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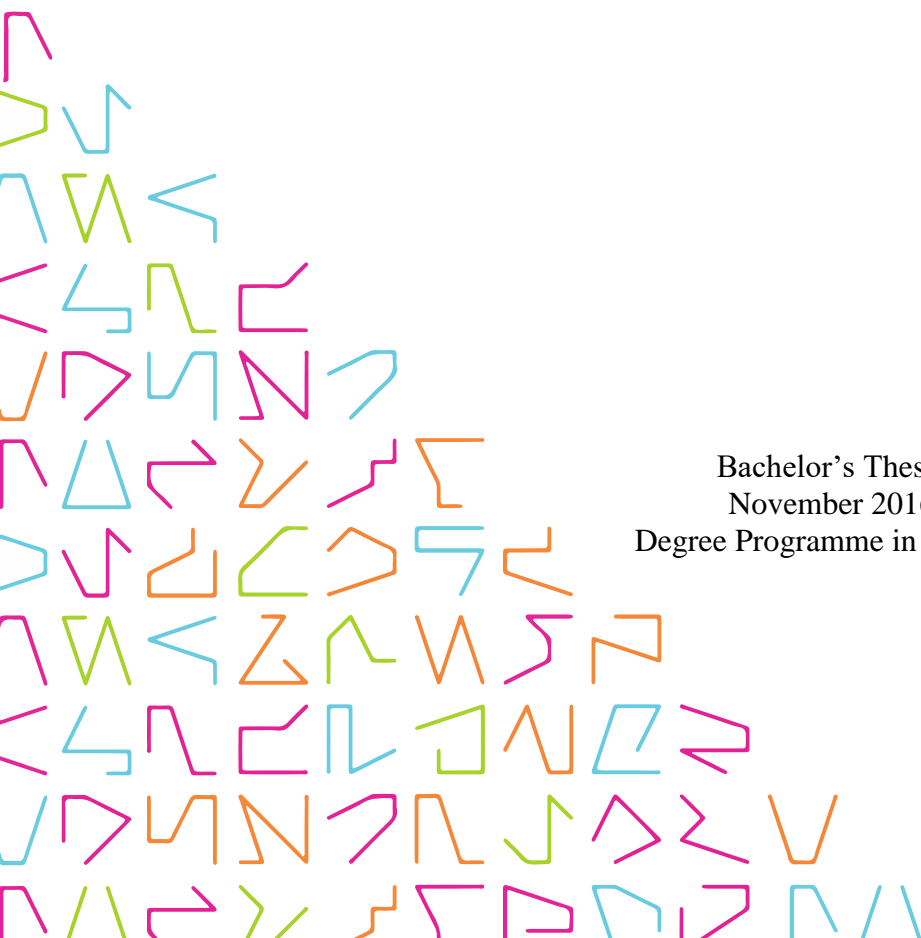
CHECKLIST FOR FIELD NURSES IN FINNISH DEFENCE FORCES

Tool for Medical Preparations in Live Fire Exercise

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Bachelor's Thesis
November 2016
Degree Programme in Nursing



ABSTRACT

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COSNICIAN EMIL & SILTANEN ANU:
Checklist for Field Nurses in Finnish Defence Forces
Tool for Medical Preparations in Live Fire Exercise

Bachelor's thesis 45 pages, appendices 2 pages
November 2016

The purpose of this thesis was to create a checklist for field nurses working in Finnish Defence Forces. The checklist aims to assist in medical preparations for live fire exercises. The objective of the checklist was to help field nurses recall tasks during medical preparations, and also work as an orientation tool for a new field nurse. This is a functional thesis with product as an outcome. The data were collected by conducting professional interviews, participative observation and a literature review.

The authors attended the work of field nurses for two days in Karelia Brigade during April 2016. The results of the gathered data were divided into two themes; the physical features and the contents of the checklist. These themes were described directly by the interviewed field nurses. With the results the authors were able to create a checklist that answers the needs of the field nurses.

The work of field nurse is independent and the physician and colleagues are consulted with ease. For further studies the interviewed field nurses suggested a creation of a booklet that would provide instructions for differential diagnostics and care guidelines for the most usual illnesses that require consulting the physician. In addition, the authors suggest more studies to produce literature and information of field nurses' profession in overall. The independency and the safety of work are issues to consider in future studies.

Key words: field nurse, checklist, live fire exercise, safety

TIIVISTELMÄ

Tampereen Ammattikorkeakoulu
Tampere University of Applied Sciences
Degree Programme in Nursing

COSNICIAN EMIL & SILTANEN ANU:
Tarkistuslista kenttäsairaanhoidajille Suomen Puolustusvoimissa
Työkalu ampumarjoituksen lääkinnällisiin valmisteluihin

Opinnäytetyö 45 sivua, joista liitteitä 2 sivua
Marraskuu 2016

Tämän opinnäytetyön tarkoitus oli luoda Suomen Puolustusvoimissa työskenteleville kenttäsairaanhoidajille tarkistuslista ampumarjoitukseen lääkinnällisen valmistautumisen tueksi. Tarkistuslistan tavoitteena oli toimia muistin tukena valmisteluja tehdessä sekä toimia perehdyttämisen tukena uudelle kenttäsairaanhoidajalle. Opinnäytetyö on toiminnallinen ja sen tuloksena on tuotos. Tiedonkeruu toteutettiin asiantuntijahaastattelulla, osallistuvalla havainnoinnilla sekä kirjallisuuskatsauksella.

Asiantuntijahaastatteluiden ja osallistuvan havainnoinnin tulokset jaettiin kahteen teemaan; tuotoksen sisältöön ja sen fyysisiin ominaisuuksiin. Haastatellut kenttäsairaanhoidajat kuvasivat haastatteluissa suorat tarpeet tarkistuslistaan tulevista asioista sekä sen fyysisistä ominaisuuksista ja käytettävyydestä. Saatujen tietojen pohjalta kirjoittajat loivat tarkistuslistan, joka vastaa kenttäsairaanhoidajien tarpeita.

Kenttäsairaanhoidajan työ on itsenäistä ja lääkäriä sekä kollegaa konsultoidaan herkästi. Jatkotutkimuksiksi kenttäsairaanhoidajat ehdottivat vihkosta, joka ohjeistaisi erotusdiagnostiikkaan sekä hoidon aloitukseen ilman lääkärin konsultaatiota tavanomaisimmissa ja usein esiintyvissä taudeissa. Lisäksi kirjoittajat ehdottavat yleisesti lisää tutkimuksia tuottamaan kirjallisuutta ja tietoa kenttäsairaanhoidajan ammatista. Tulevaisuudessa olisi hyvä kiinnittää huomiota työn itsenäisyyteen ja sitä kautta työturvallisuuteen.

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ABBREVIATIONS

CINAHL	Cumulative Index to Nursing and Allied Health Literature
EBSCOHOST	Online search system for several research databases
ETK	Ensiavun ja terveystiedon kouluttajan peruskoulutus, First Aid and Health Education Trainer Course
FDF	Finnish Defence Forces
FRC	Finnish Red Cross
MEDLINE	Medical Literature Analysis and Retrieval System Online
PEHO	Puolustusvoimien ensihoito-ohje, Instruction booklet for emergency care in Finnish Defence Forces during the normal time activities
SOTLK	Sotilaslääketieteen keskus, Centre for Military Medicine
TAMK	Tampere University of Applied Sciences
VIRVE	Viranomaisradioverkko, Government official radio network
WHO	World Health Organization

1 INTRODUCTION

A career in nursing offers a variety of different choices to specialize in. From acute care to elderly- and psychiatric care of different ages. The separation can be made between the areas that require more skills in theoretical knowledge, and in others that weigh the expertise in practical skills. (Abrahamsen 2014, 304–306.) In this thesis, a less known area of nursing will be briefly presented through the tasks of field nurse which demand the experience in both point of views.

