

# **Experiences of Military Nurses Deployed to War and their Effect on their Mental Health**

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Degree Thesis

Nursing 2013

2017

DEGREE THESIS	
Arcada	
Degree Programme:	Nursing 2013
Identification number:	16547
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Title:	Experiences of Military Nurses Deployed to War and their Effect on their Mental Health
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<p>Abstract:</p> <p>This study was conducted using publicly available resources. Its aim was to identify military nurses' experiences during deployment to war and their effect on their mental health. Nurses returning from war experience post-deployment transition and thus Schlossberg theory of transition was used as a theoretical framework. Ten scientific articles were analysed using inductive data analysis approach. The study revealed that during deployment military nurses experienced both physical and mental hardships, emotional struggles, and ethical dilemmas. The most significant effects of war on mental health were: stress, anxiety, panic, depression, posttraumatic stress disorder (PTSD), insomnia, inability to be happy or enjoy time with family or friends, crying for no reason, lack of empathy or compassion, feeling anger, frustration, emptiness inside oneself, sorrow, feeling guilty. The study was limited by the small number of articles with free access.</p>	
Keywords:	military nursing, war experience, mental health
Number of pages:	27
Language:	English
Date of acceptance:	24.11.2017

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## **FOREWORD**

I would like to thank Denise Villikka and Pamela Grey for their great support and understanding throughout the whole process of my studies. Thank you for having faith in me and helping me to grow into the role of a professional nurse. If not for you, I would not be where I am at the moment.

# 1 INTRODUCTION

The current work is a thesis paper of a student of an international nursing program of Arcada University of Applied Science in Helsinki. The author has personal interest in military nursing. At school during the three and a half year of education the idea of military nursing was not discussed or introduced during any of the classes. The main reason for not paying much attention to this branch of nursing at school might be lack of opportunities to practice it during studies. It is not a surprise that military nursing is not introduced in the classes, though, because it is not just a branch of nursing, like for example internal medicine or critical care, but a lifestyle which does not differ much from the life of soldiers who experience being detached from their families, friends and their everyday social life. A nurse needs to be a soldier at the same time, meeting both mental and physical requirements for a soldier, and being ready to live in austere surroundings (Finnegan *et al.* 2015). In Ryan & Wenger (2009) there are different competencies which military nurses need to meet. Among others there is demanding that they know how to manage stressors based on their previous experiences.

In the current paper the author tries to describe experiences of military nurses and see how deployment to war affects their mental health. Nurses who consider being a military nurse and taking care of soldiers in war settings could find this paper useful, gaining insight into the reality of military nursing and possible effects of deployment on their later private and professional life.

The work is commissioned by David Hampson, Psychotherapist and University Lecturer from England.

## 2 BACKGROUND

There is quite a lot of research regarding effects of war on soldiers and their post deployment mental health, especially the ones who were deployed to Iraq and Afghanistan. Over one third of US veterans returning from Iraq and Afghanistan (particularly soldiers taking part in Operation Enduring Freedom, and Operation Iraqi Freedom) suffer from mental disorders, post-traumatic stress disorder (PTSD) being the most commonly diagnosed one (Cohen *et al.* 2009). Waller *et al.* (2012) and Hoge *et al.* (2004) suggest that exposure to stressful events on deployment gives higher chance of developing mental health disorders in the future, especially symptoms of PTSD, depression, or substance abuse. “PTSD is a psychiatric disorder caused by exposure to a traumatic event or extreme stressor that is responded to with fear, helplessness or horror” (Mealer *et al.* 2009 p.2). Pols & Oak (2007) confirm that factors like “witnessing death, destruction, and torture; experiencing unexpected and at times continuous threats to one’s life; or participating in hostilities and killing can potentially lead to mental health problems” (p. 2133).

WHO describes mental health as “a state of well-being in which every individual realizes his or her own potential, can cope with the normal stresses of life, can work productively and fruitfully, and is able to make a contribution to her or his community. The positive dimension of mental health is stressed in WHO’s definition of health as contained in its constitution: ‘Health is a state of complete physical, mental and social well-being and not merely the absence of disease or infirmity.’ ” Mental health has effect on daily life and decisions people take. It influences also the ability to cope with stress and affects social life.

