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The knowledge, attitude and practice of aseptic technique among nurses in Imo state University teaching hospital, Orlu

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Abstract

Aseptic technique is a set of specific practices and procedures performed under carefully controlled conditions with the goal of reducing micro organisms and protect patients from infection. The purpose of study is to determine the practice of aseptic technique in patients care by Nurses in Imo State University Teaching Hospital Orlu. The research design was descriptive survey design; the sample size was 40% of the total population (410) which was 164 clinical Nurses selected using convenience sampling technique. Data were collected using structured questionnaire. Data were analysed using descriptive statistics; frequency and percentages. The result showed, that majority 106(65%) of respondents understood the meaning a aseptic technique. 158(96%) knew there are factors militating against use of aseptic technical 64(39%) indicated work load as one of the factors, 58(35%) indicates lack of supervisor. Strategies to improve use of Aseptic technique 77(47%) staled provision of adequate facility. 75(46%) creating awareness, 70(43%) update training of nurses through seminar and workshop. The researcher recommends that supportive programme by the government should be established to help improve the practice of aseptic technique.

Keywords: knowledge, attitude, practice of aseptic technique, nurses

Introduction

Johnson (2012) defined aseptic technique as a set of specific practices and procedures performed under carefully controlled conditions with the goal of reducing microorganism and to protect patient from infection. Johnson further stated that asepsis is the method by which health workers prevent microbial contamination during invasive procedures.

The modern concept of aseptic technique evolved in the 19th century which showed that washing of hands prior to delivery reduced the risk of puerperal fever (Perry and Potter, 2012; Perry and Potter, 2104).

Kozier *et al.* (2013), stated that pathogens may introduce in lection to the patients through contact with the equipment, environment and even bacteria from the patients own skin or from the skin of the health care provider. Kozier *et al.*, further stated that the goal of aseptic techniques is to protect the patient from infection and to prevent the spread of pathogens.

Intervention such as disinfection, sterilization, universal and standard precaution helps to minimize the spread of infection as well as reduce patient stay in hospital and increase patient's satisfaction. Kozier *et al.* (2013) also stated that in

multidisciplinary setting, all personnel must constantly monitor their own movement, practices and the status of the overall field to prevent breaks in sterile fields. It is expected that personnel will alert other staff when the sterile field or object are personally contaminated.

Purpose of the study

The purpose of this study is to determine the knowledge, attitude and practice of aseptic technique in patient's care by nurses in Imo State University Teaching Hospital Orlu.

Materials and Methods

Research design

The research design used in this study was descriptive survey design. This design was preferred because of allow for orderly collection of data, proper analysis or interpretation and reporting relevance of data about the topic. It describes the current situation of the variable under study.

Area of the study

This study was carried out in Imo state university Teaching Hospital Orlu Local Government Area of Imo state.

Population of the study

The population of study consisted of all the Nurses who works in the clinic area of Imo State Teaching Hospital Orlu irrespective of rank, sex or years of experience excluding those in out-stations. In the nursing department, there were a total of four hundred and ten (410) Nurses in Imo state university teaching hospital orlu as of the time of study.

Sample and sampling technique

The researcher used a sample size of 164. This was gotten by selecting all the nurses that worked on the three shifts on the day the researcher visited the units. For example in the intensive care unit of Imo state university teaching hospital

3 nurses worked on morning shift, 2 on afternoon and 3 on night shift giving a total of 8 nurses.

Instrument for data collection

The instrument for data collection were open and closed ended questionnaires which consisted of fifteen (15) questions divided into the sections, section A and section B.

Section A consisted of four (4) questions on the demographic data and section B consisted of eleven (11) questions based on the objectives of the study. The respondents were expected to choose the corresponding answer from the given options. The questions were brief, clear and unambiguous.

Method of data collection

A letter of identification endorsed by the head of department from which the researcher came was issued to the respondent which proved that the researcher was a student. The researcher gained entrance into the wards / units through the various nurse managers who gave her the permission to administer the questionnaire. The researcher met the respondent's one on one and made necessary explanations to them. The researcher left the questionnaire with the respondents and went back after four (4) days to collect the so as to give the respondents ample time to fill it properly.

Ethical consideration

Before the collection of data from the respondents, a written permission will be obtained from the school.

