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Original Article

Assessment of Knowledge and Attitude Regarding World Health Organization (WHO) Surgical Safety Checklist (SSC) in Operating Room Personnel of Medical Teaching Institutes (MTIS) Peshawar Pakistan

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ABSTRACT

Background: World health organization surgical safety checklist is basically the guideline for the operating room personnel. These guidelines are properly started by WHO in 2007-8. The purpose was to improve the outcomes of the surgical procedures, communication, decline the mortality and morbidity ratio perioperatively. Using WHO checklist plays a very important significant role in patient safety especially in perioperative time. One study shows that about 47 % reduction occur in mortality and 36 % in morbidity while using the SSC. In the developed countries having proper safety system and knowledge complication rate was reported 0.4 to 0.8% while in the developing countries this ratio was about 3 to 16 % (2004 report).

Objective: To Assess the knowledge and attitude regarding WHO SSC of operating room personnel of MTIs Khyber teaching hospital (KTH) and Hayat Abad medical complex (HMC) of Peshawar Pakistan.

Methods: Cross sectional study conducted. Data collected through semi structured questionnaire from operating room personnel including surgeons, anesthesia provider, surgical technician, technologist, and OT nurses working in MTI KTH and MTI HMC.

Results: According to the study about 30(14.6%) OT personnel having good knowledge,115(56%) having average and 60(29.2%) of personnel having poor knowledge regarding WHO SSC. The result of the attitude of OT personnel regarding safety checklist was 141(6.7%) positive means they agreed with WHO rules and want them to be implemented in the OT while 64 (31.2%) showed negative attitude.

Conclusion: Adverse events are common in the preoperative period. This is due to poor organizational, limited, knowledge respect less attitude of the staff toward their duty, and patient self-mistakes. But the great responsibility of the staff is to care for the patient in the proper while according to the rules and regulation set by the WHO in the form of surgical safety checklist. By using safety checklists properly, the adverse events can minimize up to a great number. For the best result the personnel must have proper knowledge, awareness, importance and need of practical implementation. By default, our health system is still going on previous knowledge base and not properly adjusted in the advanced system. In these two hospitals most of the HCPs are not aware of the importance of the WHO checklist and some are against the practical implementation of the checklist. This is an amazing and questionable point that can be overcome through education.

Keywords: Surgical Safety Checklist, Operating Room Personnel, World Health Organization (WHO), Patient Safety, Perioperative Care

INTRODUCTION

Surgery, a critical component of medical care, often stands as the only viable solution for numerous pathological conditions, aiming to save lives, manage disabilities, and alleviate pain. Despite its vital role, surgical procedures inherently carry a higher risk of complications compared to other therapeutic methods (1). Ensuring safety during surgical operations is a challenging yet crucial

aspect of healthcare, primarily to reduce mortality rates and prevent disease transmission globally. In this context, the World Health Organization's Surgical Safety Checklist (SSC) emerges as a fundamental tool. However, its effectiveness extends beyond mere existence; it hinges on the knowledge and timely, accurate application by healthcare professionals, along with other related factors (2).

The SSC, an accessible and cost-effective tool, significantly enhances patient safety in the operating room (3). The WHO advocates for the meticulous application of this checklist to minimize potential risks during surgeries. The SSC comprises three pivotal stages: the pre-anesthesia check, which includes verifying the patient's condition, surgery site, anesthesia drugs, and equipment; the pre-incision stage, ensuring the patient's identity, planned procedure, and each team member's role are confirmed, along with a discussion on potential crises; and the final stage before leaving the operating room, which involves counting instruments, supplies, and assessing the patient's stability (4).

While the WHO SSC primarily focuses on intraoperative events, it is noteworthy that approximately 53 to 70% of surgical errors occur outside the operating theatre. These are addressed by the Surgical Patient Safety System (SURPASS), which covers the entire span from patient admission to discharge. However, its focus within the operating room is less pronounced compared to the WHO SSC, not encompassing issues such as difficult airway management or significant blood loss. Nevertheless, SURPASS includes aspects like team introductions and preparedness for critical events (5).

Critics of the SSC have pointed out that while it effectively identifies problems, responsible parties, and potential solutions, it demands collaborative resolution. For instance, if the SSC highlights a delay in administering appropriate antibiotics, it requires the surgeon, anesthesiologist, and nurse to collectively rectify the issue before proceeding (6).

A 2004 report revealed that in developed countries, the number of surgeries performed annually ranged between 187.2 and 281.2 million, with developing countries estimating around 313 million procedures, accounting for 75% of the global population. The developed countries reported morbidity rates of 3 to 16% and mortality rates of 0.4 to 0.8%, whereas developing countries faced higher mortality rates of 5 to 10%, with about half of these complications being preventable. The implementation of the SSC in these settings has shown promising results in reducing mortality and morbidity rates. For example, one study observed a decrease in mortality from 1.5% to 0.8% and a reduction in complications from 11% to 7% post-SSC implementation. Despite these findings, the adoption of SSC in low- and middle-income countries remains a subject of concern (7).

Research published in the New England Journal of Medicine in January 2009, encompassing eight hospitals in various countries, demonstrated a 47% reduction in mortality and a 36% decrease in complications following SSC implementation. The study involved a population size of 3733 before and 3955 after SSC application (8). In 2008, the WHO released the SSC along with implementation materials, witnessing participation from approximately 3900 hospitals across 122 countries. About 1800 hospitals reported active use of the SSC in at least one operating room (9).

Simultaneously, in 2008, the WHO launched the "Safe Surgery Saves Lives" campaign, aiming to reduce perioperative complications and enhance healthcare services (10). The SSC, comprising 19 items, emphasizes three critical phases in the perioperative period: before anesthesia induction, before incision, and before leaving the operating theater. These steps serve as reminders to the surgical team regarding essential factors like patient identity, surgical site, timing, and procedure accuracy (11).