Jacobson *et al.* (2012) claims that the number of people among U.S. military personnel, being deployed to Iraq and Afghanistan, suffering from mental disorders is increasing. Most research has been done focusing on soldiers, not health care professionals. Medical professionals, including nurses, are not much exposed to the direct combat but rather to the trauma resulting from combat. According to the research being exposed to trauma puts them at increased risk for mental disorders in comparison with those who have not been exposed to trauma (Jacobson *et al.* 2012). The study about stress experienced by military nurses in Vietnam claims that “there are significant risk factors

for stress reactions or PTSD for female nursing personnel assigned to combat areas” (Baker *et al.* 1989 p. 744). Grieger in his research reports that it is not exposure to injured or dead people but “direct and perceived threats of personal harm” which increases risk for PTSD (Grieger 2007 p. 451). He reports that civilian nurses who work in hospitals and take care of major trauma patients have higher level of general anxiety but do not experience more PTSD symptoms in comparison with military nurses. Even though being exposed to trauma increases risk for mental disorder, it is life danger which is the factor which affects PTSD. Deborah & Hull (2008) confirm that nurses in military treatment facilities (e.g. in intensive care units) have less stress than deployed nurses due to safety. Kaiser *et al.* (2012) suggests that PTSD is affected by stress caused by military settings.

Despite working in the military treatment facility and not being directly exposed to danger of war, nurses working in intensive care units experienced more stress after the war started than before the war because of the severity of injuries (polytrauma injuries, severe head injuries, amputations) of soldiers admitted to the ICU. Nurses working in the ICU felt sad about young patients, especially that because the majority of them were under 24 years old. Nurses identified themselves with the severely injured ones which caused emotional exhaustion among nurses. They experienced symptoms similar to people suffering from PTSD: “anger, depression, difficulty sleeping, fear, and indifference toward patients”. (Deborah & Hull 2008 p. 44). The study also points out other reactions of nurses being exposed to severely injured patients: lack of will to go to work, sleeping difficulties, being tired despite having enough sleep, being more irritated, feeling anxious and overwhelmed, experiencing grief, having no motivation, experiencing cognitive difficulties or physical fatigue, feeling nauseous (Deborah & Hull 2008).

Over two thirds of military personnel deployed to peacekeeping (both warlike and non-warlike) assignments in East Timor experienced fear of being injured or killed, and over fifty percent witnessed “human degradation and misery on large scale”. Forty nine percent experienced seeing dead bodies. All of above experience was classified as traumatic stressful event. Among non traumatic stressors experienced by over fifty percent of respondents were separation from family, friends, home, or country, facing different culture and related to it threat of danger as well as worrying about health, other

people and relations with them, living and work conditions, and also frustration related to work. Despite fear being experienced by over half of the military personnel deployed to East Timor, PTSD symptoms were developed among 7,2% of them (Waller *et al.* 2012 pp. 5-6).

Even though the prevalence of PTSD among military personnel who returned from the Persian Gulf War and Iraq War is between 15,6% and 17,1%, not all of them use psychiatric help available to them. Among the military personnel showing psychiatric symptoms is perceived as being weak or cowardly. Despite development of psychiatric wisdom and efficiency, soldiers who need help the most do not search for it due fear of embarrassment or of losing further opportunities in military career. (Pols & Oak 2007). Grieger (2007) confirms that only 21% to 27% soldiers who showed symptoms of PTSD visited a mental health professional.

Along with military personnel in war zone there are military healthcare professionals, amongst whom are nurses who work in field hospitals. Depending on the mission, nurses may be in a zone that is not directly affected by military actions or may be exposed to the same danger as soldiers (Finnegan *et al.* 2015). Nursing understood in a traditional way where providing care, treatment, and alleviation of distress are the main focus is adjusted to the harsh conditions far from home (Agazio 2010). “The advanced military nurse practitioner has to function without immediate access to multi-professional support, no books or internet (Finnegan *et al.* 2015).