The researchers maintained research ethics in the following ways:

- The researchers informed consent of participants
- The researchers did not impose any of the respondent to participate
- The researchers maintain confidentiality throughout the research work
- The researchers considered not only rules and comes but also the character of the individual involved

The researchers respect the right and culture of the individual

from this study through questionnaire were analyzed and presented according to the research questions using frequency tables, percentages chart and histograms.

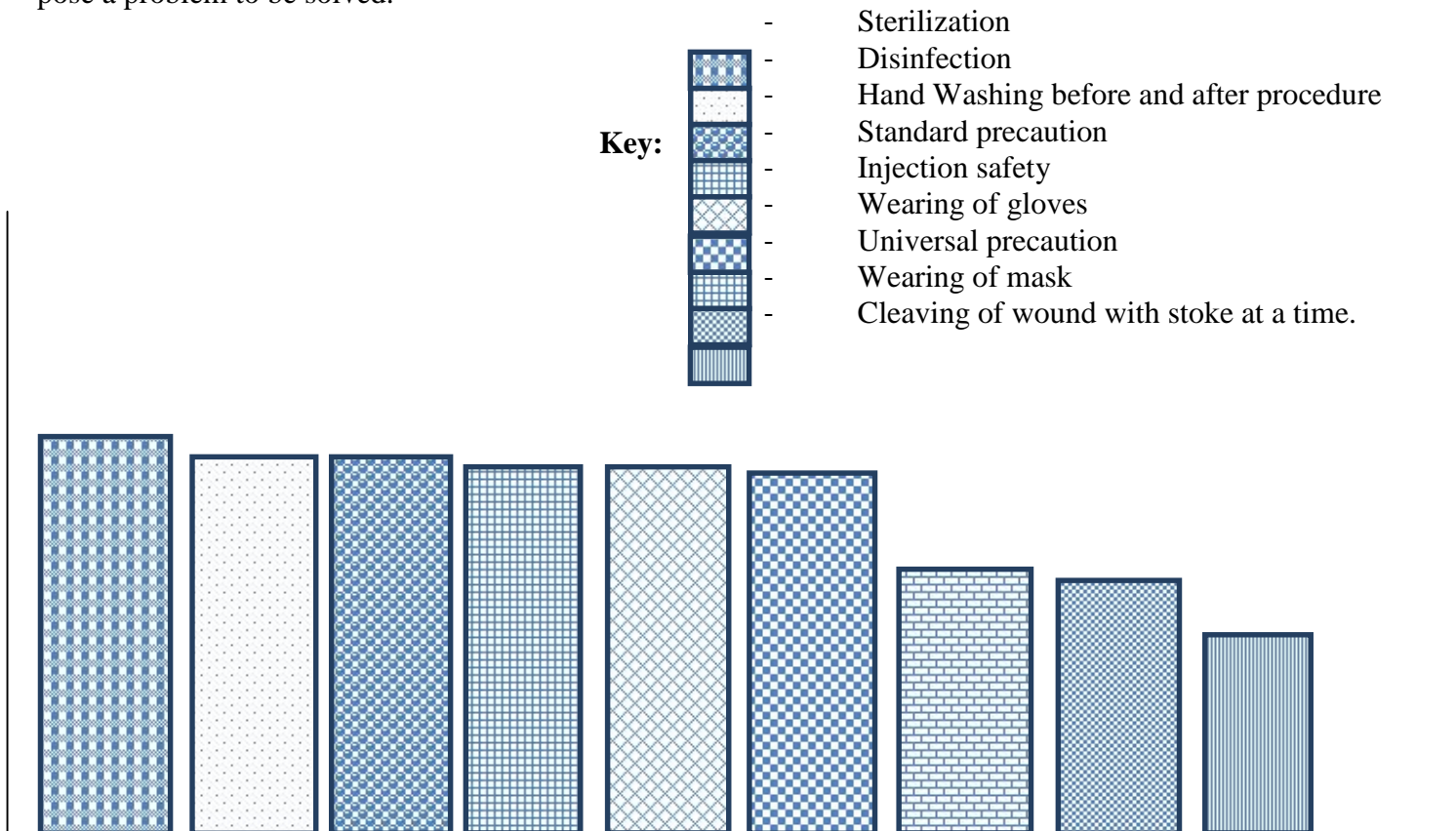
Data presentation and analysis

In this chapter, analysis of the findings generated

Table 1: Showing respondent’s answer

Response	Frequency	Percentage
Aseptic technique is a set of aseptic practices and procedures performed under carefully controlled conditions with the goal of minimizing contamination by pathogens	106	65%
This a method of keeping patient free from infection	26	16%
This is the method by which the health care provider kept from infection.	4	2%
this is the act of keeping patient clean	20	12%
This is the method used during any procedure that by assess the body’s natural defence	8	5%
Total	164	100%

The table above showed that not all the nurses understood the meaning of aseptic technique and therefore pose a problem to be solved.