Field nurse is new profession since it has been established in the beginning of 21st century (Gröhn 2010, 2). Field nurses have the education of a registered nurse and they work under the Centre for Military Medicine (SOTLK). At the moment most of the field nurses' knowledge and experience is gained by working. The work of field nurses is independent, especially when working in the field circumstances. Field nurse has the knowledge and skills to conduct nursing procedures, although as in institutional settings the field nurse has to consult the physician in medical cases. For emergency situations there is PEHO (Puolustusvoimien ensihoito-ohje) which has the guidelines for actions in emergency and first aid situations.

The purpose of this Bachelor's Thesis is to create a checklist for field nurses in Finnish Defence Forces for the medical preparations in live fire exercises. The aim of the checklist is to support the field nurse in the process of making the preparations. The checklist is created in cooperation with field nurses working in Vekaranjärvi FDF (Finnish Defence Forces) Health Centre in Karelia Brigade. The authors expressed their interest towards the subject and the working life gave the idea of a checklist. The subject was conjointly outlined to live fire exercise. The actual creation of the checklist was based on the expert interviews and participative observation at Karelia Brigade. The usage of the checklist in other FDF Health Centres is evaluated in the thesis.

2 KARELIA BRIGADE

This Bachelor's thesis is made based on the data gathered from the field nurses in Vekaranjärvi FDF Health Centre in Karelia Brigade. The usability of the checklist in other FDF Health Centres in Finland is evaluated throughout the whole process of the thesis. To outline the amount of work required no other brigade-level units were observed or interviewed for the thesis.

Karelia Brigade is the largest brigade-level unit in Finland representing all branches of the Army. The brigade is located in Vekaranjärvi in Kouvola in South-East of Finland. The main function is to train wartime troops for the Finnish Defence Forces. Approximately 4000 conscripts are trained every year. The readiness formation employs 600 personnel. One third of the personnel are civilians. (Maavoimat 2016.) In Karelia Brigade, there are ten field nurses who are employed by The Centre of Military Medicine and whose superior is Senior Lieutenant (Karttunen 2016).

3 PURPOSE, TASKS AND OBJECTIVE OF BACHELOR'S THESIS

The purpose of this Bachelor's thesis is to create a diverse checklist adaptive to several FDF Health Centres in different garrisons in Finland. The objective is to assist field nurses in medical preparations for live fire exercises in Finnish Defence Forces and ultimately ease the pressure of work. In Vekaranjärvi FDF Health Centre the field nurses do not have a consistent tool to support the preparations. The checklist also works as an orientation tool for a new colleague.

Assessing the issues in the independent working method and creating the checklist are the main tasks of this Bachelor's thesis. The checklist will answer questions about preparations and planning for a live fire exercise.

Task questions:

- What needs to be considered when planning and getting prepared for the live fire exercise?
- What are the material requirements?
- What are the issues of independent working method?

4 THEORETICAL STARTING POINTS

The main concepts of this Bachelor's thesis are the work of field nurse, live fire exercise, safety, military orders and regulations. The authors expressed their interest towards the field nurse profession and the working life connection from Karelia Brigade gave the idea for a checklist. The subject was outlined to the checklist for preparations to live fire exercise. (Karttunen 2016.) The theoretical background is defined with the data received from interviews and observations. The nature of this information is strict and has limited availability in public databases.

To ground the Bachelor's thesis on researched studies and concepts, the authors build the theoretical framework from safety and checklist point of views. These subjects provide authors sufficient information to approach the target topic with reliable references. This is important when major part of the specific literature for the topic is grey literature.

This Bachelor's thesis discusses concepts and vocabulary that are not familiar to the civilian population. The background information, regulations and documents are mainly originated from military environment. At the end of this chapter is presented a figure which describes compactly the bullet points of the concepts used as theoretical starting points (figure 2).

4.1 Safety

In healthcare, safety is often associated directly with the quality of care and especially patient safety. The patient safety can be defined as using precautionary practices and methods in treatment to prevent risks and harm that can be caused by the care. (Kawamoto, Campos de Oliveira, Tonini & Nicola 2016, 4387.) In other words, safety in healthcare can be defined by performance of validated procedures by healthcare specialists. The procedures are done with the flexibility and by being open-minded to changes and development of work. This way causing further harm to patients can be prevented and ultimately enhance the quality of care. (Tobias et al. 2016, 1071.)

The patient safety culture is discussed in several nursing articles. The perception and definitions can differ significantly from each other. The base of the patient safety culture is seen as the values and beliefs with the priority of ensuring patient safety. (Feng, Bobay & Weiss 2008, 310–312.) In general, the patient safety culture is the attitudes, behaviour, and usage of skills within the working community and workplace to reduce harmful incidents in the patient oriented work (Ammouri et al. 2014, 102–103). Every working community establish their own patient safety culture, which can be portrayed as the norms for safety in the behaviour of individual nurse. These norms become the guide for the actions and behaviour in the group and can be seen in the concrete procedures in order to maintain patient safety. (Feng, Bobay & Weiss 2008, 313.)

In military, the conception of safety can be regarded differently than in health care. The risk of accidents and harmful events is higher in military exercises than in civilian activities. Especially military trainers and the trainees which can be conscripts or cadets are considered to be at high risk in military exercises. (Lehtomäki, Pääkkönen, Kalliomäki & Rantanen 2005, 756.) Taanila et al. (2015, 15) recognized 27% of their study participants suffering an acute musculoskeletal injury in their study with young conscripts as target participants. This number correspond partly to the statistics presented in the article by Lehtomäki et al. (2005, 757) where the accidents involving conscripts were caused by jumping 14%, falling 29%, impact with obstacles 10% and finally weapons 13%.

To maintain the execution of safe service in Finnish Defence Forces, the exercises and actions are regulated by Safety Regulations. Example of efficient safety regulation in Finnish Defence Forces is when a regulation of hearing protection during live fire exercises came to effect in 1989, the acute acoustical traumas impairing hearing lowered from 15% to 1,5–2,5% (Mrena, Savolainen, Pirvola & Ylikoski 2004, 180). This thesis presents five regulations that are closely related to live fire exercises. The safety regulations are documents formed in instructive and norm-driven preventive manner, describing specifically roles, duties and responsibilities for the training staff.

The concepts of patient safety in healthcare and safety in military exercises are combined in the following figure 1. The central goal for patient safety in healthcare is in conducting procedures with safe techniques and having the correct attitude towards the work, while

in military settings the safety of patients in this thesis is seen through preventive perspective. The safety in live fire exercises can be approached through the documents, safety regulations that set the standards for activities and arrangements during the exercise. For example, safety regulation of Medical Safety in the Live Fire Exercises determines specifics for Medical Safety Personnel. The checklist that is created with this thesis is a guide for tasks of field nurse and will affect the safety in live fire exercise indirectly.

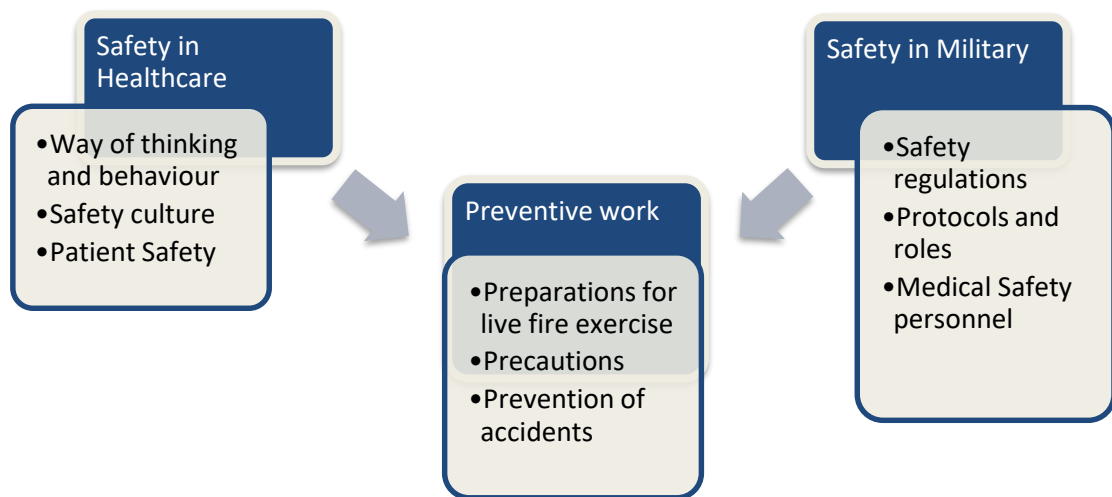


FIGURE 1. Safety starting points

4.1.1 Military regulations

The following paragraphs will provide basic information and description of the safety regulations associated with live fire exercise and work of field nurse. The regulations are formed to apply all hired personnel in Finnish Defence Forces, and other people working in the live fire exercises. The creation of these regulations are based on certain laws and instructions for norms in Finnish Defence Forces. Although the actual files of the regulations are not available to public they are not classified.