### 3 THEORETICAL FRAMEWORK

The theoretical framework used for this study is Nancy K. Schlossberg theory of transition (Anderson *et al.* 2011). Transition is defined as any circumstance which changes person's routines, roles, relationships or assumptions. Transition provides both challenges and opportunity for personal development.

Elliott (2014b) in her study notices that military nurses returning home from deployment deal with post-deployment transition. They need to face reality they were away from for months and set up new daily routines. After returning home new daily routines need to be established, and sometimes they are different than the nurses were used to before being deployed, e.g. when partners set up new rules and routines at home. It is hard to go back home and take different role (e.g. a mother or a wife) than a nurse, especially after being exposed to stressful situations for a longer period of time - the longer the time the harder to get back to reality. It is hard to live in the chaotic world after deployment where everything was structured and routinised. (Elliott 2014b).

Nurses need to deal with changes not only at their homes but also in their surroundings. They feel anger, frustration and stress after returning from deployment. Perception of life and the value of it is changed, important things become unimportant, nurses become angry hearing other people complaining about small things. Everything seems to be banal after coming back home. Nurses feel emptiness inside oneself. They experience high sensitivity to surrounding colours due to their variety (in war settings everything is brown) and are over sensitive to noises which bring them back to war. It takes up to a year before life balance is restored. Nurses admit they are not the same persons as they were before war, e.g. a nurse reported being calm and more understanding person. After her first deployment, however, she was hypersensitive and became irritated easily (Scannell-Desch & Doherty 2009).

In the post deployment period nurses try to understand where they belong. They feel unsafe in crowded places and feel overwhelmed when meeting family and friends and happy at same. They experience stress, frustration, guilt, and have communication difficulties. They look for dangers around and are hypersensitive about safety. They live in fear of dying. They appreciate small things in life. (Elliott 2014a, 2014b).

Returning home is not the only transition period nurses experience. In Brewer & Ryan-Wagner (2009) nurses describe facing many transitions also during deployment because the surrounding changes fast and rapidly and they need to adapt to changes very quickly. In Kenny & Hull (2008) war is perceived as constant adjustments where survival mechanisms are needed to be developed.

Dierkes (2011) claims that military health care professionals are at the age when major life changes commonly happen which means that returning home from deployment is not the only transition they need to face. Often they need to deal with getting engaged, getting married, expecting a baby.

According to Schlossberg theory, friends, coworkers or other professionals can listen to people undergoing transition and help them to identify and explore the situation. By doing that the person can understand their own transition better which in the end helps them to cope with the faced difficulties more efficiently (Anderson *et al.* 2011).

Post deployment adaptation to civil life is a long process, may take decades to adjust back to postwar life (Kenny & Hull 2008). Elliott (2014b) reports that nurses returning from deployment need time, patience and tolerance.

The transition model consists of three elements:

- identifying transition and trying to understand how the change affect person's life
- recognising resources of a person in transition, which could potentially help with managing transition: "Situation, Self, Support, Strategies"
- applying new strategies, strengthening person's resources (Anderson *et al.* 2011, p. 38)

Firstly, the transition needs to be identified, in this case military nurses returning home from deployment to war. Despite facing same transition, each person deals with it differently. Not all nurses coming home from war experience same difficulties or changes. That is why it needs to be identified to which extent the transition changes nurses' life. Secondly, one needs to be aware that each nurse faces their own potential resources to deal with the transition in a different way. Finally, the theory assumes that even when the transition situation is beyond the control, the resources which help to

deal with the situation can be strengthened and new resources can be used.

Two elements which define transition are change and coping. Change may relate to “relationships, routines, assumptions, and roles”. Coping means setting new roles and dismissing the old ones. Gains, losses and grief might be present during the transition period. People in transition experience confusion and thus need assistance. Despite being confused, they can still point out matters that bother them. These matters are connected to their capacity to “love, work, and play”. It might be a friend or a professional who are present during the transition period and help a person in transition to cope with the change (Anderson *et al.* 2011 pp. 37-39).