The bar chart in figure 1, showed that 69(42%) the respondents used sterilization, 66(40%) used disinfection 65(45%) used hand washing before and after procedure 63 (38%) used standard precaution, 63(38%) used injection safety and

62(38%) used wearing of gloves, 59(36%) used universal precaution, 58(35%) used wearing of face mask and 52(32%) used cleaning of wound with one stroke at a time.

Table 2: Showing the respondent's answer

Response	Frequency	Percentage
Yes	140	86%
No ,	24	14%

The table 2 above showed that 140(86%) respondents maintained aseptic technique while

24(14%) did not maintain aseptic technique.

Table 3: showing respondents answer

Response	Frequency	Percentage
Always	100	71%
Sometimes	25	9%
When necessary	14	11%
Rarely	25	9%
Total	164	100%

The table above showed that 100(71%) of the respondents always maintained aseptic technique, 25(9%) sometimes does, 14(11%) when

necessary, 25(9%) rarely maintained aseptic technique.

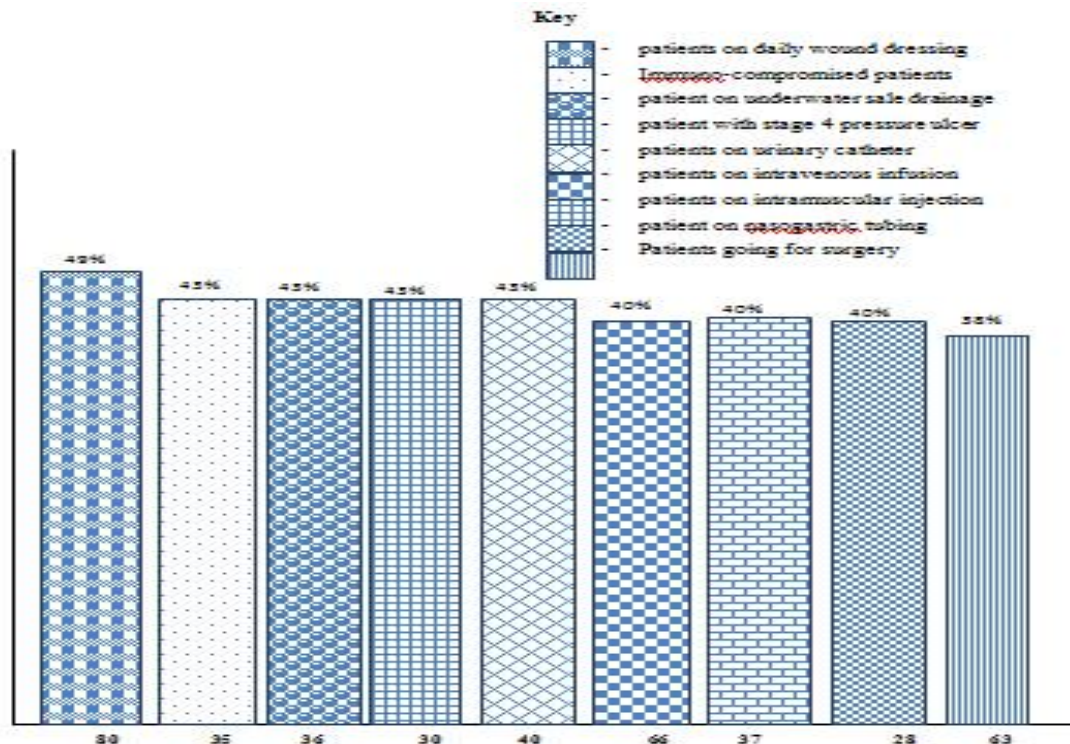


Figure 2: A bar chart showing the patients that needed aseptic technique while carrying out nursing procedure.

