LAMK Lahden ammattikorkeakoulu
Lahti University of Applied Sciences

Nursing Interventions for Post-Traumatic Stress Disorder

A Narrative Literature Review

LAHTI UNIVERSITY OF APPLIED SCIENCES
Bachelor's Degree Programme in Nursing
Bachelor's Thesis
May 2017
Nina Kukkonen
Rinat Sharifullin

Lahti University of Applied Sciences
Degree Programme in Nursing

KUKKONEN, NINA

SHARIFULLIN, RINAT

Nursing Interventions for Post-Traumatic Stress Disorder

Bachelor's Thesis in Nursing

52 pages, 0 pages of appendices

Spring 2017

ABSTRACT

Post-traumatic Stress Disorder is a debilitating mental health disorder that occurs as a result of a traumatic event. It can manifest itself in a variety of symptoms, including hyperarousal behavior, flashbacks, and avoidance behavior. Comorbidity with other mental health disorders is also a common occurrence.

Nurses are typically at the front lines for detecting either existing PTSD or long-term PTSD in patients. Therefore it is imperative that nurses are able to understand and detect PTSD symptoms in their patients. The main aims of this thesis thus entailed exploring how much information on nursing interventions for PTSD exist, as well as determining whether or not there is enough information about PTSD specifically aimed at nurses and nursing students.

A narrative literature review was conducted into the nursing interventions for PTSD. Data was collected from different online databases. The collected data was analyzed using thematic analysis. Articles and research pertaining to patients under the age of 18 were excluded, as well as articles that were not specifically aimed at nurses.

The results of this thesis showed that the main interventions that nurses can utilize for PTSD include Critical Incidence Stress Debriefing, Cognitive Behavioral Therapy, and Exposure Therapy. How to establish trust and lines of communication with a patient who suffers from PTSD is also discussed, as well as various pharmacotherapeutic options that nurses can refer to patients.

This thesis would indicate that there exists a lack of research into PTSD that focuses on nurses and the interventions that they can perform for patients. Since nurses are an integral part of a wide variety of patients' lives, more research and information that is directly aimed at nurses is imperative.

Key words: nursing, PTSD, post-traumatic stress disorder, nursing interventions

Lahden ammattikorkeakoulu
Hoitotyön koulutusohjelma

KUKKONEN, NINA

SHARIFULLIN, RINAT

Hoitotyön interventiot traumaperäiselle stressihäiriölle

Hoitotyön opinnäytetyö 52 sivua, 0 liitesivua

Kevät 2017

TIIVISTELMÄ

Traumaperäinen stressihäiriö on heikentävä ja laaja mielenterveyshäiriö, joka esintyy traumaattisen tapahtuman seurauksena. Oireita on monia, kuten voimakkaita takaumia ja välttämisoireita. Traumaperäisen stressihäiriön mukana yleensä ilmenee muita mielenterveyshäiriöitä liitännäissairautena.

Sairaanhoitajat ovat yleensä monien eri potilaiden kanssa niin tiivisti tekemisissä, että he ovat ensisijalla huomaamassa potilaassa olemassa olevaa tai pitkäaikaista traumaperäistä stressihäiriötä tai muita vakavempia oireita. Sen vuoksi on tärkeää, että sairaanhoitajat ymmärtävät ja osaavat havaita näitä oireita heidän potilaissaan. Täten tämän työn päätavoitteet ovat tutkia paljonko luotettavaa tietoa hoitotyön interventioihoin traumaperäiselle stressihäiriölle on olemassa ja myös määritellä onko tätä tietoa rittävästi ja nimenomaan suunnattu sairaanhoitajille.

Tässä työssä käytettiin kirjallisuuskatsausta tutkimusmenetelmänä. Tietoa haettiin erilaisista tietokannoista. Koottu tieto analysoitiin teemoittain. Hakua rajattiin sulkemalla pois tutkimuksia, jotka koski alle 18-vuotiaita potilaita ja myös tutkimuksia jotka eivät olleet suunnattu sairaanhoitajille.

Tämän työn tulokset osoittivat, että tärkeimmät interventiot, mitä sairaanhoitajat voivat käyttää kohdattuaan potilaita joilla on, tai epäillään olevan traumaperäinen stressihäiriö ovat: Critical Incidence Stress Debriefing, kognitiivinen käyttäytymisterapia ja Exposure Therapy. Käydään myös läpi miten perustaa ja vahvistaa näiden potilaiden kanssa luottamusta sekä muita interventioita, kuten farmakoterapiaa.

Tämä työ osoittaa, että tällä hetkellä ei ole olemassa vielä tarpeeksi tietoa interventioista traumaperäiselle stressihäiriölle, joka on suunnattu nimenomaan sairaanhoitajille. Koska sairaanhoitajat ovat niin tärkeä osa eri potilaiden hoitopolkua, enemmän tietoa ja tutkimuksia tarvitaan sairaanhoitajille traumaperäisestä stressihäiriöstä.

Asiasanat: sairaanhoitaja, traumaperäinen stressihäiriö

Table of Contents

1 INTRODUCTION

During the 20th century, following the events of two harrowing world wars, our understanding of human nature drastically changed. This was truly the period when humanity witnessed the dark and dreadful side of the human psyche. Thousands of survived soldiers shocked by what they were capable of returned home unable to tolerate the horrors of war and the inhumane behavior that this entailed. Back then, very little to no help was provided to support psychologically traumatised war participants. Moreover, no specific psychiatric disorder existed that would encompass the symptoms that someone who went through a traumatic event and was not able to recover after said trauma would experience. It was not until 1980 when Post-Traumatic Stress Disorder (PTSD) was identified as a distinct disorder with a specific set of symptoms and was officially added to the Statistical Manual of Mental Disorders (DSM), which is one of the most widely used sources to aid healthcare professionals in diagnosing mental disorders.

PTSD is not limited solely to war-time trauma; it can occur as a result of any traumatic event, such as, but not limited to: natural disasters, witnessing violence, being a victim of violence, being a victim of sexual abuse/rape, witnessing the death of a loved one, etc. (Psychology Today 2015).

It is important to present some statistics (based on the US population) to emphasize how common PTSD actually is. Approximately every 6 out of 10 men and 5 out of 10 women experience at least 1 traumatic episode during their lives; 7-8 out of 100 people will develop PTSD at some point in their lives; approximately 8 million adults have PTSD every year; around 10 out of 100 women and 4 out of 100 men will develop PTSD at some point in their lives (PTSD United 2013).

Judging by these numbers, the possibility for nurses to come across a client/patient who has a risk of developing PTSD, or who may have already developed PTSD, is relatively high. Combining these numbers

with an exhaustive, symptomatic picture that enables nurses to recognize PTSD and understand how it is diagnosed is imperative. However, most health care professionals are unlikely to notice the symptoms of PTSD (due mainly to a lack of education on PTSD and other trauma-based disorders) even if they were to face an individual with PTSD. Thus, these healthcare professionals would be unable to provide patients with the needed help and support for this disorder. It was for this reason that we decided to embark on an extensive literature review on PTSD in general and on how nurses can recognize it and help those who have been diagnosed or are at risk of developing this mental disorder.

Our literature review is based upon the following research questions: “What kind of nursing intervention exist for PTSD?” and “Is there enough research conducted on nursing interventions for PTSD?”. The main aim of this literature review is to determine the nursing interventions that exist for PTSD based upon the literature that we have reviewed. Prior to this literature review, we will provide our audience with a thorough understanding of what PTSD is.

In order to provide a comprehensive background theory on PTSD, we utilized a number of sources: we discuss symptoms, causes, and risk factors, as well as PTSD and comorbidity. Following this extensive section on PTSD itself is the literature review of nursing interventions, which delves into screening tools, psychotherapy, and pharmacotherapy that nurses can use when encountering PTSD patients. This thesis also explores and contemplates the amount of research for PTSD that is available and aimed specifically for nurses.

2 WHAT IS POST-TRAUMATIC STRESS DISORDER?

In order to gain a clear and in-depth idea of what post-traumatic stress disorder is, what it entails, what the risk factors, symptoms, etc. are, a deeper look is necessary.

2.1 Definition

“Post-traumatic stress disorder (PTSD) is defined as a severe anxiety disorder that develops after exposure to an event with actual, threatened, or perceived death or serious injury, or a threat to the physical integrity of oneself or others that results in significant psychological trauma.” (Wimalawansa 2014, pg. 807). One of the key features of PTSD is a binding of symptoms with a certain traumatic event (Breslau 2002). Specifically, any life-threatening event can trigger the development of post-traumatic stress disorder, for instance: a terrorist attack such as the one in 2001 on the Twin Towers in New York City; military combat, such as war in Vietnam or Iraq; a car accident; sexual abuse; any type of crime; natural disasters; or any other kind of violence (Psychology Today 2015).

In order to better understand post-traumatic stress disorder, it is important to understand the mechanism of fear and how fear occurs, since fear has one of the most significant roles in the development of PTSD. Fear is a reaction to an immediate threat that compromises a person’s wellbeing or life. Fear feels like apprehension, warning humans about possible danger, which consequently motivates an individual into a “fight or flight” response (which is one of the most known and common reactions among any species to a perceived threat). Being scared during a traumatic event is normal: it is a human’s natural response to danger. Fear is necessary and important from an evolutionary perspective as it helps an individual avoid death and/or physical harm. Nevertheless, some events can be so overwhelming and traumatic that they permanently traumatize an individual, interrupting not only their perception of the world but also

affecting their day-to-day and social life, which is what happens with PTSD. (Psychology Today 2015.)

When PTSD has developed, fear occurs even though there is no sign of danger and an individual's current situation does not compromise their life. In other words, a person is in a constant state of alertness and stress. When this is the case, the present environment or certain details of this environment can resemble the traumatic event that a person went through in the past, triggering fear, anxiousness, or other symptoms. (Psychology Today 2015.)

As with any other mental ailment, PTSD is inherently complicated and individualistic, and thus it is important to know that two individuals may go through the same traumatic event but only one of them might develop PTSD (The National Institute of Mental Health 2016). People's reactions and responses to stressful situations vary widely; therefore PTSD for one individual can be caused by a tremendously intense and serious event, whilst others can develop PTSD by experiencing less stressful situations (Wimalawansa 2014).

The development of PTSD boils down to the very sophisticated nature of a human-being: factors such as cultural background, childhood, gender, genetic predisposition, personal experience, religion, etc. can affect an individual's perception of any event, which, consequently, may result in a person developing PTSD symptoms (Psychology Today 2015).

