

Different characteristics of nursing care of an elderly eye patient

A literature review

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Abstract <p>The amount of elderly people is increasing all the time, therefore eye diseases are more common. Thus, information of eye diseases and the treatment of an elderly eye patient is an important topic. The study focuses on the most common eye diseases, and the different characteristics of the care of an elderly eye patient.</p> <p>The aim is to gather information of the most common eye diseases and characteristics of care of an elderly patient for nursing students. The purpose of this study is to use the study as a guide book for nursing students.</p> <p>The study was implemented as a literature review. The theory used in this work has been collected from books of an area of the study, journals of an area of the study and the internet using the keywords which are used in this study: elderly people, cataract, macular degeneration, glaucoma and nursing care.</p> <p>Results indicated that impairment of vision can significantly affect the quality of life of older people and their functional ability. Nursing care of an elderly patient and knowledge of visually impaired patient's needs are important factors also in the future.</p> <p>The study is sent to the eye unit electronically, thus as many people as possible will benefit of the study.</p>		
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1 Introduction

People all over the world are rapidly ageing. Ageing includes challenges. This will increase the necessity of health care, it requires competent nurses, and it requires the need for age-friendly environment. (WHO, 2018.) According to Statistics Finland, 26 percent of Finland's population are over 65 years old in 2030. In 2060 the percentage is 29%. (Statistics Finland, 2015.)

This study provides a guide for nursing students who have their practical training in eye unit. This study shares information of the most common eye diseases including the treatment, and it is focused on the characteristics of elderly care. This study allows students to familiarize themselves with the most common eye diseases and the treatment of an elderly eye patient before the internship begins. Thus the student will also benefit from training more when the theoretical knowledge is already familiar.

Ageing involves problems with vision. The amount of elderly people is increasing, thus eye diseases are more common. The elasticity of the lens decreases with age, and the lens of the human eye begins to lose its flexibility after the age of 20. (Näkemisen ja silmäterveyden toimiala.) Ability to see close becomes more difficult with ageing. Ability to read comes more difficult till 60-70 years old. (Terveyskirjasto, 2013.) Impaired vision affects to daily living and performance of human being. It affects on physical and emotional functioning and social activities. (Ophthalmology & Visual Science, 2006.)

The aim of this study is to gather information of the most common eye diseases and characteristics of care in ophthalmology unit for nursing students. The purpose of this study is to use this study as a guide book for nursing students, and also for the nurses in the eye unit as they guide and teach their students.

2 The most common eye diseases

This chapter focuses on the most common eye diseases, their symptoms, risk factors and treatment. This chapter focuses also on elderly people and nursing care. The figure (Figure 1. Concepts) below summarizes the most important concepts of the study. With this study the concepts are elderly people, cataract, macular degeneration, glaucoma and nursing care.

