

A SURGICAL TRAINING GUIDELINE FOR INTERNATIONAL NURSING STUDENTS

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Abstract

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A Surgical Training Guideline for International Nursing Students		
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Abstract		
<p>As the demand for healthcare workers in Finland has continuously increased, international nursing students can be an important workforce. On the other hand, several studies have shown that nursing clinical placement in foreign environment can be stressful for international students because of cultural and language differences. This thesis project was conducted in cooperation with the Lahti University of Applied Sciences (LUAS). The purpose of the project was to help foreign nursing students with limited Finnish skills prepare for their surgical training. Furthermore, this project is expected to aid international students' training process at surgery wards in Finland.</p> <p>The aim of this project was to create an English guideline containing the most important information about surgical placement for nursing students with limited Finnish skills. This guide can also be useful for nursing educators at LUAS. It will be free to download the guideline from the Internet.</p> <p>This thesis project was practice-oriented as well as theoretical knowledge-based. The information search was evidence-based and up to date. To summarize the project, it was proposed that further actions and developments are needed to improve experiences of foreign nursing students at clinical placements.</p>		
Keywords		
international nursing student, clinical placement, foreign nursing students in Finland, surgical nursing guideline, surgical nursing training		

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<p>Koska terveydenhuollon työntekijöiden tarve Suomessa on jatkuvasti kasvanut, kansainväliset hoitotyön työntekijät voivat olla tärkeää työvoimaa. Toisaalta useat tutkimukset ovat osoittaneet, että hoitotyön kliininen harjoittelu voi olla stressaavaa kansainvä- lisille opiskelijoille kulttuuristen ja kielellisten erojen vuoksi.</p> <p>Opinnäytetyö toteutettiin yhteistyössä Lahden ammattikorkeakoulun (LAMK) kanssa. Projektin tarkoituksena oli auttaa ulkomaisia hoitotyön opiskelijoita valmistautumaan kirurgiseen harjoitteluun. Varsinkin niitä opiskelijoita, jotka tarvitsevat tukea suomen kielessä. Tätä opinnäytetyötä voivat hyödyntää kaikki kansainväliset opiskelijat Suomessa.</p> <p>Projektin tavoitteena oli luoda englanninkielinen ohje, joka sisältää opiskelijoiden avuksi tärkeimmät tiedot kirurgiseen hoitotyön. Oppaan voi ladata ilmaiseksi netistä.</p> <p>Opinnäytetyö oli käytännönläheinen. Tietojen haku oli näyttöön perustuvaa ja ajan tasalla olevaa. Yhteenvetona hankkeesta ehdotettiin, että kansainvälinen hoitotyön opiskelijoiden oppimitulosten ja perehdytyksen parantamiseksi kliinisissä harjoittelussa tarvitaan lisää toimia ja kehitystä.</p>		
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kansainvälinen hoitotyön opiskelija, kliininen harjoittelu, ulkomainen hoitotyön opiskelija Suomessa, kirurgisen hoitotyön ohje, kirurgisen hoitotyön harjoittelu		

CONTENTS

1 INTRODUCTION	1
2 NURSING CLINICAL TRAINING	2
2.1 Clinical training and its purpose	2
2.2. Supervision and support in clinical training.....	2
2.3 Roles of student in clinical training	3
3 COMMON DIFFICULTIES OF INTERNATIONAL NURSING STUDENTS AT CLINICAL TRAININGS	4
3.1 Language barrier.....	4
3.2 Cultural difference.....	4
4 DESCRIPTION OF COMMISSIONING PARTY	6
5 PURPOSES AND AIMS.....	7
6 DESCRIPTION OF PROJECT WORK.....	8
6.1 Project development work.....	8
6.2 Initiation phase.....	8
6.3 Planning phase	9
6.4 Execution phase	9
6.5 Project closure	10
6.6 Data search and collection.....	11
6.7 Creating a good guideline for students.....	11
7 DISCUSSION	13
7.1 Reliability and validity.....	13
7.2 Ethical consideration	13
8 CONCLUSION.....	15
8.1 Summary	15
8.2 Proposal for further actions	15
REFERENCE.....	16
APPENDICES.....	20
Appendix 1 Student's guideline	
Appendix 2 Evaluation questions list concerning the criteria of a good surgical training guideline for international students	

1 INTRODUCTION

Besides Finnish and Swedish programs, some universities of applied sciences in Finland also provide English nursing programs (Mattila, Pitkäljärvi & Eriksson 2010, 153). The program consists of 210 European Credit Transfer System (ECTS) and takes 3.5 years of full-time study. The degree program teaches students how to carry out and develop nursing practice in campus, online learning, and social and health care environments. Upon graduation, students will be entitled to use the degree title Sairaanhoidaja (AMK)/Registered Nurse. (Lahti University of Applied Sciences 2019).

Clinical training is a major and vital part of the studies. Clinical placement in real situations must cover 75 out of 210 ECTS. It is suggested that the quality of students' experience in the clinical trainings remarkably affect the quality of nursing education (Henderson, Twentyman, Heel & Lloyd 2006, 567). The average length of a clinical practice period is 5 weeks (Mattila et. al 2010, 153). Surgical training is a mandatory and demanding clinical training of nursing students in Finland. It can be conducted at a healthcare centre, a hospital's surgical ward or an outpatient clinic. At surgical ward, student nurses carry various responsibilities and cooperate with other healthcare professionals to take care of patients before, during and after surgical procedures.

Launikari and Puukari (2005) concluded that teachers from all over Europe have been meeting students with different ethnic backgrounds of all ages. However, immigrants in nursing have encountered some common difficulties, such as language barriers, cultural differences, and unfamiliarity with new social and health care environment and system (Green, Johansson, Rosser, Tengnah & Segrott 2008).