2.2 Symptoms

While some symptoms of PTSD may seem to be manageable to a patient who has not been experiencing them for a significant amount of time, most symptoms significantly change an individual's life and day-to-day routine. It is important to note that in some cases symptoms can fluctuate: long periods of less noticeable symptoms are followed by periods when the situation worsens and symptoms are exacerbated, whereas other patients have more or less constant symptoms. Most often, symptoms occur within

a month after a traumatic event; in some cases they appear even later: after several months or even years (National Health Service 2015.)

Symptoms of PTSD can be divided into four categories: intrusion symptoms, avoidance behavior, hyperarousal symptoms, and physical symptoms.

2.2.1 Intrusion Symptoms

Any type of traumatic event that an individual experiences can be extremely damaging to their psyche, and thus there is a large chance that the memory of this traumatic event will remain embedded in their mind, refusing to go away even over time. Certain external stimuli that reminds an individual of their trauma (such as a particular item, noise, or even a scent) can cause them to relive the traumatic event, usually resulting in the individual feeling panicked, with a strong desire to escape the stimuli that is causing them to relive their past trauma. (NATAL 2017.)

Symptoms that make a victim re-experience a traumatic event are called intrusion symptoms. Intrusion symptoms include: uncontrolled and unintentionally appearing memories of the traumatic event; nightmares resembling the traumatic event; flashbacks (also called dissociative reactions); and psychological distress in response to a trigger that reminds them of their past trauma. (DSM-V 2013, referenced by Levin, Kleinman, & Adler 2014.) Most of these symptoms are self-explanatory, with the exception of flashbacks. Thus, a further explanation is needed for this symptom.

In order to better understand flashbacks, it is important to understand that there is still no accurate, clear and “official” definition of dissociative re-experiencing, or flashbacks. Consequently, it is unclear whether the term refers to a complete loss of one’s sense of reality or whether all intrusive thoughts about a past trauma should be included. Despite that, to make flashbakcs easier to understand, some sort of definition should be given.

“Flashbacks are the sudden re-experiencing of events from the past, which disrupt the chronological sequence of current experience.” (NATAL 2017.)

Flashbacks can be very intense: sometimes even someone’s sense of reality can be distorted as a person feels that an event happens at this exact moment, right before their eyes. The key concept of flashbacks is that an individual seemingly relives the traumatic event. Usually, flashbacks do not contain the whole event chronologically with every single detail; rather the event begins from what the individual perceives to be the worst moment of their trauma (also known as “hotspots”). (Hirsch & Holmes 2007.)

In order to not confuse flashbacks with bad memories, it is important to highlight that flashbacks happen involuntarily; in other words, they occur against an individual’s will (NATAL 2017). Psychological clues or triggers usually cause flashbacks. For example, laughter on the radio or on TV can remind an individual of past sexual abuse, or a sudden loud sound can be reminiscent of an explosion, triggering flashbacks. If an individual is aware of certain triggers, they try to avoid them, which affects the quality of their daily life. (Hirsch et al 2007.)

2.2.2 Avoidance Behavior

The next types of symptoms that occur with PTSD are characterized as avoidance behavior. As the name would suggest, with these types of symptoms an individual will avoid places, areas, as well as items and even sounds that remind them of their past trauma. (NATAL 2017.) Avoidance behavior can be distinguished by the following symptoms: avoidance or attempts to avoid memories, feelings, or thoughts about past trauma; and avoidance or attempts to avoid external clues that evoke memories of their past trauma. Due to these avoidance behavior symptoms, it is hard for an individual to participate in social events, make new friends, and sustain old relationships; overall, living a normal social life becomes problematic and at times near impossible. (Levin et al. 2014.)

When an individual is experiencing behavioral symptoms, their subconscious tends to try to build “a wall” of behavioral patterns that might help them avoid the frightening experiences of trauma. Therefore, an individual’s psyche engages in defensive mechanisms that alter an individual’s normal behavior, resulting in their being abnormally suspicious, irritable, or angry towards other people. (NATAL 2017.)

2.2.3 Hyperarousal Symptoms

It is hard not to notice an apparent chain of symptoms, i.e. where one symptom gradually causes another, for example, intrusion symptoms followed by avoidance behavior. Typically, avoidance behavior results in hyperarousal symptoms, which include: anger and angry outbursts; hypervigilance; problems concentrating; difficulty falling asleep; careless and irresponsible behavior; and exaggerated response to unexpected loud noises.

As the name perhaps points out, an individual experiencing these symptoms is always in a state of alertness (i.e. hyperaroused) and consequently, the world appears as a harmful and dangerous place; they may think that people are hostile and cannot be trusted. Therefore, an individual’s overall perception of the world might drastically change. Thus, a person can constantly be in a negative emotional state, exhibiting emotions such as anger, fear, and anxiousness. In addition, these symptoms may also manifest as negative symptoms, including: a negative perception of the world, a negative image of oneself and others; problems remembering key aspects of a traumatic event; impaired cognition about the reason and consequences of the traumatic event; a continuing negative emotional state; decreased interest in participating in different activities; feeling separated from others or being alone; and an impaired ability to experience positive emotions. (DSM-V 2013, referenced by Levin et al. 2014.)

2.2.4 PTSD and Physical Symptoms

Not only does PTSD bring a wide range of psychological and social problems, it also affects an individual's physical health. This fact has been supported by a solid amount of different studies and research. It has become very apparent that victims of military combat, sexual abuse, or car accidents tend to report more frequently about physical health problems rather than mental health issues and symptoms. Some of the latest research found a clear connection between childhood abuse and the diagnosis of diseases such as cancer, chronic lung disease, and ischemic heart disease. Moreover, it has been established that funds spent on health care are higher for women who have a history of child abuse.

Overall, both self-reported health problems and those diagnosed by a physician might be related to PTSD diagnosis among different groups of PTSD patients. It is impossible to be absolutely certain of this fact, as more research in this field is required to determine whether PTSD solely causes physical health issues, since factors such as smoking and drug or alcohol abuse can also affect an individual’s health in combination with other individual ailments. (U.S. Department of Veterans Affairs 2016.)

Poor physical health might also be related to abnormal biochemical and neurohormonal changes that are likely to change a brain’s structure, which can later on bring up some neuropsychological issues (Wimalawansa 2014). Changes in the brain might consequently result in hormonal changes, poor resistance to cardiovascular problems, as well as immunologic disorders (U.S. Department of Veterans Affairs 2016).

2.3 Comorbidity of PTSD with other Mental Health Disorders

Identifying a mental health disorder is always intricate and difficult, as some symptoms of certain mental ailments can also be present in different disorders. Anxiety disorders that share some similar symptoms with PTSD include: irritability and sleeping problems with generalized anxiety disorder; fear and avoidance of places with panic disorder (in this case,

places where an individual has previously had a panic attack); and difficulties making friends, sustaining healthy relationships, and overall problems socializing with social anxiety disorder. (The National Institute of Mental Health 2016.) Therefore, healthcare professionals should know which comorbid diseases can be present along with PTSD in order to differentiate between them and avoid misdiagnoses. Furthermore, the misdiagnosis of a mental health disorder may lead to unnoticed and untreated PTSD, which, consequently, might lead to further health complications. (Breslau 2002.)

Interestingly enough, comorbidity in relation to PTSD is considered to be rather normal. According to a relatively recent study, 80% of PTSD victims have some kind of substance or psychiatric disorder, and 45% of individuals with at least one diagnosed disorder will also have other disorders. These numbers prove the necessity of “checking twice” before giving a final opinion on whether an individual has developed PTSD or not. (Najavits, Ryngala, Back, Bolton, Mueser, & Brady 2008.)

Personality may play a large part in PTSD comorbidity. Individuals who are more likely to respond to trauma and stressors with anxiety, irritability, and other negative emotions, combined with being introverted, may be less likely to seek help for their traumatic experiences. Thus, if these individuals develop PTSD, they are at higher risk of developing depression as well. Individuals who experience neuroticism may indulge in alcohol and substance abuse following a traumatic event, which will consequently lead to them developing a substance abuse disorder alongside PTSD. (Flory & Yehuda 2015.)

Another study worth mentioning found that 21-94% of PTSD victims had depression; 39-97% expressed anxiety; 11-97% had both depression and anxiety along with PTSD (Karni, Tsachi, & Zahava 2010). It is thus clear that depression is the most common disorder that occurs with PTSD, and therefore a deeper look into the connection between depression and PTSD is necessary.

2.3.1 PTSD and Depression

Major Depressive Disorder (also referred to simply as “depression”) is a widespread mood disorder that is characterized by negative thoughts that impact an individual’s emotions, feelings, daily routine, and overall flow of life. There are multiple types of depression, such as: persistent depressive disorder (depression that lasts for at least two years); perinatal or post-partum depression (experienced by women who are about to deliver or by those who gave birth already, respectively); psychotic depression (a combination of severe depression and a certain type of psychosis); Seasonal Affective Disorder (depression due to seasonal changes, such as during winter, when exposure to natural sunlight is significantly diminished); and those with bipolar disorder who are experiencing a depressive episode as opposed to mania.

The symptoms of depression are numerous and include: a negative mood, feeling hopeless and helpless, feeling “empty”, irritability, total loss of interest in activities that were enjoyable before (anhedonia), feeling lethargic, slow movement and speech, loss of appetite, weight changes, suicidal thoughts, difficulty focusing, memory problems, headaches, problems with the digestive system, and sleep problems (either sleeping too little or sleeping too much, or problems falling asleep, problems staying asleep, etc.).

Symptoms may vary among people: some experience multiple symptoms but do not fall under the depression diagnosis, while those who have few persistent but distressing symptoms may be diagnosed with depression. (The National Institute of Mental Health 2016.) According to the DSM-V, in order for diagnosis to occur, an individual must experience at least two of the following: anhedonia, a persistent depressed mood that lasts for at least two weeks, a lack of energy, and problems sleeping. (DSM-V 2013.)

Most recent studies suggest that the most common reason behind depression is an amalgamation of biopsychosocial factors. Depression occurs most frequently in adulthood, although nowadays, depression can

be found in children and adolescents as well. The presence of other ailments can worsen the situation if they co-occur with depression, like for example with diabetes, cancer, dementia, or heart disease. (The National Institute of Mental Health 2016.)

As stated above, PTSD and depression comorbidity is common. But what is the reason behind it? Why is there such a large correlation between these two disorders?

