



SEINÄJOEN AMMATTIKORKEAKOULU
SEINÄJOKI UNIVERSITY OF APPLIED SCIENCES

Evans Gyasi and Gabriela Chidochashe Gokova

The Impact of Pressure Ulcers on the Quality of Life of Patients

Thesis

Spring 2021

School of Health Care and Social Work

Degree Programme in Nursing



SEINÄJOKI UNIVERSITY OF APPLIED SCIENCES

Thesis abstract

Faculty: School of Health Care and Social Work

Degree Programme: Degree Programme in Nursing

Specialisation: Bachelor of Health Care / Registered Nurse

Author: Evans Gyasi and Gabriela Chidochashe Gokova

Title of thesis: The Impact of Pressure Ulcers on the Quality of Life of Patients

Supervisor: Sinikka Vainionpää, MNSc, Senior Lecturer & Marjut Asunmaa, MNSc, Head of Degree Programme

Year: 2021

Number of pages: 43

Number of appendices: 1

A pressure ulcer (PU) is an injury to the skin and the layers of tissues beneath it. When pressure is exerted on the same area of skin for an extended period of time, the blood flow to that area is cut off and may lead to pressure ulcer. Pressure ulcers can affect anyone, but is quite common in persons who are elderly, chronically ill, neurologically affected, people with movement issues or dietary impairment. The presence of pressure ulcers comes along with a great challenge on the quality of life of the individual as it may affect their physiological, psychological, mental, spiritual life, financial and social life, and all this influences the quality of life significantly.

The goal of this thesis work was to detect the impact of pressure ulcers on the quality of life of patients. This study aimed at delving into research materials and bringing out the ordeal of pressure ulcer affected individuals to enable nurses and care givers to better understand the plight of PU affected patients and provide the needed support. It sought to study previous research archives in order to recognize the effect of PU on patients' quality of life.

Using literature review and inductive analysis of the searched content, the process of collecting data and analysis was accomplished. Data collection was conducted to obtain reliable and up-to-date details from scientific publications for this thesis process. All the data obtained and used in this study was examined utilizing primary databases such as EBSCO (CINAHL), SeAMK FINNA and Google Scholar.

The categories of life where PU was seen to have impacted included physical, psychological, social, and economic aspects of life. As these were not the only areas of life where PU affected patients, nevertheless it was found to be the mainly affected areas of life. More research and studies into how nurses and health care providers provide health care to patients with pressure ulcers and the recovery rate of patients would be necessary.

Key words: pressure ulcers, patients, quality of life, impact

TABLE OF CONTENTS

Thesis abstract	1
Error! Bookmark not defined.	
TABLE OF CONTENTS.....	2
Pictures, Figures and Tables	4
Terms and Abbreviations	5
1 INTRODUCTION.....	6
2 THEORETICAL BACKGROUND.....	8
2.1 The Concept of Quality of Life of the Patient.....	8
2.2 The Concept of Pressure Ulcer	9
2.3 Causes of Pressure Ulcer	11
2.4 Classification of Pressure Ulcer.....	11
2.5 Risk Factors of Pressure Ulcers	14
2.6 Assessment and Evaluation of Pressure Ulcers.....	14
2.7 Treatment of Pressure Ulcers.....	16
2.8 Sore Management and Surgical Operation of Pressure Ulcers	17
2.9 Providing Care for Pressure Ulcers Patients	17
2.10 Controlling and Prevention Strategies for Pressure Ulcers	19
3 GOALS AND PURPOSE OF THE THESIS	20
4 DATA COLLECTION METHOD AND ANALYSIS.....	21
4.1 Research Approach.....	21
4.2 Review of Literature	21
4.3 Data Collection.....	22
4.4 Inclusion and Exclusion Criteria	23
4.5 Data Analysis	24
5 FINDINGS	26
5.1 Physical Well-being.....	26
5.1.1 Anguish.....	26
5.1.2 Secretion.....	27

5.1.3	Mobility.....	27
5.1.4	Sleep.....	28
5.2	Psychological Well-being	28
5.2.1	Emotion.....	28
5.2.2	Apprehension.....	29
5.2.3	Self-reflection	29
5.2.4	Acceptance	30
5.2.5	Motivation.....	30
5.3	Social Well-Being	30
5.3.1	Social Separation.....	30
5.3.2	Involvement Limitation	31
5.4	Economic Well-Being	31
5.4.1	Financial Distress.....	31
6	DISCUSSION	32
6.1	In General	32
6.2	In Finland	33
7	Conclusion and Further Recommendation	35
8	Ethicality and Reliability.....	36
9	BIBLIOGRAPHY.....	37
	LITERATURE REVIEW RESOURCES.....	41

Pictures, Figures and Tables

Figure 1 Flow Chat of Methodology	23
Figure 2 Inclusion and Exclusion Criteriaa	24
Figure 3 Impact of Pressure Ulcer on the Patient's Quality of Life	26
Table 1. Classification of Pressure Ulcer	12

Terms and Abbreviations

EPUAP	European Pressure Ulcer Advisory Panel
NHS	National Health Service
NPUAP	National Pressure Ulcer Advisory Panel
PU	Pressure Ulcer
QoL	Quality of Life
UNICEF	United Nation International Children Emergency's Fund
WHO	World Health Organization

1 INTRODUCTION

Pressure ulcers (PU) are typical long-lasting wounds and are areas where tissues are squeezed between parts of the body and hard surfaces of necrosis and ulceration. They exist when, in combination with shear, the skin and subcutaneous tissues are damaged due to pressure alone (NPUAP, EPUAP, 2009).

Pressure ulcers in Finland occur in approximately 5 - 25% or nearly 55 000 - 85 000 patients, irrespective of the persons or the identification of the cause of the ailment. In Finland, PUs produce up to EUR 530 million in annual costs (Soppi 2014; Aisla 2015; Varga, 2015). Given their impact on the physiological, psychological, mental, spiritual life, financial and social aspects of life, their effects on the quality of life are significant.

The pain and discomfort associated with these wounds is a common concern for patients suffering from PU and the health care system. Furthermore, there may be a neurologic aspect to certain PU pain. Neurogenic pain is due to nervous system damage or dysfunction and is generally characterized as intense, shooting, or burning (Claudia, Nixon, Madill, Firth, & Brown, 2012).

The assessment of quality of life focuses on the influence of a specific disease on health-related outcomes of quality of life, such as physiological, behavioral, daily skills, although it is understood that the disease itself is not the only thing that affects quality of life. Instead, the atmosphere, the availability of care, and the characteristics of particular patients contribute to the cumulative impact of a specific disease on the quality of life. For instance, the stress of care may correspond to the pain endured, whereas the encouragement of a person may contribute to adherence to treatment (Hughes, 2014).

Medicare practitioners and academics have drawn increasing interest in quality of life issues. However, there is little consensus as to what the word specifically describes (Gijbels et al, 2010). Furthermore, quality of life indicators could include the ability to choose careers and behaviors openly, the right to get complete and free opportunities, and freedom from domination of politics and health. In turn, both of the above concepts of

quality of life cannot reject the individual's well-being. Therefore, our research focuses on the effect of pressure ulcers on the quality of life of patients.

2 THEORETICAL BACKGROUND

2.1 The Concept of Quality of Life of the Patient

The use of health-related quality of life (HRQoL) was followed by the use of the words Quality of Life (QoL) and health status (Karimi & Brazier, 2016). They suggested that in the 1960s, QoL had been presented in the scientific journals. As therapeutic care was often capable to prolong span of life at the cost of quality of life or increase the quality of life without prolonging the duration of life, QoL became more important in the medical field. Quality of life assessment has also become significant because of a need to quantify results beyond adverse outcomes and biological processing (Karimi & Brazier, 2016).

Attention in the area of Quality of Life (QOL) gained prominence in the early 80s of the last generation (Wimo et al, 2013). Although QOL has already been discussed in a broad body of literature, the meaning of this word is quite ambiguous and medical workers always argue about it in their medical field (Fayers & Machin, 2013). Although, the concept of QOL is debated among scientists, this word has an intrinsic meaning for most individuals. QoL includes broad characterizations of global life gratification, including well-being, adequate lodging, job, being protected, inter personal friendship, academia and so on (Megari, 2013). Majority of research work consider quality of life to be the overall welfare of people and communities, stating bad and good life characteristics (Shofany, 2017).

Many findings say that QoL is a single-dimensional global individual assessment, which could be the result of a number of other different components (Shofany, 2017). QoL is therefore a one-dimensional notion with various causes (Edelstein et al, 2016). In addition, Shofany (2017) claimed that it covers the entire spectrum of human interactions, states, attitudes and realms of thought relating to an individual person or a community at large existence. A number of dimensions, such as ethnic, physical, physiological, relational, spirit life, monetary aspect, political, temporal and philosophical

aspects, are included in the objective and subjective QoL. QoL represents values that draw on the experience of cultures, groups and individuals (Makai et al, 2014)

It is significant to be aware that, beyond the above, scholars differentiate between the personal and the neutral meaning of Quality of Life (Rogeri, 2012). In the view of this, while one subjective measure of a single well-being, fulfillment, satisfaction and happiness is taken into account in the subjective concept of QoL, the objective definition is based on objective health measures, such as socio-demographics, living conditions, employment, marriage conditions and so on (Shofany, 2017). Nevertheless, by many assessments, most academics agree that the construct requires both subjective and objective knowledge.