Emanuel & Pryce-Miller (2013) suggested that both the nursing health service and higher education institutes have a responsibility to provide a high standard of nursing education and support, which includes high-quality teaching and leadership in clinical education. Understanding the situations of international nursing students, we decided to conduct our thesis project for the purpose of improving their preparation and experience at surgical placements. Furthermore, this project can aid international students' training process at nursing departments and surgery wards in Finland. Our aim was to provide students and teachers with a guideline in English with the most fundamental information about surgical training in Finland.

2 NURSING CLINICAL TRAINING

2.1 Clinical training and its purpose

Nursing clinical training is the environment that students are given the opportunities to contact with patients for a learning outcome and will not be individually assigned to patient care. Clinical training is a vital part of the degree program in nursing. It provides a cornerstone of nursing education. It gives students good chances to experience with various patients and promote wellbeing. (Conn, Lake, McColl, Bilszta & Woodward-Kron 2012.)

The clinical training should be carried out in hospitals, communities, and other health care services under the mentoring of nursing teachers, qualified nurses and other qualified professionals in clinical settings (WHO Europe 2009). Clinical practice can be considered a significant part of students' personal and professional growth as well as development of their professional proficiency. Additionally, clinical learning environment is a key aspect of the nursing students' preparation in their future work. Conn et al. (2012) stated that clinical practice not only offers a learning setting but also prepares the students to become good-quality nurses who will be able to provide quality health care.

In Finland, clinical training is a fundamental part of studies at University of Applied Sciences, which gives students a chance to put theory into practice and provides the latest know-how of certain field of learning that supports professional studies and their work later (Kajaani University of Applied Sciences, 2019).

2.2. Supervision and support in clinical training

According to a research article, clinical knowledge, clinical and technical competence, positive relationships with students, effective communication skills, and enthusiasm are listed as skills and competences of a good and effective mentor (Goldie, Dowie, Goldie, Cotton & Morrison, 2015). International nursing students need support throughout their studies and especially during clinical trainings to learn effectively.

The task of nurse supervisors is to enhance learning through provision of different opportunities for learning, positive opportunity can contribute significantly to the students' competency and development. Effective supervision from the clinical supervisors' in a clinical environment is vital

to the students learning and wellbeing. (Levitt-Jones, Lathlean, Higgins & McMillan 2008.)
Meanwhile, a survey conducted among 61 medical interns in South Korea has revealed the relationship between an effective mentoring and achievement of interns in the early stages of their medical career to reach personal and professional goals. Lacking mentoring has links with dissatisfaction in internship and not getting set training goals. (Han, Chung, Oh, Woo & Hitchcock 2014.)

2.3 Roles of student in clinical training

During the placement, student nurses learn to organize, implement and evaluate the comprehensive nursing care on the basis of the skills and knowledge learned from theory. The student learns not only to work as part of a team but also how to make care plan to individual patients. (Official journal of European Union 2005, 41).

In the guide called “Learning good nursing Care: A Handbook for supervised clinical training degree program in nursing” of Lahti University of Applied Sciences (2018), it was highlighted that students’ roles in clinical training are doing role-taking practice under supervision of their nurse tutors. Students are non-sterile members of the surgical team, who take initiative, ask questions and identify personal qualities in themselves to be an excellent health care professional one day (Czech Hospital Placements 2016).

3 COMMON DIFFICULTIES OF INTERNATIONAL NURSING STUDENTS AT CLINICAL TRAININGS

3.1 Language barrier

This is an obstacle that probably every single foreign student has had encountered during clinical trainings in Finland. In the clinical environment in Finland, the suggested and preferable method of communicating with the supervisor and patients is either Finnish or Swedish. Language barriers were the most common challenge for the international nursing students in clinical training in Finland. Some stressful situations reported by international nursing students were, for example, receiving guidance from staff, understanding reports, giving instructions to patients and/or patient's family. (Pitkälä, Eriksson and Pitkälä 2012.)

Language barrier in clinical placement is not only a problematic issue in Finland because a study conducted in Canada also found similar results. They noted that radiation therapy students who speak English as a second language encountered several challenges in the clinical settings, for example, coping with language difference and feeling of being excluded from the clinical environment. (Bolderston, Palmer, Fanagan & McPaland (2008.) Similarly, another study in 2008 had the same outcome. It was conducted to examine the experiences of nursing students in international programmes at a school in the United Kingdom and a school in Sweden. (Green et al. 2008.)

Student nurses experience communication difficulties in situations where they do not speak the same language as their patients. Cross-cultural care between nursing students and patients who do not speak the same language often lead to insufficient information exchange and poor-quality nursing care. (Jirwe, Gerrish & Emami 2010, 436 – 444.)

3.2 Cultural difference

Cultural values, which are deeply rooted ideas and belief systems are an integral part of a person. It is presumed that the individualistic way of life and thought is enshrined in the western civilization which underlines the importance of individuals over the mass. Meanwhile, in other parts of the world especially in the developing countries in Africa and in Asia, community is more important and individuals are loyal to their family and friends. (Ludwick and Silva 2000.) According

to Gray and Thomas (2006), when the word culture is used in nursing literature, it is illustrated with concepts that are consistent with essentialist view: race, ethnicity, national origin or religion.

De and Richardson (2008) suggested that cultural factors are becoming more important within the healthcare sector, both for the change within the patient and staff. At a Swedish university, a study by Jirwe et al. (2010) was conducted on nursing students with immigrant background to explore their experiences of communication in cross-cultural nursing. It was concluded that even though student nurses find creative ways to communicate with patients from different cultural backgrounds, they still lack skills and confidence in cross-cultural communication.

4 DESCRIPTION OF COMMISSIONING PARTY

This thesis project was conducted in cooperation with the Lahti University of Applied Sciences (LUAS) in Lahti, Finland. The commissioning contract was signed by the authors, the supervising teacher, and the representative of LUAS.

