seldom                                                                                   | 8         | 5.2        | 2         | 1.3        | 10        | 6.5        |
| Sometimes                                                                                | 31        | 20.0       | 3         | 1.9        | 34        | 21.9       |
| Always                                                                                   | 82        | 52.9       | 25        | 16.1       | 107       | 69.0       |
| <b>I tell the patient the importance of signed informed consent before the procedure</b> |           |            |           |            |           |            |
| Never                                                                                    | 5         | 3.2        | 0         | 0.0        | 5         | 3.2        |

|                                                                                                                                    |     |      |    |      |     |      |
|------------------------------------------------------------------------------------------------------------------------------------|-----|------|----|------|-----|------|
| Seldom                                                                                                                             | 4   | 2.6  | 2  | 1.3  | 6   | 3.9  |
| Sometimes                                                                                                                          | 18  | 11.6 | 1  | 0.7  | 19  | 12.3 |
| Always                                                                                                                             | 98  | 63.2 | 27 | 17.4 | 125 | 80.6 |
| <b>I tell the patient to mention the potential risks and benefits of the procedure before the surgery</b>                          |     |      |    |      |     |      |
| Never                                                                                                                              | 4   | 2.6  | 0  | 0.0  | 4   | 2.6  |
| Seldom                                                                                                                             | 9   | 5.8  | 2  | 1.3  | 11  | 7.1  |
| Sometimes                                                                                                                          | 37  | 23.9 | 5  | 3.2  | 42  | 27.1 |
| Always                                                                                                                             | 75  | 48.4 | 23 | 14.8 | 98  | 63.2 |
| <b>I tell the patient to ask adequate questions and clarify things he/she is not certain about the procedure from the surgeon</b>  |     |      |    |      |     |      |
| Never                                                                                                                              | 3   | 1.9  | 0  | 0.0  | 3   | 1.9  |
| Seldom                                                                                                                             | 6   | 3.9  | 2  | 1.3  | 8   | 5.2  |
| Sometimes                                                                                                                          | 26  | 16.8 | 1  | 0.7  | 27  | 17.4 |
| Always                                                                                                                             | 90  | 58.1 | 27 | 17.4 | 117 | 75.5 |
| <b>I tell the patient he/she has the right to refuse the proposed procedure</b>                                                    |     |      |    |      |     |      |
| Never                                                                                                                              | 2   | 1.3  | 3  | 1.9  | 5   | 3.2  |
| Seldom                                                                                                                             | 7   | 4.5  | 2  | 1.3  | 9   | 5.8  |
| Sometimes                                                                                                                          | 34  | 21.9 | 5  | 3.2  | 39  | 25.2 |
| Always                                                                                                                             | 82  | 52.9 | 20 | 12.9 | 102 | 65.8 |
| <b>I tell the patient to make a knowledgeable decision on his/her procedure voluntarily without coercion</b>                       |     |      |    |      |     |      |
| Never                                                                                                                              | 4   | 2.6  | 0  | 0.0  | 4   | 2.6  |
| Seldom                                                                                                                             | 9   | 5.8  | 2  | 1.3  | 11  | 7.1  |
| Sometimes                                                                                                                          | 29  | 18.7 | 6  | 3.9  | 35  | 22.6 |
| Always                                                                                                                             | 83  | 53.5 | 22 | 14.2 | 105 | 67.7 |
| <b>I tell the patient to verify his signature on the signed informed consent document before the commencement of the procedure</b> |     |      |    |      |     |      |
| Never                                                                                                                              | 3   | 1.9  | 1  | 0.7  | 4   | 2.6  |
| Seldom                                                                                                                             | 7   | 4.5  | 3  | 1.9  | 10  | 6.5  |
| Sometimes                                                                                                                          | 15  | 9.7  | 0  | 0.0  | 15  | 9.7  |
| Always                                                                                                                             | 100 | 64.5 | 26 | 16.8 | 126 | 81.3 |

The table above shows that a majority of the respondents 107(69.0%) always instruct the patient to mention the procedure to be performed on him/her. Most of the respondents 125(80.6%) always tell the patient the importance of signed informed consent before the procedure. A majority of the respondents 98(63.2%) always tell the patient to mention the potential risks and benefits of the procedure before the surgery. Most of the respondents 126(81.3%) always tell the patient to verify his signature on the signed informed consent document before the commencement of the procedure.