2.2 The Concept of Pressure Ulcer

A pointer to the standard of treatment is the representation of pressure ulcers. Considerable efforts have been made in recent times to drastically curb PU and associated impairment (Fletcher, 2018). Nonetheless, this initiative has been counterbalanced by inequalities within identification, assessing and accounting of PU. Current standards for the definition and concept of pressure ulcers have been proposed by the NHS in England (NHS Improvement, 2018).

Pressure ulcer should be identified, according to the Fletcher (2018) guidelines, as concentrated damage to the skin and/or tissues beneath, typically over a bony prominence, as a result of consistent pressure. The impairment can occur in the form of integral skin or an exposed sore which can be awful. Pressure ulcers (PU) are significant general health issues around the world (Pancorbo-Hidalgo et, al. 2014). The prevalence of pressure ulcers varies by age, climate and other characteristics, such as complications and diseases (McGinnis et, al. 2014).

Taking into account the concept of PUs, obviously force and shear are the main contributing features in the growth of PU (Haesler, 2014). Precisely how these two contributing features lead to tissue damage, however, is not as well comprehended (Moore & Etten, 2015). Moore and Etten (2015) further highlighted that, within three

functional units, there are four pathways that contribute to the production of pressure ulcers that have been theorized by scholars. The vessels, its relating openings and the cells are the fundamental part. Local ischemia, reperfusion damage, impaired interstitial fluid movement and lymphatic drainage, and sustained cell deformity are these mechanisms. More recently, emphasis has been put on how destruction of the cell can lead to the contributing factor in the growth of PU, because this process can cause deterioration faster than what is visible in the state of ischaemia alone (Loerakker et, al. 2010). Cell deformation may also be extreme; there are variations seen at the cell membrane and nucleus membrane when the muscle cells are spread across the bony tuberosities, leading to irreversible loss of the muscle cell, resulting in deep tissue injury (Moore & Cowman, 2012). It is therefore essential for primary care nurses to be conscious of some of the key points of view and terminology used with respect to PU that occur with persons' that are very old. There seem to be two major perspectives on end-of-life skin care that must be taken note of as they can change the way nurses and caregivers look after community patients. (Samuriwo, 2019). One opinion, according to Samuriwo (2019), is that the development of pressure ulcers at old age is an unavoidable outcome of skin collapse as a result of organ failure and as a sign of the imminent dying of the person infected with the disease (White, 2017). The alternative interpretation is that, while skin changes are component of the last stage, it becomes necessary to provide treatment to ensure the quality of the infected person's skin as the person is still alive (Ayello, 2016; White, 2017).

The numerous words for characterizing PU that form at last stage often illustrate these two opinions. Kennedy terminal ulcers (KTU), decubitus ominosus, Trombley-Brennan terminal tissue injury (TB-TTI), skin loss and Skin Changes at Life's End (SCALE) are called pressure ulcers that grow towards the end of life (Beldon, 2011; Ayello, 2016, Hotaling and Black, 2018). KTU, TB-TTI and skin failure terms prefer to be used by individuals who view end-of-life pressure ulcers as inevitable. Most individuals who respond to PU from this perspective claim such sores are an indication death of the infected person being inevitable (Samuriwo, 2019). Supervision from the NHS in England (NHS Improvement, 2018) has discontinued using those scaring terms, and at the time the skin breakdown is seen in an infected person at the stage of death, clinicians are now obliged to apply the term PU. This decision was focused on ensuring

that PU that arise at latter years in infected persons are managed, handled and identified as PU in other infected persons (NHS Improvement, 2018). In addition, explanation of these terms applied in England focuses that health professionals should concentrate on their best to ascertain and provide possible skin care is consistently provided to patients at the end of life. This should be independent of the view taken at the end of life about pressure ulcers, or the terms used *op. cit.*

2.3 Causes of Pressure Ulcer

Below are the key contributory factors for PU, according to the Mayo Clinic (2020);

1. Pressure. The flow of blood to tissues can be decreased by continuous pressure on every part of your body. For the distribution of oxygen and other nutrients to tissues, blood flow is important. The skin and nearby tissues are weakened without these vital nutrients and will eventually die.
2. This form of pressure appears to occur in places that are not well covered with fat or weight and that sit over a bone, like that of the back, tailbone, shoulder blades, hips, heels and elbows, for people with reduced mobility.
3. Friction. When the skin rubs against garments or mattresses, friction occurs. It can make delicate skin more susceptible to injury, especially if the skin is moist as well.
4. Shear. Shear happens as the opposite direction is shifted by two surfaces. For instance, you can roll down into bed when a bed is raised at the head. The skin over the bone might remain in place as the tailbone moves down, effectively pulling in the opposite direction.

2.4 Classification of Pressure Ulcer

Pressure ulcers are categorized, making their clinical presence observable. In 1975, Shea suggested the first well-documented pressure classification scheme (Kottner, Balzer, & Heinze, 2009). Five levels were distinguished by Shea (2009): the "Closed Pressure Sore" category, suggesting intense tissue damage beneath integral part of the infected area, and categories 1 to 4, where rising values suggest greater significant tissue injury. In their paper, Kottner et al (2009) claimed that the classification of Shea

(2008) was updated with respect to their grades and types. Increasing numbers of grades or stages are seen by most classifications to suggest more severe damage to deeper layers of tissue.

Even so, the meanings and the number of types that make up the two most common types can be distinguished easily without any hindrances. Below is a table looking at the difference between the EPUAP, NPUAP and Shea classifications.

Table 1. Classification of Pressure Ulcer

Shea (2009)	EPUAP (2009)	NPUAP (2007)
<p>Grade 1: An abnormal, ill-defined region of the most obvious clinical appearance is swelling and induration of soft tissue with related warmth and erythroderma superimposed on a bony protrusion.</p> <p>Extreme Grade 1 is an unusual, moist sore confined to the epidermis that reveals the underlying ulceration. Dermis and an abrasion resembling it.</p>	<p>Grade 1: Nonblanchable intact skin erythema. Skin discoloration for people with more melanin</p>	<p>Stage I: Intact skin generally over a bony prominence with nonblanchable redness of a localized region. There may be no noticeable blanching of darkly pigmented skin; its color may vary from the surrounding region. Additional description: Relative to adjacent tissue, the region may be painful, solid, fragile, warmer or colder. In individuals with dark skin tones, Stage I can be hard to detect.</p>
<p>Grade 2: As a narrow full thickness sore on the skin, the edges of which are more differentiated and clinically presented.</p>	<p>Grade 2: Loss of skin partial-thickness affecting upper layer or the lower layer of the skin or both. The sore is shallow not deep and is easily seen as attrition.</p>	<p>Stage II: Partial-thickness loss of dermis with red-pink wound bed appearing as a shallow open ulcer, lacking slough. It can also appear as a serum-filled blister that is intact or direct. Additional description: Presents without slough or bruising as a shiny or dry shallow ulcer.</p>
<p>Grade 3: Skin defect of irregular full thickness reaching into the subcutaneous fat showing a draining, bad odor, contaminated, and a localized death of living cells that for a variable distance has undermined the skin.</p>	<p>Grade 3: Full-thickness skin loss that causes subcutaneous tissue damage or necrosis going deep, but not via the underlying tissue</p>	<p>Stage III: Tissue full-thickness failure. Presence of subcutaneous fat, but absence of injury to bony structures, tendons, or muscles. Slough might be sighted, but the deepness of the deprivation of tissue does not mask it. Undermining and tunneling might be involved.</p>
<p>Grade 4: The clinical appearance is close to Grade 3, with the exception that the bone may be found at the base of the ulceration, which is more deeply compromised by abundant drainage and necrosis.</p>	<p>Grade 4: Extensive damage to muscle, bone, or assistive tissues with or without full-thickness skin loss, tissue necrosis or damage</p>	<p>Stage IV: With exposed bone, tendon, or muscle, full-thickness tissue loss. On certain parts of the wound bed, slough or eschar may be present. It also entails tunneling and undermining.</p>

Source: Kottner et al, 2009

2.5 Risk Factors of Pressure Ulcers

The commonest sores that progress in infected persons getting soothing treatment are pressure ulcers (Maida, 2013). As a result of features that can be easily seen as linked to their disease advancement and/or treatment, when patients approach the latter part of their life, the probability of getting such sores rise up (Sibbald et al, 2010). End-of-life efforts to take very good care of the skin are always hard, as it is always tough to ascertain which PU can be evaded and which are unavoidable (Beldon, 2011).

The main causes of the growth of PU are pressure and shear, as previously stated. Then it becomes sensible to concentrate on people who can be vulnerable to long undiminished pressure and shear forces in an effort to identify those at risk of PU growth (Moore, 2012). Given that pressure is the same as to force divided by area, as more of the person's mass resting in the seated area, it is obvious that sitting for a long time increases a person's chance of getting pressure ulcer (Oomens et al, 2014). If you have trouble moving and cannot quickly shift position when sitting or in bed, the risk of developing bedsores is greater. According to Mayo Clinic (2020), risk factors include: immobility, incontinence, loss of sensory perception, inadequate nutrition and hydration, and blood flow affecting medical conditions.