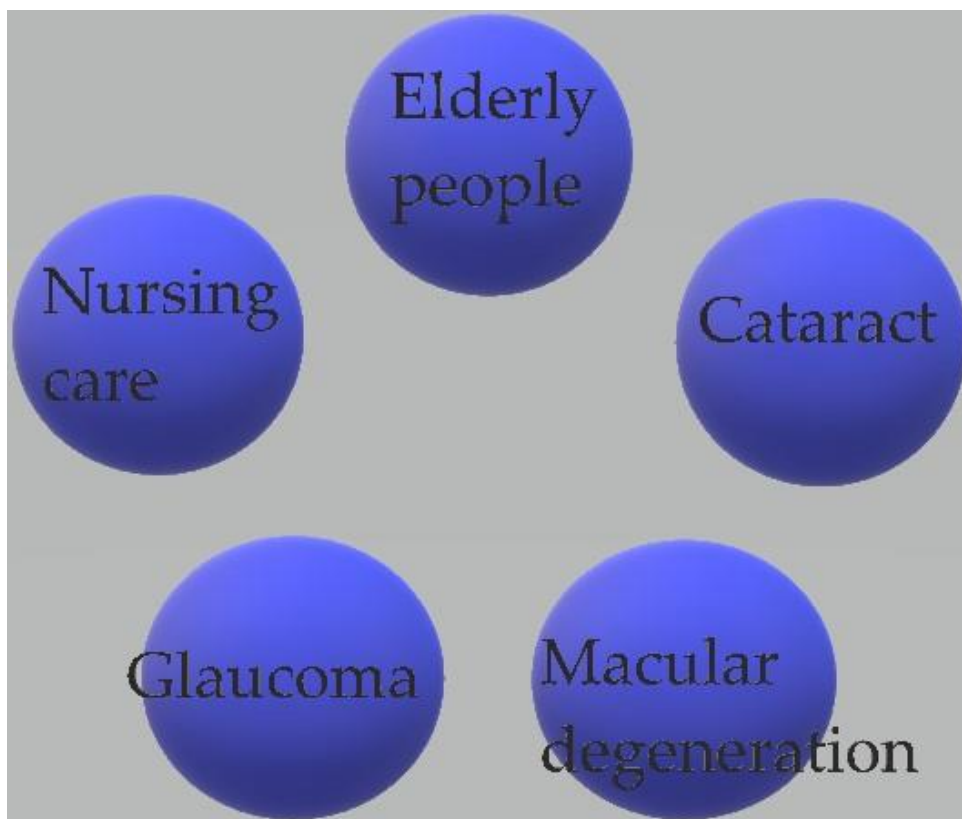


Figure 1. Concepts

2.1 Elderly people

It is not simple to describe elderly people. The changes which affects into obsolescence are complicated. At a biological level molecular and cellular damage are associated with ageing. This leads to physical damage and risk of

many diseases. Eventually it will lead to death. However, these changes occur individually. (WHO, 2015.)

According to Statistics Finland, people over 65 years old are elderly people, (2003.) In Finnish legislation, elderly people are defined people with physical, cognitive, mental or social function impaired due to ageing. Ageing is multidimensional entirety. Functional capacity is needed in all aspects of life. Part of the elderly people are active and independent, part of them need help and services. Functionality is not only limited into physical and psychological features, social relationships matter too. (GASEL-project, 2015.)

The average age of Finnish people increment continuously. There are approximately one million people of 65 years old in Finland. This amount will increase almost to 1,4 million by the year 2030. This will create new challenges to health care system. People over 65 years old use health care services four times more as people who are still in a working life. People over 75 years old use those services seven times more comparing to people in working life. (Jaatinen & Raudasoja 2017, 278.)

2.2 Cataract

Cataract is one of the most common eye diseases. In a healthy eye, there is a lens which permeable light. A patient with cataract has clouded lens in his eye, this leads to a decrease in vision. As a person gets older, metabolism of an eye gets weaker. Eye's tissue is not that elastic as it used to be. Calcium accumulation increases in the eye, which increases the amount of fluids in the eye. This makes the lens swollen. Thus, the lens is not able to permeable the light. (Meredith 2008, 125.)

The risk to have cataract increases with ageing. For instance, one of third of people over 65 years old have problems with their vision due to cataract, and

the percentage is 70% when we talk about people over 85 years old. (Iivanainen, Jauhiainen & Syväoja 2010, 143.) The genes affect to the development of cataract. Diabetes and parathyroid gland problems may lead to cataract. Inflammations of the eye, and the medicines used to the inflammations may increase the risk of cataract as well. However, cataract related to ageing, not to inflammation medication, is more common. Lifestyle habits matter too. It seems that smoking and using of alcohol affects to the development of cataract. (Jaatinen & Raudasoja 2017, 233.) Obesity, metabolic syndrome, UV radiation, radiotherapy and x-ray radiation increases the risk. Injuries targeted at the eye increase the risk. (Meredith 2008, 127.)

The first symptoms are usually problems with reading and the capacity seeing in the dark deteriorates. Vision deteriorates gradually. As the cataract grows, it will be more difficult to see the differences between the colors, especially between black and white. Myopia is more noticeable. (Iivanainen ym. 2010, 144.)