**Table 4: Perioperative Nurses Surgical Instructions on Bowel Preparation to Patients Undergoing Abdominal Surgery**

| Variable                                                                                                                                       | LUTH      |            | LASUTH    |            | Total     |            |
|------------------------------------------------------------------------------------------------------------------------------------------------|-----------|------------|-----------|------------|-----------|------------|
|                                                                                                                                                | Frequency | Percentage | Frequency | Percentage | Frequency | Percentage |
| <b>I instruct the patient not to eat or drink anything 6-8 hours before surgery</b>                                                            |           |            |           |            |           |            |
| Never                                                                                                                                          | 2         | 1.3        | 0         | 0.0        | 2         | 1.3        |
| Seldom                                                                                                                                         | 1         | 0.7        | 0         | 0.0        | 1         | 0.6        |
| Sometimes                                                                                                                                      | 13        | 8.4        | 4         | 2.6        | 17        | 11.0       |
| Always                                                                                                                                         | 109       | 70.3       | 26        | 16.8       | 135       | 87.1       |
| <b>I instruct the patient to only eat and drink "clear liquids" 24 hours before the surgery</b>                                                |           |            |           |            |           |            |
| Never                                                                                                                                          | 8         | 5.2        | 2         | 1.3        | 10        | 6.5        |
| Seldom                                                                                                                                         | 3         | 1.9        | 1         | 0.7        | 4         | 2.6        |
| Sometimes                                                                                                                                      | 22        | 14.2       | 6         | 3.9        | 28        | 18.1       |
| Always                                                                                                                                         | 92        | 59.4       | 21        | 13.5       | 113       | 72.9       |
| <b>I instruct the patient not to consume dairy products before surgery</b>                                                                     |           |            |           |            |           |            |
| Never                                                                                                                                          | 13        | 8.4        | 4         | 2.6        | 17        | 11.0       |
| Seldom                                                                                                                                         | 19        | 12.3       | 4         | 2.6        | 23        | 14.8       |
| Sometimes                                                                                                                                      | 35        | 22.6       | 7         | 4.5        | 42        | 27.1       |
| Always                                                                                                                                         | 58        | 37.4       | 15        | 9.7        | 73        | 47.1       |
| <b>I instruct the patient to continue any prescribed medications until 6-8 hours before surgery unless otherwise instructed by the doctor.</b> |           |            |           |            |           |            |
| Never                                                                                                                                          | 3         | 1.9        | 1         | 0.7        | 4         | 2.6        |
| Seldom                                                                                                                                         | 14        | 9.0        | 2         | 1.3        | 16        | 10.3       |
| Sometimes                                                                                                                                      | 24        | 15.5       | 9         | 5.8        | 33        | 21.3       |
| Always                                                                                                                                         | 84        | 54.2       | 18        | 11.6       | 102       | 65.8       |
| <b>I instruct and assist patient to take prescribed laxatives with sips of water</b>                                                           |           |            |           |            |           |            |
| Never                                                                                                                                          | 8         | 5.2        | 3         | 1.9        | 11        | 7.1        |
| Seldom                                                                                                                                         | 10        | 6.5        | 4         | 2.6        | 14        | 9.0        |
| Sometimes                                                                                                                                      | 27        | 17.4       | 10        | 6.5        | 37        | 23.9       |
| Always                                                                                                                                         | 80        | 51.6       | 13        | 8.4        | 93        | 60.0       |
| <b>I instruct the patient to empty the bowel after the passage of enema</b>                                                                    |           |            |           |            |           |            |

| <b>saponin</b> |     |      |    |      |     |      |
|----------------|-----|------|----|------|-----|------|
| Never          | 3   | 1.9  | 2  | 1.3  | 5   | 3.2  |
| Seldom         | 1   | 0.7  | 2  | 1.3  | 3   | 1.9  |
| Sometimes      | 17  | 11.0 | 3  | 1.9  | 20  | 12.9 |
| Always         | 104 | 67.1 | 23 | 14.8 | 127 | 81.9 |

The table above shows that a majority of the respondents 135(87.1%) always instruct the patient not to eat or drink anything 6-8 hours before surgery. Most of the respondents 113(72.9%) always instruct the patient to only eat and drink “clear liquids” 24 hours before the surgery. The majority of the respondents 93(60.0%) always instruct and assist patients to take prescribed laxatives with sips of water. The majority 127(81.9%) always instruct patient to empty bowel after the passage of enema saponins.

