

Figure 2. Age of the participants.

Participants of the study who were working in orthopedic surgical ward were 6 (8.6%), general surgical ward were 19 (27.1%), cardiac surgical ward were 13 (18.6%), and surgical intensive care unit (ICUs) were 32 (45.7%) (Figure 3).

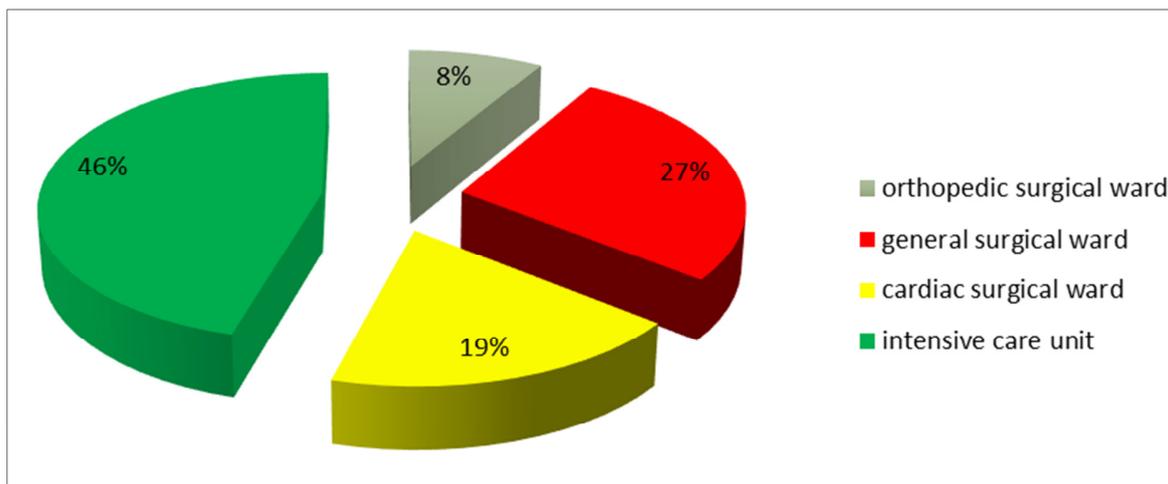


Figure 3. Duty wards of the participants.

Knowledge of the staff nurses was calculated in percentage. The result of the study showed that among the participants 22 (31.4%) had good, 35 (50.0%) had an average, 13 (18.6%) had low level of knowledge regarding surgical site infection (Figure 4).

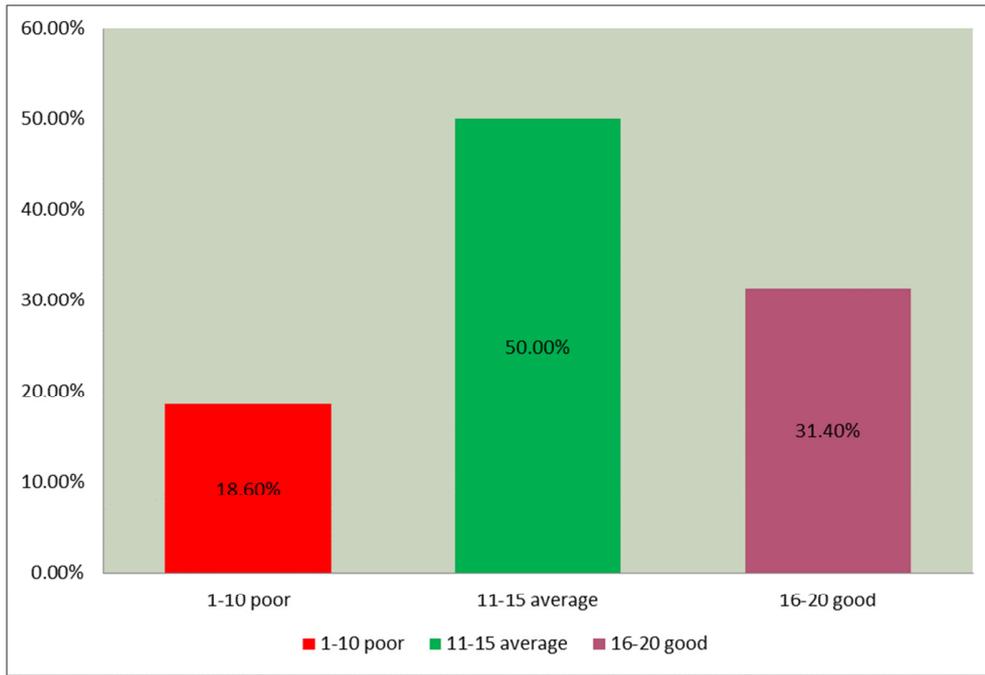


Figure 4. Knowledge Score.