Respondents ticked more than one option

The above bar chart in figure 2 showed that 80(49%) of the respondents maintained aseptic technique while carrying out procedures for patients on daily wound dressing, 71(43%) for immune compromised patient and patient on under water seal drainage, 70(43%) for patient

and patient on urinary catheter and patients with stage 4 pressure ulcer 66(40%) for patient on intravenous infusion, 65(40%) for patients on intramuscular injection and patient on nasogastric tubing while 63(38%) went for patient going for surgery.

Table 4: Showing the respondents answer

Response	Frequency	Percentage
Yes	160	98%
No	4	2%

Table 4 above showed that only 160 (98%) respondents know the benefit of aseptic technique

while 4(2%) said there was no benefit.

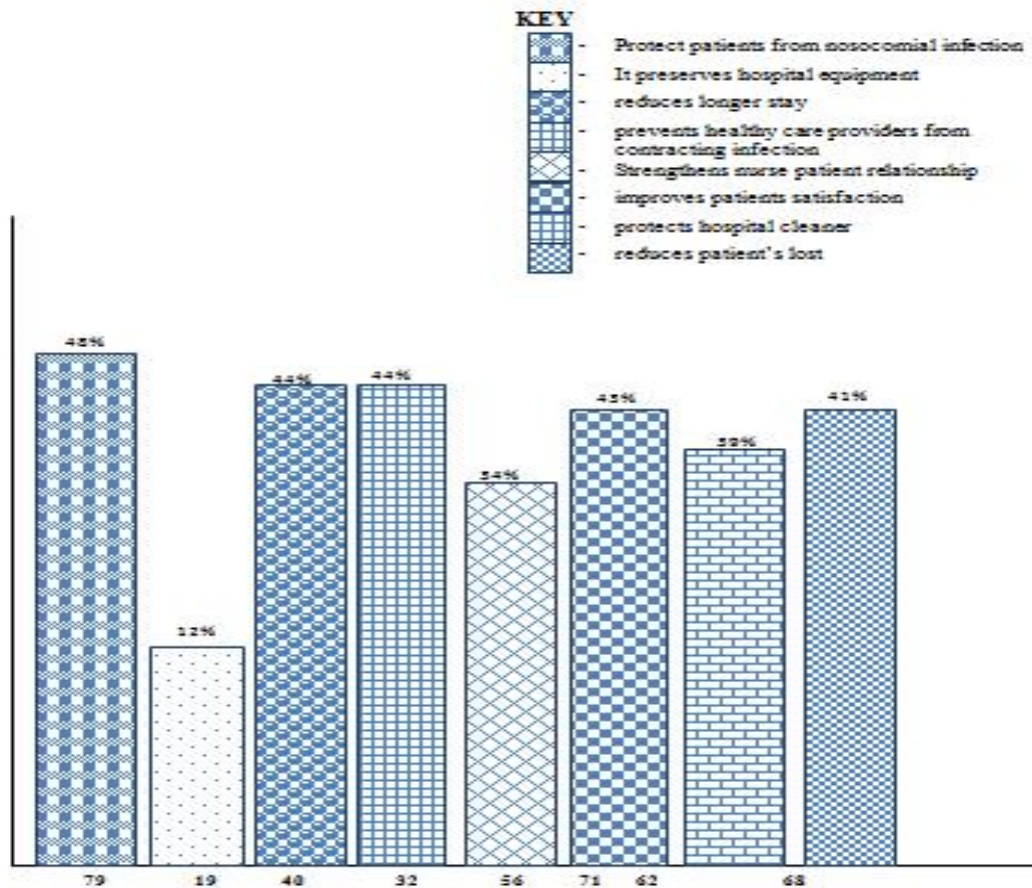


Figure 3: A bar chart showing distribution the respondents answer on the benefit of aseptic technique

Respondents ticked more than one option

The bar chart in figure 3 showed that 79 (48%) of the respondents cited protects patients from nosocomial infection 72(44%) of the respondents cited reduces longer hospital stays and prevents the health care provider from contracting infection, 71(43%) cited it improves patients

satisfaction, 68(41%) cited, it reduces patient's cost, 62(39%) cited it protects the hospital cleaners from infection, 56(34%) cited it strengthens nurse patient relationship while 19(12%) cited it preserves hospital equipment.

Response	Frequency	Percentage
Yes	158	96%
No	8	4%

The table above showed that only 158 (96%) respondents knew there are factors militate

against use of aseptic technique in patient’s care?

