

Assessment Of Students Satisfaction With Clinical Learning Environment Among Surgical Technology Students At Abasyn University Peshawar

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Abstract

Clinical education facilitate the allied health science students, enabling students with Practical skills in real operating room settings The study was design at Abasyn University Peshawar looking for assessment students' satisfaction with the clinical Learning environment among surgical technology students A descriptive cross-sectional Study was design, the data collected from 136 students who had completed at least one Month clinical rotation in affiliated teaching hospitals. The study discover factors like Supervision quality, staff respect, opportunities for skill practice, safety, and confidence During clinical setting The Results show that the most of the students give a positive Perceptions of their clinical environment Specifically, 94.9% students was agreed that The clinical environment was supportive and positive for learning, while 86.1% felt Respected by operating room staff Similarly, 84.6% reported sufficient opportunities to Practice clinical skills, and 89% recognize effective guidance from clinical stop. Safety Was also highly rated, with 93.4% environment was safe for learning, and 88.9% Motivate the student to ask

Question. The most participants were male (92.6%) and the Age of the participation between 20 and 25 years, with varied durations of clinical Postings The findings show that surgical technology students generally view their clinical Placements as conducive to professional growth, skill development, and confidence Building. However, difference in satisfaction across demographic groups and rotation

Durations show areas for improvement, particularly in verifying equal opportunities and Consistent supervision. This study underscores the importance of maintain a supportive Environment, respectful, and engaging clinical environments to improve students Learning outcomes and enhance patient safety. Recommendations include building Instructor guidance, expanding hands-on opportunities, and promoting cooperative Ward cultures to further develop clinical education. Over all students are satisfied from Their clinical learning environment.

Introduction

BACKGROUND STUDY:

Clinical education is essential in surgical technology training as it allows students to apply theoretical knowledge in real operating room settings. The quality of the clinical environment — including supervision, staff support, resources, case diversity, communication, and institutional culture — directly impacts students' competence, confidence, critical thinking, and professional identity. A positive environment enhances learning, while a negative one can cause anxiety and poor skill development. For surgical technology students, who must master sterile techniques, instrumentation, teamwork, and decision-making, the clinical setting is crucial for professional readiness. Therefore, assessing student satisfaction with the clinical environment is vital to improving education quality and patient safety. Student satisfaction reflects how well clinical placements meet learners' expectations and development needs. Factors such as instructor guidance, feedback, inter professional collaboration, workload, and learning opportunities influence satisfaction. Understanding these can help institutions identify strengths and areas for improvement.

This study aims to evaluate allied health science students' satisfaction with their clinical learning environment and provide evidence-based recommendations to enhance clinical training and educational outcomes.

Medical students learn through various methods, but not all are equally effective. Identifying which environments students find most useful is key to improving teaching. Student feedback is therefore important for curriculum development.

Ignoring students' opinions on effective learning methods may lead to wasted time and resources on less helpful approaches (Kandiah, 2017).

Clinical practice is vital in nursing and medical education as it enables students to apply theory in real-life settings and develop critical thinking and problem-solving skills. Through hands-on experience, students learn to understand and apply clinical concepts effectively. Clinical environments also shape competent professionals through proper supervision, clear roles, and supportive learning (Ahmed et al.2023a).

However, there is a worldwide shortage of clinical training placements in health fields like nursing, physiotherapy, and pharmacy. This is due to staff shortages, high costs, fewer patients, budget limits, and increased enrollment (Brown _et al., 2011a). This makes gaining practical experience more difficult.

The Clinical Learning Environment (CLE) is the hospital/clinic setting where students learn with patients and staff. It includes all people, activities, and situations that influence professional growth. A good CLE helps students practice decision-making, improve judgment, and build critical thinking (Papastavrou _et al._, 2016).

This study aims to identify factors students perceive as negatively affecting learning during clinical training. Understanding these challenges, helps address difficulties faced by beginners in real healthcare settings.

Understanding students' challenges allows educators and institutions to improve the learning environment. The main research question what problems do students perceive as barriers to learning during clinical clerkships (Dolmans _et al._, 2008).