## **4 AIM AND RESEARCH QUESTIONS**

Knowing the major stressors experienced by soldiers and the effect of these stressors on veterans' mental health, the author of the current research tries to identify the experiences of military nurses deployed to war zone and understand how these experiences affect their mental health. Among military personnel PTSD is the most commonly diagnosed mental health disorder. The author of this study tries to investigate whether experiences of military nurses put them at risk of developing mental health disorders after returning home from deployment.

## **5 METHODOLOGY**

### **5.1 Design**

In order to guide the research and give it a structure, the research methodology has been used throughout the whole process of the study. The current research is a qualitative study using inductive analysis of ten scientific articles.

### **5.2 Data collection**

In the first stage of the research of the article retrieval, three databases were used: Academic Search Elite (EBSCO), PubMed, and ScienceDirect. During the article retrieval process the author used an advance Boolean/phrase search mode: “nurse or nurses or nursing” AND “war OR wars OR wartime OR Iraq OR Afghanistan” AND “experience OR perspective OR view OR perception OR attitude” within “title” search fields.

Using the above criteria in the EBSCO database, the hit was 25 articles. The inclusion criteria in the search were that the articles were available in the English language and peer reviewed. When the search was limited to the full text articles, there was only four articles available, and based on their titles the author did not find any of them useful for the research. Author decided to go through the rest of the articles despite the fact that their full texts were not available. Based on titles seven articles seemed to be appropriate for the study. After reading their abstracts, all seven articles were potentially appropriate for the study. When “nurse OR nurses OR nursing” AND “war OR wars OR wartime OR Iraq OR Afghanistan” search phrase Was used and the inclusion criteria were “full text” and “peer reviewed”, there was 89 hits. Based on the article titles, no article was chosen for the study.

In the PubMed database using same advanced search mode, 23 articles were found, but when “full text” criterion was applied, there was 15 text available. After applying “free full text” criterion, no articles were available. The author went through the titles of the articles and found four articles, potentially appropriate for the study. Three articles were

same as in the EBSCO database, and there was one new article. When “nurse OR nurses OR nursing” AND “war OR wars OR wartime OR Iraq OR Afghanistan” search phrase was used and “free full text” marked, there was 15 articles found. Based on their titles, any of them was appropriate for the study.

In the Sage database in advanced search using “nurse or nurses or nursing” AND “war OR wars OR wartime OR Iraq OR Afghanistan” AND “experience or perspective or view or perception OR attitude” within “title” search fields, no articles were found. When the search phrase was broadened to “nurse Or nurses OR nursing” AND “war OR wars OR wartime OR Iraq OR Afghanistan” there was 27 hits. After limiting the search to “only content I have full access to”, the hit was 15 articles. Based on the article titles, two were chosen for the study.

In the ScienceDirect using phrases “nurse or nurses or nursing” AND “war OR wars OR wartime OR Iraq OR Afghanistan” 53 articles were found. There were only two “open access articles” and based on their titles, they were found irrelevant for the study.

Having two articles available for the study the author decided to search for the full texts of potentially relevant articles by their titles on the Internet in different databases using the Google search engine. Out of seven articles found in the EBSCO database but without access to the full article, three were found on the Internet in different databases. One of these three articles was also among four articles found in the PubMed database (not available after applying “free full text”). Two articles were retrieved from the ResearchGate database by sending a request to the author.

Despite the scarcity of articles available in in full text with free access, the author decided to make a research on the chosen topic. During the literature review process, using the snowball method, the author found many references to the articles potentially appropriate for the study. The research took place over two year period with some long breaks. Due to author’s personal interest is war and military nursing, the author came across many potentially useful articles, especially in the Military Nursing Journal, but with paid access.