2.6 Assessment and Evaluation of Pressure Ulcers

In 2013, Soppi specified that all bed patients should be subjected to a risk assessment and a thorough skin analysis within 24 hours. In 2014, he affirmed that such tests should actually be carried out within 8 hours of charge. The current nursing guidelines comply with the above, but prescribe an examination shortly after arriving or no later than 8 hours after diagnosis, and also conferring on an individual care plan and when released or relocated (Soppi 2013; Soppi 2014).

The latest nursing guidelines in Finland (Hotus 2015) and Soppi (2013) also accept that a risk assessment of pressure ulcers made using an approved evaluation method is

extra reliable than an assessment based solely on clinical evaluation, but that clinical assessment is still relevant. Furthermore, the current nursing protocols go on to emphasize that the risk assessment should also involve the assessment of skin condition, movement and behavior in addition to other supplementary health and person features, besides other symptoms.

The first key aspect of treatment intervention in end-of-life skin care is to evaluate the diagnosis and treatment of the patient and to provide individualized patient-centered care if they are dying (Sibbald et al, 2010; Langemo et al, 2015; Hotaling and Black, 2018). Once the infected person is about to die, it becomes crucial to figure out what end-of-life care needs, priorities and objectives are for the infected persons and household members (NPUAP et al, 2014; Hotaling and Black, 2018). It becomes critical because the primary goal of every element of end-of-life treatment should be to provide it in a way that regards the patient's and their family's wishes in required to preserve what they deem to be a secure, honorable, 'nice' demise (Bergman et al, 2011; Hotaling and Black, 2018).

It is also necessary to create end-of-life care goals for patients and families since they may choose not to obtain certain aspects of skin care for religious or personal purposes (White, 2017; Hotaling and Black, 2018). If any element of end-of-life skin care is rejected by patients and their families, they should be told of the potential implications and encouraged to consider alternative methods that might not be less active to prevent infection (NPUAP et al, 2014; Hotaling and Black, 2018).

As in every extra facet of treatment, it is necessary to conduct a detailed evaluation of the sick and their requirements, which requires a structured pressure ulcer risk and diagnostic test for patients reaching the end of life (Burt, 2013; NPUAP et al, 2014; Langemo et al, 2015). Implementing concurrent PU risk and pain assessment will confirm that any care given to prevent infection does not bring nuisance or cause emotional discomfort (Burt, 2013; Langemo et al, 2015). As the condition of the patient changes, this proper PU risk assessment must be visited again and revised (Burt, 2013). This should require a thorough review of the skin of the patient and the use of a validated risk assessment method for pressure ulcers that considers the main risk

factors such as continence, movement, diet and state of awareness (Langemo et al, 2015). That being said, all nurses must use their intuitive judgment in their medical profession field to decide about how well to administer skin care to keep the skin of the infected person well (Samuriwo 2019).

2.7 Treatment of Pressure Ulcers

A precise examination of the patient and the sore should be done within 6 hours if a pressure ulcer develops. The position, extent, and form of the sore, state of the wound bed, exudate degree and steadiness, discomfort and odor, symptoms of infection and type of ulcer should be noted (Fletcher, 2012). The Classification tool for EPUAP and NPUAP (2009) is used to determine the degree of tissue damage in patients with current or new pressure ulcers. This offers a defined and valid formalized categorization of tissue damage and helps to assess adequate treatment in terms of pressure-redistribution devices, dressings and 24-hour care needs of the patient. Both Category 2 and above pressure ulcers must be identified as a local clinical incident (Hughes, 2014). Hence, if PUs are not adequately cared for, they can turn into serious and complicated sores and can prove fatal in some situations.

In order to determine the most effective methods of wound treatment and dressing, health care practitioners should devise an individualized care plan that defines pressure control steps and a holistic wound assessment. Assessments should be made on a monthly basis for Category 1 pressure ulcers, and for Category 2 and above, skin integrity should be measured regularly (Wirral Community NHS Trust, 2013). Protocols on the least provision are given. For adults with a pressure ulcer, high specification foam mattresses are recommended. If these do not properly redistribute pressure, a dynamic support surface can be regarded as such (NICE, 2014). At regular intervals, positioning and repositioning is suggested, with adjustments of position reported by patients (Hughes, 2014).

2.8 Sore Management and Surgical Operation of Pressure Ulcers

Sore care must be founded on pressure ulcer evaluation, skin examination, risk level, aim of treatment and the infected person's choice (NICE, 2014). Necrotic tissue can hinder therapy and promote the infection of bacteria. Taking into account the amount of necrotic tissue, the type, extent and duration of the PU, infected person's tolerance and any comorbidities, the need to debride should be evaluated (NICE, 2014). The debridement process should be chosen according to each individual: autolytic debridement is preferred unless wound healing suffers the possibility to delay, in which case sharp debridement might be recommended (NICE, 2014). Debridement may not be required all the time or be sufficient, such as a patient near the end of life or in situations where a natural protective cover is provided by secure eschar. It is important to consider the moisture levels of the skin area; wet skin has the tendency to break down. Clinical efficacy, soft applications or removal, patient soothe and convenience (including mobility impact), cost and availability are considerations for dressing choice (Fletcher, 2012). The choice of dressing is made with the patient and, if possible, with their family or caregivers, considering pain and tolerance, ulcer location, amount of exudate and the frequency of change in wrapping (NICE, 2014). For the treatment of grade 2, 3 and 4 pressure ulcers, dressings that encourage a wet, humid wound-healing atmosphere are recommended. For grown-ups, gauze dressings are not suggested.

The new NICE (2014) recommendations suggest that healthcare practitioners explore an approach to reduce heel pressure as part of their individualized treatment plan in older people with heel pressure ulcer (and, if applicable, their families or caretakers).

2.9 Providing Care for Pressure Ulcers Patients

Concentration on the development of the protection and excellence of primary care is invaluable: most health care is given in this sense, and the first contact of most people with their health care system is through primary care (Cresswell et al, 2013). Primary care practitioners must perform a vital function in guaranteeing the reliable delivery of secure, high-quality, patient-centered care and in organizing specialty care in conjunction with the needs of patients (Organization for Economic Co-operation and

Development [OECD], 2017). Two main international goals for enlightening the quality and safety of primary care are ensuring comfort care and reducing adverse health-related incidents (UNICEF, 2018). In all cases, patient-centered extenuation is recognized as important to the ensuring of good medical practices in the health-care environment (WHO et al,2018). Pressure ulcer inhibition is also a crucial global quality measure of treatment that focuses on major quality changes in fundamental of providing good health. This is as a result of PU been highly preventable, economically arduous, health-related negative effect that results in high morbidity and death of patients (NPUAP et al, 2014; Slawomirski et al, 2017).

The frequent sores occurring in the sick who are undergoing primary treatment are pressure ulcers (Sibbald et al, 2010; Maida, 2013). Owing to physiological factors related to their disease progression and/or treatment, as patients reach the latter part of their lives, their risk of sustaining such sores goes high (Sibbald et al, 2010; Maida, 2013). End-of-life attempts to improve skin care are difficult, since it can be hard to decide which pressure ulcers can be stopped and which are inevitable (Sibbald et al, 2010; Beldon, 2011; Maida, 2013).

Attaining the aim of consistently providing high-quality care that guarantees patient safety needs healthcare practitioners and institutions to concentrate in a fair and just way on the consistent delivery of care. At an organizational level, due attention should be paid to the preferences of the patient and their loved ones (European Patients Forum [EPF], 2017).

Patient care is managed and monitored by a health practitioner during the treatment process in most care settings (Allen, 2018). It becomes imperative for medical workers who give immediate treatment to continually provide skin treatments possible to preserve the health of patients so far as they live. Regardless of background, people working in all health care systems should understand important and current data and share learning to increase the value of care of the sick (WHO et al, 2018).

2.10 Controlling and Prevention Strategies for Pressure Ulcers

Considerate evaluation of risk factors will assist to enhance the production of foil pressure ulcers. A number of main factors, involving raising age, the rate of events and movement, meagre oxygen perfusion, body mass, deprived dietary ingestion and desiccation, over-all wellbeing and diseases, such as high glucose level in the blood, can lead to the formation of wound sores (Hughes, 2014).

Hughes (2014) provided extrinsic variables that lead to the development of pressure ulcers, including pressure, friction, shearing, temperature, moisture, and medication. For a very short period of time, the body may withstand high interface pressures and except the pressure is periodically released, harm can happen and a PU can progress. For a preventive technique, pressure relieving techniques are important. The purpose of every preventive strategy is to guarantee that the highest quality of treatment is given to protect the health of the skin (Hughes, 2014). All infected persons found to be at danger of developing PU experience a detailed formal examination to assess their risk level for developing pressure ulcer (NICE, 2014). The skin, particularly the utmost susceptible parts, is regularly evaluated. Regularity of skin valuation is ascertained by a patient-to-patient basics in accordance with the patient's level of risk. An individualized care plan should be developed by health care professionals to identify measures of reducing pressure in such patients who are clinically evaluated as at danger of getting a PU.