**Table 5: Perioperative Nurses Surgical Instructions on Safety Measures to Patients Undergoing Abdominal Surgery**

| Variable                                                                                                          | LUTH      |            | LASUTH    |            | Total     |            |
|-------------------------------------------------------------------------------------------------------------------|-----------|------------|-----------|------------|-----------|------------|
|                                                                                                                   | Frequency | Percentage | Frequency | Percentage | Frequency | Percentage |
| <b>I instruct the patient to disclose any implant he/she has</b>                                                  |           |            |           |            |           |            |
| Never                                                                                                             | 1         | 0.7        | 2         | 1.3        | 3         | 1.9        |
| Seldom                                                                                                            | 1         | 0.7        | 1         | 0.7        | 2         | 1.3        |
| Sometimes                                                                                                         | 6         | 3.9        | 1         | 0.7        | 7         | 4.5        |
| Always                                                                                                            | 117       | 75.5       | 26        | 16.8       | 143       | 92.3       |
| <b>I ensure the patient discloses past health and surgical history</b>                                            |           |            |           |            |           |            |
| Never                                                                                                             | 2         | 1.3        | 2         | 1.3        | 4         | 2.6        |
| Seldom                                                                                                            | 1         | 0.7        | 1         | 0.7        | 2         | 1.3        |
| Sometimes                                                                                                         | 9         | 5.8        | 2         | 1.3        | 11        | 7.1        |
| Always                                                                                                            | 113       | 72.9       | 25        | 16.1       | 138       | 89.0       |
| <b>I ensure patients take prescribed antibiotics</b>                                                              |           |            |           |            |           |            |
| Never                                                                                                             | 3         | 1.9        | 0         | 0.0        | 3         | 1.9        |
| Seldom                                                                                                            | 7         | 4.5        | 1         | 0.7        | 8         | 5.2        |
| Sometimes                                                                                                         | 18        | 11.6       | 4         | 2.6        | 22        | 14.2       |
| Always                                                                                                            | 97        | 62.6       | 25        | 16.1       | 122       | 78.7       |
| <b>I instruct the patient to remove all dentures, jewellery, artificial nails, and nail polish before surgery</b> |           |            |           |            |           |            |
| Never                                                                                                             | 0         | 0.0        | 1         | 0.7        | 1         | 0.6        |
| Seldom                                                                                                            | 3         | 1.9        | 1         | 0.7        | 4         | 2.6        |
| Sometimes                                                                                                         | 9         | 5.8        | 0         | 0.0        | 9         | 5.8        |
| Always                                                                                                            | 113       | 72.9       | 28        | 18.1       | 141       | 91.0       |

The table above shows that a high percentage of the respondents 143(92.3%) always instruct patient to disclose any implant he/she has. Most of the respondents 138(89.0%) ensure patient discloses past health and surgical history. The majority of the respondents 141(91.0%) instruct patient to remove all dentures, jewellery, artificial nails, and nail polish before surgery

**Table 6: Perioperative Nurses Surgical Instructions on post-operative Recovery to Patients Undergoing Abdominal Surgery**