Finally ten scientific articles were chosen for the analysis:

- Agazio, Janice. 2010, Army nursing practice challenges in humanitarian and wartime missions: *International Journal of Nursing Practice*, Vol. 16, pp. 166-175.
- Baker, Rodney R. & Menard, Shirley W. & Johns, Lois A. 1989, The Military Nurse in Vietnam: Stress and Impact: *Journal of Clinical Psychology*, Vol. 45, No. 5, p. 736-744.
- Brewer, Theresa L. & Ryan-Wenger, Nancy A. 2009, Critical Care Air Transport Team (CCATT) Nurses' Deployed Experience: *Military Medicine*, Vol. 174, No. 5, pp. 508-514.
- Dierkes, Darlene. 2011, Deployment to Afghanistan: Perioperative Nursing Outside the Comfort Zone: *AORN Journal*, Vol. 94, No. 3, pp. 271-278.
- Elliott, Brenda. 2014a, Postdeployment: A military nurse's journey: *Research Corner*, pp. 18-22.
- Elliott, Brenda. 2014b, Military nurses' experiences returning from war: *Journal of Advanced Nursing*, Vol. 71, No. 5, pp. 1066-1075.
- Finnegan, Alan & Finnegan, Sara & McKenna, Hugh & McGhee, Stephen & Ricketts, Lynda & McCourt, Kath & Warren, Jem & Thomas, Mike. 2015, Characteristics and values of a British military nurse. International implications of War Zone qualitative research: *Nurse Education Today*, Vol. 36, pp. 86-95.
- Kenny, Deborah J. & Hull, Mary S. 2008, Critical Care Nurses' Experiences Caring for the Casualties of War Evacuated from the Front Line: Lessons Learned and Needs Identified: *Critical Care Nursing clinics of North America*, Vol. 20, pp. 41-49.
- Peyrovi, Hamid & Parsa-Yekta, Zohreh & Vosoughi, Mohammad Bagher & Fathyian, Nasrollah & Ghadirian, Fataneh. 2014, From margins to centre: an oral history of the wartime experience of Iranian nurses in the Iran-Iraq War, 1980-1988: *Contemporary Nurse*, Vol. 50, No. 1, pp. 14-25.

Scannell-Desch, Elizabeth & Doherty, Mary Ellen. 2009, Experiences of U.S. Military Nurses in the Iraq and Afghanistan Wars, 2003-2009: *Journal of Nursing Scholarship*, Vol. 42, No. 1, pp. 3-12.

### **5.3 Data analysis**

The current study is a literature review. The data was retrieved using inductive data analysis which means that the researcher analysed the data and the themes emerged along the process of reading the articles. After choosing ten articles the author read all of them marking the parts of the texts describing military nurses' experiences during deployment to war and their effect on nurses' mental health. Then the marked parts were read again and notes were taken. Then the author read the notes many times and tried to combine detailed data from different articles into more general categories.

### **5.4 Ethical consideration**

The research is conducted in accordance with a code of ethics. There were no direct research participants involved in the study as the data was collected from the secondary resources. Ethical issues which were considered relate to the researcher and the data processing. The author tried to avoid biases at any stage of the research. The appropriate research methodology has been applied during selecting articles and reporting findings. The researcher tried to analyse articles without drawing wrong or biased conclusions, presenting findings with no intention of serving the researcher's or anyone else's interest. The author tried to be objective. Plagiarism was avoided. All quotations and the information sources were clearly marked in the text. Any material used in the research was put in the reference list.



## 6 FINDINGS

Nurses who went for deployment did it voluntarily and they felt they needed to do so. Some felt appreciated and felt that their country needed them (Baker *et al.* 1989, Elliott 2014a). Military nurses at Camp Bastion felt privileged to being deployed since they felt they had their contribution in helping soldiers. Nurses felt rewarded and the overall experience gave them sensation of positive well being. Some nurses find it easier to be a military nurse than a civilian one due to the routine in the army which makes their life more content. They do not need to worry about commuting to work or taking care of their house. (Finnegan *et al.* 2015, Scannell-Desch & Doherty 2009).

