



## **Dermatology Surgical Procedures**

***Jothisankar Akshaya Nandhini, Murugan Pavithra, Ravi Thentral, Devakumar Sujatha Priyadharshini. Kamchybek Kyzy Aselya***

Department of Clinical Discipline- 2, Osh state University, Kyrgyzstan.

---

### **ABSTRACT:-**

Concerns regarding students' development and potential deficiencies in the application of basic procedural skills have been raised by evidence of the real-world experience in today medical education. Studies have demonstrated the advantages of surgical workshops for medical students, although it is still unclear if these workshops will improve the students' performance in ensuing clerkships or residencies. We initiated and evaluated a surgical skills course for students taught by residents through the Department of Dermatology. Methods: After learning about surgical tools and techniques, participants took part in hands-on activities. Before and after the session, 24 medical and physician assistant students were given anonymous surveys with a Likert scale ranging from 1 to 5 to assess their level of competence, confidence, and willingness to the surgical procedures. Concerns regarding students' development and potential deficiencies in the application of basic procedural skills have been raised by evidence of the dearth of real-world experience in medical education. The study used non-parametric bivariate tests to account for the non-normal distribution of the data. Results: The number of procedures completed prior to the workshop, the year of medical student training, and the responses from medical students versus physician assistants did not show any statistically significant differences. The anticipated cost per participant was \$56.059 for skin cancer. Conclusions: Our conclusion that workshop learning experiences enhance students' confidence, willingness to practise, and ability to perform routine procedural tasks is supported by research.

Keywords: Procedural Skills; Workshop; Dermatology; Residents; Medical Students

---

### **1. INTRODUCTION:-**

According to recent studies, medical students are getting less and less practical experience in the modern period of medical education. This finding raises questions about the growth of the students and possible deficiencies in their performance of fundamental abilities. Time limits for teachers and residents, medical-legal issues including malpractice liability, expenses, student safety, including the spread of disease, and patient preference are the most frequently mentioned barriers to teaching fundamental technical obtain. According to sources, resident training in procedural skills needs to be continuously evaluated in order to stay up with developments in the speciality, given the expanding involvement of several surgical procedures in dermatology clinical practice. According to recent data, residents serving as teacher-trainers enhance residents' attitudes and beliefs about teaching in addition to skills seminars for medical and physician assistant students. \*Partially presented at the Dermatology Teachers Exchange Group's Semi annual Meeting on September 27, 2013, in Chicago, Illinois. 45 students from the Department of Dermatology participated in the Dermatology Procedural and Surgical Skills Workshop for Medical and Physician Assistant Students. Context Documentation of proficiency in procedural skills is required by recent requirements set forth by the Accreditation Council for Graduate Medical Education. Furthermore, it has been noted that, since 1993, there has been minimal change in the way technical skills are taught and assessed in half of US medical schools. The importance of including preparatory surgical workshops in the medical school curriculum was shown by the results of surveys given to medical students. This implies that additional research is necessary to ascertain if these sessions enhance students' performance in later training. According to one institution, the number of procedural workshops has grown from 11 to 31 over the last 14 years, and they currently include clerkship professors from internal medicine, paediatrics, and family medicine. Utilising Pub-Med, we conducted a retrospective analysis of the medical literature by searching for procedural skills, workshop, dermatology, residents, and student. Following that, a number of publications detailing models for procedural skill workshops were obtained.

---

### **2.MATERIALS AND METHODS :**

Materials and Procedures During the 2012–2013 academic year, nine physician assistant students and fifteen medical students took part in skills seminars. Participants in the study were members of the dermatological Interest Group as well as students enrolled in any of the one-month dermatological electives. Over the course of the year, six workshops were conducted. An anonymous pre-workshop survey was used to kick off the program (Appendix 1). A ten-minute PowerPoint presentation covering basic surgical tools, safety measures, sutures, suturing procedures, and biopsy setup followed this. Following the lecture, the resident-supervised hands-on practice started with techniques such local anaesthetic injection, tangential and punching biopsies using pig feet, suturing/wound closure, and knot tying. An anonymous post-workshop marked the end of the workshop (Appendix 2). The total time of workshop

was 90 minutes. In the anonymous survey administered for pre and post skill workshop, response were asked to assess the skill level, confidence, and surgical further practice.

### **2.1. Teaching model for surgical procedure:**

The Model Theory-based approach Four step process: 1) Illustration 2) Dismantling 3) Creation 4) Execution Contemporary educational design . The nine events of instruction approach 1) Getting the learner's attention 2) Explaining the goals 3) Encouraging the memory of prior knowledge 4) Providing stimulating content 5) Offering direction to learners 6) Removing the performance 7) Offering criticism and performance 8) Evaluating performance 9) Improving information transfer and retention 10) Improving knowledge transfer and retention Prerequisite information Using an Extended Match Questionnaire (EMQ) to confirm necessary knowledge before moving on to practical skills Micro skills and deconstructed station-based three concepts form the basis of training: 1) Skill 2) Micro skill actions based on each skill's breakdown 3) Instruction at organised learning centres Micro skill with a predisposition for learning Sorting students into categories.