| Variable                                                                                                                 | LUTH      |            | LASUTH    |            | Total     |            |
|--------------------------------------------------------------------------------------------------------------------------|-----------|------------|-----------|------------|-----------|------------|
|                                                                                                                          | Frequency | Percentage | Frequency | Percentage | Frequency | Percentage |
| <b>I instruct patients not to eat or drink anything until bowel activity returns.</b>                                    |           |            |           |            |           |            |
| Never                                                                                                                    | 1         | 0.7        | 2         | 1.3        | 3         | 1.9        |
| Seldom                                                                                                                   | 1         | 0.7        | 1         | 0.7        | 2         | 1.3        |
| Sometimes                                                                                                                | 6         | 3.9        | 0         | 0.0        | 6         | 3.9        |
| Always                                                                                                                   | 117       | 75.5       | 27        | 17.4       | 144       | 92.9       |
| <b>I instruct the patient to begin oral graded sips as tolerated and avoid alcoholic fluids.</b>                         |           |            |           |            |           |            |
| Never                                                                                                                    | 2         | 1.3        | 2         | 1.3        | 4         | 2.6        |
| Seldom                                                                                                                   | 0         | 0.0        | 1         | 0.7        | 1         | 0.6        |
| Sometimes                                                                                                                | 16        | 10.3       | 0         | 0.0        | 16        | 10.3       |
| Always                                                                                                                   | 107       | 69.0       | 27        | 17.4       | 134       | 86.5       |
| <b>I instruct the patient to keep incision sites clean, dry, and ensure topical ointment is not applied to the site.</b> |           |            |           |            |           |            |
| Never                                                                                                                    | 1         | 0.7        | 2         | 1.3        | 3         | 1.9        |
| Seldom                                                                                                                   | 0         | 0.0        | 1         | 0.7        | 1         | 0.6        |
| Sometimes                                                                                                                | 8         | 5.2        | 1         | 0.7        | 9         | 5.8        |
| Always                                                                                                                   | 116       | 74.8       | 26        | 16.8       | 142       | 91.6       |
| <b>I tell the patient to avoid picking, scratching, or pulling on the incision site.</b>                                 |           |            |           |            |           |            |
| Never                                                                                                                    | 1         | 0.7        | 1         | 0.7        | 2         | 1.3        |
| Seldom                                                                                                                   | 4         | 2.6        | 1         | 0.7        | 5         | 3.2        |
| Sometimes                                                                                                                | 7         | 4.5        | 0         | 0.0        | 7         | 4.5        |
| Always                                                                                                                   | 113       | 72.9       | 28        | 18.1       | 141       | 91.0       |
| <b>I instruct the patient to shower 48hours post-op and not to rub over the incision site</b>                            |           |            |           |            |           |            |

|                                                                                                                                  |     |      |    |      |     |      |
|----------------------------------------------------------------------------------------------------------------------------------|-----|------|----|------|-----|------|
| Never                                                                                                                            | 18  | 11.6 | 9  | 5.8  | 27  | 17.4 |
| Seldom                                                                                                                           | 11  | 7.1  | 1  | 0.7  | 12  | 7.7  |
| Sometimes                                                                                                                        | 32  | 20.6 | 3  | 1.9  | 35  | 22.6 |
| Always                                                                                                                           | 64  | 41.3 | 17 | 11.0 | 81  | 52.3 |
| <b>I instruct the patient to carry out coughing and deep breathing exercises to ensure airway clearance and tissue perfusion</b> |     |      |    |      |     |      |
| Never                                                                                                                            | 1   | 0.7  | 0  | 0.0  | 1   | 0.6  |
| Seldom                                                                                                                           | 0   | 0.0  | 2  | 1.3  | 2   | 1.3  |
| Sometimes                                                                                                                        | 15  | 9.7  | 1  | 0.7  | 16  | 10.3 |
| Always                                                                                                                           | 109 | 70.3 | 27 | 17.4 | 136 | 87.7 |
| <b>I tell the patient to tolerate nasogastric tube and urethral catheter if inserted in him.</b>                                 |     |      |    |      |     |      |
| Never                                                                                                                            | 1   | 0.7  | 1  | 0.7  | 2   | 1.3  |
| Seldom                                                                                                                           | 1   | 0.7  | 2  | 1.3  | 3   | 1.9  |
| Sometimes                                                                                                                        | 14  | 9.0  | 2  | 1.3  | 16  | 10.3 |
| Always                                                                                                                           | 109 | 70.3 | 25 | 16.1 | 134 | 86.5 |

The table above shows that a majority of the respondents 144(92.9%) always instruct patients not to eat or drink anything until bowel activity returns. Most of the respondents 134(86.5%) instruct the patient to begin oral graded sips as tolerated and avoid alcoholic fluids. The majority of the respondents 142(91.6%) always instruct patient to keep incision sites clean, dry, and ensure topical ointment are not applied to the site. Most of the respondents 136(87.7%) always instruct patient to carry out coughing and deep breathing exercises to ensure airway clearance and tissue perfusion