One of the reasons behind this comorbidity might be due to the fact that some depression symptoms also occur in other disorders. PTSD symptoms that are the same as some depression symptoms include sleep disturbances, anhedonia, and problems concentrating. Therefore, one possible explanation for this overlap between PTSD and depression could simply be a misdiagnosis of PTSD in a depressed individual or vice versa, as depression can relatively easily occur, as well as a wrongful diagnosis of comorbidity.

Certain risk factors also overlap in these two disorders, most notably childhood abuse. Thus, the presence of childhood physical or sexual abuse in a patient's history combined with high neuroticism and low extraversion can be directly linked with the development of PTSD and depression comorbidity. Not only that, but there is also a strong connection between childhood experiences of physical abuse and comorbid mood and anxiety disorders once these individuals become adults. Thus, childhood abuse should be a significant factor to consider when trying to figure out the cause of PTSD comorbidity. (Flory & Yehuda 2015.)

PTSD is also linked with a higher incidence of unsuccessful suicide attempts: 24-40%. There are multiple risk factors that can be used to predict suicidal behavior, such as: severe symptoms of depression and PTSD, intense anxiety, ideas about committing suicide, combat-related guilt, etc. Not only that, but such high rates of suicide incidences have been associated with low levels of spiritual well-being, which indicates a

presence of negative thoughts about life overall and an individual's future. Thus, it can be hypothesized that feelings of hopelessness and a state of negativity about life can be linked with suicidal behavior. Thus, comorbidity of PTSD with other mental ailments, like depression, aggravates the risk of suicidal behavior. (Panagioti & Gooding 2009.)

It should be noted that, perhaps in an effort to combat the common misdiagnosis that occurs between depression and PTSD, within the DSM-V, PTSD has been moved from the Anxiety Disorders section (which includes depression) to a new, separate section, called: "Trauma and Stressor-Related Disorders". Another change within the diagnosis criteria is in the elimination of "helplessness, fear and horror" experienced by an individual who has been exposed to trauma. Additionally, avoidance has been added as a necessary symptom for diagnosis. Overall, comorbidity rates between PTSD and depression remain somewhere at 50%. Since the DSM-V is the latest version of this manual, there is no research or data available to say anything certain regarding changes in comorbidity rates between PTSD and depression. Thus, new data is needed for future conclusions. (DSM-V 2013.)

2.4 Causes of PTSD

Since PTSD usually occurs after a traumatic event, it is essential to outline a few common traumatic events that are the root cause of PTSD. It should be noted that the following are the most common causes of PTSD and that others surely exist, since developing PTSD varies from person to person and different experiences may cause symptoms in some people but not in others.

The most common causes are: extreme traffic accidents, assault (sexual or physical, including robbery), long-term sexual abuse, long-term neglect, long-term violence (usually domestic), experiencing war (either in combat or as a civilian), terrorist attacks, seeing someone die, natural disasters, a

sudden life-threatening medical diagnosis, and death of a loved one. (National Health Service 2015.)

However, it should be remembered that suffering from PTSD is not limited to experiencing one of the above-mentioned traumatic events first-hand. People who learn of a traumatic event happening to a family member or close friend can also develop PTSD. Additionally, people who are continuously exposed to the aftermath of traumatic events, such as paramedics collecting dead bodies, police officers being frequently exposed to cases pertaining to child abuse, etc., are very likely to develop PTSD. (Anxiety and Depression Association of America 2016.)

2.5 Specific Groups at Risk for Developing PTSD

There are certain groups of people who can be more susceptible to developing PTSD. This is usually due to someone's profession or the environment around them (ranging from the atmosphere in the house that they live in to the social climate within their country). These can include police officers, emergency medical service workers (i.e. paramedics), firefighters, soldiers, war veterans, and refugees.

Although nurses, particularly those who work in the emergency room, can suffer from death anxiety (also known as thanatophobia) due to being constantly exposed to trauma and death (RCNi 2015), PTSD levels among them remain relatively low, and therefore were not explored in this section.

2.5.1 Emergency Medical Service Workers

Emergency medical service workers (also referred to as emergency service workers, emergency medical technicians, or paramedics) are at a high-risk of developing PTSD and certain PTSD symptoms due to the high-stress environment that they face on a daily basis, as well as the myriad different cases that they are exposed to. Certain paramedics may also already have pre-existing mental health conditions, such as

depression and anxiety, which may be exacerbated by regular exposure to traumatic events. (Fjeldheim, Nöthling, Pretorius, Basson, Ganasen, Heneke, Cloete, & Seedat 2014.)

A study conducted in South Africa explored the correlation between continual exposure to traumatic incidents and the occurrence of mental health issues, such as depression, anxiety, and PTSD. The study found that PTSD and other mental health issues increased in relation to these traumatic events; however, when viewed over time, these symptoms gradually stopped increasing, meaning that workers eventually became desensitized to certain traumatic events. It should be noted that the rate of exposure to traumatic events was higher in this South African study than in studies that have been performed in more developed countries, and that additional stressors, such as poor working conditions, issues within the organization itself, and the higher rate of violence in South Africa, may also have contributed to the high prevalence of PTSD that were found in the participants of this study. (Ward, Lombard, & Gwebushe 2006.)

A recent study aimed to investigate the amount of trauma that paramedic trainees were exposed to, as well as any PTSD symptoms that they may have experienced as a result of these traumatic events. Paramedic trainees are highly likely to develop PTSD, due to the fact that they experience new environments, are inexperienced in this type of work, may be younger in age, and may have additional stress due to being regularly assessed academically. The study concluded that 94% of the 131 subjects experienced a traumatic event, and that 16% of them had developed PTSD. Onset of depression (28%) and alcohol abuse (23%) also occurred. (Fjeldheim et al. 2014.)

It is safe to conclude that paramedics represent a profession that is highly at risk of developing PTSD, and that nurses should be aware of this fact. Additionally, understanding the link between PTSD and paramedics is important, since a lack of research will not motivate employers to develop proper mental health care services for their paramedics.

2.5.2 Soldiers

The relationship between soldiers and the development of PTSD has been closely studied and widely discussed both in and out of academic circles, which may be due to the large amount of worldwide deployments of soldiers and peacekeepers (particularly from the USA) into war-zones in the Middle East in the last few decades. Since combat and war are such harrowing experiences with such clear mental health repercussions, it is no wonder that PTSD develops, and that there is such great public and academic interest in attempting to explore this correlation further. From the perspective of understanding the detrimental effects of severe PTSD and in order to assist nurses in being able to identify patients who may suffer from PTSD, delving further into this research is an enlightening and worthwhile endeavor.

A study that investigated the amount of PTSD and depression symptoms in US deployed soldiers into Iraq and Afghanistan found that 44% of participants had significant levels of PTSD and/or depression. It should be noted that these questionnaires were sent out immediately after these soldiers had returned from combat, meaning that their memories of war and any possible trauma were fresh in their minds. Interestingly enough, soldiers who had received counseling after being deployed had higher rates of PTSD, perhaps due to being more educated on the possibility of developing PTSD by their counselors. This particular study also highlighted that being divorced or separated was a risk factor for these soldiers to develop PTSD; conversely, being single resulted in less risk for PTSD. (Lapierre, Schwegler, & LaBauve 2007.)

Continuing on in this vein, a Dutch study attempted to discover whether the loved ones of peacekeepers suffered from any secondary PTSD symptoms. The study found that there is a large connection between peacekeepers who have PTSD and their loved ones developing secondary symptoms of PTSD. The most common secondary symptoms were sleep disturbances and some somatic symptoms. They concluded

that this is mainly due to how tiring and over-taxing it is to care for loved ones with PTSD, as well as how detrimental PTSD symptoms are to daily life. It should be noted that all peacekeepers that participated in this study were male. However, medical professionals should still be aware of this link no matter the genders of the people suffering from PTSD and their loved ones, and particular focus should be placed on ensuring that they are given proper support. (Dirkzwager, Bramsen, Ader, & van der Ploeg 2005.)

Another Dutch study investigated the onset of mental health problems and PTSD on soldiers deployed to Iraq. They also attempted to discover whether soldiers overestimate their level of PTSD and mental health symptoms by giving them questionnaires and comparing it to a clinical interview that the participants had undertaken. Their results reflected that PTSD rates were 41% lower when soldiers were clinically interviewed than when they filled out questionnaires, Additionally, not all of their symptoms interfered significantly with their day-to-day lives. However, a small amount of soldiers showed alarmingly high levels of PTSD. (Engelhard, Van den Hout, Weerts, Arntz, Hox, & McNally 2007.)

The diagnosis of PTSD has been related to a high risk of suicidal ideation among veterans. Combined with other mental disorders, these rates are even higher: 78% of individuals with PTSD and schizophrenia reported suicidal ideation, and 14% reported about a suicide attempt within the last 6 months. Evidence suggests that suicide ideation among veterans with PTSD is strongly linked with intrusion symptoms rather than with any other PTSD symptom. One important aspect in explaining suicides in this group is associated with their relatively easy access to weapons, such as guns and knives.

There is also evidence that different types of combat have differing effects on results of suicidal ideation findings among PTSD veterans. For instance, comparing World War II and Vietnam veterans the numbers are: 29% and 75% respectively. This difference is significant. It can be

explained by a difference in the soldiers' perceptions of the trauma they experienced during wartime: World War II veterans saw the war as a threat to their physical well-being and freedom, whilst Vietnam War veterans had rather deep interpersonal moral issues to deal with, like trust, attachment, and fear of their own destructive impulses. In addition, World War II veterans mentioned physical injury and captivity as the most upsetting experiences, whereas Vietnam veterans mentioned death of children, loss of friends, and being present at scenes with disfigured bodies. (Panagioti et al. 2009.) Additionally, perhaps the difference in numbers between the development of PTSD among these different groups of war veterans may be the fact that PTSD was not acknowledged as a mental health disorder during World War II; rather, the term "shell-shock" was used for soldiers who experienced PTSD symptoms during combat (Joseph 2011).

2.5.3 Refugees

A refugee is defined as any individual who has a fear of being persecuted either due to religion, race, nationality, or political ideology in their home country. This individual then crosses into another country is unable to return to their home country safely. (UNHCR 1951.) Refugees have existed throughout history, from the Jews who left Nazi Germany during World War II and to more recent history, such as the war in Darfur in 2003 and the Syrian conflict that began in 2011 (Chalabi 2013).