Effective communication among staff is paramount for optimal outcomes. It is essential for team members to understand each other's language and maintain good relationships. Every surgical operation involves a series of steps that must be executed correctly and timely, with properly functioning and sterilized equipment, to minimize the risk of errors (12).

The most common and preventable errors in operating rooms include surgical mistakes, retained surgical items, and surgical fires. The combined incidence of these errors is approximately 5000 annually in the United States, encompassing around 2000 wrong-site surgeries, 2000 instances of retained instruments, and about 500 surgical fires (13). Most errors stem from ineffective communication and poor teamwork, which can be mitigated through preoperative briefings, akin to those conducted before airline flights, thereby improving team cooperation, motivation, and discipline (14).

Perioperative complications often relate to wrong patient, site, timing, blood loss, and the use of unsterilized equipment. The proper application of the SSC can significantly address or minimize these issues (15). In 2004, the Joint Commission on Accreditation of Healthcare Organizations (JCAHO) implemented a universal protocol to reduce wrong-site, wrong-procedure, and wrong-person surgeries. More recently, the WHO's SSC has gained recognition as the most effective tool for preventing adverse events in the perioperative period (16). High-level evidence-based studies support the practical implementation of the SSC (17), yet challenges persist in its full adoption and implementation, particularly in low- and middle-income countries (18).

Non-technical skills such as awareness, decision-making, communication, adaptability, teamwork, and leadership are crucial at both individual and organizational levels. These skills require further enhancement, especially in lower and middle-income countries (19).

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Errors during surgeries often arise from a lack of education and training, historical unsafe practices, regulatory issues, gaps in staff and patient interactions, unstable systems, fear of admitting faults, and human factors (20).

In light of these findings, standardizing hospitals according to international rules and regulations is imperative. Therefore, assessing the knowledge and attitudes of surgical personnel regarding the WHO SSC in Medical Teaching Institutes (MTIs) Peshawar, Pakistan, is essential to minimize adverse events in the perioperative period.

MATERIAL AND METHODS

This study, a cross-sectional descriptive analysis, was conducted to assess the knowledge and attitudes regarding the World Health Organization's Surgical Safety Checklist (SSC) among operating room personnel. The setting for this research was the Khyber Teaching Hospital and the Hayatabad Medical Complex Operation Theater, both principal hospitals in Peshawar, Pakistan, and key facilities in the province. The study period spanned from August to September 2022.

The target population comprised permanent staff members of the operating theaters at these hospitals. Utilizing convenience sampling, a total of 205 permanent operating room (OT) staff, including surgeons, technologists, technicians, anesthesia providers, and nurses, were selected. The inclusion criteria were limited to permanent OT staff who voluntarily participated in the study, while students and visitor personnel in the operation theater were excluded to maintain the consistency and relevance of the data.

The data collection process involved administering a comprehensive questionnaire to the selected personnel. This questionnaire was designed to probe both knowledge and attitudes towards the SSC. It included 5 demographic questions to gather socio-demographic variables such as age, education, profession, experience, gender, and place of work, and was further divided into two sections: 14 bipolar questions assessing knowledge and 12 ranking questions evaluating attitudes. Most participants completed the questionnaire either post-procedure or during their break time. While doctors and most staff understood the questionnaire without difficulty, some technicians encountered challenges in comprehending the translation.

Data analysis was carried out using the Statistical Package for the Social Sciences (SPSS) version 22. The primary variables under investigation were the knowledge and attitude of the OT personnel regarding the WHO SSC. This study received financial support from the offices of research innovation and commercialization (ORICS) at Khyber Medical University (DIR/ORIC/Ref/23/00033). The ethical approval for data collection was granted by the research ethical committees of the Medical Teaching Institute Hayatabad Medical Complex (MTI HMC) and Khyber Teaching Hospital (KTH).

RESULTS

In this study, a total of 205 healthcare professionals (HCPs) participated, including doctors, anesthesia providers, surgical technicians, technologists, and nurses. The research aimed to assess the knowledge and attitudes of operating theatre (OT) personnel regarding the international surgical patient safety protocol, the World Health Organization's Surgical Safety Checklist (WHO SSC). This checklist is also endorsed by other international medical organizations, such as the World Federation Society of Anesthesiologists, International Task Force of Anesthesia Safety, European Society of Anesthesiology, Joint Commission on Accreditation of Healthcare Organizations (JCAHO), National Health Services Trust (United Kingdom), Haute Autorité de Santé (France), German Society of Surgery, and the Action League for Patient Safety.

The demographic data revealed that of the participants, 147 (71.7%) were male and 58 (28.3%) were female. The breakdown by profession showed that doctors comprised 51.2%, nurses 18.5%, surgical technicians/technologists 18%, and anesthesia providers 12.2%. Regarding experience, 65.9% of the participants had less than five years of experience, 22.9% had between five and ten years, and 11.2% had more than ten years. The participants were predominantly from Khyber Teaching Hospital (KTH), accounting for 74.6%, while 25.4% were from Hayatabad Medical Complex (HMC).

The study focused on gathering comprehensive knowledge about the SSC, including sources of information about the SSC, its visibility in practice, and its effectiveness in assisting the team with prophylaxis recommendations, supporting inexperienced members, preventing mistakes, and improving communication. The responses to these questions are detailed in the subsequent tables.

Additionally, the study explored the attitudes of the personnel towards the SSC, including their willingness to use the checklist, perceptions of it as a mere bureaucratic formality, and the challenges faced in its practical implementation and use in ensuring safety. These attitude-related questions are also included at the end of the study.

Demographics

In the present research, among the 205 participants, there were 147 males (71.7%) and 58 females (28.3%), comprising a diverse group of healthcare professionals including surgeons, surgical technicians, anesthesia providers, and nurses.