LUAS is one of the Finnish Universities of Applied Sciences offering degree programmes in nursing taught in English. However, since 2016, applicants are required to have at least basic Finnish skills (level A2) and the language test in the entrance exam is compulsory. Upon graduation, students are awarded Bachelor of Health Care, whose qualification meets the requirements of EU directives. Registered Nurse is a profession supervised by the National Supervisory Authority for Welfare and Health (Valvira). (LUAS 2019.)

According to Maria Tuominen, a senior lecturer and supervising teacher of surgical placements at LUAS, up to date instructions for international students are needed. The Faculty of Social and Health Care at LUAS has already created a PowerPoint file for students titled “Clinical training: Medical – Surgical Nursing Care - ST00BK53 (2019)” in English. However, realizing that this guideline can be developed and updated further, we decided to conduct this project and write a more detailed guide to support surgical training periods. Furthermore, it is expected that this guide can help nursing educators at LUAS improve their student training process.

One teacher of the commissioning party, Tuominen, also took part in the evaluation phase of this project. She confirmed that her name and evaluation could be used in the thesis. Our guideline and evaluating question list were sent by e-mail to Tuominen. Further details of the evaluation phase are described below.

5 PURPOSES AND AIMS

The purpose of our thesis project is to improve the surgical training's experience of international nursing students at Lahti UAS. This project is expected to help students create appropriate learning goals, set a realistic training plan, and establish a sense of responsibility at their clinical placement. Furthermore, this project can aid international students' training process at surgery wards in Finland.

The aim of our project is to provide international student nurses an English guideline containing selective information about surgical training in Finland. It is free to download the guide from the Internet. This guide helps students to be more confident and active in their training, which can improve student's performances at their surgical training. This guide can also be useful for nursing teachers at LUAS.

6 DESCRIPTION OF PROJECT WORK

6.1 Project development work

Project is temporary endeavors with set of activities in order to create a product or service within specified requirements. This project work aims to improve the quality of surgical training of foreign students at Lahti UAS. Our product is a combination of theoretical knowledge and practice in a working environment. Defined reader of this guideline is international degree nursing students who have not experienced surgical clinical training, with limited Finnish language skills, which eventually can cause stress and prejudice quality of training. Nursing educators at LUAS are also target readers. The output of this project is a guideline containing the most practical, student-oriented, and useful information that solve the specified problems.

We chose the project management cycle of Adhikari (2018), which presents four stages of project management work: Initiation phase, Planning Phase, Execution Phase, and Project closure. The project management cycle is a useful tool to illustrate project management work as conjunctive and continuous steps.

The project cannot be successful without a good plan and clear identification of outcomes. With the guiding of project management cycle, authors should identify the outcome and benefit group as well as assess targeted group's needs for project development work.

Our project development work implemented existing theoretical knowledge from research, data, and evidence-based information to create a product, which was sent to a senior teacher at LUAS for evaluation. Her feedback was collected by questionnaire and used for further development and update of our product.

6.2 Initiation phase

According to Adhikari (2018), the initiation phase is the first phase of the project. It is when the detailed picture of a project has not been formed yet.

There are several steps in this phase. Firstly, the issue must be identified and the project's practicality must be assessed. The identified problem was the struggle of international nursing students at foreign clinical training. The thesis project was identified to be based on the project management framework.

Secondly, purpose and aim of the project have to be stressed. Our initial purpose was to help international nursing students at LUAS to perform better surgical training with less obstacles, which can lead to better surgical nursing education. The aim of our project was to provide English speaking students an easy-to-read, concrete, and informative guideline of surgical training in Finland.

Besides, commissioning party of the project was decided to be Lahti UAS. This project was also expected to help nursing teachers at Lahti UAS improve their training program.

6.3 Planning phase

Once the issue is identified, more detail aspects of the project is planned. Based on need assessment, a detail and concrete plan is easier to make. The plan is a framework that project management work follows. A better plan makes execution easier. The project executors would have a list of tasks to follow until the final product is created. (Adhikari 2018.)

The output of this project was planned to be an English material in PDF including general information of surgical department in Finland. The guide would be free to download from the Internet. The main target readers would be the international nursing degree students at LUAS. The guide could also be useful for nursing educators. The guideline was also planned to be evaluated by professional in surgical nursing education at Lahti UAS.

Our guide could not cover everything about surgical training yet contain general information of surgical training in Finland. Firstly, it was designed to provide students with most selective and notable information before and during training: how to achieve surgical training learning outcomes. Secondly, the guideline was arranged to present shortly the most noticeable clinical aspects of surgical units, which students should know and have adequate preparation in order to have an effective surgical training.

On 4th of June 2018, The PDF file of our plan was sent to our thesis supervisor. On the same day, our supervisor approved the plan.

6.4 Execution phase

We started the data search, which described above, in spring 2018. In autumn 2018, we began to write the guide of surgical training for international nursing students (Appendix 1) based on theoretical knowledge about clinical training, surgical nursing, and some other guidelines e.g. the "Handbook for supervised clinical training degree program in nursing" of Lahti UAS (2018)

and “Simply Put: A guide for creating easy-to-understand materials” of US Department of Health and Human Services (2009). During the project, we sent our work progression to our thesis supervisor for feedback and suggestion. We also had meetings with her at the campus.

Because this project is orientated towards the working-life related development for nursing students, the guideline includes theoretical knowledge which can be applied to authentic clinical environment. Our guideline provides a student-oriented yet not theoretically heavy material. The language used in the guideline is not too formal since the information is supposed to be memorable and practical. To make it easy for everyone to print and use, the selected frame is standard A4 page. The chosen font was Arial and the size of the text was 11.