### **2.2. Result and Assessment :**

The Joanna Briggs Institute's methodological guidelines<sup>15</sup> were adhered to, and reporting was done using the PRISMA extension for scoping reviews (PRISMA- SCR) . 376 publications were examined out of the 1490 that were found in The United States (46.3%), the United Kingdom (16.2%), Germany (6.4%), and Canada (5.6%) accounted for the bulk of first authors . A mixture of 30 countries accounted for the remaining 25.5% of the research. Publications were released between 1948 and 2020, with the highest percentage occurring in 2020 and 67.8% occurring in the last ten years . Just 46.8% were published as original articles, with a comparatively high percentage appearing as abstracts (12.2%) or letters (29.2%). The majority of the articles (75%), which were published in dermatology journals, had as their main themes (i) instructional delivery (65.2%), (ii) content (24.5%), (iii) assessment (5.4%), or (iv) other factors (4.9%, such as audit). The degree of proof across 37.5% of the research relied on expert opinion. There were 24 randomised controlled studies (6.4%) and just one meta-analysis.

### **2.3. Skin cancer :**

The significance of skin cancer education was one of the main themes. 52% of fourth-year students report being inexperienced, indicating low confidence in performing the skin cancer examination. Additionally, some writers note that there are few possibilities for monitoring and sun safety council and that certain skin malignancies are not included in didactic materials. Medical students may know as much about sun awareness as the general public, and even those who show more knowledge may not necessarily practise it themselves; in fact, they may be more likely to use sunbeds and think that getting tanned makes them appear healthier. Skin cancer education in schools has been successful in certain cases.

### **2.4. Specific teaching resources and methods :**

The different instructional resources (see Supporting Information). These consist of: online and computer-aided resources (such as learning modules, resource sites, social media, tele-dermatology / tele-teaching, and perceptual and adaptive learning modules (PALMs)), audio visual resources (such as images, video/audio, virtual derma-pathology , and mobile applications), diagnostic decision support software, clinical immersion, didactic instruction, interactive instruction, gamification, simulation, mentorship, and student groups. One important topic is which approaches, with limited time and resources, work best. It was clear that different studies had different operational definitions of what dermatology is and ought to be taught. While the latter needed more proof, the former was found in many articles, especially audits. Few research have the proper controlled design to properly compare various teaching philosophies. To the best of our knowledge, only one meta-analysis has been done to address this question. It found that dermatology elective and multicomponent interventions had the biggest impact on learning how to recognise lesions, followed by computer-based instruction, lectures, and pamphlets, which had a moderate impact, and modulate , which had a minimal impact. Generally speaking, it is best to balance the benefits and drawbacks of each approach based on the kind of learning objective and available resources. It would be helpful to use a Kirkpatrick Evaluation model to comprehend the extent to which interventions affect students. For example, level 1 research may examine student responses (such as satisfaction surveys), whereas level 2 and level 3 research may investigate if learning becomes better and level-4 research might investigate whether this results in better health outcomes. As was recently noted, further study will be required to synthesise the existing and upcoming body of work and break it down into topics that would be suitable for more systematic reviews. Methods of assessment Analysing quantitatively Despite being a significant motivator for student learning, evaluation techniques received little attention in research.

## **3.RESULT :**

Findings Following the workshop, there was a statistically significant change in skill ( $p = 0.0001$ ) and confidence level ( $p = 0.0001$ ), according to results from the Wilcoxon Utility was not significantly different, and neither were responses from medical vs physician students, the number of procedures completed before the workshop, or the year of training. A higher percentage of medical students (67%) had taken part in a surgical skills training before.

---

#### 4.CONCLUSION:

the course, students' confidence and skill levels changed in a way that was statistically significant. All of the students agreed that the session was a positive experience overall. Our conclusion that workshop learning experiences improve students' confidence, ability to execute common procedural abilities, and willingness to practise such skills is supported by research . To ascertain the effect of these skills workshops on long-term procedural performance in upcoming clerkships and residencies, more research is needed. Our study's shortcomings include its limited sample size, failure to compare internal and visiting students, and failure to ask students about their expected future specialisation or career. The 12-Step Performance Grading Instrument, developed by Wang et al., is one potential substitute for pre- and post-self surveys in the future.

#### 5.REFERENCE :

---

Awareness of Cosmetic Dermatology Procedures among Health Workers in a Tertiary Care Hospital:

<https://pmc.ncbi.nlm.nih.gov/articles/PMC6434758/>

Dermatology Procedural and Surgical Skills Workshop for Medical and Physician Assistant Students:

[https://www.researchgate.net/publication/276040646\\_Dermatology\\_Procedural\\_and\\_Surgical\\_Skills\\_Workshop\\_for\\_Medical\\_and\\_Physician\\_Assistant\\_Students](https://www.researchgate.net/publication/276040646_Dermatology_Procedural_and_Surgical_Skills_Workshop_for_Medical_and_Physician_Assistant_Students)

Medical school dermatology education:

<https://academic.oup.com/ced/article-pdf/48/6/648/51961730/llad052.pdf>