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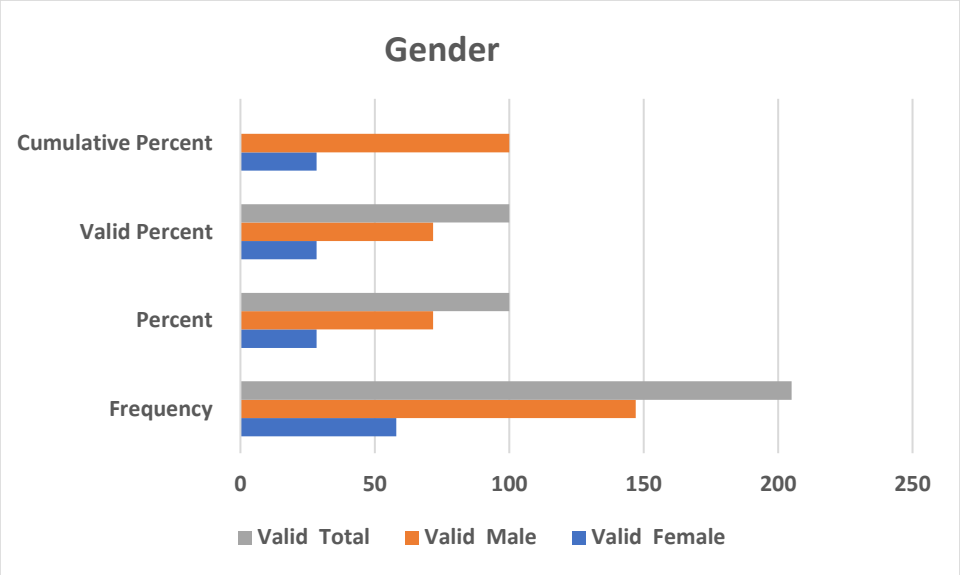

Figure 1: Gender distribution.

In the study, the age distribution of the 205 participants was as follows: 51 individuals (24.9%) were between 16 to 26 years old, 132 participants (64.4%) fell in the 27 to 36 years age group, 19 individuals (9.3%) were between 37 to 46 years old, and only 3 participants (1.5%) were in the 46 to 60 years age range.

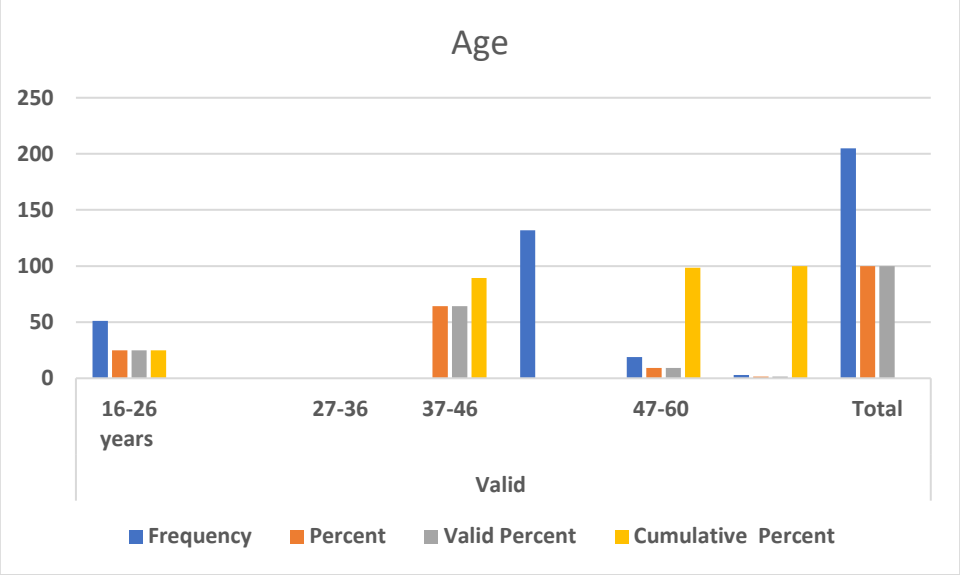

Figure 2: Age wise distribution.

In the study, the educational qualifications of the 205 participants were varied: 27 individuals (13.2%) held doctorate degrees, 110 (53.7%) possessed MBBS degrees and were working as Trainee Medical Officers (TMOs), 34 (16.6%) were nurses, 17 (8.3%) had Bachelor of Science degrees in surgical and anesthesia fields, and 17 (8.3%) were diploma holders.

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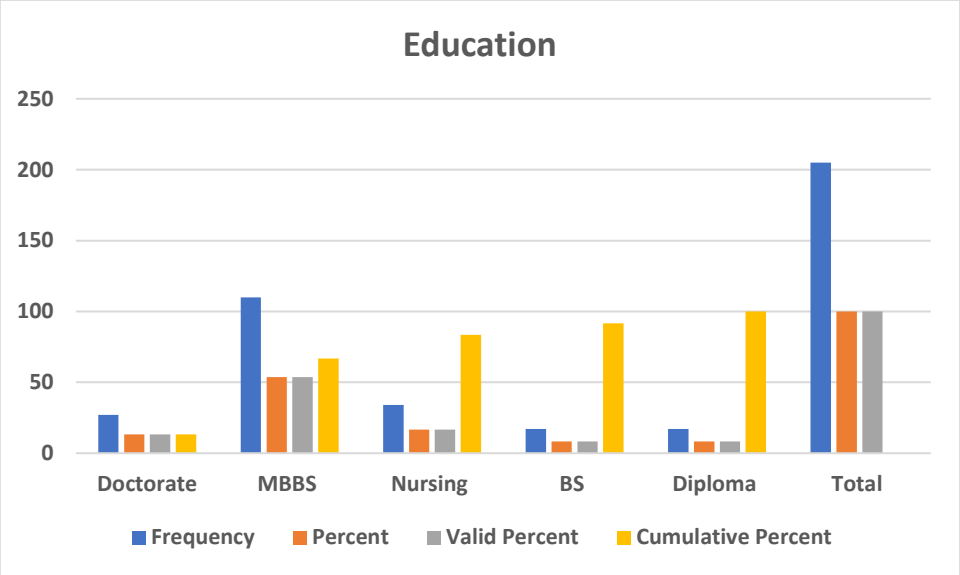

Figure 3: Education wise distribution.