6.5 Project closure

Project closure is the final stage when all work has been done. In this phase, evaluation form is made to assess the product of the project and is used for further reference. (Adhikari 2018.)

On 16.5.2019, we started the search for information about writing a good-quality educational guide. Based on the data found, we created a list of criteria questions for the evaluator. These questions concerned our guide’s benefit (Appendix 2/question 1), language and writing style (Appendix 2/question 2), references (Appendix 2/question 3), and contents (Appendix 2/question 4). The reason why we made this form is to narrow down what the evaluator should consider and give us feedback.

On 18.5.2019, we sent the guide and the evaluation question list by e-mail to Maria Tuominen for consultation and feedback. As mentioned above, Tuominen is a senior lecturer and supervising teacher of surgical training at Lahti UAS.

Tuominen sent her feedback to us and our thesis supervisor on 19.5.2019. According to her, our guide is well-prepared, important, and beneficial for foreign student nurses. In her opinion, our writing style is student-friendly and not too formal. The sources we used are up-to-date and reliable. The contents of our guide covered concrete and necessary information for surgical training. Besides, they were updated and edited based on her feedback. In terms of nursing professionalism, she stressed the importance of punctuality, creating appropriate shift and training goals, and verbal communication and documentation in Finnish. Regarding the theoretical knowledge, she highlighted the completion of surgical nursing study before starting surgical placement. This includes pre-, intra- and postoperative nursing care, hand hygiene, and asepsis.

6.6 Data search and collection

We started to search for data in the beginning of February 2018. We used online scientific sources, of which reliability would be fulfilled as thesis standard of Lahti UAS. The mainly used search engines were Google and Lahti UAS' Masto-finna. The search was narrowed down to be between 2003 - 2019. We used some old yet still relevant concepts e.g. ethical issues in nursing publishing. Although some official guidelines and directives were published in 2005, they are still considered accurate. Originally, the search terms used, for example, were:

- international nursing student in Finland
- difficulties of international nursing students at clinical training
- hand hygiene
- surgical ward in Finland
- surgical nursing
- nursing clinical training

Later on, as we needed to search for theoretical information about a good guideline, we included other search terms, such as good student guide and how to create good guideline. The search was limited to information written in English or Finnish. The websites we used were, for example, Duodecim, HUS, ScienceDirect, PubMed, and intranet of Lahti UAS. The types of data that we used were article, guideline, book, and website.

6.7 Creating a good guideline for students

Why a student guideline is important? As health care settings are not the same in every corner of the world, it is difficult for students to be aware of those differences and handle without effective guidance. A good-quality, evidence-based and reliable guideline can bridge the gap between cultural differences and language and local contexts. It can help the students to be more active in their learning progress. Furthermore, a good guideline can work as an ethical and practical framework for decision making. It helps student to realise the sense of responsibility, which encourages students to be more active at the clinical placement and easy to achieve their learning outcomes, improve quality of their learning process as well reduces work for nurse mentors. A good guideline can serve as a roadmap from which readers select useful information that they can apply in their training and future work. It is suggested that a guideline should be based on

the new and updated information from reliable sources. Therefore, it is important for a guideline to have appropriate information and references for the target readers. Moreover, the guidance needs to retain the originality and consistency of the original information. (Kredo, Bernhardsson, Machingaidze, Young, Louw, Ochodo & Grimmer 2016.)

In 2009, the US Department of Health and Human Services has offered a report serves as a benchmark and instructions for creating a good guideline named “Simply Put: A guide for creating easy-to-understand materials”. According to it, a good guide must identify clearly their targeted readers and their problems, which is known as purposes and aims of the material. The guide also should clearly state the action and why is it important to do so. It needs to focus on the key points those are important to the readers, which can engage the reader/ audience attention. The content should stick to one idea at a time and keep the message easy-to-understand. Moreover, the guideline should take language into account, make it familiar for the readers, and do not make the reader feel they are reading a book of laws. The writer(s) of the guide should communicate in the text like talking to a friend, organize ideas in the order that audience will use, and use brief captions that include key messages. The tone of the guide should encourage the audience to read.

7 DISCUSSION

7.1 Reliability and validity

In project work, reliability and validity are extremely important. The process of this thesis project was represented accurately in order to maintain reliability and validity.

This thesis was created based on the thesis guideline of Lahti UAS (2018). Throughout the thesis progress, feedback and recommendation were given by our thesis supervisor via e-mail and face-to-face meeting. Hence, the validity of the project work was supported. Maria Tuominen also gave her evaluation for our guide. Since she is the supervising teacher of surgical training at Lahti UAS, she could ensure the quality of our guideline.

To maintain reliability and validity of the project, only reliable databases suggested by LUAS were used. There is a consistency between the topic and the relevant search terms to make sure that the content is coherent. Because all information was written based on reliable sources and didn't include subjective opinions of the authors, the credibility of the project is ensured. (Polit & Beck 2010, 115.) Proofreading was done and spelling mistakes were fixed. The thesis was sent to another teacher at Lahti UAS for English language check.

7.2 Ethical consideration

Ethic is one of the most important topic of research study (Grove, Burns & Gray, 2012). An effective writing is not only functional and grammatically correct but also must be done in an ethical fashion (Powell 2016). According to Kolin (2015), ethical writing refers to "clear, accurate, fair, and honest" writing, which is ethical practice reflection. Sharma and Singh (2011) have also stated that writing without ethical integrity is stealing another person's ideas, methods, results, or words without proper attribution. Besides, ethical integrity is essential to writing and publication. Nurses must maintain high standard of scholarly work and stress the importance of writing integrity in the dissemination of knowledge (King 2003).