The safety regulation D 1.1 holds inside military orders that apply to all safety regulations. Safety regulations are used during normal time as orders to ensure safety in military training and exercises. The purpose of safety regulations is to give orders for actions, equipment and means, that possess greater risk for the hired personnel as well as other people and property in area of affection. The orders have specified instructions and duties which

are required to enable safe military training. (The Personnel Division of Defence Command Finland 2014, 4.) Finnish law of Occupational Safety and Health does not apply to military exercises (Occupational Safety and Health Act 2002/738, 6 §).

The usage of firearms, weapons systems, and explosives is ordered in safety regulation D 1.2. This order is completed by weapon, equipment and explosive-specific orders. To reduce risks during exercise, the order notifies to assess the medical precaution arrangements. The order also stresses the same safety purposes that are given in safety regulation D 1.1. (The Personnel Division of Defence Command Finland 2012, 2.)

The safety regulation D 1.4 orders the activity in area of live fire exercise. The order is divided into the actions in area, and behaviour during the live fire exercise. For the medical aspect this order specifies that it has to be planned with the respect to the safety regulation for live fire exercise, and the directive of area in use. (The Personnel Division of Defence Command Finland 2014.) The nature of this order is useful for a field nurse to know, because the work requires movement in the vicinity of the training and is potentially dangerous (Nygren 2016).

The responsibility and obligations of informing and notifying about live fire exercises, use of explosives, and Remotely Piloted Aerial Systems (RPAS) is ordered in safety regulation D 1.5. Every live fire exercise that has danger zone exceeding the height of 150 meters from the surface of shooting, is ordered to be informed and notified to the authorities depending on the details of the training. If the live fire exercise or RPAS activity differs from the routine, it must be notified to the emergency centre. (The Personnel Division of Defence Command Finland 2014.)

The safety regulation D 7.7 for Medical Safety in the Live Fire Exercises has the greatest impact on the work of field nurse. It orders the basis for medical precaution arrangements in live fire exercises, and specifies different roles and responsibilities of personnel for fulfilling the orders. The regulation states that the commander of the live fire exercise can give supplementary orders to instruct and ensure better safety during service. These orders cannot be in contradiction with other safety regulations. As in other orders, the D 7.7 has specific order for the amount of medical personnel, medical and evacuation equipment, and evacuation vehicles at the firing range. It specifies the required education and

training needed for these duties. The D 7.7. orders to rehearse the medical evacuation before the beginning of firing in the exercise. (The Personnel Division of Defence Command Finland 2013, 3–4.)

The fundamentals of the regulations are the same even though another brigade- level unit executes the actual live fire exercise in different way (Kallio 2016). The safety regulations remain the same throughout the Finnish Defence Forces. Practical arrangements and the means of applying the regulations are a subject to change depending on the unit conducting an exercise.

4.2 Checklist

The design and former usage of checklists originate from aviation settings. Degani & Wiener (1993, 15–16) describe thoroughly in their article about the design, principles and main components of checklists used for maintaining aircraft safety. Whilst being an old article, the writers of it acknowledged that the design guidelines are appropriate for other industries to use as well. After critical examination of the guidelines provided in the article and the subject relying heavily on human instincts and actions, the authors of this thesis decided to include the source for its strong relevance.

Clay-Williams and Colligan (2015, 428) state in their article that healthcare checklists have grown along the technology and techniques. Much like in aviation, the checklists can be divided into normal and emergency procedures. Normal checklists are made to standardize some procedures, for example in checking the anaesthesia equipment and apparatus. Emergency checklists in healthcare could be used for example in resuscitation situations. The checklists that are designed as to-do lists for completing critical and quick procedures are called ‘Boldface’ checklists. Correspondingly the checklists that can be used with time to find solution or agreement on treatment guideline are called ‘Non-bold-face’ checklists. (Clay-Williams & Colligan 2015, 428–429.)

World Health Organization (WHO) published a checklist for surgical safety in 2009. This checklist was developed to decrease the amount of accidents and harm caused to patients during surgeries. The checklist consists of 19 points fitted in one page. These points take

notice for correct patient information, risks, medication and equipment safety verification. The checklist was made in footsteps of aviation checklists. The systematic approach is the key of this checklist to prevent harmful incidents. (Ikonen & Pauniahho 2010, 333.)

According to the study of Thomassen et. al (2010, 4) the use of checklist in operation room has enhanced the courage to use the checklist in unusual situations elsewhere. The routines of checklist were appreciated. The use of the checklist raised both sceptical and positive sentiments. The participants of the study noticed that the positive attitude of their leader affected the approach for the checklist. Experienced personnel, however, were more sceptical towards the checklist invoking to several years of practising the profession. (Thomassen et. al 2010, 3–6.)

The work of a field nurse consists of making diagnoses and treatment decisions independently, with the final confirmation of physician (Puolustusvoimat Reservi-upseerikoulu 2012). This Bachelor's thesis aims to recognize the issues in the working habits of field nurse before and during live fire exercise in P. While the goal of the checklist for field nurses will be different than the list of WHO, the authors will form their checklist in a systematic way, similar to the WHO surgical checklist. The checklist will act as a tool for the preparations, reminder of issues that require caution, and will not directly instruct the treatment or safety policy in live fire exercise.

4.3 Live Fire Exercise

Live fire exercises are arranged to practice the use of firearms and behaviour in exercise under the supervision of the military trainers. The content and schedule of live fire exercises fluctuate according to the branch of service (Kallio, 2016). Live fire exercises are also a part of Finnish soldier's basic training period in the beginning of military service. During this basic period the soldier will be taught safety principles of handling an assault rifle. These skills and knowledge are highlighted especially in practice shooting. (Sotilaan käsikirja 2015, 55–58.)

4.4 Field nurse

A Finnish field nurse is a profession that has been established in the beginning of 21st century. Therefore, it is a relatively new and evolving area of work for registered nurses in Finland. (Gröhn 2010, 2.) A Bachelor's degree in nursing is required to become a field nurse.

Every field nurse is employed by SOTLK. Official education material for field nurses profession has not been created yet. Most of the knowledge is gained by working in the field. In Vekaranjärvi FDF Health Centre a new nurse starts working first in the military health centre where the conscripts are given treatment. Only after two to three months of work orientation, the nurse is qualified to act as a field nurse in the field. During the orientation a new field nurse will learn the principles of giving the conscripts exemption from the service depending on their symptoms and illnesses. (Karttunen 2016.)

During live fire exercises, a field nurse acts as Medical Safety Person, which is designated by the Chief Medical Safety Officer. The executive can be an officer or a field nurse, that is assigned by the commander of the live fire exercise. These assignments require the education of healthcare professional, and proper orientation to the duty. Medical safety person must be aware of the training program, and the particular orders and regulations that apply to the exercise and the duty at hand. Every medical safety person is responsible that medical arrangements are organized according to the orders. (The Personnel Division of Defence Command Finland 2013, 9–10.) While being in charge of medical treatment and first aid the main tasks of a field nurse are to train battlefield medicine, and to plan and execute medical arrangements in field exercises (Gröhn 2010, 3).