Majority of nurses deployed to war, however, face many challenges affecting their personal life and making their life miserable. Deployment is physically demanding. Being far from family (and often small babies) and the loved ones they need to adapt to new severe environment facing extreme weather conditions, with heat up to 60 Celsius degrees, dirt, dust and sandstorms in Iraq (Agazio 2010, Brewer & Ryan-Wenger 2009, Kenny & Hull 2008, Scannell-Desch & Doherty 2009) Nurses report poor housing (e.g. living in crowded tents or huts made of plywood) and hygienic facilities (e.g. having shower once a week), shortage of food and poor quality water. (Baker *et al.* 1989) For some the housing conditions were lamentable but for others they were better than expected, e.g. access to various facilities, like gym, coffee shop, theatre, library, television, Internet and being able to contact family (Scannell-Desch & Doherty 2009). Due to unpredictable working schedules nurses suffer from lack of sleep and the sleep pattern is not regular. Long and intense working hours demand from nurses extreme concentration, alertness, emotional and physical endurance (Brewer & Ryan-Wenger 2009). Uncertainty about how long the deployment is or when they nurses return home causes psychosocial distress. While being deployed nurses lose friends back home. They feel guilt of not being at home, especially when one is deployed many times. Nurses deployed to Vietnam war reported also being sexually harassed and experiencing emotional numbness (Baker *et al.* 1989). Finnegan *et al.* (2015) report that military nurses who were deployed to war before have lower chance to have negative effects on their mental health after experiencing the austere environment or severely injured casualties.

There are also challenges affecting their performance as professionals. They face lack of medical equipment and shortage of supplies (or having expired drugs) which make them being careful about how they manage their resources. Nurses need to use manual devices and reuse disposable supplies, e.g. suction catheter. Heat destroying plastic and rubber parts of supplies affect medical personnel and patients, e.g. broken air condition cause nurses feeling helpless when treating patients with fever. Nurses being deployed to Iraq and Afghanistan complain about poor hygienic conditions in the hospital facilities, e.g. fluids till ankle level in operating room. During Vietnam war the supplies were primitive (Agazio 2010, Baker *et al.* 1989, Brewer & Ryan-Wenger 2009, Dierkes 2011, Elliott 2014a, Kenny & Hull 2008, Scannell-Desch & Doherty 2009). Peyrovi *et al.* (2014) report that facing hard, dangerous and unexpected surrounding, austere, life threatening conditions, and limited resources can cause moral distress among nurses.

Lack of supplies to take care of children and also lack of confidence and experience when taking care of children or women cause nurses emotional hardships (nurses are used to treating men with traumatic injuries, but they do not have experience with treatment severely injured children or women). Due to shortage of supplies nurses needed to develop creativity, innovation, and improvisation. It is not only women or children who are not treated the way nurses wish to. Due to restrictions in transport nurses are not able to deliver the care they wish to local people. Locals cannot leave the country for further treatment and the infrastructure within the country is poor. Nurses reported feeling the sense of futility, when e.g. local people were transferred from the military hospital facility to their national healthcare system where they could not receive care at the required level. Taking care of local people is also affected by the language barrier despite having the interpreter. Nurses faced not only difficulties in communication between nurses and patients but also between different military branches due to differences in terminology used (Agazio 2010, Dierkes 2011, Finnegan *et al.* 2015, Scannell-Desch & Doherty 2009).

Nurses face ethical dilemmas because they feel like they should save supplies for American troops, not for the civilian casualties or enemy prisoners of war. Taking care of enemies and detainees felt like a challenge. A nurse also mentions challenges they

face while taking care of insurgents. She gives an example when there was an American soldier and an enemy who shot him next to each other in the operating room (Agazio 2010, Scannell-Desch & Doherty 2009).

Military nurses feel unsafe, and live in fear since they experience endangered life or health. Critical Care Air Transport Nurses report that physical safety is endangered and nurses experience fear due to the risk of a vehicle being bombarded. They need to provide care for patients and at the same time they need to be ready to defend themselves and shoot if needed (Brewer & Ryan-Wenger 2009). Military nurses report being scared during the deployment and one of them said having her handgun always ready to be used, even in the emergency room (Scannell-Desch & Doherty 2009). They also experience high stress levels e.g. during flying out in Baghdad in total darkness because visibility was limited. Nurses had their protective gear and weapon ready to use throughout the whole assignment because bomb attack might have happened at any time (Brewer & Ryan-Wenger 2009). Despite taking part in military and operational training before deployment and gaining confidence in military skills, not all nurses knew how to behave, what are the procedures in case of being under attack (Agazio 2010). Nurses working outside of the military camp area mentioned also about the possibility of being a target or fired upon (Finnegan et al. 2015).