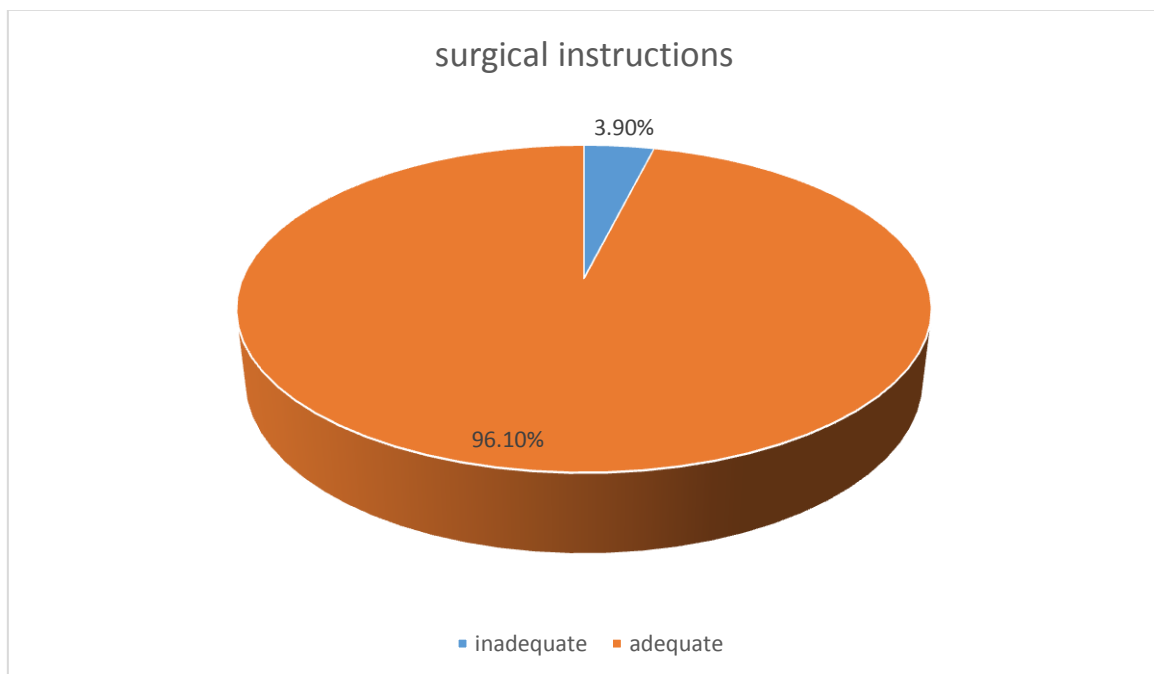


Fig 3: Overall level of perioperative Nurses surgical instructions

Figure 3 above shows that a majority of the respondents 149(96.1%) have an adequate level of surgical instruction delivered to patients while 6(3.9%) of the respondents had an inadequate level of surgical instructions delivered to patients.

Table 7: Relationship between nurses' educational status in perioperative nursing and their extent of surgical instructions to patients undergoing abdominal surgery

|                       | Surgical instruction |          | Total | X <sup>2</sup> | df | p-value |
|-----------------------|----------------------|----------|-------|----------------|----|---------|
|                       | Inadequate           | Adequate |       |                |    |         |
| Educational status RN | 1                    | 50       | 51    | 2.603          | 3  | 0.457   |
| BSc                   | 4                    | 92       | 96    |                |    |         |
| MSc                   | 1                    | 6        | 7     |                |    |         |
| PhD                   | 0                    | 1        | 1     |                |    |         |
| <b>Total</b>          | 6                    | 149      | 155   |                |    |         |

The table above shows that there is no significant relationship between nurses' educational status in perioperative nursing and their extent of surgical instructions to patients undergoing abdominal surgery in the two teaching hospitals in Lagos state with a p-value = 0.457.



**Table 8: Relationship between nurses' gender and their extent of surgical instructions to patients undergoing abdominal surgery**

|        |        | Surgical instruction |          |       | X <sup>2</sup> | df | p-value |
|--------|--------|----------------------|----------|-------|----------------|----|---------|
|        |        | Inadequate           | Adequate | Total |                |    |         |
| Gender | Male   | 0                    | 22       | 22    | 1.032          | 1  | 0.310   |
|        | Female | 6                    | 127      | 133   |                |    |         |
| Total  |        | 6                    | 149      | 155   |                |    |         |

The table above shows that there is no significant relationship between nurses' gender and their extent of surgical instructions to patients undergoing abdominal surgery in the two teaching hospitals in Lagos state with a p-value= 0.310.