4.5 Training and education

There are three courses that are strongly present in the field nurses' education. During war field nurses have different duties that are trained in the Field Nurse Course which supports the work in normal time. The Emergency Medicine and Safety Regulations Course for Military Medical Staff is a training that is held for healthcare staff working in Finnish Defence Forces or the Finnish Border Guard. Finnish Red Cross First Aid and

Health Education Trainer Course provides confidence in performing and training skills. (Korhonen 2016.)

4.5.1 Emergency Medicine and Safety Regulations Course for Military Medical Staff

The objective of this course is to develop the staff for the medical missions, and give qualification to work as the safety personnel in the training events of Finnish Defence Forces. The course also aims to improve the skills of medical evacuation, and standardise procedures. (Törmä & Kuosmanen 2014, 4–5.)

The following points introduce part of the requirements for this course (Korhonen 2016.):

- A degree in healthcare profession, and competence to work in first-aid situations.
- A driving licence in Finnish Defence Forces or Border Guard.
- A fitness index of at least 1.5 in the scale of Finnish Defence Forces. This is calculated by the tests of muscle condition, endurance, and orienteering.
- Sufficient certifications of medicine administration knowledge.

Every healthcare professional of the staff in Finnish Defence Forces have to gain qualification for acting as safety personnel in live fire exercise. From the beginning of the year 2017, every medical personnel who is working in any live fire exercises is required to have this qualification. (Korhonen 2016.)

D 7.7 Medical Safety in the Live Fire Exercises is the regulation that guides all medical staff in the firearm activities of Finnish Defence Forces, and works especially as a guideline for the course above. It obligates, instructs, indicates areas of responsibility and provides insight to different event scenarios. Other regulations that guide and work as the basis of the course are D 1.1, 1.2, 1.4 & 1.5. These regulations contain mostly instructions of conducting service safely. (Korhonen 2016.)

4.5.2 Field Nurse Course

The main purpose of the Field Nurse Course is to train medical experts for war conditions. Field nurses utilize these skills during the normal time in training of the conscripts. This course lasts for 25 study weeks and it is the largest course in the education of field nurses. The Field Nurse Course and Emergency Medicine and Safety Regulations Course for Military Medical Staff are the two main courses the field nurse takes part. (Korhonen 2016.)

4.5.3 Finnish Red Cross First Aid and Health Education Trainer Course

Finnish Red Cross (FRC) first aid and health education trainer (ETK) course is an additional professional education for nurses, public health nurses, and doctors. This course gives expertise to train first aid integrated with health promotion and accident prevention by applicable parts. A person who successfully passes the course is legitimated to train Finnish Red Cross first aid and health education for three years. To maintain the qualification trainer takes part ETK- course in every three years, and passes the first aid skills, and adheres training instructions approved by Finnish Red Cross. (Finnish Red Cross 2016.)

Finnish Defence Forces and Finnish Red Cross are cooperating regarding to the FRC-ETK course. The ETK- course material is adjusted by suitable parts in Finnish Defence Forces. The functional environment in live fire exercise facilities vary from the civilian incidents. (Korhonen 2016.)

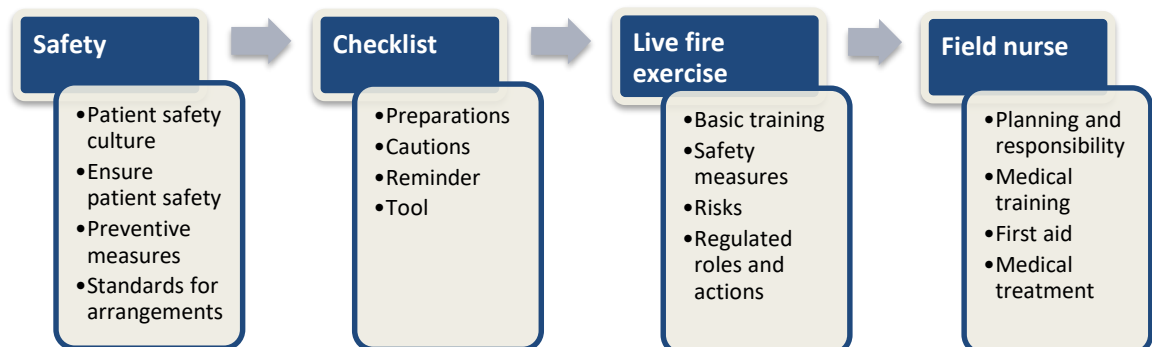


FIGURE 2. Theoretical starting points

5 METHODOLOGY

This thesis is functional, because it creates a product as an outcome. Most of the information and relevant literature is not available to the public. As a consequence of this, the authors executed participative observation in live fire exercise and interviews of staff in Karelia Brigade. The base data for describing different concepts will be gathered from literature.

Functional theses adhere loosely to research methodology. The data gathering can be similar to the actual investigational research theses. The research is approached in an investigational manner, and is used as one of the data gathering methods. In functional Bachelor's theses the report is often based to a lesser degree of theory. (Vilkka & Airaksinen, 2003, 57.)

The authors conducted interviews and observation of field nurses in April 2016 for two consecutive days in Karelia Brigade. This was essential part to gain the required information for the thesis. A total of nine field nurses, and their supervising officer senior lieutenant were interviewed. The necessary data was successfully gathered for the creation of the checklist tool for the field nurses.

5.1 Data gathering

The data was gathered by individual and group interviews which were conducted in Karelia Brigade. Each interview lasted from 30 to 60 minutes. The interviews were recorded to minimize the errors caused by human memory (Polit & Beck 2012, 547). Qualitative research approach was seen as a beneficial method in the process of data gathering from the working life. This method ensured the exact needs and ideas about the needed checklist. Vilkka & Airaksinen (2003, 63–64) say in their book about qualitative research method, that the mentioned data gathering methods are sufficient for functional thesis.

Boeije (2010, 59–61) explains the following method through several sources. Participant observation is an old research method that conclusively attempts to describe target incident or event, the participants of it, the time and place of the matter, how and why something is happening. It aims to provide several different points of view from the target examinees (Jebreen 2012, 165). Ultimately this method generates data from any kind of observation circumstances; interviews, taking part in activities, reading documents, accompanying the participants and observing the activities. (Boeije 2010, 59–61.) The depth and possibilities of adapting participant observation for this thesis are beyond the needs of answering the task questions, yet the method was chosen to be applied for its' flexibility and convenience to gain the needed data.

The authors attended to live fire exercise for one day to observe the actions of field nurse during the exercise. Participant observation is a method that the authors adhered in order to gain data directly from the field settings. The participative approach allowed observers to ask questions and clarifications from the target examinee during observation. Unstructured observation presented authors more opportunities and flexibility in the field settings. Authors used a field diary to write down notes about the observation. Field diary is a common way to document incidents and conversations in the field. (Polit & Beck 2012, 544, 548.)

Although participant observation consists interviewing the examinees as a technique in the method (Boeije 2010, 60) the authors used methodology of unstructured interview during the stationary interviews at the field nurse unit in Karelia Brigade. Regularly the unstructured interview is based on finding out the answers for issues that researcher wants identify during the interview. It is not supposed to have questions that are formed in advance, the focus is rather on the natural communication and spontaneously presented questions that arise from the conversation with the interviewee. (Jebreen 2012, 167.)

The task questions of this thesis were used as the basis for the interviews, and guidance for the literature search. Authors acknowledged during the first interviews that the actual need for first aid instructions has been covered before. There is an instruction booklet for emergency care in Finnish Defence Forces during the normal time activities (PEHO). Therefore, the first aid aspect for the checklist was excluded in the beginning of the data gathering.