Health science students learn in two settings: classrooms and clinical sites like hospitals. Classroom learning is theoretical, while clinical practice provides real-life application. Clinical training is essential for degree completion and professional qualification. In

health fields, hands-on experience is a core part of education. Student satisfaction reflects how happy students are with their learning environment and affects their career attitudes, commitment, and retention. Low satisfaction can harm learning and future success, so educators must address it (Flott & Linden, 2016). Clinical placements are crucial in undergraduate healthcare programs. They help students develop practical skills, professional behavior, and connect theory to practice. A supportive and welcoming workplace increases motivation, engagement, and willingness to learn (Newton _et al._, 2010).

A positive clinical learning environment for surgical students includes staff cooperation, a supportive atmosphere, appreciation, and learning opportunities matched to their competence level. Key factors include varied clinical experiences, supportive pedagogy, strong supervision, effective leadership, and high-quality patient care (Bisholt _et al._, 2014).

Clinical learning has two key components: the clinical learning environment and supervision by clinical educators. The CLE refers to factors in clinical settings that affect learning outcomes. There is often a gap between students' preferred and actual learning environments. Effective supervision and positive student-educator interactions are vital for successful clinical education. Clinical practice links theory to professional competency. Educators must prepare students for healthcare demands by combining evidence-based education with practical skills (Quartey _et al._, 2022).

Teaching hospitals are responsible for training junior doctors to provide quality public healthcare. The learning environment is critical for postgraduate medical education. Common problems include unclear curriculum goals and uncertainty about learning expectations (Idon _et al._, 2017). A positive clinical environment is team-based, communicative, respectful, and non-hierarchical. It motivates students, includes them in activities, and builds confidence. Democratic leadership that supports students' physical and emotional needs is important (Adam _et al._, 2021).

The quality of clinical placements and support strongly affects student learning. Limited exposure to diverse patients and passive observation can reduce learning. Simulation offers a safe space to practice and improve skills before working with real patients.

Clinical learning also occurs in simulated environments like labs and training centers using mannequins, VR, or role-play before working with real patients. These experiences connect theory to practice, build confidence, and prepare students for future challenges. Due to the importance of hands-on experience, clinical placements are often required for professional accreditation. They ensure students develop the knowledge, technical skills, communication, ethics, and professionalism needed for safe, high-quality patient care (Alshammari _et al._, 2023).

A clinical environment can either support or hinder learning. A positive environment is team-based, open, respectful, and non-hierarchical. It motivates students, includes them in activities, and helps them feel confident to practice new skills. The leadership style of the ward manager is also key. Democratic leaders who address students' physical and emotional needs and encourage participation create better learning experiences (Adam _et al._, 2021).

The clinical learning environment is crucial for preparing students for professional careers. The quality of placement and support directly affects learning. In real settings, students may have limited exposure to diverse cases and often only observe, which can reduce learning. Simulation provides a safe space to practice and improve a wide range of clinical skills (Abdul-Aziz Saleh Aljohani _et al._, 2016).

LITERATURE REVIEW:

(Quartey _et al._, 2022) A cross-sectional study at the University of Ghana, Korle-Bu campus surveyed 169 allied health science students (levels 300 & 400) from physiotherapy, occupational therapy, dietetics, and medical laboratory sciences. 58.6%

were male, 46.7% were third-year, and 48.5% were medical laboratory students. Only 10percentage reported lecturer visits during rotations. Overall, students had a positive perception of clinical educators' attributes and the clinical learning environment.

(Ahmed _et al., 2023) There was no significant difference between level 300 and 400 students in perceptions of clinical educators. However, level 300 students perceived the clinical learning environment significantly differently. Differences in educator attributes across programs were not significant, but differences in CLE perceptions were. Students were generally satisfied with educators and the environment, though satisfaction with the CLE varied by year level and program, suggesting some settings offer better experiences.

(Newton _et al., 2010) Demographics may influence satisfaction with the CLE. Ahmed _et al. found female students reported higher satisfaction than males, while students from rural areas and senior.