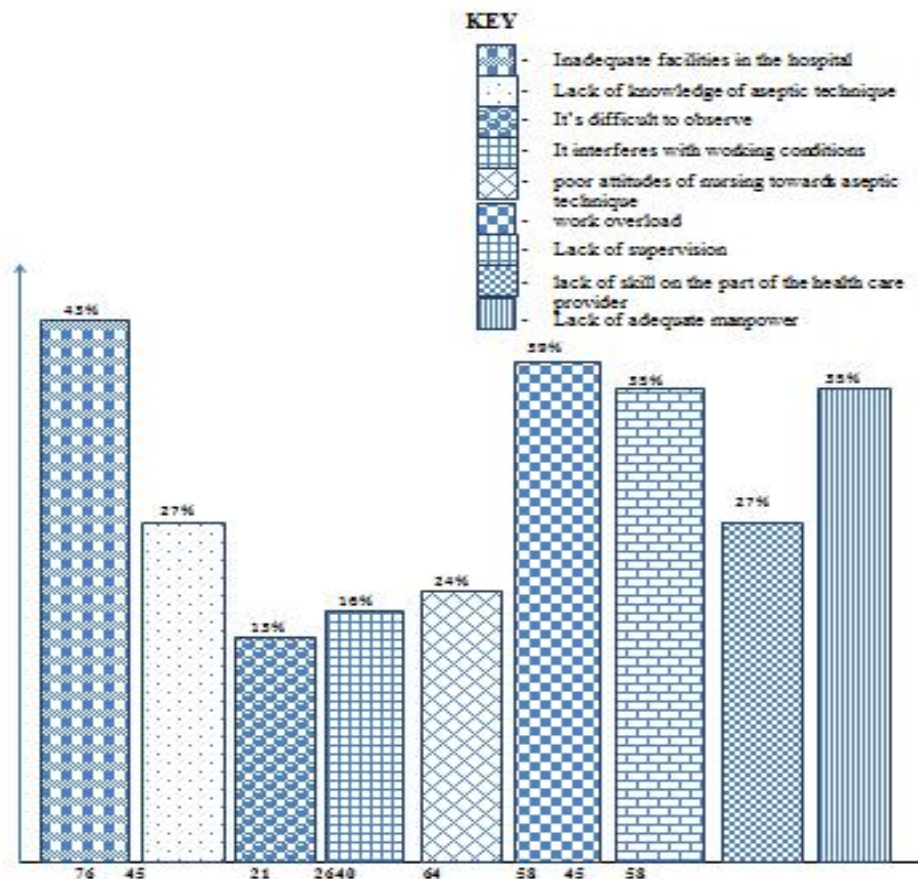


Figure 4: A bar chart showing distribution of the factors that militate against the use of aseptic technique. Respondents ticked more than one option.

Figure 4, showed that 76(43%) of the respondents cited inadequate facilities in the hospital, 64(39%) cited work overload, 58(35%) cited lack of supervision and lack of adequate man power, 45(27%) cited lack of adequate man power, 45(27%) cited lack of knowledge of aseptic

technique and lack of skill on the part of the health care provider, 40(24%) cited poor attitude of nurses toward the use of aseptic technique, 26(16%) cited it interferes with working conditions while 21(13%) cited it is difficult to observe.

Table 6 showing respondent’s answer

Response	Frequency	Percentage
Yes	160	98%
No	4	2%

The table above showed that 4(2%) respondents didn't know that there are strategies to improve aseptic technique while 160(98%) knew about it.