Hence most of the preparations start weeks before the actual training event the authors could not attend them due to distance and schedule. This was acknowledged before the actual participative observation. The authors and working life connection agreed that the authors will attend to the live fire exercise and explore the company aid post.

5.2 Literature review

A common way of gaining data for research purposes is conducting a literature review. For a functional thesis, an applied usage of this method was used to gain base information of the subject. The benefits of literature review were seen in resolving the vital concepts for this particular thesis. Authors conducted the literature search by the strategies provided by Polit & Beck (2012, 94–96). Literature review's desired primary findings are mostly research reports and prior studies. (Polit & Beck 2012, 95.)

In literature review the authors search for knowledge that has been previously accumulated in articles, books or any kind of literature. By reviewing previous research reports, the authors can form more informed and directed research questions and theoretical framework in order to gain proper answers. The identification of gaps in knowledge can be easily acknowledged by literature review, and by this information the authors are able to align the focus of study. (Boeije 2010, 21.)

Grey literature is data that is not published nor controlled by respective commercial or academic publishers. Generally grey literature can be documents, chapters from books, reports and theses, also in digital formats. The quality of grey literature may vary. (Olson 2013, 1.) Because the quality varies the references must be critically examined. The topic of the thesis is specified to country, military, and particular civil profession. Knowing these factors, the authors included grey literature in the data gathering process.

5.2.1 Search

Authors aimed to review literature for creating a proper checklist. A guideline for systematic literature review was used to approach the target literature. However, as this thesis

is functional, the systematic approach is only used as guideline. Inclusion and exclusion criteria are formed based on the research tasks and purpose. The criteria were set to limit the search to yield studies by the availability of full text, studies conducted in past 10 years, language and the relevancy to normal time activities (Polit & Beck 2012, 98). The search was conducted with keywords and task questions from Cumulative Index to Nursing and Allied Health Literature (CINAHL), Medical Literature Analysis and Retrieval System Online (MEDLINE) and other similar key electronic databases. Grey literature is included. After the initial searches, authors expanded the databases to all databases that are hosted by EBSCOHOST to find more sources.

Originally authors had planned to form observation and interview questions by the lead of literature search and review findings. When the searches did not yield any relevant information in order to form questions based on the findings, the authors formed the task questions to find specific answers in order to create the product. The main key words are “army nurse”, “field nurse”, “field medicine”, “military”, “live fire exercise”, “firearms training”, “checklist”, “decision making” and “safety”. Safety keyword was added afterwards in order to have stronger theoretical starting points for the thesis.

The searches were made to present proof, that when the subject is specified to a small profession, specifically in Finnish Defence Forces – it will not yield proper sources that could be applied in this particular Bachelor’s thesis. The authors are strict in the exclusion criteria with searches to avoid bias and misconceptions in the writing of this thesis. The inclusion and exclusion criteria (table 1) and search parameters (table 2) are presented in the next page.

The greatest inconsistency between the search results and the needed literature is the difference between war time and normal time duties in the work of Finnish field nurse. The searches generated mostly results associating irrelevant topics such as fire department actions, incidents with firearms in civilian population, and studies that apply mostly in the United States of America. After careful examination, the authors found none of the search results relevant enough to be included into this thesis and leaving the main acquisition of data through the expert interviews and observation. Concepts such as decision making, checklist and safety could be found from other themes, and were accordingly applied in this thesis’ theoretical background and ethical discussion.

TABLE 1. Inclusion and exclusion criteria

Inclusion criteria	Exclusion criteria
<ul style="list-style-type: none"> • Full text • Publish date between 2006-2016 • Publish language: English 	<ul style="list-style-type: none"> • Not relevant to the Finnish field nurse profession during normal time in Finland • War time activities

TABLE 2. Literature review

Search parameters in EBSCOHOST all databases	Peer reviewed results	All results
Army nurs* AND medicine AND firearms	0	0
Army nurs* AND field medicine	0	0
Army nurs* AND decision making	5	6
Army nurs* AND firearms training	0	0
Army nurs* AND checklist	1	1
Army nurs* AND safety	10	13
Army nurs* AND live fire exercise	0	304
Field nurs* AND medicine AND firearms	0	727
Field nurs* AND field medicine	0	0
Field nurs* AND decision making	89	107
Field nurs* AND firearms training	0	505
Field nurs* AND checklist	12	11
Field nurs* AND safety	97	130

Field nurs* AND life fire exercise	61	297
Safety AND live fire exercise	0	3
Safety AND firearms training	6	15
Safety AND military exercise	7	23
Safety culture AND military	7	22
Safet culture AND definition	56	21
Military AND firearms training	5	17
Military AND live fire exercise AND safety	0	0
Military AND firearms training AND safety	0	1
Military AND field medicine	86	136
Military AND field medicine AND safety	2	2
Checklist AND health care AND aviation	12	20
Finnish Defence Forces	165	233

5.3 Analysis of data

Inductive content analysis is systematic process, where the source data strongly determines the themes for data. In other words, in this content analysis method the authors thematise words and expressions that arise with them. (Kohlbacher 2006, 9.) There is no necessity to analyse all possible data, the analysis is supposed to answer the purpose and tasks of the research (Kylmä & Juvakka 2007, 113).

As great amount of information for this thesis is gained directly from interviews, the authors used the guidelines of inductive content analysis. It is beneficial when the subject is specific and research literature is scarce. Research purpose and tasks will guide the analysis throughout the process. Analysis is carried systematically in steps and phases, with open and broad questions. Inductive content analysis can also be called as conventional content analysis. (Hsieh & Shannon 2005, 1279.) Kylmä & Juvakka (2007, 117) describe comprehensive instructions for inductive content analysis in their book about qualitative health study, which are adhered in this thesis by applicable parts.

Inductive content analysis can be split in four systematic steps. First the original parts of interviews are extracted to a table. In second part, the first extractions are simplified into lesser words, retaining the information. After these parts, the authors try to find connections between the simplified expressions, and cluster them into categories which are given names. The categorisation part is seen as strength of strictly controlled qualitative content analysis (Kohlbacher 2006, 10). Third part is result of clustering, consisting categories. During clustering, the authors evaluate of how far the clustering of the content can be done without dropping any information in the process. The categories can be clustered further to upper categories. (Kylmä & Juvakka 2007, 117–120; Hsieh & Shannon 2005, 1279.)

When data is gained through theme interviews with open questions, writing the interviews clean from the raw data is not as obligatory as in study-based theses. In qualitative data gathering method, the sufficient analysis can be as simple as clustering data into themes and types. Further analysis is made for example when deciding the contents for the work. (Vilkka & Airaksinen 2003, 64.) Although Polit & Beck (2012, 556–557) instruct in their book to manage the data by transcribing audiotaped interviews and field notes with rigour to create best quality data for analysis. Due to the nature and practicality of the gained data through the interviews, the authors estimated Vilkka & Airaksinen's (2003, 64) instructions being superior for this thesis.

The authors of this thesis clustered the gathered data by dividing it into two categories, which worked as the basis for the product. The categories are physical features of the checklist, and the content of the checklist. Theme interviews were conducted by the lead

of open task questions in this thesis. (Kylmä & Juvakka 2007, 117.) During the interviews, authors acknowledged two more questions that were considered relevant for the creation of the product. The questions provided clear and direct information, which did not fluctuate between the participants of the interviews. Following questions were used during the interviews;

- What kind of checklist should be created?
- What needs to be considered when planning and getting prepared for the live fire exercises?
- What are the material requirements?
- What are the issues of independent working method?
- What are the needs for further studies considering this field?

5.4 Results

The following paragraphs presents the results from interviews and participant observations. The tables represent the clustered and categorized themes, which were made in the process of inductive content analysis. It must be stressed that these results are only from the interviews and participative observation of one FDF Health Centre and the presented errands may vary depending on the unit the checklist is used in. The results apply in their current form only to the Vekaranjärvi FDF Health Centre in Karelia Brigade, however the basis for all of the actions and roles are instructed in the military regulations.