Differences in satisfaction may be linked to experience, expectations, culture, and exposure to clinical duties. Labrague also found that stress and satisfaction vary by educational context and personal traits. Instructor and staff behavior is another key factor. Students value respectful communication, constructive feedback, guidance, and emotional support. Ludden and Fathullah concluded that effective clinical teaching improves learning and competence. In surgical technology, where technical precision and teamwork are essential, instructor support is vital for building confidence and reducing stress.

(Newton _et al., 2010) The CLE is a complex sociocultural setting that affects engagement, learning opportunities, and professional socialization. Their CLEI study showed that supportive, student-centered environments increase satisfaction and motivation. Key dimensions include student-centeredness, engagement opportunities, individualization, workplace support, and innovative culture. Students are more satisfied when instructors provide guidance, emotional support, clear communication, and chances for active patient care. These are especially important in technical fields like surgical technology, where students must link theory to practice.

(Dolmans _et al., 2008) Dolmans and colleagues studied factors that hinder student learning during clinical clerkships. Effective clinical education depends on supervision quality, patient exposure, learning climate, and organizational support. Insufficient supervision, limited time with supervisors, poor observation opportunities, and lack of feedback were major causes of dissatisfaction. These findings are especially relevant to Surgical Technology students who need continuous guidance and direct supervision to develop technical and operative skills. Limited chances for independent patient interaction and hands-on practice also reduced satisfaction. Active participation in procedures is essential for skill acquisition and confidence in surgical technology.

(Adam _et al., 2021) This study examined how the CLE affects nursing and midwifery students' satisfaction during clinical rotations in Ghana. Data from 224 third- and fourth-year students showed most were satisfied with both rotation and environment, with a significant positive relationship between them. A supportive CLE improved rotation satisfaction. Limitation: single-university setting limits generalizability.

(Al Shammari _et al., 2023) Conducted a cross-sectional study of 194 undergraduate healthcare students from nine disciplines in Saudi Arabia using the Clinical Learning Environment Inventory (CLEI). Students valued Task Orientation the most, but preferred greater Innovation and Individualization. Personalization, Student Involvement, Task Orientation, Innovation, and Individualization were significant factors influencing satisfaction. The authors concluded that improving these areas could enhance learning experiences and satisfaction.

Material & Methods

The methodology of the research holds immense significance as it provides readers with a clear understanding of how data was meticulously collected and how this process aligns with effectively addressing the research questions posed. Within this section, detailed explanations are offered regarding the research design chosen, the specific sampling strategies implemented, and the meticulous methods employed for the collection of essential data.

STUDY DESIGN

This study will use a descriptive cross-sectional Study to Assess the level of Satisfaction with the clinical learning Environment among surgical technology students.

STUDY SETTING

The study will be conducted among surgical technology students undergoing clinical training in Affiliated teaching hospitals. These hospitals provide practical clinical exposure to students in

Areas such as operating rooms, surgical wards, sterilization departments, and recovery units

STUDY PAPULATION

The study include in those students who are meeting the inclusion criteria of our study a total of

127 students are included for data collection for this study.

INCLUSION CRITERIA

- ☐ ☐ All surgical technology students enrolled in the selected institute.
- ☐ ☐ Students who have completed at least one clinical rotation.
- ☐ ☐ Students currently posted in clinical areas during the study period. Students who are willing To participate.

EXCLUSION CRITERIA

- ☐ ☐ Students who have not yet started clinical training.
- ☐ ☐ Students who refuse to participate.

SAMPLING TECHNIQUE

A convenience sampling technique will be used to select data from surgical technology students

Who are available and willing to participate during the data collection period only those students?

Can be part of study who have done at least one-month clinical hospital rotation.

Sample Size:

In this study, the population size was 190, and after putting values, the final sample size was 127.

Data Collection Tool;

The data collection tool was closed questionnaire. The questionnaire consist of demographic information and variables of Assessment of student satisfaction with clinical learning environment among surgical

Technology students. The responses of the student satisfaction in clinical learning environment was assessed on a 4-point Likert scale (Agree, Strongly agree, Disagree, and strongly disagree).

Data Collection Procedure:

Data were collected through questionnaire. The researcher in person approached each participant during his or her duty hours, and the purpose of the study was explained. After obtaining informed consent, the questionnaire was administered in a standardized manner to minimize interviews bias. Each interview took approximately 10-15 minutes. During the whole process, the data of participants was kept confidential.