Based on the professional roles of the participants, the data from our research indicates that 105 individuals (51%) were working as surgeons and Trainee Medical Officers (TMOs), 38 (18.5%) were employed in nursing roles, 37 (18.0%) held technician positions, and 25 (12.2%) were working as anesthesia providers.

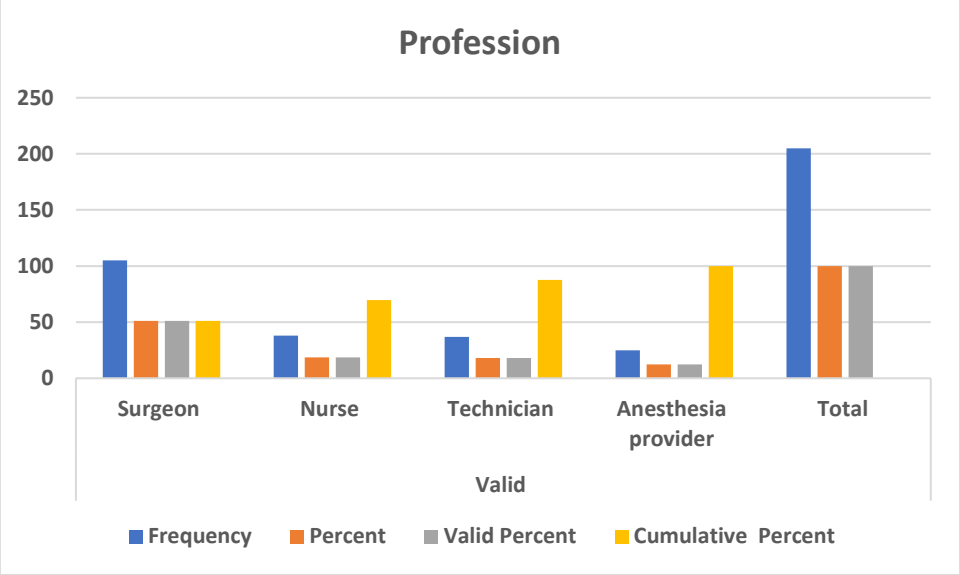

Figure 4: Profession-wise distribution.

The research focused on personnel working in various surgical departments, with the distribution as follows: 31 individuals (15%) in Orthopedics Operating Theatres (OT), 71 (34.6%) in General Surgery OT, 14 (6.8%) in Gynecology OT, 17 (8.3%) in Pediatrics OT, 13 (6.3%) in Urology OT, 35 (17.1%) in ENT (Ear, Nose, and Throat) OT, and 24 (11.7%) in Eye OT.

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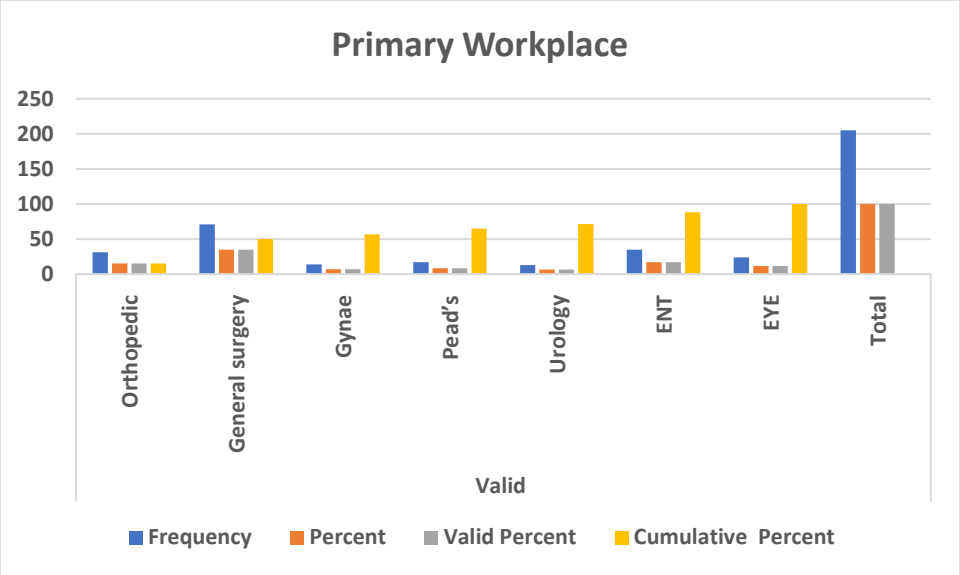

Figure 5: Distribution based on primary workplace.

The experience levels of the personnel in the study were as follows: 135 individuals (65.9%) had less than 5 years of experience, 47 participants (22.9%) possessed 5 to 10 years of experience, and only 23 (11.2%) had more than 10 years of experience.

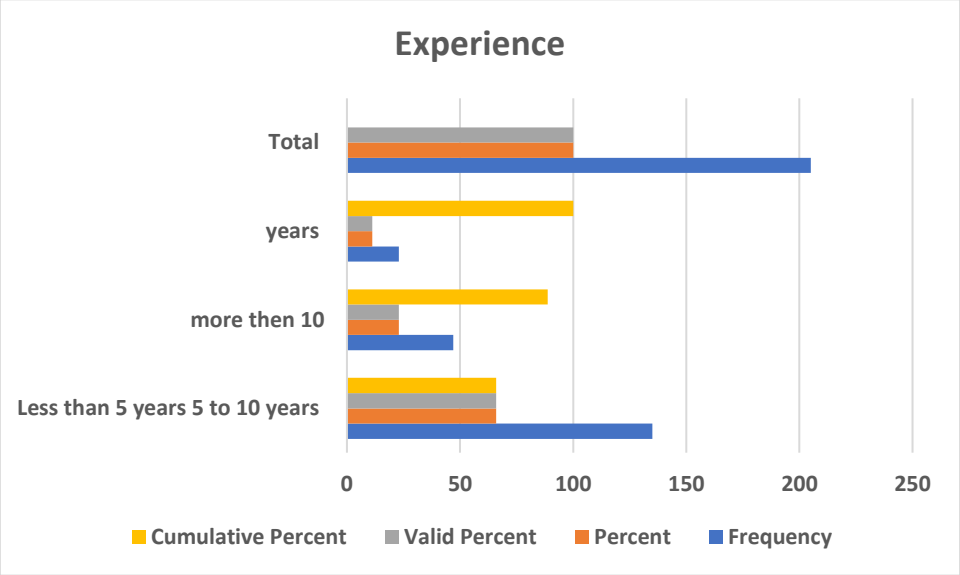

Figure 6: Distribution based on experience.