Result of the study showed the individual score in questionnaire with the Mean of =13.83 and Std. Dev =2.659. Furthermore, chi-square test was applied to check the association among variable and knowledge; only there was

an association between knowledge and education level of participants with p value of 0.005 in the result (Figure 5) (Table 5).

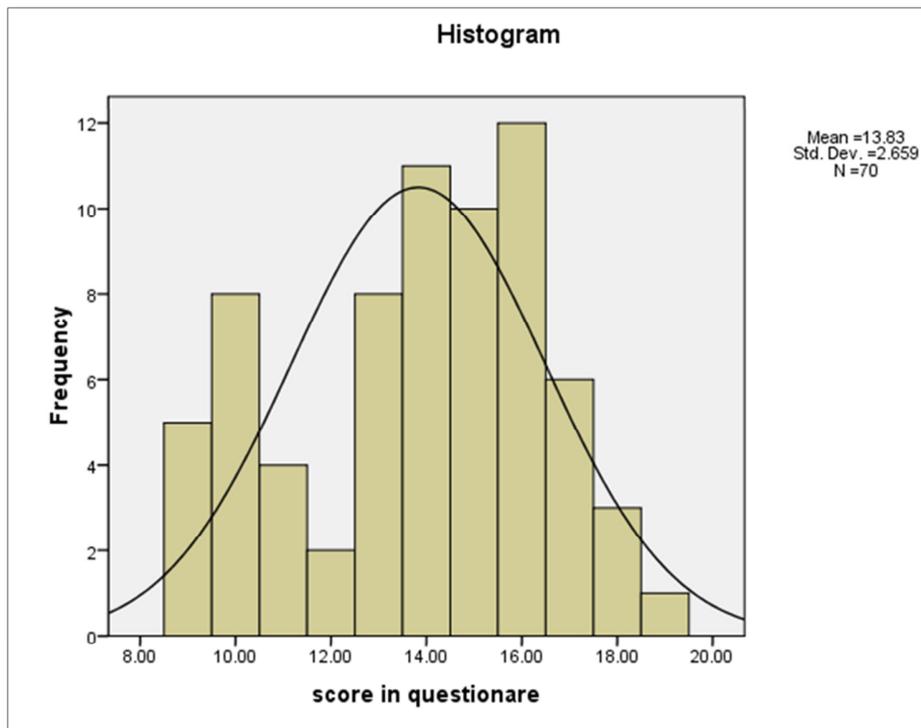


Figure 5. Mean and Std. Dev.

Table 5. Overall response of the participants.

S No	Questions	Total Number	Yes	No
1	Best time for pre-operative hair removal is Immediately before operation.	70	68.57%	31.43%
2	Razor shaving method is the best method for pre-operative hair removal	70	74.29%	25.71%
3	Alcohol –based products is best agent for pre-operative skin preparation.	70	72.86%	27.14%
4	The purpose of pre-operative skin preparation is to prevent or inhibit viral growth only	70	45.71%	54.29%
5	Applying a broad-spectrum antiseptic to disinfect surgical site before surgery	70	85.71%	14.29%
6	Prophylaxis antibiotic is a less important medication for preventing surgical site infection	70	37.14%	62.86%
7	Prophylaxis antibiotic is applied 30 to 60 minutes before operation.	70	74.29%	25.71%
8	The purpose of pre-operative showering to reduce the skin microbial infection	70	90.00%	10.00%
9	Anti-bacterial soap is the best skin agent of pre-operative showering to prevent surgical site infection	70	82.86%	17.14%
10	Higher than or equal to 200mg/dl is correct level of blood sugar which enhances function of white blood cell adequate to prevent SSI	70	37.14%	62.86%
11	70% ethyl alcohol with 0.5% chlorohexidine solution is the best antiseptic solution to disinfect the surface of dressing trolley.	70	82.86%	17.14%
12	The purpose of surgical hand washing is to reduce the risk of surgical site infection	70	90.00%	10.00%
13	The correct steps of hand washing are wet your hand, apply antiseptic agent, rinse, and dry with a paper towel.	70	70.00%	30.00%
14	We are doing daily of wound dressing because dressing decrease wound pain	70	18.57%	81.43%
15	When a dressing material (gauze) presents with a lot of exudates change the surgical dressing.	70	88.57%	11.43%
16	You can select dressing solution on wound-based characteristic	70	85.71%	14.29%
17	Protein rich diet and vitamin C containing fruits diet should be provided for the post-operative patients	70	85.71%	14.29%
18	Surgical patients with compromised immune system are more vulnerable for risk of getting surgical site infection	70	78.57%	21.43%
19	Discharge and oedema of the skin around the wound is a good sign of surgical site infection	70	75.71%	24.29%
20	Blood culture lab investigation is used to ensure surgical site infection	70	28.57%	71.43%