**Table 9: Significant relationship between nurses' ethnicity and their extent of surgical instructions to patients undergoing abdominal surgery**

|           |        | Surgical instruction |          |       | X <sup>2</sup> | df | p-value |
|-----------|--------|----------------------|----------|-------|----------------|----|---------|
|           |        | Inadequate           | Adequate | Total |                |    |         |
| Ethnicity | Yoruba | 3                    | 114      | 117   | 3.155          | 3  | 0.368   |
|           | Igbo   | 3                    | 30       | 33    |                |    |         |
|           | Hausa  | 0                    | 1        | 1     |                |    |         |
|           | Others | 0                    | 4        | 4     |                |    |         |
| Total     |        | 6                    | 149      | 155   |                |    |         |

The table above shows that there is no significant relationship between nurses' ethnicity and their extent of surgical instructions to patients undergoing abdominal surgery in the two teaching hospitals in Lagos state with a p-value= 0.368.

**Table 10: Relationship between nurses' years of experience in perioperative nursing and their extent of surgical instructions to patients undergoing abdominal surgery**

|                             |      | Surgical instructions |          |       | X <sup>2</sup> | df | p-value |
|-----------------------------|------|-----------------------|----------|-------|----------------|----|---------|
|                             |      | Inadequate            | Adequate | Total |                |    |         |
| Years practiced as<br>nurse | < 1  | 0                     | 4        | 4     | 3.327          | 3  | 0.344   |
|                             | 1-3  | 1                     | 5        | 6     |                |    |         |
|                             | 4-10 | 2                     | 36       | 38    |                |    |         |
|                             | >10  | 3                     | 104      | 107   |                |    |         |
| Total                       |      | 6                     | 149      | 155   |                |    |         |

The table above shows that there is no significant relationship between nurses' years of experience in perioperative nursing and their extent of surgical instructions to patients undergoing abdominal surgery in the two teaching hospitals in Lagos state p-value=0.344.

**Table 11: Difference in the perioperative nurses' surgical instructions to patients undergoing abdominal surgery between the two teaching hospitals**

|               |        | Surgical instruction |          |       | X <sup>2</sup> | df | p-value |
|---------------|--------|----------------------|----------|-------|----------------|----|---------|
|               |        | Inadequate           | Adequate | Total |                |    |         |
| Place of work | LUTH   | 4                    | 121      | 125   | 0.781          | 1  | 0.377   |
|               | LASUTH | 2                    | 28       | 30    |                |    |         |
| Total         |        | 6                    | 149      | 155   |                |    |         |

The table above shows that there is no significant difference in the perioperative nurses' surgical instructions to patients undergoing abdominal surgery between the two teaching hospitals in Lagos State with a p-value = 0.377.

#### IV. Discussion

##### Perioperative Nurses Surgical Instructions on Nutrition

The result of this study showed that a majority of the respondents always tell the patient to eat enough fruits and vegetables daily at least 3 weeks before surgery otherwise specified. Most of the respondents always tell the patient to eat a variety of protein-containing foods at least 3 weeks before surgery. The majority of the

respondents always instruct the patient to drink plenty of water until 6-8 hours before surgery unless contraindicated. Most the respondents always instruct majority of the respondents instruct patients not to eat 6-8 hours before surgery. The result of this study is in agreement with a study conducted by Kumar, Kelleher, and Sigle (2013) in New York to describe the outcomes of the recent randomized clinical trials on mechanical bowel preparation in comparison to no preparation before the elective colon and rectal surgical resections as well as detail the history and the benefits of oral antibiotics with bowel preparation in preventing surgical site infections. Results of the study showed that the consumption of low-residue liquid supplements, low-residue meals, and even regular diets until the evening before surgery is equivalent or better than the traditional 24-hour clear liquid diet before colonoscopy. Easing the dietary restrictions during preparation for colon surgery may result in equivalent or better bowel preparation before surgery when combined with PEG solution. However, the results of this study are not in agreement with a study conducted by Misir, Bandic, Miklič, Zah, and Mihaljević, (2018) which assessed preoperative nutrition in surgical patients. The study showed that preoperative fasting that is, nil per oral after midnight on the day of surgery is considered unnecessary and obsolete. It further states that guidelines showed that taking clear fluid up to 2 hours before surgery, without fear of aspiration and other complications.