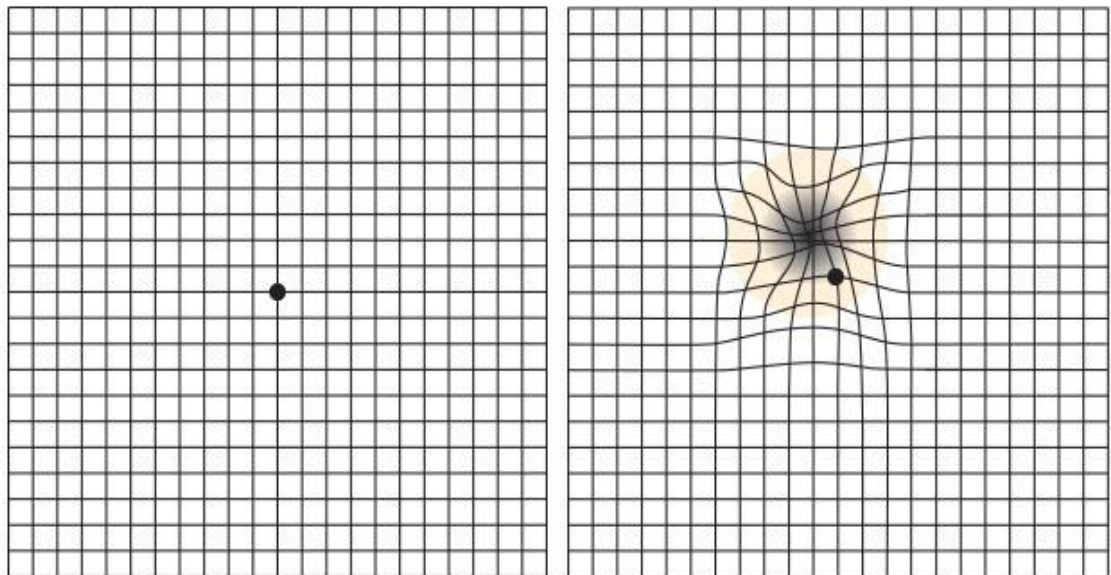
The treatment of cataract is always surgical. There is no pharmacological treatment to it. There are over 40 000 surgical cataract operations in Finland in a year. Phacoemulsification is the most common way to do the surgery. The procedure is usually done under the local anaesthesia. The main point is to remove the old lens into a new one. The lens is shattered with ultrasound, thus it is easier to be aspirated from the eye. After the aspiration, the new lens is set. (Teräsvirta 2011, 218.)

2.3 Macular degeneration

Macular degeneration, AMD, is the most common disease which leads to visual disability in Finland. Macular degeneration affects into macula. Macula is located in retina, and it has more visual sensory cells, than any other part of the eye. Visual sensory cells are perished gradually in macular degeneration.

The biggest risk factor is ageing. Other risks factors are white race, woman-kind, smoking, hypertension, arteriosclerosis and deficiency of vitamins. Macular degeneration is divided into “dry” and “wet” forms. (Iivanainen ym. 2010, 142.) This study is concentrated in wet form.

In wet form, fundus’ (eyeground) blood vessels grows widely. This lead to swelling and retina’s layers may detach from each other. Visual acuity degenerates, and distortion of the lines in field of view are common symptoms for macular degeneration. For instance, when you look to a lake, the horizontal line may look twisted. Amsler grid is used when macular degeneration is diagnosed. It has a grid with a black dot in the middle. If the lines of the grid are twisted, it may refer to macular degeneration. (Terveyskirjasto, 2013.) The figure (Figure 2. Amsler grid) below clarifies how a healthy eye sees the grid (on the left) and how an eye with macular degeneration sees the grid, (on the right.)



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Figure 2. Amsler grid

The purpose of the treatments is to stop the course of the disease. Injections to vitreum are often in use. In this treatment the medicine is called VEGF inhibitors. These inhibitors prevent the wide growth of the blood vessels. Cortisone is used as a medicine occasionally. Usually injection is given three separate times, followed by OCT, optical coherence tomography. (Terveyskirjasto, 2013.)