Posture and position care are carried out at regular breaks (minimum of 6 hours for patients at risk and minimum of 4 hours for patients in the high risk group with pressure ulcers), with the patient's chart indicating changes in position (NICE, 2014). Guidance on the manual management of health care workers and other caregivers is given (Wirral Community NHS Trust, 2013). In order to redistribute pressure, all patients admitted to secondary care and those deemed to be at high risk of developing a pressure ulcer in primary and community care environments should be put on a high-specific sofa bed (NICE, 2014).

3 GOALS AND PURPOSE OF THE THESIS

The goal of this study is to delve into research materials and bring out the effects of PU on patients' quality of life. It is invaluable to grasp the impressions of pressure ulcers and should not be withheld. The purpose is to describe the QoL of patients with PU and to reveal a deeper understanding of PU and its influence on patients to enable health workers to have compassion and consider the plight of the patients. Nonetheless, if infected patients are well-endowed with information about this condition, their reaction and understanding of PU will not be all that detrimental. Hence, this thesis will be intending to answer this research question:

- How does pressure ulcer impact on the quality of life of patients?

4 DATA COLLECTION METHOD AND ANALYSIS

Data collection was conducted to obtain reliable and up-to-date details from scientific publications for this specific thesis process. The collection of data was aimed at obtaining and incorporating data from various publications into the thesis process. There is data from various sources for different parts of the analysis, which was further included in this thesis.

4.1 Research Approach

This research is conducted as an analysis of literature. According to Dewey and Drahota (2016), literature review can be described as a review that recognizes, chooses, and interprets research in order to address a question which is clearly outlined. It is an all-inclusive, succinct, transparent search performed through many databases and grey literature that other authors can reproduce and repeat. This approach to research includes preparing a well-thought-out search strategy that has a particular focus or answers a given question.

Literature reviews use clear and accountable approaches to inform new research questions, according to Gough et al. (2012). They stated clearly that this approach to study requires three critical activities:

- Classifying and explaining applicable research previously conducted.
- Evaluating the methodology of analysis.
- Planning to bring the combined results together into a synthesis of scientific studies.

4.2 Review of Literature

A meticulous and scientific proof research is a type of review of literature for a subject. There are many reasons for doing this, which influence the duration and style of the study. The literature review is primarily a central examination of a subject's current shared information. An insightful, personal, and impartial overview of the material should be a textual review instead of being a full list of anything written. This style of

analysis provides a holistic viewpoint that requires disagreements, inconsistencies, traditional and up-to-date thought (Winchester & Salji 2016). Literature reviews are widely sought in most fields of science. Their need emerges from the continually rising development of scientific journals. The assessment of literature requires the ability to work with various activities, from the selection and evaluation of suitable resources to the integration of knowledge from several researches, from serious assessment to rewording, judging, and referencing abilities (Pautasso, 2013).

4.3 Data Collection

Almost all the data obtained and used in this study was examined utilizing primary databases such as EBSCO (CINAHL) and SeAMK FINNA. Similarly, the general quest was carried out using Google search engines, in particular Google Scholar. Preliminary testing on the research subject was carried out using these various databases on 20 September 2020. Diverse key terms such as pressure ulcers, meanings of pressure ulcers, causes and symptoms of pressure ulcers, the notion of quality of life and the effect of illness on patients were used to obtain the details. The knowledge extraction plan from the aforementioned databases is presented in Figure 1. The outcomes were reported and analyzed at all levels. Massive articles were gathered for the relevant research papers that met our inclusion / exclusion criteria.

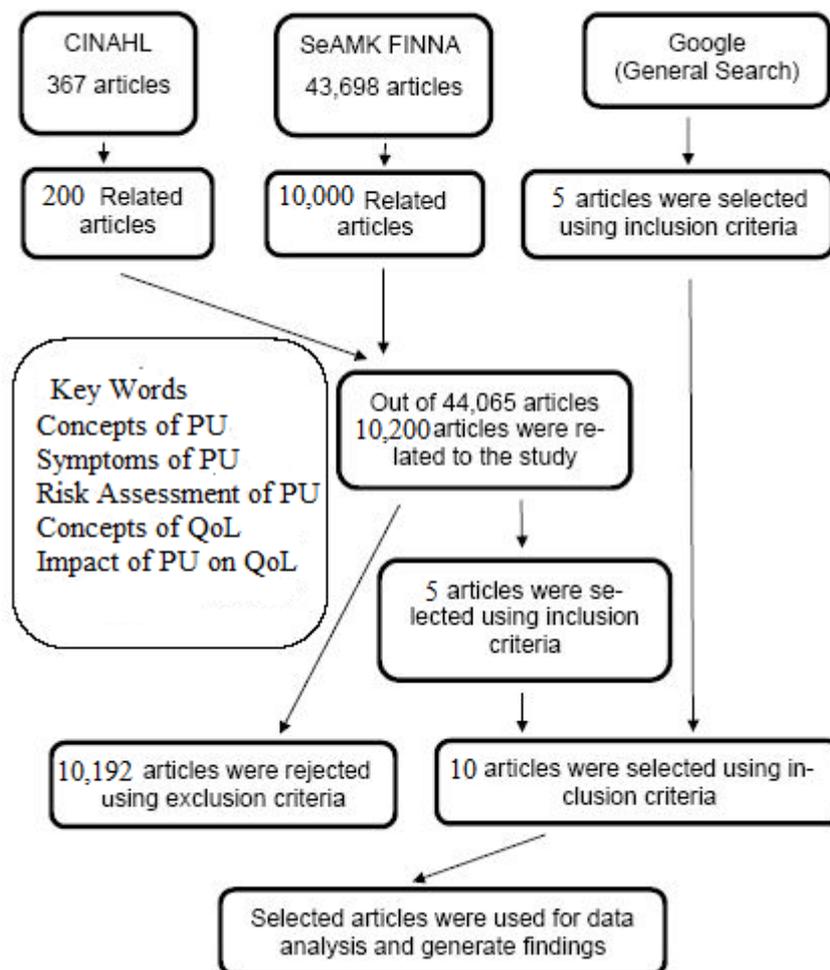


Figure 1 Flow Chat of Methodology

4.4 Inclusion and Exclusion Criteria

As several of the articles required a fee, affiliation or login information to be accessed, the researchers' search process was general but not intense. Using critical key words, the papers were searched and those that the researchers thought would fit the subject were chosen and those that were out of the subject were rejected. The papers presented related background knowledge and the basis for building up the research issue. The papers chosen for this study by the researchers were only selected if they were accessible in full text, provide empirical evidence and proof, peer-reviewed, statistically accepted, morally valued and written in English. Within 10 years, most of the papers selected by the researchers were written.

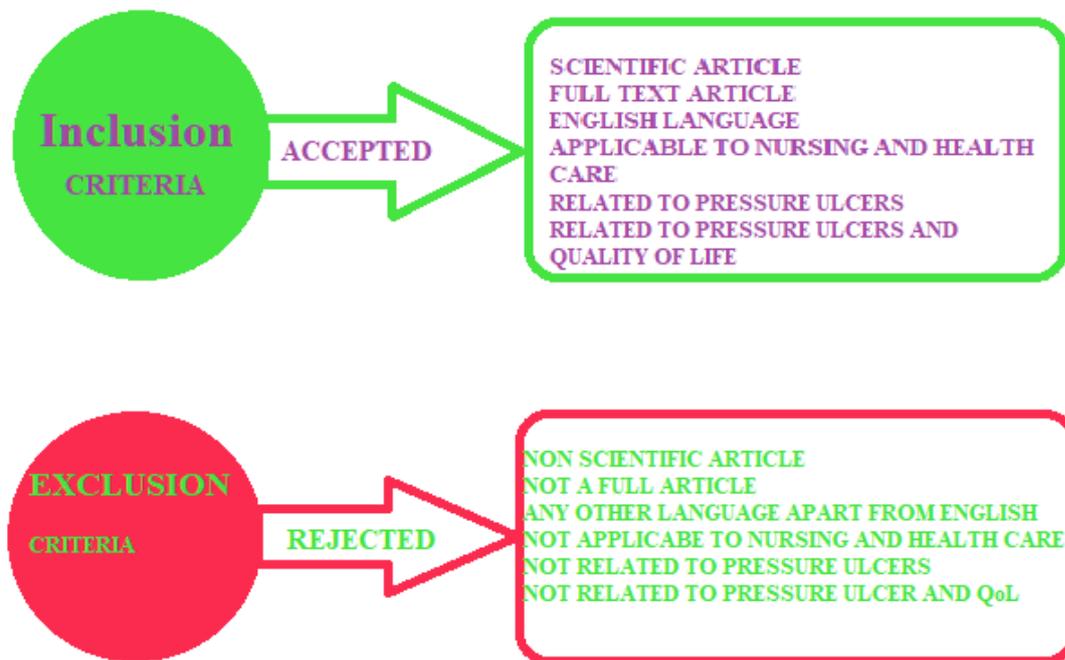


Figure 2 Inclusion and Exclusion Criteriaa

4.5 Data Analysis

The data analysis was carried using inductive method of content analysis. According to Cho and Lee (2014), inductive content analysis is the technique of qualitative data analysis in which prior knowledge of the research subject is minimal and codes, categories or themes are often specifically derived from the data. In the inductive content analysis processes, the three primary stages are: planning, organization, and reporting of data. The preparation stage involves the collection, detecting and grouping of suitable content analysis material. Transparent coding, concept development and abstraction are part of the process of organization. The findings are represented throughout the reporting period using inductive methodology in the type of classifications trying to define a concept. (Elo et al. 2014).