In this study, out of the total participants, 153 (74.6%) were working at the Khyber Teaching Hospital, while 52 (25.4%) were employed at the Hayatabad Medical Complex.

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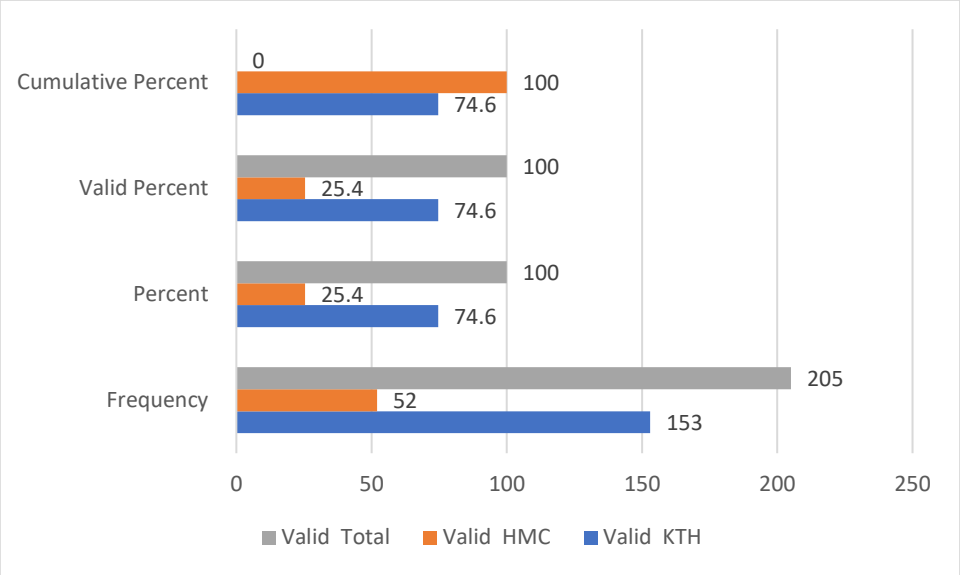

Figure 7: Distribution of Operating Room Personnel Based on Hospital (HMC, KTH)

Out of the personnel surveyed, 31 individuals (15.1%) had no knowledge of what SSC is, and they had never even heard of SSC. On the other hand, 174 individuals (84.9%) were aware of and had an understanding of SSC.

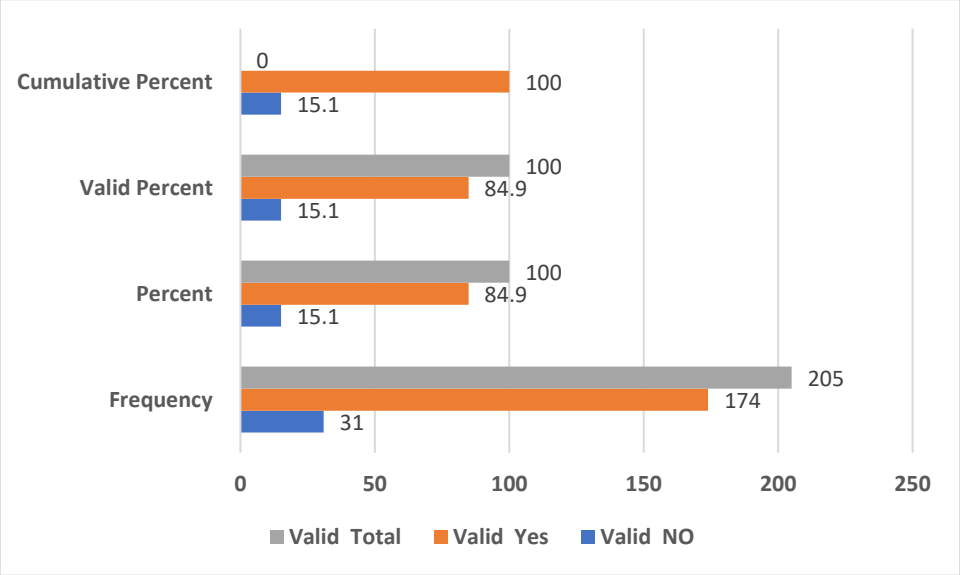

Figure 8: Awareness of Operating Room Personnel Regarding SSC

When personnel were asked where they had heard about SCC, the responses were as follows: 39 individuals (19%) heard about it at HMC, 132 individuals (64.4%) heard about it at KTH, 1 individual (.5%) heard about it at RMI, and 2 individuals (1%) heard about it at Shaukat Khanum Hospital.