During war nurses working in Critical Care Transport Team needed to provide care for more critically ill (e.g. ventilated) patients than in peacetime. They are usually young men who suffered polytraumatic injuries (Finnegan et al. 2015). Facing dead soldiers, multi trauma and polytrauma patients with amputations was mentally demanding (Agazio 2010, Brewer & Ryan-Wenger 2009, Dierkes 2011, Elliott 2014a, Kenny & Hull 2008, Scannell-Desch & Doherty 2009).

Nurses felt sad about severely injured young soldiers but also feeling extremely good because of saving their lives. However, about soldiers who died during the war and whom they could not help to survive, nurses felt emptiness inside oneself and sorrow. Some nurses felt guilty that they did not have enough input or support for the whole mission because they were not deployed to Iraq or Afghanistan but to some other places (Elliott 2014a). Nurses learnt about themselves, after seeing severely injured soldiers and seeing terrible lives of locals, they appreciated life more. (Scannell-Desch &

Doherty 2009).

Due to amount of patients and the severity of their injuries military nurses feel overwhelmed with care they need to provide to patients, which is defined as compassion fatigue. The symptoms are very similar to the ones experienced by people suffering from PTSD, including “anger, depression, difficulty sleeping, fear, and indifference towards patients as caregivers distant themselves” (Kenny & Hull 2008 p. 44). Exposure to severely wounded soldiers during deployment, the emotional ability of nurses was lowered causing nurses feel guilty of not being able to express emotions while caring for patients (Elliott 2014a).

Nurses often did not know what to expect, e.g. when transporting a patient from a war area to the medical facility (e.g. the U.S. military’s Landstuhl Regional Medical Centre in Germany) nurses felt isolated and experience uncertainty, e.g. due to an unexpected changes in patient’s life when the resources are limited. Nurses also felt unsafe e.g. when mixing drugs (using needles) in the aircraft with turbulence. Flights are physically demanding and nurses experienced flight stressors (e.g. noise, fatigue, hypoxia, vibration) (Agazio 2010). Nurses work is unstable because numbers of patients nurses need to take care of may change rapidly within minutes. They are also uncertain about timing (nurses are not sure about when they receive a call for action), destination (pick up place may be changed), and scenario (patient’s situation may rapidly change) (Brewer & Ryan-Wenger 2009).

Nurses report having memories of the war both visual, audible and olfactory. They experience flashbacks of blood and raw flesh, blown off limbs, patients bleeding to death, severely injured children (Scannell-Desch & Doherty 2009). A nurse recollecting images from the war says that she has “seen some of the most horrifying trauma any human being could never imagine’ (Elliott 2014a p.1069). They are more sensitive to noises as they bring them back to the war. A nurse taking part in Vietnam war says that involuntary thoughts of war and feelings related to it are constantly coming (Kenny & Hull). After deployment to Iraq nurses experience stress, anxiety, panic, depression, post traumatic stress disorder (PTSD), insomnia, inability to be happy or enjoy time with family or friends, crying for no reason, they feel they have no more empathy or compassion. Nurses admit they are not same persons as they were before deployment.

Many nurses said they felt anger, frustration and stress after they were back from deployment (Elliott 2014a, Scannell-Desch & Doherty 2009).

Because of many casualties and shortage in staff nurses gained greater autonomy as they needed to work outside one's specialty, e.g. a registered nurse working in operating theatre. They also learnt new professional skills and improved the old ones, gained knowledge and experience (Elliott 2014a, Peyrovi *et al.* 2014). Due to demanding surrounding they also increased self-confidence (Elliott 2014b, Scannell-Desch & Doherty 2009). Nurses took critical care and trauma trainings before deployment, but they felt they were not prepared for what they experienced during the war in Afghanistan and Iraq (Agazio 2010). Scannell-Desch & Doherty (2009) reports that in terms of professional knowledge and skills, there was lack of critical care trainings for some personnel and lack of training to use certain machines before deployment. Baker *et al.* (1989) says that military nurses serving in Vietnam did not feel being provided with enough preparation. In the research conducted nineteen years later (Ross 2008) the situation seems to be the same as military nurses feel not having enough training or skills before deployment.