### **Perioperative Nurses surgical instructions on Safety Measures**

The result of this study showed that a majority of the respondents always instruct the patient to mention the procedure to be performed on him/her. Most of the respondents always tell the patient the importance of signed informed consent before the procedure. This is not similar to a study conducted by Akyuz, Bulut, and Karadag (2018) which assessed surgical nurses' knowledge and practices about informed consent. The result of this study showed that a majority of the respondents always instruct the patient to disclose any implant he/she has. This ensures that in case of an emergency MRI that is needed to be performed won't affect the patient or any other procedure that would directly interfere with the implant. Most of the respondents ensure the patient discloses past health and surgical history. The majority of the respondents instruct the patient to remove all dentures, jewelry, artificial nails, and nail polish before surgery.

### **Perioperative Nurses Surgical Instructions on Informed Consent**

The result of the study showed that Among the nurses who participated in this study, 39.1% indicated that they were responsible for obtaining informed consent. It was also found that 90.2% of the nurses informed patients before providing nursing interventions and 32.6% of the nurses obtained consent from patients. The results are also in agreement with a study conducted by Akyuz, and Erdem (2019) to determine the opinions and practices of nurses working in medical and surgical clinics regarding informed consent. It was determined that 89.8% of the nurses informed their patients for nursing interventions and 60.0% of them received verbal consent. A majority of the respondents always tell the patient to mention the potential risks and benefits of the procedure before the surgery. Most of the respondents always tell the patient to verify his signature on the signed informed consent document before the commencement of the procedure.

### **Perioperative Nurses Surgical instructions on Bowel Preparation**

The result of this study showed that a majority of the respondents always instruct the patient not to eat or drink anything 6-8 hours before surgery. Most of the respondents always instruct the patient to only eat and drink "clear liquids" 24 hours before the surgery. The majority of the respondents always instruct and assist patients to take prescribed laxatives with sips of water. The majority always instruct patient to empty bowel after the passage of enema saponins.

### **Perioperative Nurses Surgical Instructions on Postoperative recovery**

The result of this study showed that a majority of the respondents always instruct patients not to eat or drink anything until bowel activity returns. Most of the respondents instruct the patient to begin oral graded sips as tolerated and avoid alcoholic fluids. The majority of the respondents always instruct the patient to keep incision sites clean, dry, and ensure topical ointment is not applied to the site. Most of the respondents always instruct the patient to carry out coughing and deep breathing exercises to ensure airway clearance and tissue perfusion

In conclusion, the overall level of surgical instruction for each respondent was calculated and the result showed that a majority of the respondents have an adequate level of surgical instruction while a few of the respondents had an inadequate level of surgical instruction. The result of this study is not in agreement with a Kenyan study by Omondi, (2016) which proved that the preoperative patient instructions are helpful to the patient before surgery but its practice is very low, perioperative nurses must perform the preoperative patients visit for identifying and preventing the possible complications and plan how to provide quality perioperative care to them.

### **Limitations to the study**

There was a great dearth of literature in this area of study. The researcher encountered some difficulties among the nurses. Some of the nurses were not available at the same time while some were reluctant to fill the questionnaire because they claim they do not have time for it. The researcher also encountered huge financial expenses in carrying out this research.

### **Implication to Perioperative Nursing**

Information gathered in this study would assist hospitals to improve the quality of abdominal surgical instructions to achieve high-quality health services, shorten patient hospitalization periods, and have an economically more effective health care system that will help to improve patient satisfaction. As it was established in this study, some of the respondents had an inadequate level of surgical instructions which could lead to complication leading to delayed recovery or adverse effects. Knowing instructions that are not frequently administered would help allay such adverse effects by focusing on improving perioperative nurse's knowledge on this aspect and emphasizing practice.

The study may enhance the knowledge and skill of perioperative nurses and students in the participation of patient care to reduce patient's surgical complications.

## **V. Conclusion**

The perioperative nurse must possess the requisite knowledge and skills to cover the multidimensional need of surgical patients for promoting, protecting, and restoring health. This study assessed the level of perioperative nurses' surgical instructions to patients undergoing abdominal surgery in the two teaching hospitals in Lagos State, Nigeria. A majority of the nurses showed that they administer an adequate number of surgical instructions to their patient undergoing surgery but improvements can be made especially in the aspect of nutrition which had the lowest number of nurses who always administer the instructions appropriately.

### **Conflicting Interests**

There are no conflicting interests.

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