5.4.1 Physical features

All nine field nurses pointed out that the checklist should be simple and easy to read. The suggestions for physical features were similar among the interviewed field nurses. Basic description for the checklist was following; Cross box, printable, laminable, single use and simple. The order of information should be in linear order. Senior Lieutenant Noke-lainen (2016) mentioned, that when the checklist could be used as a fill-in document, it would be valuable in cases where the field nurse is absent. This way another colleague could pick up the work by reading the checklist. Size A5 and A4 were suggested; a version

for field to take with, and another version for the office (Simonen, 2016). The checklist could be laminated, printed out to single use, and archived on demand. Also space for small notes were wished to be included in the checklist, and were accordingly taken in account in the final form of checklist.

TABLE 3. Physical features.

Extract from original interview	Simplified Expression	Theme
<p>“...varmaan kokoluokkaa vitonen ni sit se mahtuu hyvin noihin meiän taskuihin...” (interview 1)</p> <p>”...aa nelonen, aa vitonen olis semmonen...” (interview 5)</p> <p>”...tarvitko sä sitä enää siellä harjotuksessa? ... vai olisko sulla olemassa aa nelonen lappu ja kirjotat siihen...” (interview 5)</p> <p>”...että joku sen taltiois sinne itelleen...” (interview 5)</p> <p>”...ei se tietysti mitään haittaa jos se on tämmönen kopioitava versio...” (interview 1)</p> <p>”... nii esimerkiks nimenomaan laminoitu versio ni se on monikäyttönen...” (interview 1)</p> <p>”...ihan checklista ja tavara nimettynä ja siihen vois laittaa vaan rastilla...” (interview 2)</p> <p>”... kuhan on järkevässä järjestyksessä ni ite siitä päättelee...” (interview 4)</p> <p>”...aikamääreet jättäisin pois...” (interview 5)</p> <p>”...henkilökohtaisesti suosin yksinkertaista ruksilistaa... tilaa kommenteille... tai jos mä joudun välittämään sen paperitiedon jollekin...” (interview 7)</p>	<ul style="list-style-type: none"> • A4/A5 (interview 1 and 5) • Printable (interview 5) • Archivable (interview 5) • Single use (interview 1) • Laminable (interview 1) • Cross box (interview 2) • Linear order (interview 5) • Space for notes (interview 7) • Simple (interview 7) 	<p>Physical features of the checklist</p>

5.4.2 The contents

The Exercise Order, Firing Range Regulation and Safety Regulations occurred the very first and important documents to read and get familiarized with. Senior Lieutenant Nokelainen (2016) specified not to memorize every word from these documents, but to know and understand the spirit and the function of them in the live fire exercise. These documents inform about the timetable and actions during the live fire exercise. For example, the point of Exercise Brief, the type of firearms, the amount of troops and staff can be found in the Exercise Order.

The staff consists of many different duties during the exercise, and with most of them the field nurse has to cooperate with to make the medical arrangements and evacuation plans. Rescue Officer is in charge of rescue operations and medical evacuation executive controls only the medical rescue procedures. The contact information of the staff is necessary especially in cases of emergency. (Nygren 2016.) If the field nurse has to give first aid, the driver for ambulance and other evacuation protocols should be agreed in advance. In some occasions the Transportation Officer, whose duty is to supervise all traffic and limitations during transitions in exercise can be the driver in emergency. In cases other than emergency, the field nurse has to consult the doctor in the nearest hospital if the exercise is held exceptionally far away from the garrison, or outside the office hours. (Heinänen & Peltonen 2016.)

An important part of the checklist is to check all equipment. The ambulance and “virve”-radiophone needs to be reserved along with the maps of the area before the exercise. “Virve” is short for government official radio network. Medication, and medical equipment in ambulance as well as first aid backpack needs to be checked. The amount of equipment must be sufficient and up to date for the target exercise, and the invasive equipment is sterile. (Nokelainen 2016.)

Field nurse Kallio (2016) emphasized knowing the organization the field nurse is working in, and the specific troops the field nurse trains. In this way the field nurse is able to plan and execute the training according to the skill level of the conscripts. Generally, firearm

exercises are planned the way that there is possibility for supplementary training for conscripts. The equipment and training should be prepared in advance.

Field nurse has to make practical arrangements and preparations for the exercise. Before the actual exercise it needs to be agreed where morning reception of the first day of exercise. The sick call can be held in the health centre or in the barracks, and depending on the agreement it is held by the field nurse or the health centre nurse. Conscripts come to the reception in case of illnesses. (Anonymous field nurse 2016.)

During the first day of the exercise field nurse must scout the environment for potential risks. For example, the extremities of the ground, fallen woods, and high rocks which inhibit the way for the ambulance and rescue actions. The field nurse is responsible to inform the exercise commander of the risks. Evacuation routes needs to be figured out before the exercise begins in case of emergency. The knowledge of the environment is crucial in these occasions. (Kallio 2016.)

TABLE 4. Contents.

Extract from original interview	Simplified expression	Theme
<p>“...ajoneuvo eli ambulanssi ja sen varaus... varmistaa vaan sen että se on tarkoituksen mukainen ajoneuvo” (interview 1)</p> <p>“...Pelastusupseeriin ja sit tohon totanoinni varoukseeriin kannattaa olla etukäteen yhteydessä...” (interview 4)</p> <p>“...Kuljetusupseeriin kautta vääpeliin että pystyy kyytejä sopimaan...” (interview 3)</p> <p>“...Kartat...” (interview 3)</p> <p>“...Kartat ja virve...” (interview 4)</p> <p>“...pitää olla varmistettu viestiyhteys eli kaks viestivälinettä, jonkunlainen puhelin ja virve...” (interview 9)</p> <p>“...Tarkastan kaikki mun niinku kaluston, eritoten mun lääkintälaukun, varolaukun... että kaikki on niinku ajantasalla...” (interview 6)</p> <p>“...Aina kuitenkin tarkastaa se (ajoneuvo), just kattoo öljyt ja muut sieltä sitte... Ja se että jos siellä ajoneuvossa on lääkintämateriaalia ni myöskin tarkistaa sen lääkintämateriaalin...” (interview 6)</p>	<ul style="list-style-type: none"> • Reserve ambulance (interview 1) • Safety Officer (interview 4) • Rescue Officer (interview 4) • Transportation Officer (interview 3) • Maps and double checked communication systems (interview 9) • First aid backpack (interview 6) • Ambulance (interview 6) 	<p>Content of the checklist</p>