Retina's injurious blood vessels are eliminated in photodynamic therapy. Firstly, a patient is given Verteporfin intravenously. Verteporfin sensitizes the blood vessels into laser light. The injurious blood vessels are blocked because of the laser light, thus swelling and hemorrhage become extinct. (Immonen, Kivelä & Saari 2011, 254-255.)

2.4 Glaucoma

A patient with glaucoma has elevated intraocular pressure. This damages the optic nerves. The optic nerves send visual messages directly to the brain, thus glaucoma deteriorates vision. Development of glaucoma is usually slow, there may not be any symptoms. In Finland there are approximately 65 000 people with glaucoma, and there are over 5000 new diagnosis every year. (Pfizer, 2010.)

The risk factors of glaucoma are elevated intraocular pressure, hypertension, ageing, heredity, diabetes and exfoliation syndrome. (Meredith 2008, 129.)

The most common treatments for glaucoma are medication, laser surgery and operating room surgery. Glaucoma is usually treated with eyedrop medication. These drops are usually used every day, decreasing intraocular pressure. (American Academy of Ophthalmology, 2017.)

Trabeculoplasty and iridotomy are the most common laser surgery forms treating glaucoma. Both procedures make the fluids of the eye flow easier.

Trabeculoplasty decreases the pressure in the eye by using the laser straight to drainage angle. In iridotomy a tiny hole is made to iris. This hole helps eye fluids flow better. (American Academy of Ophthalmology, 2017.)

Surgical treatment is necessary, when the other possible glaucoma treatments are not helping enough with eye pressure. Surgical treatment is also used, when deficiencies in vision increases although medication and laser surgery are in used. (Varga & Shaarawy, 2009.)

The most common surgeries are trabeculectomy and deep sclerectomy. The main point of the both procedures is to let the fluid flow away from the eye. If these procedures do not help the patient, it is possible to set a tiny tube to the eye, which maintains normal liquid flow. (Airaksinen & Tuulonen 2011, 293.)

2.5 Nursing care

Nursing care can be defined holistic care of human being. Nursing care includes promotion of health and wellbeing, prevention of illnesses and accidents, counselling, palliation of suffering, rehabilitation and taking care of ill, and dying patients. The aim is to support life management and self care, including supporting of life style changes of patients. Ability of taking multicultural issues into account is important. The role of a nurse in society is to help and support individuals and groups with illnesses and health throughout the lifetime of a human being. (Korhonen & Mäkipää 2011, 19-20.)

Nursing care is divided in three parts: target, content and purpose. Target contains subject matters. Content contains knowledge, skills and values, which are important in nursing. Knowledge, skills and values are the main parts of implementation of nursing. Purpose is to take care of the people with illnesses, and people who suffer of unsteady health. (Kristoffresen & Nortvedt 2006, 15.)

Vision is one of the most important senses with elderly people, because independent daily life requires good vision. An elderly patient perceives the environment with all of his senses. Elderly patients are able to detect his environment versatile when data acquired by different senses is inconsistent. If even one of the senses is not working properly, it will affect the detection. Thus, ability to see clearly affects into daily living of an elderly patient. (Lähdesmäki & Vornanen 2009, 43-44.) Even small problems with vision affects to house-keeping, reading, moving and recognizing familiar faces. (Hautala 2012, 54.)

After the age of 40 years old most people will begin to have problems with reading small text or doing accurate handwork without glasses. The visual acuity decreases thus the need for lightning increases. 60 years old person needs a triple light amount to see clearly comparing to a 20 years old person. Elderly people are the largest customer group in nursing care. Nursing care should support individualized care that supports independent daily life among elderly. (Kan & Pohjola 2012, 29-30, 3.)

3 Aim, purpose and research question

This study is implemented as a literature review. The aim of this study is to collect information of the most common eye diseases and characteristics of care in ophthalmology unit for nursing students. The purpose of this study is to use this study as a guide book for nursing students, and also for the nurses in the eye unit as they guide and teach their students. Research question of this study is: what are the characteristics in nursing care of an elderly patient in ophthalmology unit?

4 Methods and implementation of the study

4.1 Literature review

Literature review provides academical conversation based on the topic of the study. By writing scientific work, the researcher is able to learn and share information of the topic. Literature review is a logical study, which is based on a comprehensive understanding of the current state of knowledge of the topic. (Machi & McEvoy 2016.)