There are five principles of an ethical documents: beneficence, non-maleficence, anonymity and confidentiality, originality, and provision of the right to withdraw (Laerd Dissertation 2012). Our guideline sought to do no harm to anybody and provided useful information to students; thus, we enhanced the principles of beneficence and non-maleficence. This thesis is also adhered to the Finnish advisory board on research integrity (TENK). Process of making this guideline was done in the manner that respected and acknowledged the authors and all the relevant

references are shown to maintain transparency as well as credibility of information. Besides, the final product is checked on Turnit for plagiarism. All confidential information in this thesis was respected to uphold the principle of anonymity and confidentiality.

8 CONCLUSION

8.1 Summary

International nursing students usually encounter language and culture barriers in foreign clinical practice. In Finland, surgical training is an important and complex period of nursing study.

Therefore, there is quite a lot of important knowledge. Understanding those points will create good foundation for foreign nursing students who are going to have a surgical clinical training.

Purpose and aim of this project were completed. Our guide was approved by the supervising teacher. It doesn't mention all aspects of a specific surgical ward but only the most important parts that international students need to know to efficiently complete a surgical training.

Furthermore, it is important that nursing programs encourage foreign student nurses to improve communication in cross-cultural nursing environments. Meanwhile, clinical learning environment should provide students with the opportunity to put their learning into practice. (Jirwe et al 2010.)

8.2 Proposal for further actions

In our opinion, this guide is not only beneficial for international nursing students with limited Finnish skills, but it can also be a useful tool for nursing teachers and surgical units in Finland. It is expected that the guideline will help the nursing educators create effective clinical teaching and strategies.

Throughout our data research, we found several studies about the difficulties encountered by foreign nursing students at clinical practice when the language of the learning environment is other than that of students. To support multicultural nursing or nursing education, there should be up to date instruction and information for students and nurses. Further actions and development should be made by the healthcare units and educational organizations to encourage international nursing students to complete their training effectively.

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APPENDICES

Appendix 1 Student's guideline



LAHTI UNIVERSITY OF APPLIED SCIENCES

Surgical Training Guideline for Nursing Students

Bachelor of Health Care

Degree programme in Nursing

Spring 2019

Han Le

Trinh Tran

CONTENTS

1. INTRODUCTION	1
2. BE WELL-PREPARED.....	2
2.1 Be on time.....	2
2.2 Make realistic and achievable learning goals and objectives	2
2.3 Working under nurse mentor’s supervision is a must.....	3
2.4 Finnish language competence is a plus.....	4
3. GET TO KNOW THE UNIT	4
3.1 Daily routine of the units.....	4
3.2 Keys, personal IDs, and information confidentiality	4
3.3 Lunch	5
3.4 Uniform	5
4. TAKE CARE OF YOUR OWN SAFETY	5
4.1 Ergonomic.....	5
4.2 Confidentiality.....	6
5. HIGHLIGHTS IN SURGICAL NURSING CARE YOU NEED TO KNOW	7
5.1 Hand hygiene	7
5.2 Disinfection in operation room.	9
5.3 Preoperative care.....	10
5.4 Intra-operative care	11
5.5 Post-operative care	11
5.6 Pain and pain management.....	12
5.7 Complication prevention	12
REFERENCE.....	14

1 INTRODUCTION

Welcome to our guideline and the beginning of your surgical clinical training. Your surgical training would be a special time in your life and an extraordinary chance for personal and professional growth. You will make friends and professional network which might long last beyond your training. You will be sleepless some nights, learn to save life, see, and witness amazing things that you can probably learn more than years in other period of your working life. This guidebook is looked forward to providing you with the most important information you need to know before doing surgical internship. It was written in perspective of international nursing students who have shared difficulties when doing nursing clinical training, especially in surgical clinical training in Finland. It is meant to provide students good preparation and to reinforce their sense of responsibility in learning at surgical units, which is essential for them to achieve the training's learning outcomes and fundamental to their work later. We hope that you find this guideline helpful and hope you have an effective learning period at your surgical training and success in your nursing career later.

2 BE WELL-PREPARED

Insufficient of readiness of student is one of the biggest challenges that student is facing with at clinical training. Studies have revealed that students are facing with fears, stress and unpleasant experiences for not having enough preparation and clinical competence before training. Therefore, having a good preparation is crucial to have an effective training.

2.1. Be on time

Tardiness is a common issue, people might be late 10-20 minutes because of the mode of transportation, children, and some other personal issues. Apparently, time management is one of the most demanding ethics at the workplace as well as training. Being late is evidently proved to reduce working productivity and team working spirit. Therefore, being punctual is a way to show your respect and positive learning attitude to your instructors. **Depend on the hospital but some often host a meeting with students on the first day of training to provide them the important information.** Make sure that you are not late for the meeting, otherwise you will miss very important information that you need to know during your training. Here are some tips for you:

- **Prepare the night before.** Look for information about the hospital and the unit you are going to do training at. Information could be address, parking place, transportation, contact number, and so on.
If you want to bring food with you to the unit, it would be a good idea to think about it in advance and prepare everything the night before. Try not to be late! But in case you could not make it, call and inform the responsible person not to wait for you, or at least let them know whether you come or not.
- **Wake up early.** Set the alarm clock few minutes earlier.
- **Plan to arrive early.** By this you have time to deal with the unexpected situations.
- **Banish distractions.** For example, checking notification from social media in the morning could take more time than you've planned. If you need to check emails and morning news, then check it when you arrive at the unit and still have some spare time before training starts.
- **Be organized.** You may realize you have no clue where you have put your keys, wallet, or jacket. Organize things at the doorway space helps you avoid last-minute commotions.

2.2 Make realistic and achievable learning goals and objectives

Well-defined and articulated learning objectives and goals are crucial because they provide students clear purposes to follow and work like assessment tool for student and mentors to evaluate student's performance after the training. There is difference between learning objectives and learning goals. Learning objectives are brief and clear statements about student's competences after training, which barely means what student will be able to do after surgical training, which are observable and measurable. On the other hand, learning goals, which are more abstract and unmeasurable, mean what student hopes to accomplish in the training.