Although refugee displacement has occurred throughout history, their amount has increased dramatically in the past half-decade alone. Some potential reasons for this include: wars and other armed conflicts are taking a longer time to be resolved (e.g. the conflict in Afghanistan has gone on for four decades); large-scale conflicts and national instances of vulnerability are becoming more common (e.g. the conflict over Crimea in Ukraine, gang related violence in Central America, etc.); and resettlement solutions for refugees are not occurring fast enough, resulting in numerous amounts of refugees stuck for years without gaining asylum. (Edwards

2016.) In 2015, 21.3 million people were classified as refugees by the UN Refugee Agency, of which only 107,100 were resettled. 53% of these refugees originated from Afghanistan, Somalia, and Syria. (UNHCR 2016.)

Experiencing war first-hand is, as can be assumed, incredibly traumatic and thus it can be understandable that a link between refugees and PTSD exists. A study that examined the prevalence of PTSD amongst West Nile refugees (who had fled the civil war in Southern Sudan) found that all of the participants who had been exposed to the highest amount of trauma had symptoms of PTSD. The researchers concluded that although experiencing a single traumatic event can cause some individuals to develop PTSD (depending on the type of trauma experienced), it is far more likely that continuous exposure to trauma will cause PTSD. To put it more succinctly: “it is not the severity of a single traumatic event that is linearly related to symptoms of PTSD, but the severity of previous cumulative trauma exposure.” (Neuner, Schauer, Karunakara, Klaschik, Robert, & Elbert 2004.)

Applying for and being granted asylum is paramount to these refugees. Refugees who are granted access to a country as asylum seekers legally obtain permanent or at least temporary resident status; the asylum seekers whose applications are rejected must be returned to their country of origin, in most cases meaning that they will face more trauma. A study aimed to assess the impact of being safely and legally admitted into a country on refugees’ mental health. The participants of this study were refugees who were attempting to enter Australia. Out of the 73 participants of this study, 27 were given asylum whilst the remaining 46 faced repatriation. These two groups had around the same levels of trauma before the decision. Following the decision, the approved refugees had significantly lower levels of PTSD symptoms; conversely, the individuals who were rejected maintained the same level of trauma and PTSD symptoms. As can be expected, the researchers concluded that gaining asylum in a safe country could be a huge benefit in alleviating PTSD symptoms for refugees, as well as to their overall mental health. (Silove,

Steel, Susljik, Frommer, Loneragan, Chey, Brooks, le Touze, Ceollo, Smith, Harris, & Bryant 2007.)

Due to the harrowing nature and severity of the amount of trauma that almost all refugees endure and in light of the increase in migration and asylum seekers currently occurring throughout the world, especially in Europe, understanding the degree to which trauma and PTSD symptoms have impacted their lives remains imperative. Since there is such a global increase in asylum seekers, more research needs to be conducted into the level of trauma and PTSD that they experience, as well as into the best type of treatment options for people who have been forced to flee their home country.

2.6 Diagnosing PTSD

Diagnosing PTSD can be relatively difficult, considering that quite often, victims of traumatic events who consequently develop PTSD are undiagnosed or misdiagnosed with other mental disorders. According to a study, only 2-11% of patients have been officially diagnosed with PTSD and, what is even more interesting, less than half of these people have received appropriate treatment. (Meltzer, Averbuch, Samet, Saitz, Jabbar, Lloyd-Travaglini, & Lieschutz 2012.)

In order to correctly identify individuals who have developed PTSD, victims of traumatic events should be encouraged to self-report about any past trauma. However, there are several factors that can influence why individuals do not feel like reporting about traumas. One reason is due to the social stigmatization that follows a mental health diagnosis. Additionally, some people perceive reporting a mental health disorder or trauma as equal to admitting weakness or an inability to handle their problems independently. Individuals might also be afraid of anxiety or intrusive thoughts that can be evoked as a result of therapy. Starting therapy also means that the client/patient will need to talk about their personal as well as social life and family relationship, and for some

patients, this may be difficult to do. Eventually, it is up to a professional, such as a nurse, to be competent and knowledgeable enough to identify the problem and guide the individual further, so that they receive appropriate care. (NATAL 2017.)

The diagnosis of PTSD is always performed by a certified doctor or mental health professional. Initially, a patient's past history of any possible traumatic events is assessed. Although it may seem that asking about a past trauma can cause great psychological discomfort, a study found the opposite to be true: inquiring about past trauma and stressful events was psychologically manageable for most respondents. Moreover, some respondents felt positively about responding to sensitive questions and they found that conversation with a sympathetic professional was beneficial. (Ford, Grasso, Elhai, & Courtois 2015.)

There are multiple tools like interviews and questionnaires that have been created specifically for the assessment of people's past traumatic experiences. These tools have shown reliability and validity; therefore, they have been widely used in clinical settings as well as in research assessments. A further look into these questionnaires and tools is necessary.

2.6.1 Screening Tests

The Life Events Checklist (LEC) is a questionnaire that is intended for self-reporting and was created to detect events throughout an individual's life that could have traumatized them. A respondent answers "yes" or "no" to 17 possibly traumatic events that either happened to them, were witnessed by them, or that they have learned about.

The LEC questionnaire has proven to be reliable and has a good criterion of validity. Nevertheless, this tool cannot provide a distinct, clear evaluation of exposure to trauma as items in the questionnaire lack specification and details that might be significant in a PTSD screening. For instance, it does not determine whether any of the listed events were life-

threatening, which, in fact, is one of the key criteria in diagnosing PTSD. Therefore, the LEC works as a tool for an initial screening, after which a more specific and detailed examination should take place.

The Stressful Life Events Screening Questionnaire (SLESQ) is another self-report tool that includes 12 questions about possible traumatizing events that may have happened throughout the entire span of someone's life. The 13th question aims to give respondents a chance to narrate about any other traumatizing events that took place in the individual's life. One of the distinguishing features of this tool is the presence of so-called "probes": detailed questions within the main question that aim to specify some of the aspects of the event. For example, at what age the event happened, did it involve any close friends or relatives, the type of injury received, and so on. Thus, compared to the LEC, the SLESQ is more detailed, as it conveys more specific questions and discloses more information, which helps in gaining a better picture of past traumatic events.

The Trauma History Questionnaire (THQ) is similar to the SLESQ but slightly longer: it includes 24 questions about possible traumatic events. Another difference is that the THQ's questions about possible trauma are not as detailed.

Another questionnaire similar to the THQ questionnaire is the Traumatic Life Events Questionnaire (TLEQ). It includes 23 questions followed by probes that aim to specify the nature of the event/s. This questionnaire has proved to be valid and reliable in terms of trauma assessment.

The Trauma History Questionnaire (THQ) and the Stress Life Events Screening Questionnaire (SLESQ) combined form another assessment tool known as the Traumatic Events Screening Instrument (TESI). Additionally, TESI includes more questions about stressful and possibly traumatic events, as well as more probe questions. There are several types of TESI questionnaires: for adults (TESI-A), for children and adolescents (TESI-C), and for parents who report on their child's possible

traumatic experiences (TESI-PRR). The TESI has shown to be even more detailed by specifically questioning an interviewee about different types of trauma, such as: sexual abuse, medical trauma, violence (domestic, community), childhood abuse, disaster trauma, traumatic loss of relatives or friends, and trauma due to a drunk driver. Also, questions are followed by probe questions that aim to specify the nature of the event. Moreover, in some of these questionnaires (such as the TESI-A), developmental stages, during which the trauma occurred, are also assessed.

Obviously, there are many more tools like tests and questionnaires to utilize, providing health care professionals with a vast variety to choose from. Each one of them might place emphasis on certain types of victims (veterans, children, abused women, etc.), as well as on different age groups (children, adolescents, adults, etc.). These tests and questionnaires are usually only useful for the initial stages of trauma assessment, which means that more procedures with health care professionals are required to accurately determine whether an individual has or will develop PTSD. (Ford et al 2015.)

2.7 Consequences of Untreated PTSD

Since PTSD can result from a relatively wide amount of causes and manifests itself in many different types of symptoms, some patients remain undiagnosed and untreated. PTSD tends to wax and wane; symptoms can completely go away and then reappear over time. With untreated PTSD, there is an increased risk of symptoms reoccurring. However, this typically depends on certain factors, such as the severity of the trauma, the amount of time that has occurred since the trauma, being female, being young in age, as well as being under-educated. (Usman, Rehman, Bakhtwar, & Bhatti 2015.)

If PTSD is left untreated for long periods of time, certain symptoms can be exacerbated, and many areas of a patient’s life are severely affected. A study conducted on former political detainees in Romania concluded that

PTSD will persist for years, sometimes even a lifetime, if left untreated. Many other mental health conditions and symptoms occurred in addition to the typical symptoms of PTSD, such as dissociation, somatization (feeling physical symptoms for psychological distress or disorders), and major depression. (Bichescu, Schauer, Saleptsi, Neculau, Elbert, & Neuner 2005).

Additionally, isolation from society is incredibly common in cases of untreated PTSD, which can lead to an inability to continue at work or school, self-harm behavior, and suicide. Eating disorders and anxiety can also occur. Thus, an increased risk for comorbidity occurs. (Vantage Point of Northwest Arkansas 2016.) Untreated PTSD has also been linked with unrest in families and in relationships, leading to marital problems and divorce (Vitzthum, Mache, Joachim, Quarcoo, & Groneberg 2009). It can also directly affect a person's physical health, resulting in an increased risk for cardiovascular diseases, autoimmune diseases, and chronic pain (Vantage Point of Northwest Arkansas 2016).

As with many undiagnosed mental health disorders, prolonged and untreated PTSD can result in substance abuse problems, due to individuals attempting to self-medicate or self-treat their symptoms. A study found that patients who have formerly had alcohol or drug abuse problems can find it incredibly difficult to abstain from substance abuse in the face of untreated PTSD symptoms, causing them to relapse. Unsurprisingly, the study found that once substance abuse was stopped, there was a marked improvement of 61.8% in their PTSD symptoms; however, this typically occurred after treatment had begun for their PTSD. (Back, Killeen, Teer, Hartwell, Federline, Beylotte, & Cox 2014.)

The amount of sexual problems for male individuals with untreated and treated PTSD seems to be around the same; a study found that both groups expressed a similar amount of sexual problems, such as lack of arousal and sexual desire, inability to achieve orgasm, and a lowered amount of overall sexual activity. Selective serotonin reuptake inhibitors

(SSRIs) were found to alleviate these symptoms. These findings would suggest that untreated PTSD results in persistent sexual problems. However, since comordibity is very common in PTSD, this study also suggested that perhaps sexual problems arise from these comorbid disorders rather than from PTSD itself. (Kotler, Cohen, Aizenberg, Matar, Loewenthal, Kaplan, Miodownik, & Zemishlany 2000.) More research is perhaps needed on this subject, as well as whether there is a connection between sexual problems and PTSD in women.