In this study the aim is to collect existing data into one entity. Literature review can be used to evaluate theories. Building a general view of certain issues and identifying problems are the aims of a literature review. It also provides an opportunity to describe the development of a certain theory historically. Literature review is a systematic, accurate and reproducible method. It is used to identify, evaluate and summarize published research material of researchers. Literature review is based on the original research work. (Salminen 2011, 3,5.)

4.2 Literature search

There are several principles of successful literature search. Literature search should be carefully planned. It has been implemented using multiple sources of information. Literature search should try to find all the studies which are relevants and it should not override other countries or languages. Literature review should be easily reproducible. (Isojärvi 2017.)

Information to literature review was focused on different characteristics of an elderly eye patient in nursing care. The literature search was conducted in January and early February 2018, but also in May 2018. Research and literature were manually searched from books of an area of the study and internet

searching tools. The two databases which were used were CINAHL and Medic. Used keywords were elderly AND medication management, elderly and nursing characteristics, visually impaired AND guidance, elderly patient AND meeting. Acquisition of the information from Internet and searching manually from books enabled extensive access to relevant information. The Boolean operator was used in the process. The criteria for searching articles were that the articles need to be free and easy to access, published in 2003-2018, articles should be scientific, they should be written in English or Finnish and they should answer to the research question. Figure 3 below clarifies the inclusion criteria.



Figure 3. Inclusion criteria

In CINAHL database there were 14 articles with they keywords elderly people AND medication. Of those articles 3 were full text articles which were published between 2003-2018. One of the articles answered to the research question. With keywords elderly people AND nursing characteristics there were no full text articles published between 2003-2018. There were 15 articles

with keywords visually impaired AND guidance, 7 with full text and published between 2003-2018 and one of those answered to the research question. With keywords elderly patient AND meeting there were 136 articles, 20 of them were full text articles which were published between 2003-2018 and two of them answered to the research question. Thus, 4 articles were used from CINAHL database.

In Medic database with keywords elderly people AND medication were 20 results, but there were no full text articles which would have answered to the research question and were published between 2003-2018. There were 1 full text article which was published between 2003-2018 with keywords elderly people AND nursing characteristics but in the end that article was not used. There was one full text article published 2003-2018 with keywords visually impaired AND guidance, but that article did not answer to the research question. There were 7 full text articles published between 2003-2018 with keywords elderly patient AND meeting, and one of them were selected to this study. Thus, there were 5 selected articles from databases. 4 from CINAHL, and 1 from Medic.

4.3 Data analysis

The purpose of data analysis is to collect the findings from the collected information and bring them together as a bigger totality. (Aveyard 2010, 124.)

There were a lot of information with selected keywords in CINAHL and Medic. 5 articles were chosen by inclusion criteria. Also books of the area of the study were used. After collecting the information it was noticeable that the main issues among elderly people were problems with medication, physical and psychical functioning, compliance and meeting and guidance and communication. Those topics were present during the literature search. Later those topics were summarized into smaller categories. The information were

structured into 3 smaller and more specific parts. Figure 4 below clarifies the process of data analysis.