The concepts of quality of life and its effect on PU and other archives related to the study were highlighted and saved on a notepad on the researchers' laptop while reading through material words and terms, such as PU and its concepts, documentation,

reporting. After coding the material papers containing these, as a further sub-category, words or terms were collected. As a widely accepted heading which was selected to belong to generic categories, the comparable sub-categories were given. After that, all the generic categories were linked to our research topic, which was the main category.

5 FINDINGS

The researchers typically classified their results with regard to the effect of PU on the physiological, psychological, social and economic well-being of the patients' quality of life. A figure representing a sample of the findings of the researchers is below:

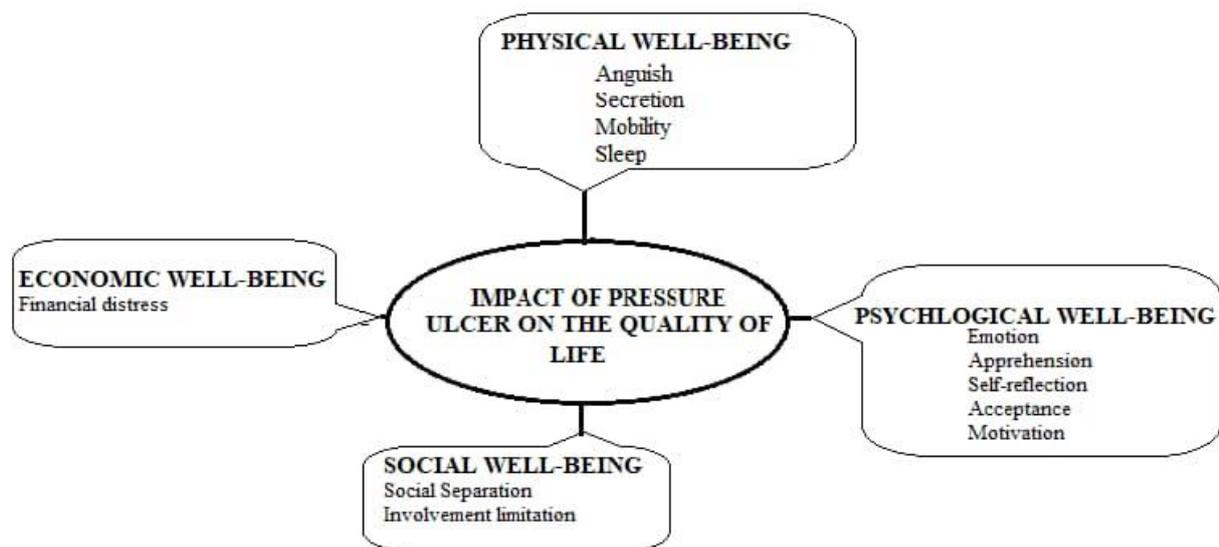


Figure 3 Impact of Pressure Ulcer on the Patient's Quality of Life

5.1 Physical Well-being

5.1.1 Anguish

The researchers found that there was some form of pain or discomfort frequently reported by patients with PUs. Rest, overall activity, walking/sitting, everyday tasks and socializing interact with pain (Gorecki, et al., 2010). They also mentioned that the agony of the patients could be 'incredible' and they'd do anything to get rid of it,' and some

even interpreted it as a 'retribution' for the PU. Also, their article noted that a significant percentage of patients had extreme and chronic pain that differed in duration. Outside of the PU, patients more often felt discomfort, shooting up through different sections of the body, touch, pressure, or some movement, and with different PU therapies and medical equipment.

5.1.2 Secretion

Gorecki et al (2012) stated that there were issues with pus and smell, particularly in infected persons with intense PUs. Interfering everyday activities, intimacy, and closeness to other patients, led to social issues like voluntary isolation or preferring not to engage in public events, and induced psychological discomfort like sensing uncomfortable or humiliated. Exudate also raise the necessity for regular changes in wound's gauze and sometimes can even come out too much to the extent of removing the cloth covering the wound, thereby exposing the wound.

5.1.3 Mobility

The researchers found that individuals who are substantially inadequate face poorer outcomes for mobility and capacity to engage in everyday events than those who have no or very mild physical disability. PUs are also a secondary incidence and a result for a patient's primary illness (Rutherford, et al., 2018).

Rutherford et al (2018) have found that PUs led to supplementary damage in physical role and outcomes beyond those induced by other comorbidities. Limb PUs have more defective signs and extra difficulties with movement, as torso PU infected persons have extra difficulties with the worth of sleep, everyday events and sickness, minor mental well-being, and experience extra personality.

PU limits movement and mobility as well as restricted activities (Gorecki, et al., 2010). These limitations have been found to lead to the failure to indulge in everyday events like cooking, going to buy things from the market, performing housework, taking care of yourself and grooming, and enjoying hobbies and interests. It was difficult for patients to

work and go out, limiting their everyday lives and therefore the need to adapt to a new way of living (Gorecki, et al., 2010).

5.1.4 Sleep

Sleep quality issues and having to learn to sleep in new positions is induced by PUs and treatments. It was also found that the presence, smell or pain of the PU decreased appetite and patients also reported feeling unwell, exhausted, mentally drained, or feeling tired (Spilsbury et al., 2007). According to Fogelberg et al (2016), sleep-related issues were found with people leaving with pressure ulcers. Sleep length was reduced, and sleep cycles were erratic, according to the majority of the people. Many factors, including pressure ulcer circumstances and sleep environment, were reported as leading to poor sleep. Individuals also described how a lack of sleep influenced their ability to participate in daily activities. An important and unexpected finding was that many people reported sleeping in the daytime to pass the time and avoid boredom caused by a lack of opportunities to engage in desired activities.

5.2 Psychological Well-being

5.2.1 Emotion

Pressure Ulcers and their therapies involve a considerable influence on mental welfare. Gorecki et al. (2010) explained that people infected with pressure ulcers felt emotional anguish such as disappointment, dejected and unhappy, including mood changes. Patients also frequently report feeling frustrated, upset, or annoyed again.

Pain has also triggered mental issues and mood changes for patients, such as feeling miserable, despair, anger, and helplessness. The researchers found that the limitations placed by PU pain induced emotional problems in particular. Patients often talked about this pain in a tragic, depressed tone when the PU pain worsens (Briggs et al., 2014).

5.2.2 Apprehension

Gorecki et al (2011) stated that patients were concerned about infection, other medical problems, worse or no healing of the PU, prediction as well as the disease returning. Additional problems included the cloth covering the sore removing, revealing the PU or bringing leakage of pus, the time it took to recover, and becoming a burden on others. Also worries in relation to healthcare and sufficient knowledge of some healthcare personnel, how PU was being treated and the agitation of being admitted to the hospital in relation to the PU treatment.

5.2.3 Self-reflection

Individuals with PU experience a decrease in self-esteem and QoL as a result of their lack of control over body functions and inability to undertake self-care. It was reported that, patients felt vulnerable and the sense of not being independent which was in line with the inability to have control over their lives. Patients had the feeling that their lives had been taken away from them, because it circulated around the PU and PU care. Patients who's PU were cared for by different nurses had the feeling that, even though it was their body, they could not do much in regards to who could see it (Lourenco et al. 2014)

Patients had the contention of choosing to do what will promote the healing of the PU i.e. medical advice as against what they actually want to do, which in such case they had to weigh the advantages and disadvantages of doing something that would be harmful for the PU healing (Gorecki, et al., 2010).

Physical transformation like scarring and the sights from the PU (e.g. 'dirty', 'ugly', 'hole in body') influenced self-concept and the body picture. Statements and thoughts concerning feeling uselessness and deficiency shows the effect of PU on patients' self-concept (Gorecki, et al., 2011).

5.2.4 Acceptance

Gorecki et al (2011) reported that some PU patients came to terms with the PU condition and developed coping strategy by acceptance and some patient were reported to have made statement such as; 'there's nothing I can do about it, it has to be treated'. Some developed comparative imagination and such patients made statement as; 'there are others worse off than me' and others also by the use of positive thinking and came out with words like; 'everything that can be done is being done' as forms of coping mechanisms. However, the result of this coping mechanisms which lead to a reduced negative psychological effect was not experienced by all PU patient.

5.2.5 Motivation

The willingness to be proactive and partake in the wound care was demonstrated by some PU patients. As they wanted to be partakers in their wound treatment process, motivation was a major tool they needed, to recover some form of charge and sovereignty over their lives, or to search for information and insight about PU outcomes and the varieties of care options in stock for them. The search for knowledge on PU would also expose them to the precipitating factors and factors for avoiding skin deterioration (Gorecki, et al., 2011).

5.3 Social Well-Being

5.3.1 Social Separation

Isolation, frequently known as sensing bondage, as stated by Gorecki et al.(2010), was a significant effect of having a PU. For PU care, some patients have been bedridden or hospitalized, making them to feel isolated, lonely, missing relatives, companions and limiting public communication or socialization and inter-personal relationship.