Since untreated PTSD causes such debilitating problems for patients, it is important to attempt to lower the prevalence of it, as well as to educate the public on the symptoms of PTSD, as well as the risks of leaving it untreated. Perhaps more effort should also be placed on identifying the reasons why it is left untreated, whether due to fear of stigma, lack of knowledge, lack of public resources towards PTSD treatment, or due to some other cause.

3 PTSD IN FINLAND

At first glance, there may appear to be a great lack of public (as well as professional) awareness about PTSD in Finland, which may be attributed to the typical Finnish mentality and culture. Finns, stereotypically, tend to be taciturn, introverted, and short of speech. This cultural phenomenon may have resulted from the relative isolation of Finland as a country, as well as the difficulty for foreigners to learn the language. (Lewis 2005.)

It may appear that this mentality has trickled into certain aspects of medical care, such as mental health and the awareness of the causes and symptoms of PTSD. However, this initial assessment of the awareness of PTSD in Finland is relatively erroneous; there appears to be quite an extensive understanding of PTSD and everything it entails, as well as certain support groups, such as for veterans.

3.1 Prevalence of PTSD in Finland

Statistically, in a first-world country, it is estimated that around 35-90% of people will experience some sort of trauma that results in PTSD (Norris & Slone 2013). Therefore, it can be expected that different causes for PTSD will occur relatively frequently in Finland's population. Annually, around 40,000 people are victims of non-domestic physical violence, around 7,000 people die or are injured in traffic accidents, and around 50,000 people receive over four days of paid sick leave from work due to a work-related injury. These statistics would indicate that around 100,000 people in Finland could potentially experience some form of trauma, which could lead to PTSD. (Käypähoito 2014.)

Other causes of PTSD, such as natural disasters, are uncommon in Finland; however, domestic violence remains relatively high: in 2015, 6,900 cases of physical domestic violence were reported (Statistics Finland 2015). Some other common causes of PTSD in Finland include the unexpected death of a loved one and witnessing the sight of someone who is dead or severely injured (Käypähoito 2014). Rape and sexual

abuse commonly lead to some degree of PTSD: in 2015, there were around 1,000 reported cases of rape in Finland (Statistics Finland 2016). However, rape and other sexual abuse is usually underreported, which may be due to the fact that only ⅕ of cases are taken to trial. Therefore it is difficult to determine the true prevalence of rape in Finland, and how often it leads to PTSD. (Väestöliitto 2016.)

War veterans have been quite common for generations, and in recent years Europe has seen an influx of refugees and asylum seekers. Therefore, a closer look is necessary into the groups of people who could be suffering from some form of PTSD in Finland, as well as the services available.

3.1.1 Finnish War Veterans

Around 600,000 men and 100,000 women of Finland's relatively small population took part in both the Winter War (1939-1940) and the Continuation War (1941). Statistically, every eighth soldier died, and every fourth veteran suffered some sort of debilitating war-injury. As of 2016, around 22,000 war veterans are still alive, and 3,170 of them are war-invalids. Their average age is currently above 91 years. (Veteraanivastuu 2016.)

A study interviewed Finnish war veterans in order to gauge their levels of PTSD and found that nearly all of the interviewees scored remarkably low for PTSD symptoms. The exact levels were around less than 10%. During the interviews, they also had an incredibly low amount of avoidance as a coping mechanism. The reasons for these low-levels of PTSD are associated with the large amount of meaning and impact that the Winter War was given during that time, as well as now generations later; the low amount of prisoners of war (POWs) and civilian deaths; the excellent rehabilitation and care that was given to the veterans after the war; and the forming of the Disabled War Veterans Association. (Hautamäki & Coleman 2001.)

Wartime camaraderie, which involves the Finnish term ‘sisu’ as well as the soldiers’ motto of ‘never leaving a friend behind’, perhaps also deeply impacted these veterans, and may account for these low PTSD levels decades later (Hautamäki & Coleman 2001). ’Sisu’ is a term that cannot be directly translated into English. The closest translation is guts or tenacious courage. It is an internal stubbornness that enables Finns to endure during hard times. (Lewis 2005.)

The Disabled War Veterans Association, as well as the Veterans Brotherhood, began in 1940. They provided support, rehabilitation, and care for disabled veterans. The Brotherhood enabled veterans to meet together and discuss the traumatic moments that they experienced during the war. (Sotainvalidien Veljesliitto 2016.) This organization enabled, and still enables, veterans and their spouses to apply for three weeks at a time at a rehabilitation center for free per year. This organization certainly greatly contributed to the low PTSD levels among the interviewees. (Hautamäki & Coleman 2001.)

Not all Finnish veterans are limited to the Winter War, but they do represent the largest veteran population in Finland. Certain Finnish soldiers have also enlisted in Afghanistan and more recent wars around the globe. The implications of these wars on the symptoms of PTSD should be explored, and it might be interesting to explore whether or not the same camaraderie and ‘sisu’ exists between Finns and non-Finn soldiers, or whether it is solely a part of Finnish wartime culture.

3.2 Services Available in Finland

Initial treatment of PTSD in Finland follows a similar formula as in other countries. If a traumatic event happens such as a school shooting, natural disaster, etc., initial treatment will involve providing calm and comfort, assessing for any immediate physical and/or psychological symptoms, and making victims aware of PTSD and its symptoms. (Käypähoito 2014.)

Finland utilizes a thorough public health care system, which usually involves patients contacting either their local (municipal-specific) health care centres or private health care centres of their choice (Vuorenkoski 2008). This applies for individuals who may need more long-term treatment for their PTSD. From there, health care professionals will direct them to psychotherapy and other psychological assistance. (Käypähoito 2014.)

In Finland, a lot of emphasis is placed on self-help. Many online resources are dedicated to helping individuals assess their symptoms and determine what sort of care (if any) they may need. Additionally, many detailed guides are provided for different mental health issues, ranging from alcohol misuse to panic disorder. For PTSD, an online course of sorts exists, called Selma. It is a free eight-week self-help program for adults, and is based on psycho-education. It aims to help patients find appropriate self-help coping strategies following certain traumas, such as the end of a long-term relationship, a traffic accident, the death of a loved one, or a serious illness. This self-help program is aimed at people who are experiencing short-term PTSD symptoms, and therefore is not an effective tool for individuals who have long-term PTSD symptoms. However, this online program is an excellent way for individuals to gain autonomy over their short-term PTSD symptoms, and to recover from their trauma. (HUS 2016.)

An influx of refugees and asylum seekers passed through Europe in 2014 and 2015, and Finland was not exempt. Currently, there are over 4000 asylum applicants being processed (Finnish Immigration Service 2016). It is estimated that around 57-78% of asylum seekers experience or have experienced PTSD (Käypähoito 2014). A specific service has been opened in Helsinki, which is aimed at asylum seekers who were tortured in their home countries. It is an outpatient service and aims to psychiatrically assess, treat, and rehabilitate these patients. This centre also provides medical reports for the Finnish immigration services. This service is non-religious as well as non-political. (Helsinki Deaconess Institute 2016.)

4 AIMS AND RESEARCH QUESTIONS

The main aim and objective of our research was to explore in-depth the evidence-based theory behind PTSD. Specifically, our goal was to find reliable information that adequately explained what PTSD is, what symptoms are involved, what specific groups of people are most vulnerable to develop PTSD, etc. Since one of our main audiences for this thesis was fellow nursing students, we wanted to gather enough in-depth research on this subject in order to help educate other nursing students and nurses on how extensive and broad the background research on PTSD is. Thus, we focused on nursing interventions for interacting and communicating with people who are experiencing PTSD and the different tools that nurses can apply while interacting with patient in order to help them deal with symptoms and guide them through the treatment process. Therefore, one of our main aims was to extensively research the psychological tools that are used in PTSD treatment. We also attempted to highlight any other nursing interventions that may occur, such as pharmacotherapies, etc. We also wanted to mention how people suffering from PTSD can be guided through the Finnish health care system.

Our research questions are:

1. What kind of nursing intervention exist for PTSD?
2. Is there enough research conducted on nursing interventions for PTSD?

5 METHODOLOGY

The methodology utilized within a thesis is an integral part in understanding the mechanism behind a work's findings. Thus, an in-depth explanation of the methodology used in this work is needed.

5.1 Narrative Literature Review

For our thesis, we chose to do a narrative literature review. A narrative literature review (also referred to as a traditional or descriptive review) is arguably the most versatile and commonly used type of literature review. The aim of this type of review is to exhaustively describe the background theory pertaining to the topic that has been selected, underlining any new research that has come to light on the topic, as well as highlighting inconsistencies and areas within the research that lack relevant knowledge, which in turn would inspire further research on these lack-luster areas. (Cronin, Frances, & Coughlan 2007.) Essentially, this type of review is "content driven and understanding by nature, aiming to describe phenomenon." (Kangasniemi, Utriainen, Ahonen, Pietilä, Jääskeläinen, & Liikanen 2012).

In practice, the research and studies that are used in this type of review are broad; the only stipulation is that they must be relevant to the research topic. The selection process for a narrative literature is vague and changeable in nature, and may not be readily apparent or described to the audience. (Cronin et al 2007.)

There are pros and cons to a narrative literature review. The criticism for this type of review tends to focus on underlining how abstract and non-structured it can be at times. However, the pros for this type of review are the fact that this method is so changeable mid-process, which in turn enables the researchers to focus on different areas that they find merit attention throughout the process. (Kangasniemi et al 2012.)

We believe that the malleable structure of a narrative literature review, with its broad depth and scope, allowed us more freedom with our research and an opportunity to review different areas of post-traumatic stress disorder during our research process.

5.2 Data Collection Process and Data Analysis

All of the research that we gathered pertained to our main topic of post-traumatic stress disorder, with a focus on finding research about nursing interventions. Our inclusion criteria for articles were:

- Studies either in English or Finnish
- The full text of the study must be available for free
- The study must pertain to our research questions

Our exclusion criteria were:

- Studies that were older than 15 years
- Studies that focused on research for children or people under the age of 18

We felt it necessary to limit the scope of our literature review, and the most straightforward way was to narrow it down by age; thus, we excluded articles or research that were about children or anyone under the age of 18.

We used academic sources, regardless of age, during our background research into post-traumatic stress disorder. The languages of our sources were both English and Finnish.

The databases that we utilized for the review itself were academic in nature: Masto Finna, CINAHL, and Medline. The search phrases that we used in different patterns were: PTSD and nursing interventions.