Ethical Considerations

Respondents who agreed to participate are informed about the study's nature and goals, and their

Informed consent is formally obtained. Approval for data collection has been granted from head of the department. Throughout the study, patient confidentiality was maintained.

RESULTS

Out of 136 respondents, the majority were male (126, 92.6%), while only 9 respondents (6.6%)

Were female. This indicates that the sample was overwhelmingly male, suggesting that the study

Findings primarily reflect the perspectives of male participants and may have limited Representation of females.

Table 5.2: Gender

Variable	Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1	.7	.7	.7
Female	9	6.6	6.6	7.4
male	126	92.6	92.6	100.0
Total	136	100.0	100.0	

The findings indicate that Lady Reading Hospital (41.2%) achieved the highest level of student

Satisfaction, followed by Irfan Hospital (29.4%), while Health Net Hospital (14.7%) and Afridi

Medical Complex (14.0%) receive comparatively low satisfaction ratings.

Table 5.4 which hospital has the highest level of student satisfaction.

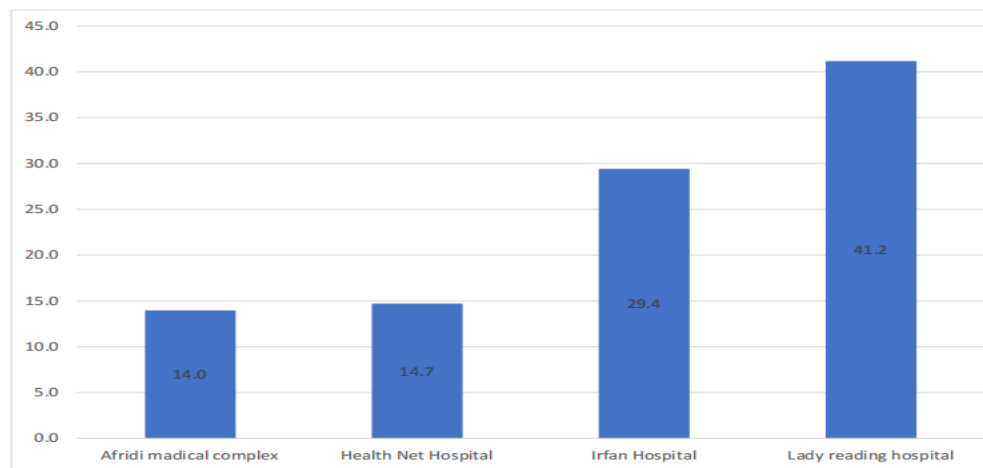


Figure 5.4: which hospital has the highest level of student satisfaction.

The results in Table 5.5 indicate that most respondents perceived the clinical environment as Supportive for learning. Out of 136 participants, 84 (61.8%) agreed and 45 (33.1%) strongly

Agreed that the clinical environment supports learning, giving a combined positive response of 94.9%. In contrast, only 3 (2.2%) disagreed and two (1.5%) strongly disagreed. These findings

Suggest that the majority of participants viewed the clinical setting positively, indicating that it Provides a conducive atmosphere for acquiring clinical knowledge, developing practical skills, In addition, enhancing professional learning experiences. The low percentage of negative responses Further supports the perception that the clinical environment is generally effective in facilitating Student learning.