DISCUSSION

Surgical site infection is an infection associated with health care worldwide that represents a burden on patients and health systems. Nursing is an integral part of the health care system. Nurses' knowledge is essential to patient's care. Their knowledge plays an important role in controlling these infections. Several studies were found in different countries of the world. According to a study conducted in Saudi Arabia to find out the knowledge and practice towards the prevention of surgical site infection between two hospitals. Finding of study highlights that the level of knowledge regarding the prevention of surgical site infection to be low and insufficient [2]. In contrast, the current study results reported average level of knowledge about prevention of

surgical site infection. It might be due to qualification of nurses, as majority of staff nurses had qualifications of BSN while only 44.30% had done diploma in nursing, this might affect nurse's knowledge. The analysis of the data revealed that, 62.5 % respondents had good knowledge, 37.5% had an average knowledge whereas none of the respondents had low level of knowledge about SSIs [7]. Contrary, the current study showed that only 31.40% had good knowledge, 50.00% had an average knowledge and 18.60% had low level of knowledge regarding SSIs. The current study highlighted an average level of knowledge regarding the prevention of surgical site infection. However, a study conducted by Sadia [8] point out that the nurses were reported to have a low level of knowledge and practice regarding the prevention of

surgical site infection. This indicates that nurses working in the surgical related wards had inadequate knowledge of SSIs.

CONCLUSION

The study was conducted to assess knowledge about prevention surgical site infection among nurses in private tertiary care hospital Peshawar. Surgical site infections (SSI) or post-operative wound infection is one of the most common infections in health care. It is also one of the important complications of a surgical procedure. Being a health care professional, nurses should have enough knowledge about each aspect of the SSIs process. It is highlighted from the study that majority of the participant 50.00% had an average level of knowledge regarding prevention of SSIs. In this study, average knowledge level regarding prevention SSIs among nurses was observed. It is proved that nurses should need further education and training regarding prevention of SSIs.

REFERENCES

1. Famakinwa TT, Bello BG, Oyeniran YA, Okhiah O, Nwadike RN (2014) Knowledge and Practice of Post-Operative Wound Infection Prevention among Nurses. *Int J Basic Appl Innov Res* 3(1): 23-28.
2. Elaf A, Hanadi A, AlHsaon M, Alsaigh S (2018) Knowledge and practice towards prevention of surgical site infection among healthcare professionals in Buraidah city, Saudi Arabia. *Int J Med Health Res* 4: 121-127.
3. Malik ZI, Nawaz T, Tariq AM, Waqar SH, Zahid MA (2013) Surgical Site Infections in General Surgical Wards at a Tertiary Care Hospital. *Pak J Med Res* 52(4): 116-118.
4. Sickder HK, Sae SW, Petpichetchian W (2014) Nurses' Knowledge and Practice Regarding Prevention of Surgical Site Infection in Bangladesh. *The 2nd International Conference on Humanities and Social Sciences*
5. Sadaf M, Inayat S, Afzal M, Hussain M (2018) Nurse's knowledge and practice regarding prevention of surgical site infection at allied hospital Faisalabad. *Int J Sci Eng Res* 9(5): 351-369.
6. Teshager FA, Engeda EH, Worku WZ (2015) Knowledge, Practice, and Wounds Australia Standards for wound prevention and management, 3rd ed. Osborne Park, WA: Cambridge Media.
7. Dhakal B, Angadi S, Lopchan M (2016) Nurses' Knowledge and Practice of Aseptic Technique in the Operation Theatre at selected Hospitals of Bharatpur. *Int Arch BioMed Clin Res* 2(2): 32-34.
8. Sadia S, Kousar R, Azhar M, Waqas A, Gilani SA (2017) Assessment of Nurses' Knowledge and Practices Regarding Prevention of Surgical Site Infection. *Saudi J Med Pharm Sci* 3: 585-595.
9. Seltzer J, McGrow K, Horsman A, Korniewez DM (2002) Awareness of surgical site Infections for advanced practice nurses. *AACN Clin Issues* 13(3): 398-409.