Nurses who have under two years experience as a registered nurse before deployment are at higher risk to have difficulties to establish personal relationships or to cope with stress (Baker *et al.* 1989). Kaiser *et al.* (2012) reports that people who were younger, experienced more symptoms of PTSD and feeling worse in terms of well-being. The study suggests that older age and having more experience have positive effect on people experiencing stress in war zone.

In Baker *et al.* (1989) study it is estimated that 10-24% of nurses deployed to Vietnam quit the nursing profession and half of the military nurses was reluctant to have children. Some nurses returned to same professional roles but it was hard for them to go back to the routine before deployment. Some nurses could not go back to the professional role they had before deployment due to administrative changes in the workplace (Elliott 2014a).

Despite all the difficulties military nurses face, Finnegan *et al.* (2015) reports that the patients found the care they received as outstanding. According to them there was a

good teamwork among nurses and the staff was well trained.

## 7 DISCUSSION

The research shows that military nurses' experiences during deployment to war frequently have negative impact on their mental health. Despite going to war voluntarily and feeling good about serving the country and helping soldiers, deployment leaves its mark in military nurses life. After returning home they have difficulties to adapt to civilian life. If people around them understand that they need time to adapt from old to new routines and help to cope with war experiences and war memories, there are higher chances that there will not be long term consequences related to their mental life, affecting their future life. People interacting with nurses after their deployment to war need to be aware of the transition process nurses face. Every individual is different and each nurse may need different coping techniques to deal with postdeployment reality. It is also possible that beside stress experienced during deployment, there are other traumatic events that occurs in a nurse's life. Thus the relation between effects of war on military nurses' lives must be considered in broader terms. For example the reluctance to having children by military nurses serving in Vietnam war may also have been affected by some other factors, not directly related to war.

During war nurses experience a lot of stress because they are not able to give care to the injured soldiers at the level they wish to. This may come out of practical difficulties such as shortage of supplies and lack of training. There is also internal component of stress from the personal sense of failure to meet nurses' save people's lives. Making sure that nurses have enough supplies and providing military nurses with extra training would possibly decrease the levels of stress.

Knowing that not all soldiers suffering from mental disorder seek for mental support due to fear of losing their job, there is a risk that nurses also could try to avoid medical treatment while experiencing mental disorder symptoms.

## **8 CONCLUSION**

Military nurses experience many mental hardships during their deployment to war which after returning home affects their ability to work, cope with stress, or interact with people, even the closest family. Awareness of nurses' experiences and willingness to understand what they feel and how they perceive the reality after deployment to war may help them to overcome mental hardships in everyday life. People around them need to be patient and support nurses in their postdeployment period. The transition to reality might be long, and the worse the experience of nurses during the war, the longer the period of adaptation to the reality.

### **8.1. Strengths, limitations, and recommendations**

Despite the amount of time and effort the author put in the research, the current work has many limitations. Because of the scarcity of articles on military nursing in the academic data resources like EBSCO, PubMed, and ScienceDirect the process of selecting articles was not systematic. The snowball method was mostly used, providing the author with much material, but not always the appropriate for the study. Among analysed articles there was one published in 1989, while all the rest were published after 2000. The data collected from the article might have been a bit outdated. In the final stage of the research the author realised that adding extra search words (e.g. "deployment", "mission" or "assignment" as alternatives to "war") while retrieving the articles could have resulted in less time consuming process of collecting articles for data analysis. Due to personal reasons of the author, the study was put aside many times during two years which disturbed the fluent process of the study. Language of the articles was also a limitation since only English texts were considered during the research. The number of articles (ten) that were analysed in the research gives limited data within the studied area.



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