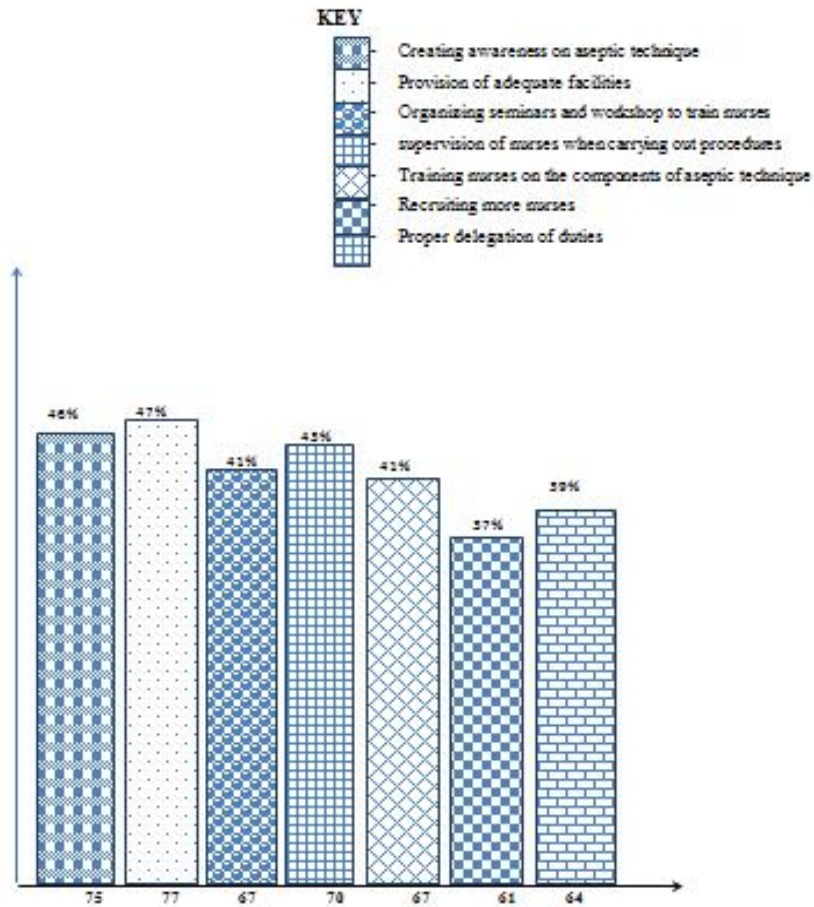


Figure 5: A bar chart showing the strategies that will improve the use of aseptic technique in patient's care. Respondents ticked more than one option The bar chart showed that 77(47%) of the respondents went for provision of adequate facilities, 75(46%) went for creating awareness on aseptic technique, 70(43%) went for supervision of nurses when carrying out procedure, 67(41%) went for training nurses on the components of aseptic technique and organizing seminars and workshops to train nurses, 64(39%) went for proper delegation of duty while 61(37%) went for recruiting more nurses.

Discussion

The findings in table 1 showed that only 88% of the respondents understood the meaning of aseptic technique. In figure 1, 69 (42%) of the respondents identified sterilization as a component of aseptic technique, 65(40%) identified disinfection as a component of aseptic technique, etc.

In table 2 and 3, 140 (86%) maintain aseptic technique, 140 (14%) of the respondents does not maintain aseptic technique in patient's care.

Figure ii showed that 80 (49%) of the respondents maintain aseptic technique while carrying out procedure for patient on daily wound dressing.

This is in line with Johnson (2012), which stated that nurses maintain aseptic technique by proper maintenance of sterile fields through sterilization, disinfection as well as universal and standard precaution, surgical scrub with antiseptics, proper barrier protection and proper skin preparation to minimize infection transmission in patient's care.

The findings in table 4 showed that 98% of the respondents know about the benefits of aseptic technique and identified them to include, it reduces longer hospital stay and improves patient's satisfaction etc. figure iii showed that 79 (48%) of the respondents said it portents the patient from nosocomial infection, while 72(44%) said it reduces longer hospital stay and presents health care providers from contracting infection.

In table 5 showed that 96% of the respondents know there are factors that hinder the use of aseptic technique and pointed them out in figure iv. 76 (43%) of the respondents cited inadequate facilities and 69 (39%) cited work overload.

In table 6 showed that 98% of the respondents know the strategies that will improve the use of aseptic technique such as recruiting more nurses and proper delegation of duty. The data analyzed in figure iv showed that 77(47%) of respondents went for prevision of adequate facilities while 75(46%) went for creating awareness on aseptic technique.

Conclusion

Not all the nurses were aware of aseptic technique. Not all the nurses maintained aseptic

techniques in patient's care. Majority of the nurses knew the benefits of aseptic technique to include preventing the health care provider from contracting infection and strengthening nurse patient relationship. Majority of the nurses believed that inadequate facilities were there major hindrances in maintaining aseptic technique. Majority of the nurses mapped strategies to improve the use of aseptic technique to include proper delegation of duty and supervision of nurses when carrying out procedures.

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