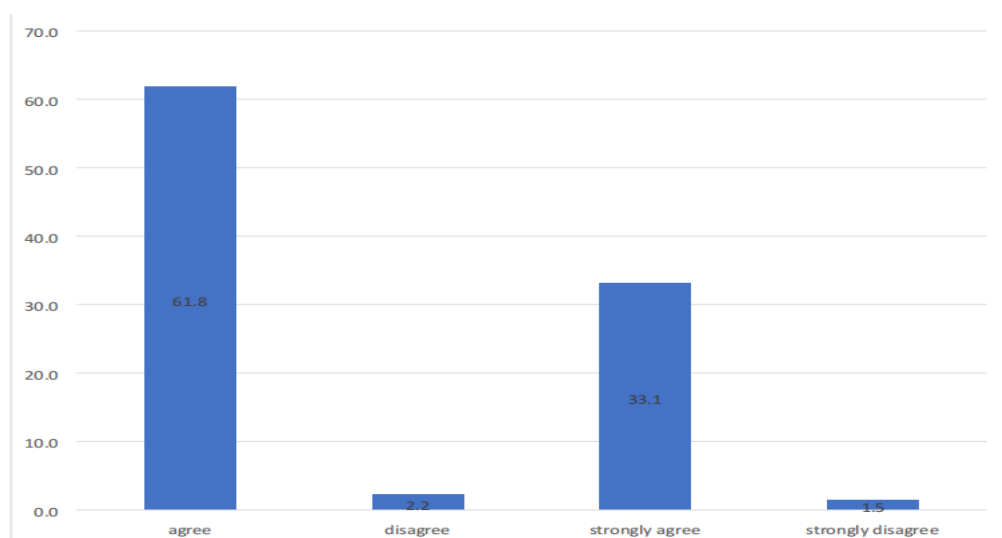


Figure 5.5 The clinical environment is supportive for learning.

The respondents had a positive perception of the guidance provided by clinical instructors. Most

Participants agreed (84, 61.8%) or strongly agreed (37, 27.2%), representing 89.0% of the respondents. In contrast, 10 respondents (7.4%) disagreed and 2 (1.5%) strongly disagreed. Overall, the findings suggest that clinical instructors were generally viewed as providing effective guidance to students during their clinical training.

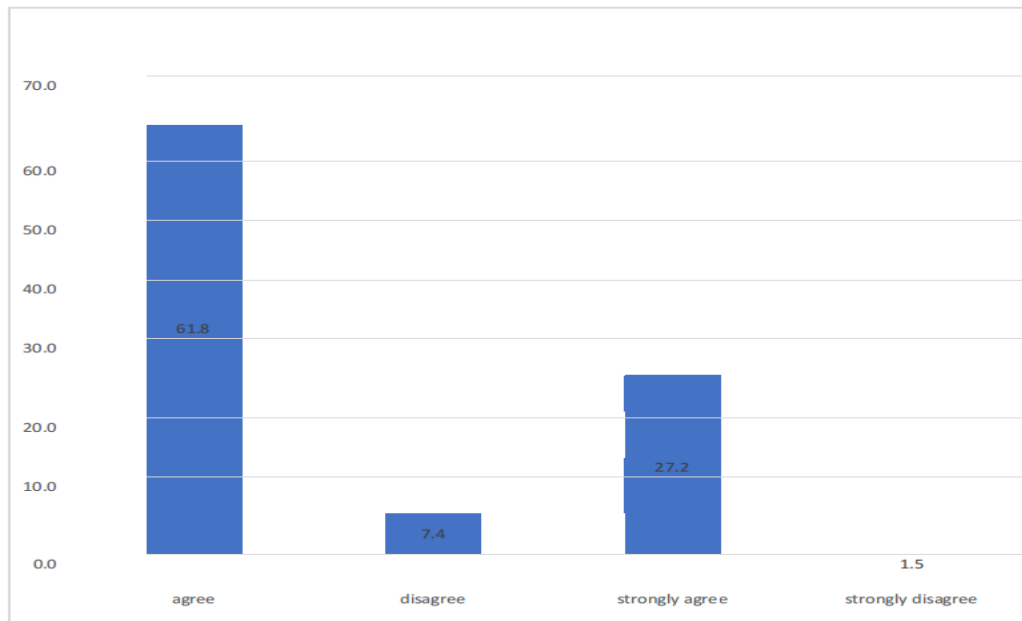


Figure 5.8: Clinical instructors guide students effectively

The results show that most respondents believed they received adequate supervision during clinical procedures. A majority agreed (62.5%) or strongly agreed (22.8%), totaling 85.3% of respondents. In contrast, 8.1% disagreed and 2.9% strongly disagreed responses. Overall, the findings indicate that students generally felt well supervised during clinical procedure.