The demand for PU treatment and restrain influences made patient feel as being held captive by PU as their social connections were been reduced or ripped off, which in

some cases affected bonds that existed in relationships due to reduction in intimacy and sexual relationships (Gorecki et al., 2011).

5.3.2 Involvement Limitation

A number of public issues were identified with patients, which included restrictions in social participation such as, the places where a person can go, the duration of a person's able to stay outside, and what a person will be able and not able to do. People who had PU got their social lives messed up, especially due to physical limitations, including treatment i.e., duration spent on sores treatment and controls, hospitalized or bed ridding; which in turn prevented affected persons from meeting friends and relations (Hopkins et al, 2006). The wait in PU treatment, which limited social activities and interrupted with persons' ability to go out, made social life planning difficult, and not able to keep planned activities. The timelines on their treatments such as wound care appointments and time for bed rest described their inability to enjoy socializing to the fullest (Gorecki et al., 2010).

5.4 Economic Well-being

5.4.1 Financial Distress

Gorecki et al (2011) indicated that, PU treatment brought about financial responsibilities on patients such as acquisition of topical applications and pressure-easing support among others. Also, extra washing of clothing, stains on bedsheets from topical applications and exudate. Lastly, loss of revenue resulting from PU restrictions with the capacity to work led to none/low income and low consumption. Patients who underwent hospitalization for PU care were still paying rent, utility bills among others, throughout the period they were hospitalized. According to Gordana, R. & Suncica. I. (2014), because patients were required to be on a long sick leave, inpatient and outpatient charges, and in some circumstances, professional reorientation, pressure ulcers had a major financial burden on patients. Such economic and financial effects on PU patient brought about poor living standards and poor working avenues.

6 DISCUSSION

6.1 In General

Multiple components have arisen that are essential to PU patients but have not been recognized by previous research. A restricted life, extreme anger, hopelessness, powerless and nervous, self-consciousness, and self-efficacy were explicit components added to the psychological well-being domain. Sickness and insomnia were linked to the influence of the physical effectiveness domain on the patients affected by PU (Hopkins et al. 2007).

This research offers insight into the basic components of how patients' QoL is influenced by PU. The main impact on the quality of life for people with PUs, regardless of age, sex, PU asperity, place and diseases, is in terms of physical and social functioning constraints, particularly flexibility, caring for oneself, sickness and insomnia, emotional problems and pain. Physical weakening leads to emotional problems and decreases the quality of life (Gorecki et al., 2010). Low self-efficacy, independence and negative self-conception are correlated with impaired physical and social worth. Self-consciousness and identity issues are also correlated with physical appearance, undermining psychological well-being and QoL (Gorecki, 2011).

Emotional pain and mood can influence all other elements of the patient's quality of life. For example, as Gorecki (2010) noted, self-consciousness of the presence of PU, odor or exudation or pain anticipation can decrease physical and social functioning. In turn, decreased physical or social functioning may lead to depression, anxiety, and anger and often, instead of the PU, die from these symptoms. Emotional distress and anxiety were associated with PU symptoms and the expectation of pain. Pain not only influences emotional well-being, but also leads to physical and social functioning limits.

If considered to be the direct cause of reducing or failing to enhance outcomes, the perception of treatment effectiveness or treatment pressure by patients has significant impact for patients and the quality of care. Patient factors such as personality, coping

strategies and motivation, for example, affect how people react to and interpret the effect of their PU (behaviors such as skin inspection, cognitions such as PU concern and care or causation beliefs). In turn, these variables lead to quality of life outcomes such as psychological well-being where outcome changes are related to proof of PU recovery and a supportive healing process (Claudia, Nixon, Madill, Firth, & Brown, 2012). Physical, social, and psychological functioning is further impaired by similar causes, such as hospitalization and time spent on wound care. Coping, attitudes and assumptions about the causation and progression of PU are essential patient variables. Social well-being has been influenced by social assistance, social contact and perceptions and values. If one perceived sufficient social support, psychological well-being (i.e. reduced feelings of isolation) and social functioning (i.e. increased participation) were positively affected, as Gorecki said. Patients who engage in activities seeking wellbeing are advised to participate positively in their wound treatment and improve their psychological outcomes.

6.2 In Finland

The researchers revealed in this research that while they may not always do harm, PU occur every year in a great amount of infected persons in Finland (Savolainen & Sihvola, 2016). Not only do pressure ulcers bring more pain, but they are part of the top ten most costly diseases to care, for instance, as in 2015 in Finland alone, 530 million euros was involved in the treatment costs (Savolainen & Sihvola, 2016). It is hard to envisage why extra effort is not yet being made to avoid PU, nonetheless as lawful actions surrounding PU in, for example, the United States have brought about a condition in which avoidance of pressure ulcers is now perceived to be the core duty of the nurse than just a medical protocol. The explanation for the extraordinary shift in the U.S. was as a result of 90 percent of the cases made about PU that patients got in the care facilities were won by the petitioner, the insurance providers stopped compensating for pressure ulcer related claims. Legal action related to pressure ulcers has not yet peaked in Finland; 30 to 50 cases were registered by patients between 2010 and 2014, of whom approximately 1 in 4 were paid. The explanation behind the disparities could lie in the dissimilar health care structures in Finland and the U.S. Now that health insurance does not take care of the expenditures associated with pressure

ulcers, patients are required to prosecute medical practitioners and their facilities to take care of the cost of care, while individual patients in Finland do not have to depend on private insurance since the cost of health care is taken care of as part of Finland social security system. After all, pressure ulcers are considered a therapeutic injury. (Soppi,2014 & Sipponen, 2016)

The importance of avoiding pressure ulcers and reducing their effect on the quality of life of patients is highlighted by the aged, with many infected persons at a high risk of being disabled. Such challenges in avoiding pressure ulcers may be the variety of underlying risk factors and the absence of routines to tackle the disease head-on. The issue has become more complicated because many patients quickly get ulcers, others are not affected at all, while the nursing actions can be the same for both, illustrating the value of early identification in re-examination is more vital. If identified as early as possible, the risk though is high but the effect on their quality of life would dramatically decrease if not removed at all (Sipponen 2016).

The all-inclusive view of things, as in nursing in general, should be regarded when contemplating the prevention and early diagnosis of pressure ulcers and their reduction in the quality of life for patients. In brief, the prevention of pressure ulcers and the reduction of the effect of PUs on patients' quality of life comprises: immediate treatment, as ulcers can begin to form within 30 to 45 minutes, mitigating pressure, discomfort and abrasion, good skin treatment and potential ulcers and realizing the dietary needs of infected person. The interventions work hand-in-hand; it affects the entire situation if one aspect is faulty (Sipponen, 2016).

7 Conclusion and Further Recommendation

Pressure ulcers are the most significant obstacle for people with issues of movement and mobility who spend a long time in a sitting or lying position. Nevertheless, for these people, PUs are preventable, offering risk assessment and preparation methodically for preventive measures at the required time when the ailment is found.

An indicator of the standard of treatment given to its evaluation is the manifestation of pressure ulcers. Nevertheless, if they are to be recognized and recorded in a consistent manner and as soon as possible, it is crucial or indispensable that there are specific descriptions of what needs to be calculated and how measurement needs to be performed to mitigate the effect it has on the person affected as well as best.

It is the duty of nurses in the treatment provided to patients with PUs to advance the quality of life and protection of the treatment they provide and to guarantee that end-of-life skin care is administered in a fair, just and equitable way to avoid pressure ulcers. This would potentially mitigate the effect of pressure ulcers on patients. It becomes vital that infected persons and their immediate relatives are actively involved in the treatment given and that it is individualized to provide the unique requirements of each infected person suffering from pressure ulcers.

Pressure ulcers can cause severe nuisance, irritation and suffering in patients, with painful periods especially when changing dressing or other sore treatment. Pressure Ulcers' discomfort may be crippling, limiting the capacity of the person to engage in physical and social activities, and negotiating psychological welfare afterwards. The essence of discomfort endured; the influence it has on everyday life and how the discomfort is controlled efficiently can decide how patients regulate their pain. Self-management habits, including mood, coping, and motivation, are controlled by individual variables.

The researchers suggest that a study should be carried out on how nurses and health care takers provide health care to patients with pressure ulcers and the recovery rate of patients.

8 Ethicality and Reliability

The aim of ethical advice is to provide expertise on behaving in good circumstances, put differently, to aid differentiating bad and good. During social and health care research, the adherence to the ethical code of conduct in nursing begins and becomes greater in working activities in the nursing profession. As it can be difficult to come up with work-based, widely accepted criteria, emphasis is placed on the importance of continuous improvement and evaluation. Referring to the Finnish Research Integrity Advisory Board (TENK 2012) when study is to be properly or morally satisfactory and consistent and for its outcomes to be sincere, research must be carried in accordance with the accountable manner of research. All universities and universities of applied sciences are accountable for all their graduate and postgraduate programs. From then on, all students and individuals in a group are responsible for their acts and for following the rules given. Throughout the thesis process - in documenting, presenting, and evaluating - it is necessary to be careful and accurate. During this thesis method, ethical guidelines were followed. The researchers of this study have properly referenced the research of other researchers and consequently also esteemed their study and regarded them as such. For this study, the necessary documentation and permits were acquired, and the researchers also took into account the data security legislation.