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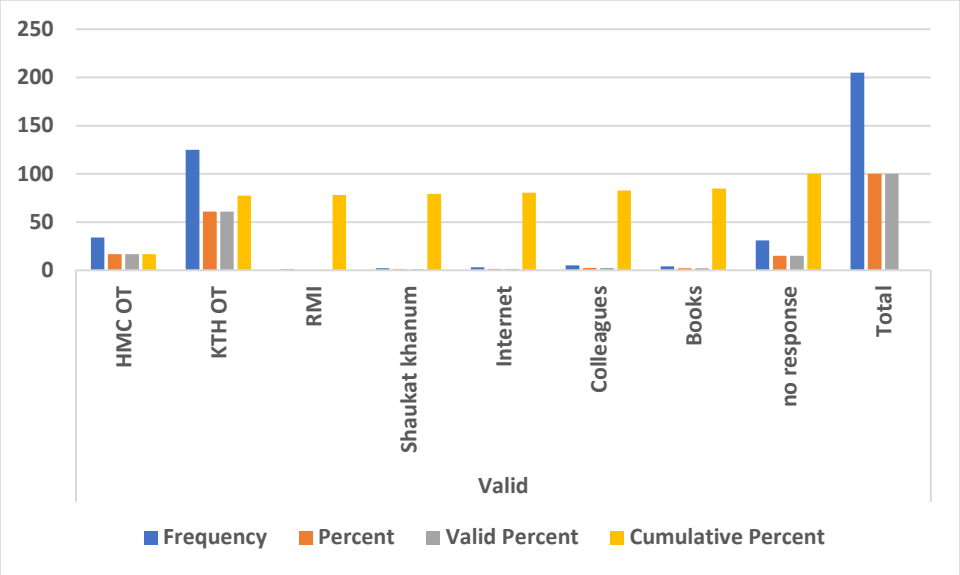

Figure 9: Sources of Awareness About SSC among Operating Room Personnel.

Out of the targeted personnel, 158 individuals (77.1%) have seen the SSC in their relative OTs, while 47 individuals (22.9%) have never seen the SSC in their OTs.

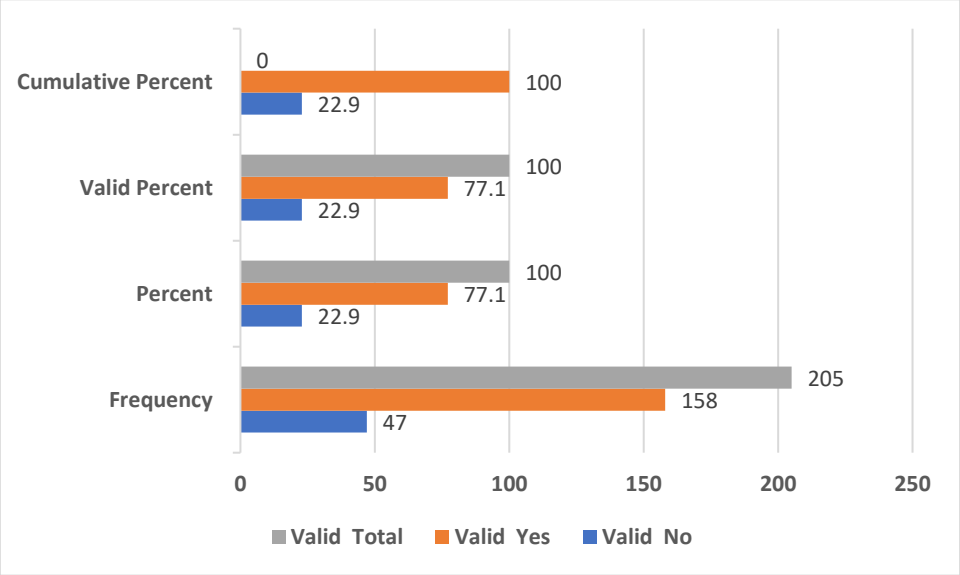

Figure 10: Exposure to Surgical Safety Checklist (SSC) among Operating Room Personnel.

Approximately 114 individuals (55.6%) have seen the SSC at KTH, while 44 individuals (21.5%) have seen it at HMC hospitals.

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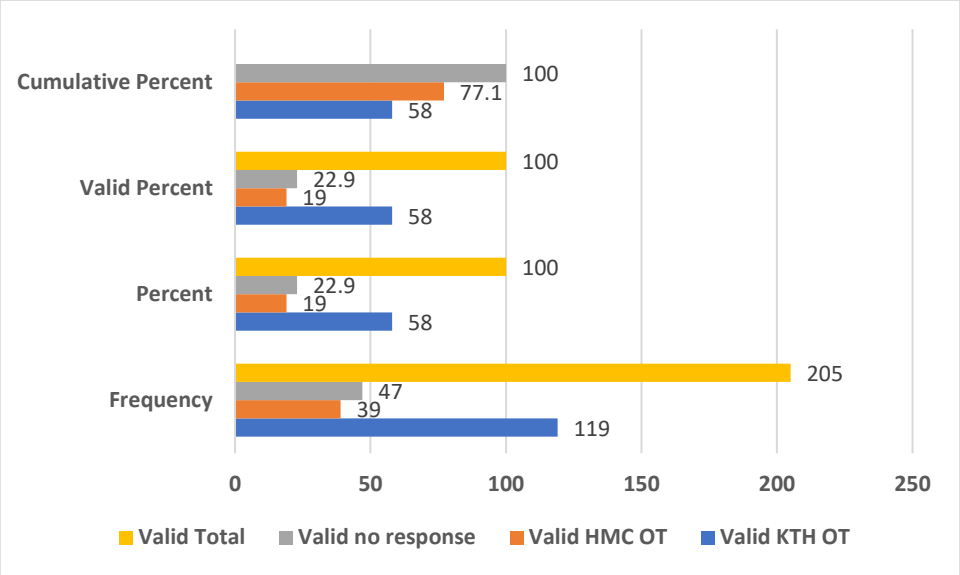

Figure 11: Locations where Operating Room Personnel have seen the Surgical Safety Checklist (SSC).

Question about knowledge of OT personnel regarding the WHO SSC:

When asked about their knowledge regarding the World Health Organization's Surgical Safety Checklist (WHO SSC), specifically if the checklist is equivalent to the "time out" procedure, 135 participants (65.9%) responded affirmatively, while 70 (34.1%) disagreed. Regarding the necessity for every team member to sign the checklist, opinions were divided: 118 (57.65%) personnel disagreed with this requirement, whereas 87 (42.4%) agreed.

Concerning the documentation of used swabs, a significant majority of 189 personnel (92.2%) acknowledged that the WHO SSC requires exact documentation, while 16 (7.8%) were either unaware of this aspect of the checklist or lacked knowledge about this specific point.