Each article that was found using the above search words was individually evaluated based on the title and the abstract of the article in order to best determine whether or not it was relevant and met the inclusion criteria. Below is a table that summarizes the articles that were found that pertained to our research topic.

Table 1: summary of the databases and search words used, the number of articles found, and the number of articles that were used in the literature review.

Database used	**Search words used**	**Number of articles found**	**Relevant articles that fit inclusion criteria**
Mastofinna	Nursing, interventions, “post-traumatic stress disorder”	80	2
Medline	Nursing, interventions, “post-traumatic stress disorder”	45	0
CINAHL (Ebsco)	Nursing, interventions, “post-traumatic stress disorder”	140	2
PUBMED	Nursing, care, “post-traumatic stress disorder”	60	0

Although three search engines and 325 articles in total were found using the above mentioned search terms, only four articles were relevant to our research question and matched our inclusion and exclusion criteria.

Thematic analysis was used to analyze the above-mentioned articles (table 2). The main purpose of this type of analysis is for “identifying, analysing and reporting patterns (themes) within data.” (Vaismoradi, Turunen, & Bondas 2013, pg 400). This type of analysis allows for more freedom when analyzing qualitative data; it allowed us to analyze our articles from a thematic, content-driven perspective.

The main themes that were found from the relevant articles were then categorized into the type of therapy or specific type of intervention that

nurses can utilize when dealing with patients who either have or are suspected of having PTSD. A few of the four articles had overlapping themes. Below is a table summarizing the main themes found and the subsequent categorization into type of therapy/tool.

Table 2: summary of the data analysis, showing main themes found and subsequent categorizations from those main themes

Main Themes	**Categorization**
Identifying patients who may have PTSD	CBT, exposure therapy
Encountering and supporting PTSD patients	
Supporting patients directly following trauma	Critical incidence stress debriefing

6 FINDINGS

The table below summarizes the nursing interventions for PTSD that were found from the four articles that were reviewed.

Table 3: summary of the four studies that focused on nursing interventions for PTSD

Article title	**Authors and year of publication**	**Summary of article**	**Results**
Clinical Presentation and Therapeutic Interventions for Posttraumatic Stress Disorder Post-Katrina	Rhoads, J., Pearman, T., & Rick, S. 2007	Reviews PTSD interventions that health care professionals used for hurricane Katrina victims.	CBT, exposure therapy, and psychoeducation were found to be the most useful therapies when treating PTSD for natural disaster victims.
Critical incident stress debriefing following traumatic life experiences	Irving, P., & Long, A. 2001	Investigates the application of critical incident stress debriefing after a traumatic event.	Critical incident stress debriefing was found to be useful following a trauma; however, few nurses are trained in it, and thus more training for nurses is required.
Treatment of Post-Traumatic Stress Disorder in Patients with Severe Mental Illness: A Review	Mabey, L., & van Servellen, G. 2014	Reviews PTSD treatments for patients suffering from comorbid mental illnesses.	More study is needed into the efficacy of CBT, psychoeducation, exposure therapy, and eye-movement desensitization on nursing interventions for PTSD patients with comorbid mental illnesses.
How do you Intervene in Posttraumatic Stress Disorder Symptoms Associated with Traumatic Injury?	Rumpler, C. 2008	Discusses techniques that nurses can use when PTSD symptoms are noticed during traumatic injury rehabilitation	Nurses and a rehabilitation team need to be able to assess when PTSD symptoms occur

As can be seen from the table above, there appear to be a variety of ways to treat PTSD, including a wide variety of different therapies, which appear to have conflicting views on their effectiveness. Thus, a closer look at these different interventions that nurses can perform is necessary.

6.1 Critical Incidence Stress Debriefing

Nurses can use a tool called Critical Incident Stress Debriefing (CISD) during the initial stages directly following a trauma, such as with rape victims who arrive at the emergency department. CISD is defined as: “an intervention aimed at helping individuals contextualize their experience of trauma at an early stage, thus preventing the development of [PTSD]” (Mitchell 1983, as cited by Irving & Long 2001, pg 308). It can be carried out one-on-one or in groups. The phases of CISD are:

1. Introduction phase: Nurses inform patients of confidentiality and attempt to establish a basis for a therapeutic relationship.

2. Fact phase: Patients are asked to describe the traumatic event, as well as what their role in it was.

3. Thought phase: Nurses support and encourage patients to explain the initial thoughts that occurred during the traumatic event.

4. Reaction phase: The aim of this phase is to allow patients to move from a cognitive to an emotional level, by giving patients the space to explain and feel any intense emotions that they have tied with the traumatic event.

5. Symptom phase: Nurses support patients to delve into any thoughts, feelings, and/or behavior that they might have faced during the traumatic event.

6. Teaching phase: Nurses provide patients with education about typical stress-related behavior, as well as how to cope with them.

7. Re-entry phase: Nurses encourage patients to carry on with counselling or other therapy; they may also give patients information about local therapies or other support groups.

In their study, Irving and Long aimed to explore the usefulness of CISD as a therapeutic tool after a traumatic event. They utilized CISD on three women 24 hours following their trauma. The women were interviewed six months later in order to assess the effectiveness of this therapeutic tool. They found that “[CISD] facilitated participants to present a detailed account of their traumatic experiences, connecting facts, thoughts and feelings . The recognition of such connections helped to alleviate the fear of being overwhelmed by powerful feelings.” (pg 312). They also stressed the fact that CISD should only be performed by a member of staff who is trained, and that it should not be utilized for small events. However, the limitations of their study include the fact that the amount of participants was very small. However, they did base their study and research of CISD on studies and trials that were previously carried out; thus, they note: “evidence from previous research [...] suggests that mental health nurses might benefit from being educated and trained in [CISD].” (pg 307).

However, another study did not find CISD to be an incredibly useful tool when it comes to PTSD. In this study, it was noted that: “While [CISD is] generally well received by participants, there is a dearth of clinical evidence of their effectiveness in reducing PTSD symptoms. Further work clearly remains to be done before this treatment can be considered as one of the standards of care.” (Rhoads, Pearman, & Rick 2007, pg 253.)

Another more recent study focusing on CISD found that while this therapeutic tool may be beneficial in allowing patients to form stronger emotional bonds with their group members following trauma, in the short-term reduce the use of alcohol and improve patients’ quality of life, it did not have any significant effect on preventing PTSD following a traumatic event. They did note that more research is needed into the effects of CISD on PTSD. (Tuckey & Scott 2013.)

6.2 Nursing Interventions for Past/Long-Term Trauma

For traumatic events that have occurred in a patient's past or following return from active combat, PTSD symptoms might not manifest themselves or be noticed until months or years. In order to accurately assess the existence of these symptoms, nurses should perform a thorough history and assessment of a patient's physical health. Nurses should utilize the DSM-V criteria to assess these symptoms. By asking pointed questions about their history and physical health, it can be easier to determine whether or not their symptoms are exaggerated or if a patient is underplaying their severity. (Rhoads et al. 2007.) However, it should be remembered that misdiagnosing PTSD remains very easy due to the fact that most patients are not forthcoming when discussing their symptoms, due in part to their not understanding what is causing their symptoms (i.e. not having any information on what PTSD is) and therefore they have a fear of being perceived or diagnosed as "crazy" (Rumpler 2008).

A study conducted by Rumpler in 2008 focused on the interventions that a nurse can perform when part of a rehabilitation team for patients with a traumatic injury (such as an amputated limb) due to combat in war. Although the interventions listed in this study are specifically aimed at veterans with trauma from active duty, they can still be utilized for patients with trauma resulting from other causes.

Rumpler frequently highlights the fact that due to the nurse's strong role in a one-one capacity with a patient, they are often the first to notice any symptoms of PTSD. Therefore, a nurse is in a unique position to offer support for these patients after they have assessed whether a patient is ready to discuss symptoms. During this stage, a nurse's main goal is to allow the patient to develop a sense of empowerment and to gain control over their symptoms. In order to achieve this, it is imperative that nurses understand how PTSD makes a patient feel, and then build a communicative and trust-based relationship with these patients in order to open up a pathway for healing.

Trust and communication with a patient can be established through various techniques, which include developing trust, listening, normalizing responses, and reframing. Rumpler 2008 describes ways in which these techniques can be achieved:

- Trust can be established by understanding that PTSD and their traumatic event typically inhibits a patient from trusting and results in their being wary of those around them. Patients commonly express the fact that a nurse or anyone else cannot possibly comprehend their current feelings or the trauma that they have been through, thus inhibiting them from connecting with anyone following their traumatic event. A nurse needs to be able to convey that, although they may not be able to directly relate to the feelings that the traumatic event has caused due to not sharing this experience, they can understand the patient better if the patient continues talking about their feelings. As Rumpler 2008 succinctly put it: "'I may not have had your experience but the more you tell me, the better I will understand.'" (pg 189). By using this technique, trust is established and communication between a nurse and patient will begin to flow.

- Nurses must constantly be receptive and listen to a patient's expressions of their feelings. These feelings can be negative in nature; patients expressing anger, depression, and shock is common. Nurses must allow these expressions of feeling, since their main role during this stage is to simply listen without judgment and without giving any false platitudes. A patient must feel as though they have a safe space with the nurse to express their feelings. Nurses must not attempt to solve a patient's problem before a patient has reached a stage of healing where they are ready for this to occur.

- In order to normalize a patient's responses towards the traumatic event, a nurse must attempt to support the patient's strengths in the

face of the trauma and then develop coping strategies based on these strengths. As Rumpler 2008 says: “Approaching a patient in terms of his or her strengths and abilities can be more therapeutic than focusing on problems listed on the treatment plan.” (pg 190).

- A nurse can allow the patient to reframe the trauma in their mind by supporting the patient in understanding that they had no control over this event occurring, e.g. being in the wrong place at the wrong time. Through the support of the nurse, a patient needs to understand that the trauma did not occur because they deserved it or because they are a horrible person (common thoughts that can plague PTSD patients).

Although a nurse is in a unique position to support a patient with their PTSD, they may still need to refer them to other mental health practitioners or other programs that specifically deal with PTSD. If patients express suicidal ideation, which may express itself as intense survivor’s guilt or homicidal thoughts such as wanting to physically harm the individuals responsible for the trauma, a nurse must refer them to further psychiatric assistance. (Rumpler 2008.)

6.3 Psychotherapies and Pharmacotherapy

There exists a wide amount of long-term interventions that can be used following the diagnosis or suspected diagnosis of PTSD. Typically, these therapies are performed by a mental health nurse or other healthcare practitioner; they are usually not performed immediately following a traumatic event.