<p>”...Ne on ne suojavaru- teet... Niitä niin harvoin tarvitsee loppupeleissä... (interview 4)</p> <p>”...Se että sä et tarkista ajo- neuvoo kunnolla... Ja sit joku saattaa todeta juma- laude nää deffan lätkät on menny vanhoiks silloin ja tällöin...” (interview 1)</p> <p>”...Joo ja nesteet on yks sellain mist pitää muistaa kattoo autost päiväys... Nesteet, happi ja ne deffan lätkät...” (interview 3)</p> <p>”oma hoitomateriaali... myöskin sairaankujetuskal- lusto...” (interview 9)</p> <p>”...Kyl mä oon pitäny nää varusteet myöski sillai että ne olis steriilejä ja käyttö- kelposia...” (interview 6)</p> <p>”...sitte kolmanneks ottai- sin varomaääräyksen... tur- vallisuusohje... tää määrit- telee sitte siellä ampuma- harjotuksessa vielä lisää asioita...” (interview 5)</p> <p>”... Tutustu niihin käskyi- hin... missä harjotusalu- eella on... harjotusalueen johtosääntö määrittää tietyt asiat... antaa pohjan mihin harjotus perustuu...” (in- terview 6)</p> <p>”... Ja kattoo tottakai sen oman ensihoitovälineis- tönsä...kattoo että on lää- kkeet ja muu välineistö ku- ranttia...” (interview 1)</p>	<ul style="list-style-type: none"> • Personal equipment (interview 4) • Medical equipment in ambulance (interview 1, 3) • Medical transporta- tion (interview 9) • Medical equipment (interview 1, 6) • Sterility (interview 1, 6) • Safety regulations (interview 5) • Training Area Regu- lation (interview 6) • Medicines (interview 8) 	
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<p>”...omien lääkkeiden tsekkaaminen... hapet kuntoon...” (interview 8)</p> <p>”...ensimmäisenä on varmaan se tota se että mitä ammutaan, missä ammutaan, millä aseilla... eli käskyyn tutustuminen...” (interview 8)</p> <p>”...pelastustoimenjohtaja on semmonen oleellinen asia onko hän minkä tason ihminen, onko maallikotason ihminen vai onko jotain lisäkoulutusta...” (interview 8)</p> <p>”...viranomaistuki... eli tukeutumissairaala... ennakkoilmotukset sinne. Yhteistyö sen siviiliterveydenhuolto-organisaation kanssa...” (interview 8)</p> <p>”yhteistoiminta varuskuntasairaalan kanssa, miten aamuvastaanotto lähtöaamuna... kenttis pystyykö pitää vai tota meneekö ne aamulla sinne...” (interview 8)</p> <p>”...harjoituksen johtajaan... ja varoupseerin yhteys...” –(interview 8)</p> <p>”...tarvittavat avaimet...” (interview 8)</p> <p>”...lähen kiertää ampumapaikkoja, katon matkalla tien kunnon, miten sinne pääsee, millä sinne pääsee...” (interview 8)</p>	<ul style="list-style-type: none"> • Exercise order (interview 8) • Chief Medical Safety Officer (interview 8) • Cooperation with civilian hospital and doctor (interview 8) • Cooperation with military health center (interview 8) • Exercise Commander (interview 8) • Keys (interview 8) • Environment scouting (interview 8) 	
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5.5 Description of the checklist creation process

After the interviews in May 2016 the authors went through the gathered data by listening the audiotapes one by one collecting facts about the checklist. The authors collected facts for the physical features and contents. These facts are shown in the table 3 and 4. Most of the contents appeared in several interviews and that gave sureness to the authors to use the content in the checklist.

Actual creation was started by listing first the contents and then the physical features. The authors did not use a ready base in designing the checklist. The design guidelines were provided in article by Degani and Wiener (1993, 15–16). The computer program the authors used to make the checklist was Microsoft Word 2016.

The first sketch was sent to the working life connection in May 2016. The authors received corrections and feedback in August 2016. Requested corrections were made and the second sketch was sent back within a week, and the checklist was taken into testing. Further requests for corrections were not suggested during the writing of the thesis. The possible changes and corrections in future are possible due to the format of the checklist.

5.5.1 Description of the product

The product is a one-page checklist with numbered boxes for different themes. These four boxes are placed in linear order on the paper. A small, empty box follows each content and the field nurse preparing for the live fire exercise can mark the content done by drawing an X inside the box, for example. The header of the page has place for the name and code of the exercise, and the troops attending the exercise.

The first box in the left upper corner reminds to read orders and regulations. In the right upper corner, the user can find the second box. This box instructs to reserve vehicle, maps, and communication equipment but also to ensure basic and emergency medicines. Box number three guides to attend to the exercise brief and find out the personnel attending the live fire exercise. The third box lays on the left side of the page and next to this is the fourth box. When the second box instructs to reserve and ensure, the fourth box reminds

to check the vehicle, medical equipment and medicines before heading to the live fire exercise.

On the bottom of the page the authors saved empty space for notes. The interviewed field nurses pointed out this empty space should be saved for their own notes. Red box in the right lower corner reminds to take PEHO along. After testing different colour themes, the authors decided to use white colour for the background. This option is practical and gives the users possibilities to highlight points they see necessary. Multiple colours would distract the user and suffocate the important parts of the checklist.

6 DISCUSSION

The scarcity of public literature, information and data of the field nurse profession have set the greatest limitations for the theoretical starting points and background for the thesis. Many of the concepts familiar to the civilian population do not apply the equivalently in military conditions. These limitations were actively acknowledged by the authors during the writing process of the thesis. The authors attempted to present the methodology and results transparently in the intention of showing awareness of the limitations. (Polit & Beck 2012, 65.)

The authors have considered the possible changes in the contents of the checklist that may come in future and due to this the product is done in electric form. This allows the field nurses using the product to modify the checklist in order to adapt to possible changes. Electric form also allows the checklist to be modified to fit also in other FDF Health Centers in Finland. The usage of the created checklist in other than Karelia Brigade's Vekaranjärvi FDF Health Center cannot be evaluated reliably by the results presented in this thesis. The Finnish Defence Forces will have the rights to modify the checklist.

The process of the Bachelor's thesis started in September 2015 when the authors suggested their idea for the thesis' topic. The authors contacted the working life connection and in the first phone meeting the topic was agreed on. The application for the permission for the creation of thesis was sent to SOTLK in January 2016 and after two months the application was admitted. The Finnish Advisory Board on Research Integrity (2016) instructs that retrieval of research permits and performing preparatory ethical review in specific fields are part of the base guidelines of maintaining good research practice. These principles were respected and applied from the very beginning of the thesis process. (Finnish Advisory Board on Research Integrity 2016.)

Despite the long distance and schedules the authors and working life connection were able to arrange the interviews and observation. In April 2016 the authors conducted the expert interviews and participative observation in Karelia Brigade. The arrangements for the two days that the authors spent in the garrison area were organized very well by the working life.

The authors analysed the gathered data and formed the first version of the checklist in April and May 2016. In August 2016 the authors continued the process after working period during the summer. More literature was searched to support the theoretical starting points. In total, the process proceeded systematically. Communication with working life was effortless and sincere.

6.1 Evaluation of trustworthiness

The quality of the data and interviews are evaluated by the criteria for inquiry identified by Lincoln & Guba (1994). The following paragraphs reflect on the trustworthiness of work with the provided concepts of credibility, dependability, confirmability, transferability and authenticity. These concepts are summarized adequately by Polit & Beck (2012, 599).

Credibility in this connection is defined as internal validity and the authors' confidence in the findings being truthful (Polit & Beck 2012, 599). The field nurses that were interviewed for the thesis, gave their consent for authors to use the given information as the base information for thesis. For example, it enabled authors to describe several concepts that were known by the previous experience of military service, but not found in any source literature.

Dependability is the description of how the data can sustain time and changes in conditions (Polit & Beck 2012, 599). Considering the age of field nurse profession, and the future plans of how to conduct live fire exercise in Finnish Defence Forces, the authors cannot confirm that the data would not be as a subject to change in the following years. This was taken in account when creating the product, as it will be in electric form for possible changes in future.

Confirmability which is paralleling objectivity is understood in this thesis as the ways of how the authors have conducted research as in the scientific principles. The authors did not have any previous experience of conducting research study and expert interviews.

Appropriate literature by Polit & Beck (2012) and Vilkka & Airaksinen (2003) were studied in order to create the thesis by the scientific requirements. The authors attempted to compensate their lack of scientific experience with the transparency in work.

Transferability of the data is discussed throughout the thesis in order to have clearance, whether or not the data and product can be used in other army units or branches. Polit & Beck (2012, 599) have summarized transferability as the value of how much of the found data can be transferred to other contexts. The basic elements and ideas of the product can be transferred, yet the content is specified into Finnish army settings, the information is not expected to be used in other domains than Finnish Defence Forces.

Authenticity is the indication of “which researchers fairly and faithfully” (Polit & Beck 2012, 599) portray the experience of participants. The authors have committed and applied proper analysis methods during the writing process of this thesis. Basic principles of preserving the content from the interviews have been adhered with rigor to avoid any bias in the data. It must be stressed, that the subjects in the interviews in order to create the product have been especially objective and clear for authors to present in the analysis.