In response to whether the checklist is solely the surgeon's responsibility, 136 participants (66.3%) agreed, suggesting a perception that it is the surgeon's duty to manage the checklist, while 69 (33.3%) believed it to be a collective team responsibility.

The recommendation of the WHO for administering antibiotic prophylaxis 60 minutes prior to surgery was recognized by 184 personnel (89.8%), with 21 (10.2%) refuting this guideline.

Regarding the checklist's support for inexperienced team members, there was a nearly even split in responses: 101 (49.3%) agreed that the checklist aids inexperienced members, while 104 (50.7%) disagreed.

A majority of 157 participants (76.6%) believed that the checklist helps in attributing mistakes and omissions to specific individuals, whereas 48 (23.4%) disagreed with this statement.

When inquired about the checklist's role in preventing accidental omissions during routine procedures, 181 personnel (91.7%) affirmed its effectiveness, while 17 (8.3%) doubted its capability in this regard.

On the checklist's impact on team communication, a substantial majority of 197 participants (96.1%) agreed that it improves communication, with only 8 (3.9%) dissenting.

Finally, when asked if the WHO SSC could be used to document complications, responses were mixed: 161 personnel (56.6%) believed it could be used for this purpose, whereas 89 (43.4%) disagreed.

Knowledge base question	Yes	No
Question 1; WHO-Checklist is a synonym for Team Time Out.	135(65.9%)	70 (34.1%)
Question 2: The WHO-checklist does not have to be signed by every member of the team.	87(42.4%)	118(57.6%)
Question 3: The WHO-checklist asks for the exact documentation of the number of used swabs	189(92.2%)	16(7.8%)
Question 4: The WHO-checklist exclusively addresses surgeons.	136(66.3%)	69(33.3%)
Question 5: The WHO-checklist recommends an antibiotic prophylaxis within 60 minutes before surgery.	184(89.8%)	21(10.2%)
Question 6: The WHO-checklist shall support inexperienced members of the team.	101(49.3%)	104(50.7%)

Question 7: The WHO-checklist is a tool used to attribute mistakes and misses to specific persons.	157(76.6%)	48(23.4%)
Question 8: The WHO-checklist aims at preventing accidental omissions within routine procedures.	181(91.7%)	17(8.3%)
Question 9: The WHO-checklist aims at improving team communication.	197(96.1%)	8(3.9%)
Question 10: The WHO-checklist may be used to document complications	116(56.6%)	89(43.4%)

Table 1: Question about knowledge of OT personnel regarding the WHO SSC.

Question about Knowledge	Answers
1.The WHO checklist is synonyms for time out?	False
2.The WHO checklist doesn't to be signed by every member of the team?	Correct
3.The WHO checklist asks for the exact documentation of the number of used swabs?	False
4.The WHO checklist exclusively addresses the surgeon?	False
5.The WHO recommend the antibiotic prophylaxis within 60 minutes before the surgery?	Correct
6.The WHO checklist shall support the inexperienced member of the team?	False
7.The WHO is a tool used to attribute mistakes and misses to the specific persons?	False
8.The WHO checklist aims at preventing accidental omission with a routine procedure?	Correct
9.The WHO checklist aims to improve the team communication?	Correct
10.The WHO checklist may be used to document the complication?	False

Table 2: Question about knowledge of OT personnel regarding the WHO SSC.

Knowledge based categorization:

The participants in the study were divided into three groups based on their knowledge levels. Those who correctly answered 7 to 10 questions were classified as having 'good' knowledge, those answering 5 to 6 questions correctly were deemed 'average', and personnel who correctly answered only 1 to 4 questions fell into the 'poor' knowledge category. Out of the total 205 participants, only 30 (14.6%) were categorized as having 'good' knowledge, 115 (56%) were considered 'average', and 60 (29.2%) fell into the 'poor' knowledge group.

This distribution indicates that there is a significant gap in the knowledge of healthcare personnel, particularly among those working in operating theatres. It underscores the necessity for initiatives such as content upgrading, seminars, workshops, and enhanced team discussions to fill this knowledge gap. A summary of these findings is presented in the table below.

	Frequency	Percentage
Good knowledge	30	41.6
Average knowledge	115	56
Poor knowledge	60	29.2
Total participants	205	100

Table 3: Knowledge based categorization.

Attitude of personnel toward the WHO SSC:

In this study, the second main area of focus was the attitude of the personnel towards the World Health Organization's Surgical Safety Checklist (WHO SSC). We posed 11 questions to gauge the attitudes of the participants. Generally, the response was positive, with a majority supporting the use of the SSC. However, there were still some personnel who were not fully aware of its importance. These individuals viewed the checklist as potentially time-wasting, unnecessary, irritating, and containing ambiguous sentences. They doubted its role in enhancing communication and collaboration among the team, and some even questioned its value in improving safety. Notably, a few surgeons and nurses opposed its use, expressing difficulty in encouraging staff to participate in the 'time out' procedure.

Despite these concerns, the overall attitude and willingness of the participants towards the use of the safety checklist were predominantly positive. A significant 91.7% of OT personnel indicated the necessity of using the SSC during all types of surgeries.

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Meanwhile, 80.5% disagreed with the notion that the SSC is just an unnecessary tick box without importance in OT procedures, while 19.5% agreed with this statement.

Regarding the efficiency of surgical procedures without the SSC, 69.7% believed they could operate efficiently without it, while 30.3% felt they could not. When asked if the checklist might waste time and make the operating theater less efficient, 36% agreed, but 64% disagreed. Additionally, 29.3% felt that using the checklist caused irritation among staff members, but 70.7% did not find this to be the case.

A strong majority, 92.2%, felt that using the SSC improved communication and collaboration among staff members. Most participants disagreed with statements suggesting that the checklist adds no extra safety value, with 66.4%, 62.9%, and 63.3% disagreeing with the statements about the checklist's value, surgeons' opposition, and nurses' opposition, respectively.