Surgical units in different hospitals have different patient groups and care depending on what treatments they provide. Therefore, students should find information about the patient group and cares that surgical unit provide before setting their learning plan. The learning goals should be clear, achievable, and appropriate with nursing expertise. You are **not** becoming a doctor after nursing surgical training; therefore, nobody would expect you to know everything about surgery and surgical nursing care after a short training that you are having in the hospital. That is apparently long-term goals that take

longer than some months of training to achieve. Therefore, appropriate learning objectives and goals are important to keep student in the controlled process of learning and focus on what they really need to achieve. A realistic goal will not make you disappointed and stressed about not getting what you expected from the beginning.

Furthermore, learning objectives and goals should be based on the surgery course learning outcomes (OPS) and are suggested to be written in Finnish. The learning objectives and goals should be made within the first week at your surgical training and provided to instructors on time for them to create a respectively suitable instruction plan for your training.

Do not forget to consult your nurse mentors if you want to make a good surgical training plan. The nurse mentors are the ones who have experiences of working at the units; therefore, they understand well the traits of that surgical unit, for example, patient groups, treatments, kinds of operation, et cetera. By consulting for advice of nurse mentors, it would be much easier to set a good learning plan than making it all by your own.

2.3 Working under nurse mentor's supervision is a must

A survey conducted among 61 medical interns in South Korea has revealed the relationship between an effective mentoring and achievement of interns in the early stages of their medical career to reach personal and professional goals. Lacking mentoring has links with dissatisfaction in internship and not getting set training goals. For this reason, make sure that your working list is based on your nurse mentor's work list to have as much presence of nurse mentor with you at the unit as possible. In case of sickness or other emergencies, student needs to inform the unit. Make sure that they are in touch with you and informed if you are with them or not.

The nurse mentors are the ones who are responsible for your learning at the training, so consult their advice without hesitation when you need them. Remember not to make decision yourself, all your actions toward the patient need supervision from your mentors. **Always** call your nurse mentors for help when having problems, doubts, or patients who "just don't look right." Don't take it yourself. Get your questions answered and your doubts allayed. Don't be afraid that someone will judge you because of things you do not know, because that is the exact reason why you are in training. You should keep this in mind, that there are no stupid questions. Keep questioning and get your questions answered.

2.4 Finnish verbal communication competence is a plus

Language barrier is one of the biggest challenges that international students face at their clinical trainings. You should know that it is not just your problem: it is a common challenge that international students in Finland all share. Hence, do not be shy, just practice your Finnish at the training even when you think your Finnish is not good enough, because your efforts in communicating by Finnish should be always encouraged and appreciated at trainings. Despite the fact that most nurse mentors of international students are able to give instructions by English, students need a certain Finnish language skill level to communicate with the patients as well as documentation, your trainings gives good opportunities to practice both clinical competences and Finnish language.

3. GET TO KNOW THE UNIT

3.1 Daily routine of the units

Surgical unit is a ward with specific characteristics, its routine might be not identical with other wards. Accordingly, understanding surgical ward's routine, for example, timetable, nurse's responsibilities, etc. provides you opportunity to challenge yourself in different practical roles and attain new things. For this reason, your work list should be adapted and relevant to the unit routine for you to practice things of your will.

3.2 Keys, personal IDs, and information confidentiality

The entrance ID tag and locker keys are provided by the assistant. It is your responsibilities to take care of given assets. Compensation would be clarified by the assistant when assets are given to you. Moreover, you would be provided personal username and password to access the computer system and healthcare information management system. Obligation of confidentiality is an important part of nursing care in Finnish Healthcare system and it is powered by Finnish law. Hence, every nurse and student who work in the ward should always keep in mind their responsibility to keep all the patient's confidentiality.

3.3 Lunch

Student discount is available in some hospitals when you bring your Kela meal card provided by your university. For example, in hospitals which belong to HUS, students have discount for 2.60 euros/meal. There are some hospitals in HUS offering surgical trainings for students, for example Jorvi hospital and Töölö hospital, serve offer student meal at their cafeteria. In all the wards there are dining areas; personal snacks and food are recommended.

3.4 Uniform

Good personal hygiene in hospital includes taking care of personal and uniform asepsis. Uniforms are short sleeve and should be changed if needed to make sure the risk of infection to the patients is lowest. Work uniform includes work clothing, socks, and shoes. In the wards, where aseptic requirement is high, special coverings are used. Work clothing and socks are changed daily or when needed. You need indoor working shoes when working in the hospital. Long sleeve jackets are not allowed in delivering the care require high level of sterilization.

4. TAKE CARE OF YOUR OWN SAFETY

4.1 Ergonomics

Transferring and moving patients is an important part of nursing care, which are not only about the patient safety but also nurse's safety. Ergonomics is one important part in nursing field, which are designed to improve the healthcare professionals and patient's safety as well as health and well-being. Using the right ergonomic techniques helps to avoid accidents and reduce physical work for healthcare professionals. For example, if you are alone with patient and he/she asks you to transfer him/her from bed to the restroom by crane, you should ask for help; even when you know the right technique, it should never

be done by you alone. If other nurses are busy, you can ask the patient to wait. Maintaining patient's safety is shared responsibility of all nurses in unit. Don't take it alone and be nice to your back!

4.2 Risky appliances and substances

In surgical training you are exposing with multiple kinds of appliances and substances. Handling these appliances and substances properly is important to maintain work safety and work experience. Therefore, it is also student's duty to know the regulations and work safely in health care working environment.

In surgical unit there are different kinds of sharp appliances in delivering care, of which usage and discharge instructions should be always followed. Any breakage or crack of the devices in the ward should be immediately reported to your nurse mentors in order to have expedient maintenances.