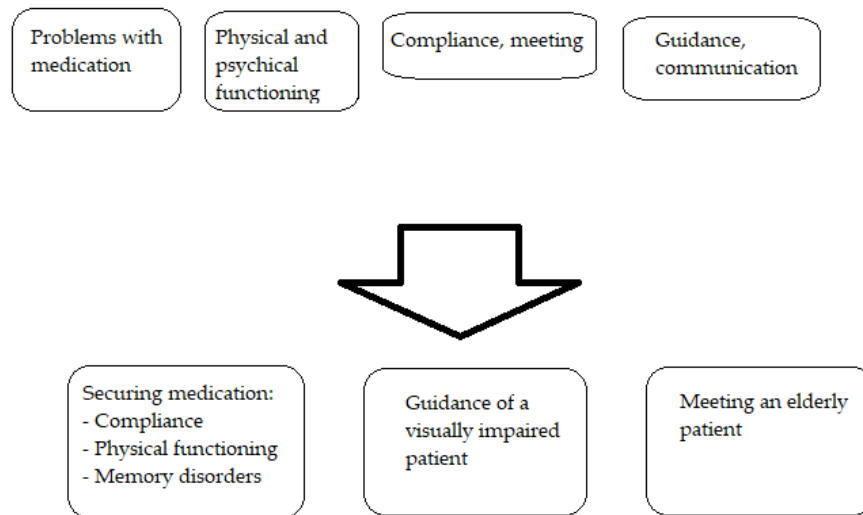


Figure 4. Data analysis

5 Results

Securing medication consist of following parts: Compliance, Physical functioning and medication, and Memory disorders and medication. Other results are: Guidance of a visually impaired patient and Meeting an elderly patient. The results are explained in the following text.

5.1 Securing medication

Correct medication has a significant impact on the quality of life of elderly people. Old age is one of the risk factors when talking about using medication. Overdose of drugs and excessive drug doses are common problems among elderly people. The side effects of medicines are greater among elderly. Working in a multiprofessional team prevents medical errors among elderly. Medical care plans should be done together in a cooperative team. Medication of the elderly who lives at home should be checked regularly at outpatient clinics. It is a nurse's job to ensure that the patient is able to take his medicines in a right way, and to ensure that the patient has enough knowledge of the medicines he is using. (Metsälä, Vaherkoski 2013, 12, 25.)

The patient is able to be part of his medical care, when he has knowledge of his medication, he has understood the information and he has participated to his medical care before. (Huupponen, Huupponen, Kaukkila, Torniainen & Veräjänkorva 2005, 87.)

Compliance

99% of 75 year old people is using some medicine. Only half of those people are using their medicines in accordance with the doctor's instructions. Tablets are taken irregularly, elderly people may take too much of the drug, or use the

drugs without a reason. In these situations the patient is not committed to the treatment. Adherencing to treatment requires interaction between a nurse and a patient, they should negotiate in agreement. It requires an active role of the patient and a conscious choice of the patient to be part of the treatment. Dialogue where a patient learns from the nurse and the nurse learns from the patient is important. (Airaksinen, Pitkälä & Routasalo 2008, 121.) Importance of dialogue is significant because the patient may have wrong beliefs of the needed drug or the treatment methods. (Iversen 2017, 136.)

Issues that affect on the patients' compliance with drug treatment are the number and complexity of the drugs and the frequency of dosing. There is a risk of interruption of the drug treatment if the patient thinks the drug is not beneficial or if the side effects are too great. Ignorance towards the patient may affects to the patient's compliance. A confidential and positive care and providing the information of options to the patient are important. Compliance is more qualitative when regimen of the medicines is discussed, and the patient is given feedback of the results. (Nurminen 2009, 64.) Drug therapy instructions among elderly should be as simple as possible. Medical regimen and prescriptions should be clear and those should be also given with written form. (Nurminen 2011, 572.)

Physical functioning and medication

Physical changes in aging may cause problems with the use of medicines. Physical changes may cause for instance shaking of the hands and problems with precision, when taking and dosing of the drug is more difficult. (Hujala & Tiainen 2009, 196.) When a patient is using eye drops, it is significantly important that dosing is aseptic, and the top of the eyedropper should not touch anything when using the medicine. Using of eye medicines requires dexterity

of hand and fingers, this may not be simple among elderly. Thus, as a professional nurse, giving the information of using medicines is highly recommended. (Jaatinen & Raudasoja 2013, 221.)

Problems with physical changes affects to the ability of balance and the ability to modulate movements, muscular strength and coordination. Nurses job is to examine if the patient is able physically to take his medicines and if the patient is able to take the right amount of the medicine. Nurse needs to ensure if the patient is able to put eye drops by himself. When the patient starts a new medicine, there should be enough time to guide the patient. Proper using of medication improves the medical condition of the disease. (Eloranta & Punnanen 2008, 59, 143.)

Memory disorders and medication

Memory disorders damages the human brain, deteriorating performance.