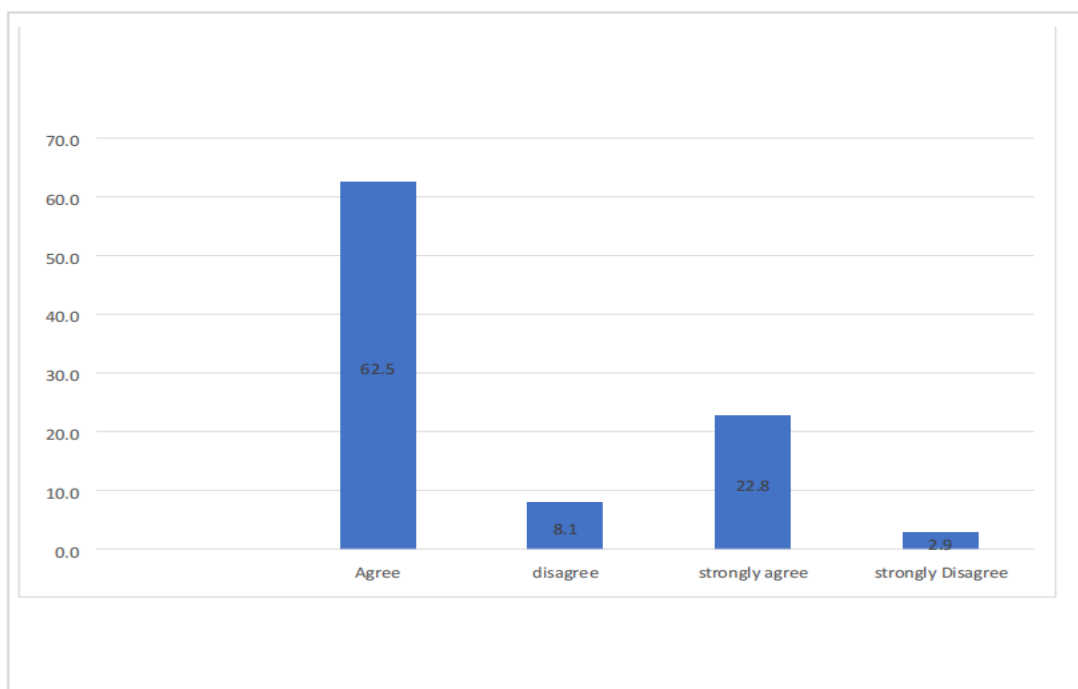


Figure 5.13: Students receive adequate supervision during procedures.

The results show that most respondents were satisfied with the clinical learning environment. 87.5% of respondents agreed (52.2%) or strongly agreed (35.3%) with the statement. In contrast, 7.4% disagreed and 3.7% strongly disagreed. Overall, the findings indicate a high level of satisfaction with the clinical learning environment among students.