Image 1: European labelling and packaging regulations for hazardous (The interests of the EU surfactants industry CESIO 2019)

Image 1 shows the signs of harmful substances which you have to be really careful when dealing with. In surgical unit, you are contacting profusely with the chemicals and substances which can irritate to the eyes and respiratory tract beside inflammable and explosive chemical substances. Strictly follow instructions when handling with those substances is crucial for your and co-worker's safety.

5. HIGHLIGHTS IN SURGICAL NURSING CARE YOU NEED TO KNOW

5.1 Hand hygiene

Hand hygiene is important in all healthcare settings, especially in surgical units. About 5% of patients underwent surgery develop surgical site infections (SSIs), which may cause much morbidity and may sometimes be fatal.

The most common route for microbes to spread is by hand contact. In health care, this site of transmission is cut down by hand disinfection liquid.

Table 1: Common method of hand disinfection (HUS, 2017)

Methods	Aims	Technique	When to apply
Disinfection	To remove and wipe out the temporary microbial flora.	Apply the alcoholic-based disinfection liquid and rub the hands for about 3-5 minutes, especially in the figure's tips and thumb until hands are complete dry.	<ul style="list-style-type: none"> • Before and after touching the patients. • During care process to maintain the aseptic principles. • Before entering and right after leaving unit. • Before exposing with the care supplies.
Hand wash (by normal water)	To remove as much muggi-	Wash your hand normally with water	When needed

	ness from alcoholic-base liquid usage as possible		
Hand wash by hand wash liquid	Clean your hands from dirt and excretions.	Wash your hand carefully with hand wash liquid and water for 15-30 seconds, rinse with water and wait until dry.	If hands are notably dirty. After visiting toilet.
Gloves	Create a protection coat from hand and objects		Always
Hand care	Keep your hand moist.	<ul style="list-style-type: none"> • Take care of wounds and cover carefully if there is any ruptures and crashes or swellings. • Use hand cream 	Always

Hand hygiene needs some fixable principle to work out, otherwise disinfection would probably be unsuccessful. It is important to use enough amount (3-5 ml or two pressing doses) of disinfection liquid and rub for 15-30 seconds.

Nail care is also required as a part of hand hygiene because nails are microbe's habitat and penetrate human body in favorable conditions. Accordingly, nails should be trimmed carefully and kept clean to maintain good hand hygiene.

Rings, hand jewelries, artificial nails, and nail polish are not allowed at surgical units, because moisture and dirt could accumulate in those areas, obstruct hand hygiene, and support the multiplying of microbial florals. Wrist watches and other hand jewelries using are not allowed in surgical unit because it limits hand disinfection liquid application.

5.2 Disinfection in operation room

Disinfection should be your first concern before entering operation room. You will probably not take part in the surgery; however, you must maintain strict disinfection process as well as other surgical team members to make sure operation room is sterile.

Surgical hand wash and disinfection are done before surgical operations. Surgical hand wash and disinfection prevent surgical site infection by removing the impermanent microbe's flora from our hands and reduce established microbes' flora body. Hand hygiene in operation is more strict than usual hand wash at some points as following:

- Apply and rub washed dry hands with plenty of alcoholic-based disinfection liquid up to the elbows.
- 70% alcoholic disinfection is repeatedly added 7-9 times (15 ml for each time) for 3 minutes.
- 90% alcoholic disinfection is repeatedly added 3-4 times (15 ml for each time) for 1 minute.
- The hands get fully dry before dressing other coverings for the surgery.

Table 2: Other coverings would be dressed for the surgery (HUS 2017)

Sterile jacket and protective apron	<ul style="list-style-type: none"> • Protective jacket and protective apron are used to prevent surgical site from infection risks from unsterile clothing. Protective jackets and apron are single use. • Hands are disinfected always before dressing protective jacket and apron and after those are taken of.
Sterile gloves	<ul style="list-style-type: none"> • The purpose of using gloves is used in addition to hand disinfection as double protection to reduce the amount of the microbes to surgical site. The types of gloves are chosen on the purpose of the actions.

	<ul style="list-style-type: none"> • Sterile gloves that used for every surgical operation and the operations those require high level of sterilization and for preparing and processing with sterile appliances. • Multi-used gloves are used in other cases but not in which related to patient care e.g. cleaning, instruments treatment, waste treatments.
Other coverings	<ul style="list-style-type: none"> • Mouth and nose are covered by sterile facemask. • Head-dress must cover the whole hair • IR or IIR type filter operations are recommended to use as special coverings. • Eyes are covered by sterile eyeglasses (specialized and used in operation room). • Respiratory tract coverings are used when taking care of the patients who have respiratory infections. • The coverings should be used in the right size to make sure the effectiveness.

5.3 Preoperative care

The preoperative care includes physical and mental preparation for the patient before surgery in order to provide the patient with good preparation for the surgery. Before surgery day the patient would have discussion sections with the nurses and anesthetist to address patient's questions regarding operation. Preoperative assessment's purpose is to assess patient's physical conditions, check preliminary care data and provide patient with both verbal and written instructions before operation. It is important that the patient has correctly understood instructions e.g. nourishment instructions (in some operations the patient should not eat or drink 10-12 hours before surgery), washing the previous night, the hair is shaved just before the surgery in the hospital. Nowadays, preoperative guidance takes place over the phone: the nurse makes a dial to patient before surgery and ensures that the patient understands the important information regarding the operation correctly.

On the operation morning, the patient's information would be checked by nurses once more time to make sure requirements are fulfilled before patient enters operation room.

5.4 Intra-operative care

Intraoperative care starts when the patient is transferred to surgical room and ends when the patient is transferred to recovery room. Responsibility of the nurses in intra-operative is taking care of patient condition after operation and ensuring that they are in good condition to go home or to be transferred to other wards.