A study conducted by Rhoads, Pearman, & Rick in 2007 on victims of the destruction of hurricane Katrina in New Orleans aimed to highlight good practice reccomendations for patients following a traumatic event. In their study, they also discussed a wide variety of psychotherapies that are used to treat PTSD. Cognitive behavioral therapy (CBT), like the name implies, is a type of psychotherapy that focuses on helping patients notice negative

thoughts, feelings, or behavioral patterns and subsequently teaches them how to replace them with more positive and healthy patterns. In addition to PTSD, it is also useful in treating anxiety, depression, and phobias. Rhoads et al. noted that even a small amount of CBT has been helpful for patients. They pointed out that even if a nurse or other practitioner only has a minimal amount of training in CBT, it can still be beneficial.

Cognitive restructuring is another psychotherapeutic tool which involves teaching patients that negative thoughts result from unhealthy thinking. These negative thoughts typically lead to behavior problems, such as a decline in previously healthy social relationships and some type of substance abuse. Once the patient understands the connection between unhealthy thinking and negative thoughts, they are better able to notice these detrimental behaviors and symptoms in their everyday life. Nurses and other healthcare practitioners will then teach them to replace their negative way of thinking with more positive thoughts.

A final psychotherapeutic tool that can be used is exposure therapy. In this type of therapy, a patient is purposefully exposed to a situation or scenario that resembles their past trauma in an effort to teach them that any anxiety or other negative symptoms that occur due to their trauma or potential triggers is manageable. In essence, it attempts to teach patients through continued exposure that, although certain places or events can trigger unpleasant emotions or symptoms due to a past traumatic event, they can learn to control their thought patterns and emotions during these instances of exposure.

Pharmacotherapeutic options for treatment include SSRIs, which have been found to be useful for PTSD symptoms. The two main drugs that are used are sentaline and paroxetine, with the brand names Zoloft and Paxil respectively. (Rhoads et al. 2007.)

Additionally, Rhoads et al. (2007) listed their best practice recommendations for PTSD. They include:

- Setting achievable therapeutic objectives for patients
- CBT and pharmacotherapy are incredibly effective ways to treat PTSD
- For mild PTSD, group therapy is the best treatment option
- When treating PTSD with therapy, the aim should be to treat the entire family and not solely the patient suffering from PTSD

6.4 Interventions for PTSD and Comorbidity

When providing treatment for patients who suffer from PTSD and another mental illness (such as bipolar disorder, depression, schizophrenia, etc.) traditional therapies can be utilized, such as CBT and exposure therapy. Additionally, nurses should educate these patients on different ways to reduce anxiety (breathing techniques, relaxation exercises, and exercises that can improve their social skills) and encourage patients to practice these different therapies at home. Educating them on the symptoms of PTSD is also helpful, as it will enable them to identify and understand some of the more harmful symptoms, such as flashbacks, and thus reduce anxiety.

When nurses are carrying out these different therapeutic tools, they should note that with individuals with mental illness comorbidity and PTSD, it can be more difficult to eradicate PTSD completely; however, significant improvements can be made for the patients' symptoms, such as: a reduction in anxiety, depression, anger; an improvement in overall mental health and the social relationship between the patient and the therapist/nurse. (Mabey & van Servellen 2014.) It should also be noted that diagnosing PTSD can be much more difficult when other psychiatric illnesses coexist; these other illnesses usually share some symptoms with PTSD (such as depression or anxiety) and therefore can mask the symptoms of PTSD (Rumpler 2008).

6.5 Discussion

The ability to diagnose and find appropriate treatment for PTSD seems to rely heavily on what kind of trauma occurred, how long symptoms take to manifest, and how knowledgeable nurses are in identifying PTSD symptoms. Although in the last few decades PTSD has become somewhat more well known and talked about, mainly in mainstream media such as in television shows or movies that deal with war, further educating the public and nurses about the existence and symptoms of PTSD remains important. As many of the articles above stressed, nurses are in a unique position to detect PTSD since they have such an intimate relationship with patients in a wide variety of settings.

Based on the findings stated above, the four best approaches that nurses can use for patients with PTSD or suspected PTSD are: CISD, CBT, and exposure therapy. Nurses must also be knowledgeable in how to establish trust and communication with these patients, as well as being able to recommend psychotherapies and pharmacotherapies for these patients.

Nurses play such an integral role in noticing the symptoms of PTSD and are able to use some techniques and tools to support these patients. However, since nurses are at the frontlines of meeting and caring for these patients, there is a distinct lack of depth to the information available for nurses to utilize when caring for these patients. Therefore, it is imperative that more research and material is made available for nurses about PTSD.

7 CONCLUSION

The main aim of this thesis was to gain more insight into the types of interventions that nurses can perform and utilize when confronted with patients who either have or are suspected of having PTSD. Another aim was to shed more light on PTSD in general for our thesis audience in order to enable them to understand what PTSD is and how to identify these potential patients. Additionally, sussing out the reliable information that is available and specifically targeted towards nurses and nursing students was another goal of this research.

A section of the background theory was dedicated to examining how PTSD is dealth with and discussed in Finland. Although there have been many war veterans due to Finland's history, only a very small percentage of them ever developed PTSD.

As a topic, PTSD itself is quite broad. Most of the research conducted on it deals with one specific victim group, such as veterans following war, victims of sexual abuse, etc. A large portion of the research is aimed at doctors or psychiatrists, and thus finding relevant and recent information pertaining to PTSD overall that is aimed directly at nurses was challenging. Thus, an obstacle in finding articles that related to PTSD interventions was the fact that they had to also relate to nursing; this greatly reduced the amount of usable articles that could be reviewed. This in turn highlights the relatively small amount of research and studies that are directly aimed at nurses and the interventions that they can perform for PTSD.

Nurses play such an integral role in noticing the symptoms of PTSD and are able to use some techniques and tools to support these patients. However, since nurses are at the frontlines of meeting and caring for these patients, there is a distinct lack of depth to the information available for nurses to utilize when caring for these patients. Therefore, it is imperative that more research and material is made available for nurses about PTSD.

7.1 Reliability and Ethical Consideration

Adhering to strict ethics when conducting any sort of academic research is crucial to maintaining the integrity of the text that is being written. In essence, it is a moral code that consists of the “method, procedure, or perspective [...] for analyzing complex problems and issues.” (Resnik 2015). The ethical considerations of a literature review when compared to a qualitative study that involves research participants are much more subtle: in a narrative literature review, there are no participants whose privacy needs protecting nor whose autonomy needs to be respected, simply due to the fact that no participants are recruited for a literature review. The sole ethical consideration involved must focus on the handling of the literature that is being reviewed.

The main ethical issues that must be considered in a narrative literature review include: disclosing findings honestly, refraining from plagiarizing, using appropriate references when referring to previously written research/text, and avoiding obscuring or misleading the chosen audience (Logan University 2016), avoiding bias when analyzing data and findings, and avoiding negligence in the written text by correcting mistakes and remaining consistent when writing the review (Resnik 2015).

Our thesis upholds and heeds to the above-mentioned ethical considerations. The findings of our literature review were written and reported honestly. The literature that was reviewed was gathered from reliable sources and databases. Appropriate references were used and credit was given where credit was due for all information used in this thesis. Plagiarism was avoided and checked through the use of Urkund.

REFERENCES

Anxiety and Depression Association of America (ADAA). 2016. Symptoms of PTSD. [Referenced 3 October 2016.] Available: https://www.adaa.org/understanding-anxiety/posttraumatic-stress-disorder-ptsd/symptoms

Back, S., Killeen, T., Teer, A., Hartwell, E., Federline, A., Beylotte, F., & Cox, E. 2014. Substance Use Disorders and PTSD: An Exploratory Study of Treatment Preferences among Military Veterans. Addict Behav. Vol 39 Issue 2.

Bichescu, D., Schauer, M., Saleptsi, E., Neculau, A., Elbert, T., & Neuner, F. 2005. Long-term consequences of traumatic experiences: an assessment of former political detainees in Romania. Clinical Practice and Epidemiology Mental Health. Vol 1 No 17.

Breslau, N. 2002. Epidemiologic Studies of Trauma, Posttraumatic Stress Disorder, and Other Psychiatric Disorders. The Canadian Journal of Psychiatry. Vol 47 No 10. Pg. 923-929.

Chalabi, M. 2013. What Happened to History's Refugees? The Guardian. [Referenced 31 March 2017.] Available: https://www.theguardian.com/news/datablog/interactive/2013/jul/25/what-happened-history-refugees

Cronin, P., Ryan, F., & Coughlan, M. 2007. Undertaking a literature review: a step-by-step approach. British Journal of Nursing. 2008 Vol 17, No 1 pg 38-43.

Diagnostics and Statistical Manual of Mental Disorders Fifth Edition (DSM-V). 2013. American Pyschiatric Association. American Psychiatric Publishing.

Dirkzwager, A., Bramsen, I., Ader, H., & van der Ploeg, H. 2005. Secondary Traumatization in Partners and Parents of Dutch Peacekeeping Soldiers. Journal of Family Psychology. Vol 19 Issue 2. Pg 217-226.

Edwards, A. 2016. Global Forced Displacement Hits Record High. UNHCR. [Referenced 31 March 2017.] Available: http://www.unhcr.org/news/latest/2016/6/5763b65a4/global-forced-displacement-hits-record-high.html

Engelhard, I., Van den Hout, M., Weerts, J., Arntz, A., Hox, J., & McNally, R. 2007. Deployment-related stress and trauma in Dutch soldiers returning from Iraq. The British Journal of Psychiatry. Vol 191 Issue 2. Pg 140-145.

Finnish Immigration Service. 2016. Asylum Applicants 1.1.-31.8.2016. [Referenced 7 September 2016.] Available: http://www.migri.fi/download/65778_asylum_applicants_january_august_2016.pdf?8058796d59d6d388

Fjeldheim, C., Nöthling, J., Pretorius, K., Basson, M., Ganasen, K., Heneke, R., Cloete, K., & Seedat, S. 2014. Trauma Exposure, Posttraumatic Stress Disorder and the Effect of Explanatory Variables in Paramedic Trainees. BMC Emergency Medicine. Vol 14 Issue 11.

Ford, J., Grasso, D., Elhai, J., & Courtois, C. 2015. Assessment of Psychological Trauma and PTSD. Posttraumatic Stress Disorder. Vol 2. Pg 233-298.

Flory, J., & Yehuda, R. 2015. Comorbidity between Post-Traumatic Stress Disorder and Major Depressive Disorder: Alternative Explanations and Treatment Considerations. Dialogues in Clinical Neuroscience. Vol 17 No 2. Pg 141–150.