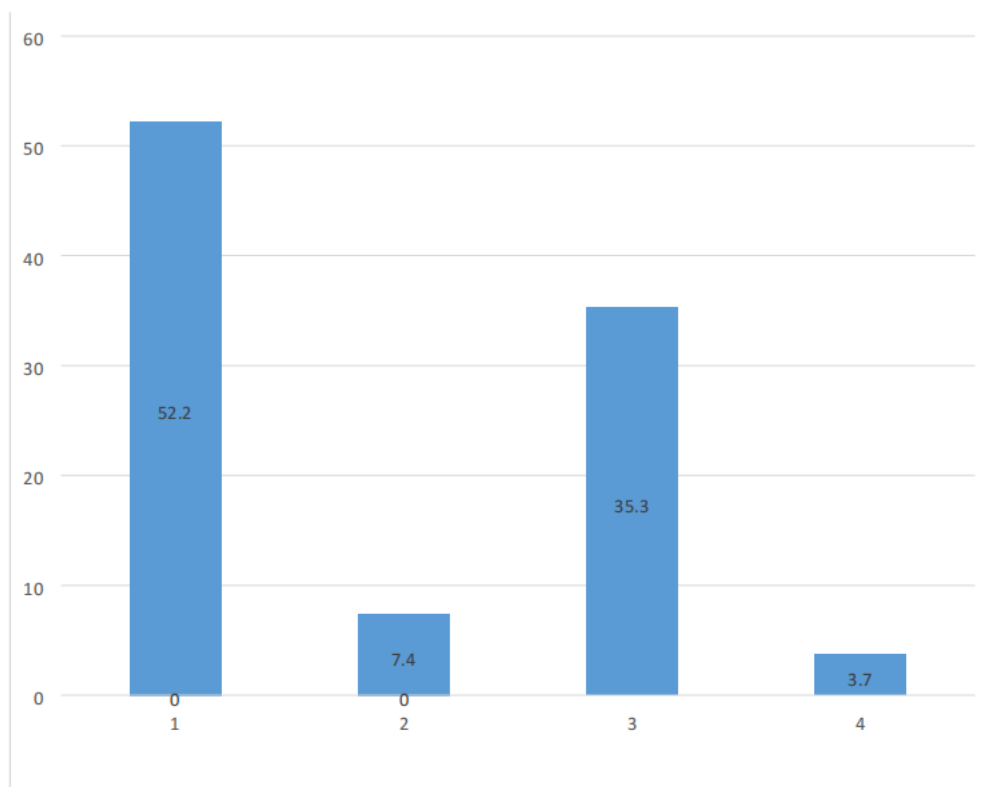


Figure 5.20: Overall, I am satisfied with the clinical learning environment.

Discussion

(Ahmed _et al., 2023) In this study, most respondents were young adults aged ~20 years and predominantly male, with limited female representation. Most had <3 months of clinical experience, indicating early-stage training. In contrast, Ahmed _et al. (2023) reported 85% of participants aged 21–22 years, with 56.9% female and 43.1% male, and some students having 3–4 years of clinical experience.

(Papastavrou _et al., 2016) Students were generally satisfied with a supportive CLE that allowed application of theory, skill development, and confidence building. This aligns with Papastavrou _et al. (2016), who found nursing students highly satisfied when there was a positive pedagogical atmosphere, effective supervision, and supportive mentors.

(Adam _et al., 2021) Most students reported being treated with respect by operating room staff. This matches Adam _et al. (2021), where nursing and midwifery students in Ghana reported high satisfaction due to positive staff relationships, democratic leadership, and respectful ward culture. Such interactions likely enhanced confidence and active participation.

(Idon _et al., 2017) This is consistent with Idon _et al. (2017), who reported positive PHEEM scores for role autonomy, teaching quality, and social support. Supportive environments with good supervision contribute to competence and confidence. (Flott & Linden, 2016) 86.7% agreed that necessary instruments and equipment were available for learning. Only 10.3% reported inadequate resources. This supports Flott & Linden (2016), who identified functioning equipment as a core attribute of an effective clinical learning environment (CLE.)

(J.M. Newton _et al., 2010) Most students perceived that instructors provided constructive feedback. This is similar to Newton _et al. (2010), where 83.9%

agreed/strongly agreed on receiving constructive feedback. Timely feedback helps guide students, reinforce strengths, and improve clinical competence.

CONCLUSION

This cross-sectional study assessed satisfaction with the clinical learning environment among 136 Allied Health Sciences students at Abasyn University, Peshawar. Most participants were male (92.6%), aged 20–25 years, with <3 months of clinical posting. Overall, 87.5% were satisfied with the clinical learning environment and 88.2% with their clinical experience, indicating that affiliated hospitals effectively met students' learning needs.

Key factors for high satisfaction included a supportive (94.9%) and safe (93.4%) learning environment, effective guidance (89.0%), constructive feedback (83.9%), adequate supervision (85.3%), and respectful treatment by operating room staff (86.1%). Students also reported sufficient opportunities to practice skills (84.6%), adequate clinical cases (84.6%), and availability of equipment (86.7%). Clinical teaching significantly improved surgical skills (90.4%) and confidence (94.1%).

While satisfaction was high overall, a small number reported concerns related to supervision and learning opportunities, likely due to differences in posting duration, departments, and instructor availability.

In summary, the clinical learning environment at Abasyn University effectively promotes student satisfaction, skill development, and professional confidence. Strengthening supervision, ensuring equal hands-on opportunities, and maintaining supportive clinical settings will further enhance the quality of clinical education for Allied Health Sciences students.

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