A strong defining factor of trustworthiness can be recognized in the adherence to methodology the authors used in order to create this thesis. The major part of information and issues presented in the thesis are in fact risen from the gathered material by following the principles of inductive data analysis. (Kylmä & Juvakka 2007, 113.)

6.2 Ethical considerations and reasoning

The authors have aimed to be as transparent as possible to maintain researcher credibility during the gathering of data, analysis and throughout the whole creation of thesis and product. (Polit & Beck 2012, 596.) Both authors have completed their voluntary and mandatory military service in Finnish Defence Forces in July 2008 to July 2009, and July 2012 to June 2013. The military service is mandatory for all Finnish men between the ages of 18 and 60. Finnish women can apply for voluntary military service by sending an application. (Finnish Defence Forces 2016.)

The first working life connection for the thesis was an acquaintance of one of the authors from civilian relations. The working life connection changed during the process because of the change of assignment. The former connection properly delegated her task to the Field Nurse in Charge, and it did not cause any issues in continuing the work for thesis. Any of the personal and previous information that authors have had about the subject and environment of Finnish Defence Forces has only affected the writing of thesis positively due to experience and comprehension of terminology and procedures applied in firearms training.

The field nurses in Karelia Brigade were informed in advance about the subject, expert interviews and participative observation by the working life connection. Participants were asked to think about the needs for checklist before the actual interviews. Hence the data was gathered directly from participants, and recorded in the original form, the written notice from authors of these issues was required beforehand (Kuula 2006, 119). During the interviews the authors were introduced to a contact from SOTLK staff, Janne Korhonen. He provided the needed documents and information, that turned out to be the crucial part of theory for the thesis. Apart from other interviews, the interview of Korhonen was conducted by telephone conversation.

Polit & Beck (2012, 159) recommend having the informed consent in written form for documentation purposes, in addition to the given consent information in the interviews. There are some situations when the regulations of written form do not apply, for example if the study is made anonymously. Kuula (2006, 117) manages these instructions in a slightly looser way; the written consent in voluntary participation is needed only when the gathered information is connected to other data concerning the examinees and if the data consists personal information and is documented to use in further studies. However, both of the sources apply the basic ethical research principles for respecting individual privacy and ensuring the comprehension of participation and consent. (Polit & Beck 2012, 159; Kuula 2006, 117–119.)

In the beginning of every interview the authors verbally confirmed a permission to use the interview as a resource for the Bachelor's Thesis. After the interviews the authors sent an approval form to the working life connection to gain a separate written consent, this form is presented in Appendix 1. In the approval form the participants were given an

option whether to decline or approve the authors to use their expert interviews in the thesis. The form also had an option for permission to release the actual names in the references. The approval form is attached to the thesis.

The documents and information provided by the Finnish Defence Forces are written in Finnish. The research permit was granted on the condition the authors use terms and abbreviations that are official in Finnish Defence Forces. To assure the correct translations of the special vocabulary the authors were guided to contact the language specialist from Defence Language Centre. The authors collected the special terms and vocabulary they needed before sending them to the language specialist.

6.3 Suggestions for further studies

During the interviews the authors inquired suggestions for further studies. This raised discussion of differential diagnostics. There are common illnesses that are familiar for field nurses and recur annually in garrisons (Kallio 2016). Expanding the occupational rights of the field nurses could have positive impact on the everyday work, and most importantly decrease the amount of work in treating the basic illnesses (Heinänen 2016).

Senior Lieutenant Nokelainen (2016) suggested a current care guideline type of pamphlet that includes descriptions and care of common illnesses. These guidelines would help to recognize the differences of symptoms in different illnesses (Anonymous field nurse 2016). Finding the correct diagnose in a short time and starting medication might shorten the duration of the illness, enabling the conscript to resume the service faster (Kallio 2016).

Based on the experience of the thesis' process, the authors suggest more literature and information about the profession of field nurses. Independent working method and responsibility are also suggestions for further studies. Independent working was brought up in several interviews. The interviews raised discussion about different ethical considerations of the field nurses work in the field, especially outside the office hours and in difficult environment. Possibility to work in pairs would ease the stress of working long periods in a row without sleeping properly. Slight amount of sleep and driving is not safe.

(Peltonen 2016.) The authors suggest in the future to pay attention for the independent working method and work safety.

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APPENDICES

Appendix 1. Consent form

Anu Siltanen
Emil Cosnecian
Tampereen ammattikorkeakoulu
Kuntokatu 3
33520 Tampere

SUOSTUMUSLOMAKE

19.05.2016

1(1)

SUOSTUMUSLOMAKE

Kolmannen vuoden sairaanhoitajaopiskelijat Anu Siltanen ja Emil Cosnecian Tampereen ammattikorkeakoulusta tekevät opinnäytetyönä tarkistuslistan kenttäsairaanhoitajille ampu-maharjoitusta varten. Kirjoittajat näkevät tarkistuslistan hyödyllisenä valmistautumisessa harjoitukseen. Työelämäpalaverissa 30.11.2015 aihe on rajattu työelämän tarpeiden ja ehdotuksen mukaisesti ampumaharjoitusta varten. Opinnäytetyö kirjoitetaan englannin kielellä, mutta itse tuotos on suomenkielinen. Kirjoittajat valmistuvat 31.12.2016.

Tällä lomakkeella suostun asiantuntijahaastatteluun opinnäytetyötä varten.

Annan suostumukseni asiantuntijahaastatteluun ja antamieni tietojen käyttöön opinnäytetyössä.

Annan suostumukseni nimeni julkaisemiseen opinnäytetyössä.

En halua nimeni tulevan julki opinnäytetyössä.

Paikka ja aika

Allekirjoitus ja nimenselvennys

Appendix 2. Checklist

HARJOITUS:

TUNNISTE:

HARJOITUSJOUKKO:

<p>1. LUE JA PEREHDY</p> <ul style="list-style-type: none"> ● HARJOITUSKÄSKY <input type="checkbox"/> ● VAROMÄÄRÄYS <input type="checkbox"/> ● AMPUMA- ALUEEN JOHTOSÄÄNTÖ <input type="checkbox"/> 	<p>2. VARAA, VARMISTA JA SOVI</p> <ul style="list-style-type: none"> ● AMBULANSSI <input type="checkbox"/> ● VIRVE <input type="checkbox"/> ● PERUS - JA ENSIHOITOLÄÄKKEET <input type="checkbox"/> ● KARTAT JA AVAIMET <input type="checkbox"/> ● AAMUVASTAANOTTO <input type="checkbox"/>
<p>3. SELVITÄ JA OTA YHTEYTTÄ</p> <ul style="list-style-type: none"> ● HARJOITUSPUHUTTELU <input type="checkbox"/> ● VAROHENKILÖT <input type="checkbox"/> ● PELASTUSTOIMI <input type="checkbox"/> ● KULJETUSUPSEERI <input type="checkbox"/> ● TERVEYDENHUOLLON PÄIVYSTYSPISTE <input type="checkbox"/> 	<p>4. TARKISTA</p> <ul style="list-style-type: none"> ● AJOMÄÄRÄYS <input type="checkbox"/> <ul style="list-style-type: none"> ○ ennakkoon ● AMBULANSSI <input type="checkbox"/> <ul style="list-style-type: none"> ○ hoitovälineistö ja – laitteet ○ ajoonlähtötarkastus ● LÄÄKINTÄLAUKKU <input type="checkbox"/> ● LÄÄKKEET <input type="checkbox"/> <ul style="list-style-type: none"> ○ voimassaolo ○ tarvittava määrä
<p>MUUTA HUOMIOITAVAA</p> <div style="text-align: right; border: 2px solid red; padding: 5px; width: fit-content; margin: 0 auto;">MUISTA PEHO !!</div>	