When asked about the clarity of the WHO SSC, 80% responded that it was clear, easily understandable, and free of ambiguous sentences. Finally, regarding the 'time out' procedure, 42.5% agreed it was difficult to engage staff, while 57.5% disagreed, indicating ease in gathering staff for this purpose.

A summary of the attitudes of the personnel towards the WHO SSC is presented in the table below.

ATTITUDE	Strongly disagree	Disagree	Agree	Strongly Agree	Participants
I want the checklist to be used for all this study surgical procedures.	13 (6.3%)	4 (2%)	57(27.8%)	131(63.9%)	205
The checklist seems like an unnecessary tick-box.	95 (46.3%)	70 (34.1%)	23(11.2%)	17(8.3%)	205
We can operate efficiently without having to use this checklist.	66 (32.2%)	77 (37.6%)	46(22.4%)	16(7.8%)	205
The checklist might waste time and can make our operating theatres less efficient.	77 (37.6%)	54 (26.3%)	24(11.7%)	50(24.4%)	205
Surgical safety checklist causes irritation between staff members.	70 (34.1%)	75 (36.6%)	44(21.5%)	16(7.8%)	205
The checklist will improve communication and collaboration between staff in the operating room.	11 (5.4%)	5 (2.4%)	56(27.3%)	133(64.9%)	205
The checklist may not bring any extra value to existing safety procedures already in place in the theatre before its implementation.	51 (24.9%)	85 (41.5%)	45(22%)	24(11.7%)	205
Surgeon opposes to the use of Surgical Safety Checklist.	65 (31.7 %)	64 (31.2%)	52(25.4%)	24(11.7%)	205
Nurses oppose to the use of Surgical Safety Checklist.	63(30.7%)	73 (35.6%)	44(21.5%)	24(12.2%)	205
Surgical Safety Checklist contains ambiguous statements.	80 (39%)	84 (41%)	24(11.7%)	17(8.3%)	205
It is difficult to get the staff listen to the timeout.	50 (24.4%)	68 (33.2%)	56(27.3%)	31(15.1%)	205

Table 4: Attitude of the OT personnel toward the WHO SSC.

Consequently, most of the attitude result of the OT personnel regarding the WHO SSC was positive and they show willingness to implement the SSC in the OT as the WHO recommended, while some personnel were shows negative attitude, it may be due to the lake of knowledge about the importance of the safety checklist. The following table shows the details.

	Frequency	Percentage
Positive attitude	141	68
Negative attitude	64	31.2
Total participants	205	100

Table 5: Distribution of Attitudes of Operating Room Personnel Towards Surgical Safety Checklist (SSC).

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DISCUSSION

This study's findings provide insightful revelations into the knowledge and attitudes of operating room personnel in Peshawar, Pakistan's medical teaching institutes (MTIs), regarding the World Health Organization's Surgical Safety Checklist (WHO SSC). The study highlights a range of awareness and familiarity with the SSC among healthcare professionals, revealing both positive attitudes towards its implementation and significant gaps in knowledge.

A substantial portion of the participants demonstrated awareness of the WHO SSC, a promising sign of its penetration in medical settings like Khyber Teaching Hospital (KTH) and Hayatabad Medical Complex (HMC). Despite this, the existence of a considerable group unfamiliar with the SSC underscores a critical need for educational initiatives. These programs should aim to bridge the awareness gap, ensuring comprehensive knowledge across all healthcare settings.

The study's strength lies in its detailed exploration of the participants' understanding of the SSC. A broad spectrum of knowledge levels was observed, ranging from well-informed to notably deficient, particularly in areas like swab documentation and the surgeon's role in checklist adherence. This disparity suggests a requirement for consistent and continuous education, aiming to standardize understanding of the SSC across varied healthcare roles.

Comparatively, international studies, such as one yielding a 83.3% awareness rate of surgical checklists (1), contrast with the 91.7% positive attitude towards SSC usage noted in this study. Such variations could stem from differences in cultural, infrastructural, and healthcare contexts. The contrast with a Karachi-based study (2), which revealed serious lapses in surgical safety, including frequent wrong-site surgeries, further emphasizes the need for context-sensitive strategies tailored to each healthcare environment.

The study also identified certain negative perceptions of the SSC, akin to sentiments expressed in global research. These included views of the SSC as an unnecessary procedure or a hindrance to operating room efficiency. These challenges, consistent across different settings, highlight the universal need to overcome barriers in safety protocol acceptance.

A notable correlation between knowledge and attitude was observed. Healthcare professionals with greater understanding of the SSC generally displayed more favorable attitudes. This connection reinforces the critical role of education in shaping perceptions and underscores the potential of educational strategies in fostering SSC implementation.

However, the study is not without limitations. The focus on a specific geographical and professional setting may limit the generalizability of the findings. Additionally, the reliance on self-reported data could introduce biases, as participants might overestimate their knowledge or understate their reluctance to adopt the SSC.

This study sheds light on both the promising embrace and the evident knowledge gaps concerning the WHO SSC among healthcare professionals in MTIs in Peshawar. It underscores the urgent need for targeted educational interventions and ongoing training to overcome barriers and enhance effective SSC implementation. By addressing these challenges and tailoring strategies to specific healthcare contexts, it is possible to foster a more widespread and effective adoption of the SSC, ultimately enhancing patient safety in surgical settings.

CONCLUSION

In conclusion, this research uncovers a landscape where operating room personnel in Peshawar, Pakistan, generally exhibit positive attitudes towards the WHO Surgical Safety Checklist, yet face notable shortcomings in their understanding of its specifics. The majority of participants showed a readiness to adopt the checklist in their practice. However, the study pinpointed significant gaps in their knowledge of certain crucial aspects of the checklist. This situation underscores a pressing need for customized educational programs aimed at enhancing their understanding and ensuring effective implementation. Such initiatives are essential to align with the global objective of promoting a culture of safety within healthcare settings.

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