"A study is principally assessed from the point of view of validity, but also through its reliability," according to Anttila (2016). Validity can be defined as the maintenance of study within its subject matter, while reliability refers to the consistency of findings (Tuomi & Sarajärvi 2009). To make sure that the consistency of this study is maintained, the search using computer and other sources of knowledge considered to be accurate were used to gather theoretical data. Data was applied as recently as possible and the subject of the thesis was methodically preserved as a whole. The aims of this thesis were well met and it can therefore be shown that this thesis is valid. However, as the method used for analyzing the response, investigation signified a revised subject investigation approach instead of a qualitative or a quantitative study, the outcomes of this thesis can only be regarded as suggestive.

9 BIBLIOGRAPHY

- Aisla, T. 2015. Painehaavojen tunnistaminen takkuua yhä. *Medi uutiset* 26 - 27/2015 [referred to 5.12.2020]. Available in: <http://summa.talentum.fi>
- Allen D (2018) Translational Mobilisation Theory: A new paradigm for understanding the organizational elements of nursing work. *Int J Nurs Stud* 79: 36–42
- Anttila, P. (2016). Tutkimisen taito ja tiedon hankinta [referred to 18.3.2016]. Available at: <https://metodix.wordpress.com>
- Ayello EA (2016) *Summary of commonalities from Panel Presentations. Untangling the Terminology: Unavoidable Pressure injuries, terminal ulcers, & skin failure.*
- Beldon P. Skin changes at life's end: SCALE ulcer or pressure ulcer? *Br J Community Nurs.* 2011 Oct;16(10):491-4.
- Bergman B, Neuhauser D, Provost L (2011) Five main processes in healthcare: a citizen perspective. *BMJ Qual Saf* 20(suppl 1): i41–i42 Burt T (2013) Palliative care of pressure ulcers in long-term care. *Ann Long-Term Care* 21(3): 20–8
- Burt T. Palliative care of pressure ulcers in long-term care. *Annals of Long-Term Care: Clinical Care and Aging.* 2013;21(3):20-28.
- Claudia, G., Nixon, J., Madill, A., Firth, J., & Brown, J. (2012). What influences the impact of pressure ulcers on health-related quality of life? A qualitative patient-focused exploration of contributory factors. *Journal of Tissue Viability*, 3-12.
- Cho, J.Y. & Lee, E.H. 2014. Reducing confusion about grounded theory and qualitative content analysis: Similarities and differences. [Online article]. The qualitative report, 19 (32), 1-20. [Ref. 7 October 2020]. Available at: <http://www.iribresearch.ir/rm/maghaleh/6.pdf>
- Cresswell KM, Panesar SS, Salvilla SA, et al (2013) Global research priorities to better understand the burden of iatrogenic harm in primary care: an international Delphi exercise. *PLoS Med* 10(11): e1001554
- Edelstein K, Coate L, Massey C, et al. Illness intrusiveness and subjective well-being in patients with glioblastoma. *J Neurooncol.* 2016;126(1):127–135
- Elo S, Kääriäinen M, Kanste O, Pölkki T, Utriainen K, Kyngäs H. Qualitative Content Analysis: A Focus on Trustworthiness. *SAGE Open.* January 2014.
- European Pressure Ulcer Advisory Panel (EPUAP), National Pressure Ulcer Advisory Panel (NPUAP) (2009) *Prevention and Treatment of Pressure Ulcers: Quick Reference Guide.* <http://tinyurl.com/o6uwn3c> (accessed 21 Dec 2020)

- European Patients Forum (2017) *EPF Position Paper on Quality of Care*. European Patients Forum, Brussels, Belgium
- Fayers P, Machin D: Quality of life: The Assessment, Analysis and Reporting of Patient-reported Outcomes. 3rd Edition edn. Chichester: Wiley Blackwell; 2013.
- Finnish Advisory Board on Research Integrity (TENK) (2012) Available at: <https://tenk.fi/en/advice-and-materials> (Accessed 9 DEC 2020)
- Fletcher J (2012) Surveying national pressure ulcer occurrence. *Wounds UK*; 8: 3, S18-S22.
- Fletcher J, Hall J (2018) New guidance on how to define and measure pressure ulcers. *Nursing Times*; 114: 10, 41-44.
- Garcia-Sanchez, F. J., Martinez-Vizcaino, V., & Rodriguez-Martin, B. (2019). Conceptualisations on home care for pressure ulcers in Spain: perspectives of patients and their caregivers. *Scandinavian Journal of Caring Sciences* , 33, 592-599.
- Gijbels H, O'Connell R, Dalton-O'Connor C, O'Donovan M (2010) A systematic review evaluating the impact of post registration nursing and midwifery education on practice. *Nurse Educ Pract*10(2): 64–9
- Gough, D., Oliver, S., & Thomas, J. (2012). An introduction to systematic reviews. London: SAGE Publications.
- Haesler E; 2014. Cambridge Media, Perth, Australia Loerakker S, Stekelenburg A, Strijkers GJ et al. Temporal effects of mechanical loading on deformation-induced damage in skeletal muscle tissue. *Ann Biomed Eng* 2010; 38(8):2577–87
- Hotaling P, Black J (2018) Ten top tips: end of life pressure Injuries. *Wounds Int* 9(1): 18–21
- Hotus Hotus treatment recommendation: Pressure ulcer prevention and identification in adult nursing (2015). Available at: <https://www.hotus.fi/painehaavan-ehkaisy-ja-tunnistaminen-aikuispotilaan-hoitotyossa-hoitosuositus/> Accessed on 7 DEC 2020
- Hughes, M. A. (2014). Silicone pressure-reducing pads for the prevention and treatment of Pressure ulcer. *British Journal of Community Nursing*.
- Judy A. Shea, PhD, Ellyn Micco, Lorraine T. Dean, Suzanne McMurphy, PhD, J. Sanford Schwartz, MD, and Katrina Armstrong, MD MSCE (2008) Development of a Revised Health Care System Distrust Scale

- Karimi, M. & Brazier, J (2016) Health, Health-Related Quality of Life, and Quality of Life: What is the Difference? *Pharmacoeconomics*, 34 (7). pp. 645-649. ISSN 1170-7690
- Kottner J, Raeder K, Halfens R, Dassen T. A systematic review of interrater reliability of pressure ulcer classification systems. *J Clin Nurs*. 2009;18:315–336.
- Kottner, J., Balzer, K., & Heinze, S. (2009). Pressure ulcers: A critical review of definitions and classifications. *Ostomy/wound Management* , 22-29.
- Langemo D, Haesler E, Naylor W, Tippett A, Young T (2015) Evidencebased guidelines for pressure ulcer management at the end of life. *Int J Palliat Nurs* 21(5): 225–3
- Loerakker, A. Stekelenburg, G. J. Strijkers, J. J. M. Rijpkema, F. P. T. Baaijens, D. L. Bader, K. Nicolay, and C. W. J. Oomens Temporal Effects of Mechanical Loading on Deformation-Induced Damage in Skeletal Muscle Tissue.
- March 2010 *Annals of Biomedical Engineering* 38(8):2577-87
- Makai P, Brouwer WBF, Koopmanschap MA, Stolk EA, Nieboer AP. Quality of life instruments for economic evaluations in health and social care for older people: A systematic review. *Social Science & Medicine*. 2014;102:83–93.
- Maida V (2013) Wound management in patients with advanced illness. *Curr Opin Support Palliat Care* 7(1): 73–9
- Mayo Clinic. Bedsore (pressure ulcer) (2020). Available at: <https://www.mayoclinic.org/diseases-conditions/bed-sores/symptoms-causes/syc-20355893> Accessed 7 DEC 2020.
- Megari K. Quality of life in chronic disease patients. *Health Psychol Res*. 2013;1(3):e27.
- Moore, Z., & Etten, M. v. (2015). Ten top tips: seating and pressure. *Wounds Internation*, 1-7.
- Moore Z, Cowman S. (2012) Pressure ulcer prevalence and prevention practices in care of the older person in the Republic of Ireland. *J Clin Nurs* 2012; 21: 362–71.
- National Pressure Ulcer Advisory Panel(NPUAP) et al (2014) *Prevention and Treatment of Pressure Ulcers: Clinical Practice Guidelines* (2nd edn).
Bit.ly/PressureUlcers2014Guidance
- National Pressure Ulcer Advisory Panel. In: Haesler E, editor. European pressure ulcer advisory panel and Pan Pacific pressure injury Alliance: prevention and treatment of pressure ulcers: quick reference guide. Osborne Park: Western Australia: Cambridge Media; 2014.