There are typically two nurses joining surgical team in the operation room. **Circulating nurse** is responsible for setting up equipment, maintaining sterile environment during surgery, and supervising cleanliness of operation room after procedure. **Scrub nurse or surgical technologist** has responsibility of organizing instruments and passing it to surgeon when needed. These nurses must know which instruments are needed and ensure the surgeon has the right items for the procedure.

5.5 Post-operative care

After surgery, the patient is transferred to recovering from couple of hours to some days depends on patient's condition. Postoperative starts when patient is transferred to recovery room. The nurses take care of patient's condition by following up his/her vital signs such as blood pressure, breathing, temperature, and pulse. Besides, lung function and surgical site would be assessed and checked if there is any sign of bleeding, infection or allergy to assure there is no complication before patient is transferred to other wards or discharged from hospital.

In post-operation care, pain management and complication prevention are essential tasks. Most nursing care and treatment's purpose in post-operative care are to maintain patient's well-being and prevent possible complications. After inpatient surgery, patients are transferred to other wards for other treatments and cares. In day-surgery care, the patients are given certain medication to avoid post-operative nausea, which allows patient to go home within a day. The patient must be able to breath, drink, and urine normally before discharge and not allowed to drive right after discharge.

The patient would be required to stay in hospital for control and receiving post-operation care for several days or more if his/her condition is not good enough to be discharged. The patients' condition is monitored during this time. Depend on what type of surgery the patient has, he/she may have intravenous line, oximetry, breathing apparatus, a heartbeat

monitor, or a tube in mouth, nose, or bladder. The nurses' responsibility is to continuously monitor vital signs and risks of post-operation problems. Pain killer could be given to relieve pain. The treatment would continue until doctor decides that the patient can be discharged.

5.6 Pain and pain management

It is also significant to make sure that the patients have enough pain killers for easing pain caused by surgical wound or before taking care of the wound. Wound care should be carried out with good preparation with enough instruments and appliances in standardized sterile environment to reduce risk of surgical site infection.

After surgery, pain is nociceptive, which means pain caused by tissue damage. Surgery area experiences noticeable pain, especially after upper abdominal, thorax, and kidney surgeries. Pain experience involves the personal factors such as medical history, pre-surgical life experiences, expectations, fears, stresses, gender, age, and genetic factors.

After major surgery the patient can be prescribed analgesics (opioids and acetaminophen) or anti-inflammatory agents (nonsteroidal anti-inflammatory drugs [NSAIDs]). In Finland, the most popular prescribed opioid is Oxycodone. The pain killer is delivered orally, sometimes intravenously or subcutaneously if needed. Besides Oxycodone, Paracetamol and inflammatory drugs can be given depends on condition of patient and extent of pain. In order to determine the extent of pain, pain meter is used. There is a number range from 0 to 10 presenting the extent of pain from painless to extremely painful. Based on result of the test, healthcare professionals can make an appropriate pain management plan.

5.7 Complication prevention

Being a student at surgical ward, you should be aware of the common risks, which the patients encounter, in order to understand the meanings of cares and treatments and the reasons why those cares and treatments are delivered to a patient. In this guideline, we would mention three most common risks that patients at surgical unit often encounter. Those are risk of infection, fall, and pressure ulcer.

Surgery site infection (SSI) prevention

About 5% of 27 million surgeries in the United States has reported with SSI each year, and SSI is listed as the third most frequently reported nosocomial infection and has links with substantial morbidity, which endangers patient's life, increases work in hospital and healthcare costs.

Infection prevention work in surgical ward is essential because of its high risk in surgical unit patients. When the wound gets inflammation, there are some symptoms to detect. The following signs could be mentioned: It probably gets swelling, redness, and warmth at wound edges; the wound has more secretion than normal wounds and usually with bad smell, pimples or yellowish crusts on top, et cetera. In addition, patient might get fever or report with worse pains after few days, and the wounds do not have improvement signs after 10 days. Signs of infection must be instantly reported to the nurse mentors to have next interventions and treatments.

Fall prevention

About one third of those over 65 years old and one half of those over 80 years old experience fall once a year. Falling is also a common cause of death of Finns who are over than 65 years old. The first fall is followed by high risk of falling again.

In some areas of Finland, IKINÄ is a common assessment tool to assess the risk of falling, student can ask for this tool or other similar tools in the practical place for assessing the risk of falling of patients. Fall incidents should be reported on an intranet page called HAI-PRO, which is available in most of healthcare settings in Finland.

Pressure ulcer prevention

Pressure ulcer is a common chronic ulcer the patients have in surgery care. A research done in a surgical unit in Turkey revealed a surprisingly high risk of pressure ulcer among surgical unit's patients. Over 50% of 46 patients involved in the research had stage 1 pressure ulcer, and nearly 98% of them conceived pressure ulcer in their first 3 days at surgical unit. Pressure ulcer costs excessively, increases workload for the healthcare professionals, and worsens patient's experience. Pressure ulcer can be actively prevented by a good care plan. The risk of pressure ulcer should be well-assessed in 2-4 hours after patient's arriving to the ward. The risks also should be reassessed at least once a week to detect the risk and have appropriate interventions as soon as possible.

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Appendix 2 Evaluation questions list concerning the criteria of a good surgical training guideline for international students

1. Do you think this English guideline will be beneficial for the target group, which is the international nursing student with limited Finnish skills?
2. How should the language and writing style of the guideline be?
3. In our guideline, we've used material from sources such as HUS, US National Library of Medicine, PubMed, WHO. Do you think these are reliable scientific sources?
4. In our guideline, we've mentioned e.g. how to prepare before surgical placement, get to know the ward (nurse mentor, keys, uniform etc), important theories (Pre-, intra- and post-operative care etc). Do you think these contents are useful and necessary?