Hautamäki, A., & Coleman, P. 2001. Explanation for low prevelance of PTSD among older Finnish war veterans: social solidarity and continued significance given to wartime sufferings. Aging and Mental Health. 5(2): 165-174.

Helsinki Deaconess Institute. 2016. Rehabilitation of torture survivors. [Referenced 8 September 2016.] Available: https://www.hdl.fi/en/services/torture-and-trauma

Hirsch, C., & Holmes, E. 2007. Mental Imagery in Anxiety Disorders. Psychiatry. Vol 6 No . Pg 161-165.

HUS. 2016. SELMA oma-apuohjelma traumaattisen kriisin kokeneille. Mielenterveystalo. [Referenced 7 September 2016.] Available: https://www.mielenterveystalo.fi/aikuiset/itsehoito-ja-oppaat/itsehoito/selma/Pages/default.aspx

Irving, P., & Long, A. 2001. Critical Incident Stress Debriefing Following Traumatic Life Experiences. Journal of Psychiatric and Mental Health Nursing. Vol 8. Pg 307-314.

Joseph, S. 2011. Is Shell-Shock the same as PTSD? Psychology Today. [Referenced 7 September 2016.] Available: https://www.psychologytoday.com/blog/what-doesnt-kill-us/201111/is-shell-shock-the-same-ptsd

Kangasniemi, M., Utriainen, K., Ahonen, S., Pietilä, A., Jääskeläinen, P., & Liikanen, E. 2012. Kuvaileva kirjallisuuskatsaus: eteneminen tutkimuskysymyksestä jäsennettyyn tietoon. Hoitotiede 2013 25 (4) 291-301.

Karni, G., Tsachi, E., Zahava, S. 2010. Comorbidity of Posttraumatic Stress Disorder, Anxiety and Depression: A 20-Year Longitudinal Study of War Veterans. Journal of Affective Disorders. Vol 123. Pg 249-257.

Kotler, M., Cohen, H., Aizenberg, D., Matar, M., Loewenthal, U., Kaplan, Z., Miodownik, H., & Zemishlany, Z. 2000. Sexual dysfunction in male posttraumatic stress disorder patients. Psychotherapy and Psychosomatics. Vol 69 No 6. Pg 309-315.

Käypähoito. 2014. Traumaperäinen stressihäiriö. Suomalainen Lääkäriseura Duodecim. [Referenced 31 July 2016.] Available: http://www.kaypahoito.fi/web/kh/suositukset/suositus?id=hoi50080

Lapierre, C., Schwegler, A., & LaBauve, B. 2007. Posttraumatic Stress and Depression Symptoms in Soldiers Returning from Combat Operations in Iraq and Afghanistan. Journal of Traumatic Stress. Vol 20 Issue 6. Pg 933-943.

Levin, A., Kleinman, S., & Adler, J. 2014. DSM-5 and Posttraumatic Stress Disorder. The Journal of the American Academy of Psychiatry and the Law. Vol 42 No 2. Pg. 146-158

Lewis, R. 2005. Finland, Cultural Lone Wolf. Intercultural Press. Yarmouth, Maine.

Logan University. 2016. Literature Review: Ethical Issues. [Referenced 31 March 2017.] Available: http://libguides.logan.edu/c.php?g=181964&p=1198011

Maybe, L., & van Servellen, G. 2014. Treatment of Post-Traumatic Stress Disorder in Patients with Severe Mental Illness: A Review. International Journal of Mental Health Nursing. Vol 23. Pg 42-50.

Meltzer, E., Averbuch, T., Samet, J., Saitz, R., Jabbar, K., Lloyd-Travaglini, C., & Liebschutz, J. 2012. Discrepancy in diagnosis and treatment of post-traumatic stress disorder (PTSD): Treatment for the wrong reason. The Journal of Behavioral Health Services & Research. Vol 39 No 2 pg. 190–201.

Najavits, L., Ryngala, D., Back, S., Bolston, E., Museser, K., & Brady, K. 2008. Treatment of PTSD and Comorbid Disorders: A Review of the Literature. Effective Treatments for PTSD: Practice Guidelines from the International Society for Traumatic Stress Studies. Guilford Press. New York. Edition 2. Pg. 508-535.

NATAL. 2017. Post-Traumatic Stress Disorder: What is Post Trauma. [Referenced 31 March 2017] Available: http://www.natal.org.il/English/?CategoryID=227

The National Institute of Mental Health. 2016. Anxiety Disorders. [Referenced 23 June 2016.] Available: https://www.nimh.nih.gov/health/topics/anxiety-disorders/index.shtml

The National Institute of Mental Health. 2016. Post-Traumatic Stress Disorder. [Referenced 23 June 2016.] Available: http://www.nimh.nih.gov/health/topics/post-traumatic-stress-disorder-ptsd/index.shtml#part_145373

National Health Service. 2015. Post-Traumatic Stress Disorder. [Referenced 23 June 2016.] Available: http://www.nhs.uk/Conditions/Post-traumatic-stress-disorder/Pages/Introduction.aspx

Neuner, F., Schauer, M., Karunakara, U., Klaschik, C., Robert, C., & Elbert T. 2004. Psychological Trauma and Evidence for Enhanced Vulnerability for Posttraumatic Stress Disorder through Previous Trauma among West Nile Refugees. BMC Psychiatry. Issue 4 Vol 34.

Norris, F., & Slone, L. 2013. Understanding the Research on the Epidemiology of Trauma and PTSD. PTSD Research Quarterly. Vol 24 No 2-3.

Panagioti, M., & Gooding, P. 2009. Post-Traumatic Stress Disorder and Suicidal Behavior: A Narrative Review. Clinical Psychology. Vol 29. Pg 471-482.

Psychology Today. 2015. Post-Traumatic Stress Disorder. [Referenced 23 June 2016.] Available: https://www.psychologytoday.com/conditions/post-traumatic-stress-disorder

PTSD United. 2013. PTSD Statistics. [Referenced 31 March 2017.] Available: http://www.ptsdunited.org/ptsd-statistics-2/

RCNi. 2015. Regular exposure to death, trauma causes death anxiety in emergency nurses. ScienceDaily. [Referenced 3 October 2016.] Available: https://www.sciencedaily.com/releases/2015/07/150710123648.htm

Resnik, D. 2015. What is Ethics in Research and why is it Important? National Institute of Environmental Health Sciences. [Referenced 31 March 2017.] Available: https://www.niehs.nih.gov/research/resources/bioethics/whatis/

Rhoads, J., Pearman, T., & Rick, S. 2007. Clinical Presentation and Therapeutic Interventions for Posttraumatic Stress Disorder Post-Katrina. Archives of Psychiatric Nursing. Vol 21 No 5. Pg 249-256.

Rumpler, C. 2008. How do you Intervene in Posttraumatic Stress Disorder Symptoms Associated with Traumatic Injury? Rehabilitation Nursing. Vol 33 No 5. Pg 187-191.

Silove, D., Steel, Z., Susljik, I., Frommer, N., Loneragan, C., Chey, T., Brooks, R., le Touze, D., Ceollo, M., Smith, M., Harris, E., & Bryant, R. 2007. The Impact of the Refugee Decision on the Trajectory of PTSD, Anxiety, and Depressive Symptoms among Asylum Seekers: a Longitudinal Study. American Journal of Disaster Medicine. Vol 2 No 6.

Sotainvalidien Veljesliitto. 2016. Veljesliiton historiaa. [Referenced 31 July 2016.] Available: http://www.sotainvalidit.fi/veljesliitto/tietoa-ja-historia/

Statistics Finland. 2015. Statistics on offences and coercive measures. [Referenced 31 July 2016.] Available: http://tilastokeskus.fi/til/rpk/index_en.html

Statistics Finland. 2016. Criminality. [Referenced 11 September 2016.] Available: http://tilastokeskus.fi/tup/suoluk/suoluk_oikeusolot_en.html

Tuckey, M., & Scott, J. 2013. Group Critical Incident Stress Debriefing with Emergency Services Personnel: A Randomized Controlled Trial.Anxiety, Stress, and Coping: An International Journal. Vol 27 No 1. Pg 38-54.

UNHCR. 1951. Convention and Protocol Relating to the Status of Refugees. UNHCR. Geneva, Switzerland.

UNHCR. 2016. Global Trends 2015. The UN Refugee Agency.

U.S. Department of Veterans Affairs. 2016. PTSD and Physical Health. [Referenced 23 July 2016] Available: http://www.ptsd.va.gov/professional/co-occurring/ptsd-physical-health.asp

Usman, M., Rehman, A., Bakhtwar, N., & Bhatti, A. 2015. Prognosis of PTSD in Treated vs. Non-Treated Groups. Journal of Pakistan Psychiatric Society. Vol 12 No 1.

Vaismoradi, M., Turunen, H., & Bondas, T. 2013. Content Analysis and Thematic Analysis: Implications for Conducting a Qualitative Descriptive Study. Nursing and Health Sciences. Issue 15. Pg 398-405.

Vantage Point of Northwest Arkansas. 2016. PTSD Signs and Symptoms. [Referenced 9 September 2016.] Available: http://www.vantagepointnwa.com/disorders/ptsd/causes-effects

Veteraanivastuu ry. 2016. Usein kysytyt kysymykset. [Referenced 31 July 2016.] Available: http://veteraanit.fi/ukk/

Vitzthum, K., Mache, S., Joachim, R., Quarcoo, D., & Groneberg, D. 2009. Psychotrauma and effective treatment of post-traumatic stress disorder in soldiers and peacekeepers. Journal of Occupational Medicine and Toxicology. Vol 4 No 21.

Vuorenkoski, L. 2008. Finland: Health System Review. Health Systems in Transition. European Observatory on Health Systems and Policies. Vol 10 No 4.

Väestöliitto. 2016. Seksuaalinen väkivalta. [Referenced 11 September 2016.] Available: http://www.vaestoliitto.fi/parisuhde/tietoa_parisuhteesta/parisuhdevakivalta/seksuaalinen-vakivalta/

Wimalawansa, S. 2014. Mechanisms of Developing Post-Traumatic Stress Disorder: New Targets for Drug Development and Other Potential Interventions. Bentham Science Publishers. Vol 13 No 5. Pg 807-816.

Ward, C., Lombard, C., & Gwebushe, N. 2006. Critical Incident Exposure in South African Emergency Service Personnel: Prevalence and Associated Mental Health Issues. Emergency Medicine Journal. Vol 23 Issue 3.

APPENDIX