- National Institute for Health and Clinical Excellence (2014) *Pressure Ulcers: The management of pressure ulcers in primary and secondary care*. NICE, London. Available online at: <http://guidance.nice.org.uk/CG29/guidance/pdf/English> [accessed 26 Dec,2020]
- National Pressure Ulcer Advisory Panel, Washington, USA Beldon P (2011) Skin changes at life's end: SCALE ulcer or pressure ulcer? *Br J Community Nurs* 16(10): 491–4
- NHS Improvement (2018) Pressure ulcers: revised definition and measurement. Summary and recommendations. [Bit.ly/PressureUlcersNewDef](https://bit.ly/PressureUlcersNewDef)
- Oomens CJ, Bader DL, Loerakker R, Baaijens F. Pressure Induced Deep Tissue Injury Explained. *Ann Biomed Eng* 2014; 43(2): 297–305
- Pancorbo-Hidalgo PL, Garc_ia-Fern_andez FP, Torra i Bou J-E, Verd_u Soriano J, Soldevilla-Agreda JJ. (2014). Epidemiology of pressure ulcers in Spain in 2013: 4th national study on prevalence. *Gerokomos* 2014; 25: 162–70.
- Pautasso M. (2013). Ten simple rules for writing a literature review. [Online article]. *PLoS computational biology*, 9 (7). [Ref. 16 August 2019]. Available at: <https://doi.org/10.1371/journal.pcbi.1003149>
- Sibbald RG, Krasner DL, Lutz J (2010) SCALE: Skin Changes at Life's End: Final Consensus Statement: October 1, 2009. *Adv Skin Wound Care* 23(5): 225–38
- Samuriwo, R. (2019). Enhancing end-of-life skin care to prevent pressure ulcers in primary care. *Journal of Community Nursing*, 58-60.
- Savolainen, J., & Sihvola, H. (2016). Pressure ulcer prevention and early detection Introductory guide in English. *Pressure ulcer prevention and early detection Introductory guide in English*. Lahti, Finland: Unpublish.
- Shofany, C. (2017). Quality of life among chronic disease patients. *Nursing & Care Open Access Journal*, 4, 385-395.
- Sipponen, H. 2016. Painehaavojen ennaltaehkäisy ja riskiluokitus arjen apuvälineenä. Koulutusmateriaali. Helsinki: MediMattress, Carital Group.
- Slawomirski L, Auraen A, Klazinga N (2017) *The economics of patient safety strengthening a value-based approach to reducing patient harm at a national level*.
- Soppi, E. (2013). Painehaavan synnyn mekanismeja. Suomen Haavanhoitoyhdistyksen ammattijulkaisu Haava 4/2013, 6 - 7.
- Soppi, E. (2014). Ehkäise painehaavojen syntyminen. *Lääkärilehti* 46/2014, 3038 [referred to 28.12.2020]. Available in: <http://www.laakarilehti.fi>

- Tuomi, J. & Sarajärvi, A. 2009. Laadullinen tutkimus ja sisällönanalyysi. 6. uud. laitos. Helsinki: Tammi.
- Varga, M. 2015. Prioritizing Pressure Ulcer Prevention. *Alberta RN*, vol 71 no 1, 26-27 [referred to 28.3.2016]. Available in: <http://web.b.ebscohost.com>
- White K (2017) Clinical audit examining pressure ulcer incidence among end-of-life patients. *Wounds UK* 13: 42–5
- White RJ (2014). The true cost of pressure ulcers. *Brit J Healthcare Manag* 20(12): 554
- WHO, OECD, World Bank Group, Geneva, Switzerland World Health Organization, UNICEF (2018) *Declaration on Primary Health Care, Astana, 2018*. Global Conference on Primary Health Care, Astana, Kazakhstan, 25–26 October 2020. Available online: www.who.int/docs/default-source/primary-health/declaration/gcphc-declaration.pdf (accessed December, 2020)
- Wimo A, Jönsson L, Bond J, et al. Alzheimer's disease international. The worldwide economic impact of dementia 2010. *Alzheimers Dement*. 2013;9(1):1–11.
- Winchester, C. L., & Salji, M. 2016. Writing a literature review. [Online article]. *Journal of Clinical Urology* 9(5), 308–312. [Ref. 16 August 2019]. Available at: <https://doi.org/10.1177/2051415816650133>
- Wirral Community NHS Trust (2013) Procedure for pressure ulcer prevention and management.<http://tinyurl.com/o28u3uy> (accessed 21 Dec 2020)
- World Health Organization, UNICEF (2018) *Declaration on Primary Health Care, Astana, 2018*. Global Conference on Primary Health Care, Astana, Kazakhstan, 25–26 October 2020. Available online: www.who.int/docs/default-source/primary-health/declaration/gcphc-declaration.pdf (accessed December, 2020)
- World Health Organization (2012) *Safer Primary Care. A Global Challenge*. Summary of Inaugural Meeting. The Safer Primary Care Expert Working Group. WHO, Geneva, Switzerland World Health Organization, Organisation for Economic Co-operation and Development, World Bank Group (2018) *Delivering quality health services. A global imperative for universal health coverage*.

LITERATURE REVIEW RESOURCES

- Briggs M, McGinnis E, Collinson M, Wilson L, Dealey C, Brown J, Coleman S, Stubbs N, Stevenson R, Nelson EA, Nixon J. (2014). Pressure ulcer related pain in community populations: a prevalence survey. *BMC Nurs*; 13: 16.

- Fogelberg D, Blanchard J, Natalie E. Leland, Timothy J. Rich, Florence A. Clark. Experience of Sleep in Individuals with Spinal Cord Injury and a History of Pressure Ulcers (2016). VOLUME 97, ISSUE 10, E131.
- Gordana, R, Suncica, I, (2014) Pressure ulcers and their impact on quality of life. College of Health Studies Acta Medica Medianae 2014, Vol.53(4)
- Gorecki, C, Closs, S. J., & Nixon, J. (2011). Patient-Reported Pressure Ulcer Pain: A Mixed-Methods Systematic Review. *Journal of Pain and Symptom Management*, 443 - 460.
- Gorecki, C., Lamping, D. L., Brown, J. M., Madill, A., Firth, J., & Nixon, J. (2010). Development of a conceptual framework of health-related quality of life in pressure ulcers: A patient-focused approach. *International Journal of Nursing Studies*, 1525-1534.
- Gorecki C, Nixon J, Madill A, Firth JJM (2012). What influences the impact of pressure ulcers on health-related quality of life? A qualitative patient-focused exploration of contributory factors. *Journal of Tissue Viability*. 21:3–12.
- Hopkins A, Dealey C, Bale S, Defloor T, Worboys F. Patient stories of living with a pressure ulcer. *J Adv Nurs*. 2006 Nov;56(4):345-53. doi: 10.1111/j.1365-2648.2006.04007.x. PMID: 17042814.
- Lourenco L, Blanes L, Salomé GM, Ferreira LM. Quality of life and self-esteem in patients with paraplegia and pressure ulcers: a controlled cross-sectional study. *J Wound Care*. 2014 Jun;23(6):331-4, 336-7
- Rutherford, C., Brown, J. M., Smith, S., McGinnis, E., Wilson, L., & Gilberts, R. (2018). A patient-reported pressure ulcer health-related quality of life instrument for use in prevention trials (PU-QOL-P): psychometric evaluation . *BioMed Central journals*, 1 -11.
- Spilsbury K, Nelson A, Cullum N, Iglesias C, Nixon J, Mason, S (2007) Pressure ulcers and their treatment and effects on quality of life: hospital inpatient perspectives. *J Adv Nurs* 57(5): 494–504

APPENDIX 1: Articles, Sources and Finding extraction

S/N	Author(s)	Year	Source	Name of publisher	Title of article	Extraction for our findings
1.	Gorecki et al	2011	CINAHL	The American Geriatrics Society	Impact of Pressure Ulcers on Quality of Life In Older Patients: A Systematic Review	Impact of pressure ulcer on quality of life; physical impact, social impact, psychological impact, impact on general health and consequences.
2.	Gorecki et al	2010	CINAHL	International Journal of Nursing Studies	Development of a conceptual framework of health related quality of life in pressure ulcers: A patient-focused approach	Pressure Ulcer specific health related quality of life conceptual framework.
3.	Gorecki et al	2012	CINAHL	Journal of Tissue Viability	What influences the impact of pressure ulcers on health related quality of life?	Contributing factors that affect pressure ulcer related quality of life.
4.	Rutherford et al	2018	SeAMK FINNA	BioMed Central Journals	A patient-reported pressure ulcer health-related quality of life instrument for use in prevention trials.	Pressure ulcer quality of life and standards for assessing pressure ulcer specific symptoms.
5.	Spilsbury et al	2007	SeAMK FINNA	Journal of Advanced Nurses	Pressure ulcers and their treatment and effects on quality of life	Patients' experience about the management of pressure ulceration.
6.	Briggs et al	2014	Google Scholar	BioMed Central Nursing	Pressure ulcer related pain in community populations	Pain and pressure ulcer classifications.
7.	Gordana. R. & Suncica. I.	2014	Google Scholar	College of Health Studies	Pressure Ulcers and their impact on the Quality of Life	Pressure Ulcers, Stages, Quality of life
8.	Hopkins et al	2006	Google Scholar	Tower Hamlets	Patient stories of living with a pressure ulcer.	Awareness of the coping mechanisms developed by the older patients with pressure ulcers.

9.	Lourenco et al	2014	Google Scholar	Journal of Wound Care	Quality of life and self-esteem in patients with paraplegia and pressure ulcers	Dissatisfaction of patients living with pressure ulcer.
10.	Fogelberg D et al	2016	CINAHL	Elsevier Inc.	Experience of Sleep in individuals with Spinal Chord Injury and a history of Pressure Ulcers	Sleep related issues identified with pressure ulcer patients.