Memory disorders are common among elderly people. (Muistiliitto, 2017.) A patient with memory disorder may be restless, angry or even violent. He may ask the same questions several times or talk continuously. He may also be suspicious, mean or absent. (Alhainen, Erkinjuntti & Vataja, 2005.)

Getting older decreases the function of memory, memory disorders decreases it more. Memory problems due to ageing do not usually affect into daiy living, but memory problems due to memory disorders may affect to a daily living of an elderly. Data processing become more difficult when memory disorder is diagnosed. Attention deficit, visuospathic functions and memory retrieval are common problems for a patient with memory disorders.

(Erkinjuntti, Hietanen, Hokkanen, Hänninen, Jokinen, Karrasch, Poutiainen, Pulliainen & Ylikoski 2012.)

A patient with memory disorder may not be able to take care of his own individual or assisted care. (Heimonen 2015, 124.) However, the patient needs to

receive information of his medication. Even if the patient is not taking the medicine by himself, the drug should be given to the patient in common understanding. (Huupponen, Huupponen, Kaukkila, Tornainen & Veräjänkorva 2006, 161.)

A patient with proceeded memory disorder is often dependent of the care of his relatives. Relatives have knowledge of the patient, they can participate to patient's care. They are able to tell about the patient's personality and the patient's wishes considering his care. They ensure the feeling of safety for the patient. Relatives can ensure the patient's medical history, allergies and medicines which are in use. (Terveyskirjasto, 2012.)

5.2 Guidance of a visually impaired patient

At least 50% of visually impaired patients need help with their daily life. Finding a destination, navigation and finding different objects may be complicated for visually impaired patients. There are over 140 products and systems which help visually impaired patient's daily activities. (Auvraya, Brillhaultb, Bruneta, Denisa, Dramasb, Gallaya, Gutierrezb, Jouffraisb, Kammounb, Katza, Oriolab, Parseihian, Thorpec & Truilletb 2012, 163.)

The vision of visually impaired patient is affected by lighting, contrasts and dazzling sensitivity. His state of alert also affects to his ability of vision. He may have problems with balance and perceiving distances. Nurse should be proactive in meeting of visually impaired patient. Nurse should greet the patient aloud and, while greetings, may touch the hand of a patient. It is important to keep the patient up to date by telling aloud what the nurse is going to do. For instance, when the nurse is leaving, he should tell that aloud to the patient. (Näkövammaisten liitto ry 2017, 2-3.)

When nurse speaks to the patient, he should touch the patient while speaking. Nurse can also use the patient's name while speaking. Otherwise the patient may not realize that the nurse is talking to him. When nurse is walking with a visually impaired patient, the nurse should offer his hand to the patient.

When nurse gives advices to the patient, precise terms should be used, for instance "on your right side", "on your left side", "in front of you." (Eloranta & Punkanen 2008, 94-95.)

Walking with a visually impaired patient is easier when the nurse walks in front of the patient and the patient holds nurse's hand. The speech of a nurse should be directed directly to the patient, not to his possible assistant. The visually impaired patient usually hears well. (Näkövammaisten liitto ry 2017, 5, 7-8.)

Supporting the patient's participation and senses is important factors in clear guidance. It should constitute a logical whole, proceeding from extensive to detailed. Attention should be given to issues which interest the patient, (thus moving and perceiving is easier). Information which is incorrectly understood should be solved. (Lahtinen, Lahtinen & Palmer 2009, 36.)

5.3 Meeting an elderly patient

According to an article Implementing a care pathway for elderly patients, a comparative qualitative process evaluation in primary care (2015) regular check ups among elderly improve the quality of elderly care. More coordinated health care for elderly people should be organized. (Garåsen, Grimsmo, Håland, Kristoffersen, Steinsbekk & Trøststad, 2015, 1-2.)

Building a cooperation between a nurse, a patient and his relatives is one of the most important cooperative relationships in nursing care. Building a relationship starts from the first meeting with the patient, and the first experience

often defines how the relationship is going to develop in the future. (Ala-Nikkola 2003, 77.)

An elderly patient is a unique human being. As a nurse it is important to appreciate elderly patient's values, opinions, expectations and wishes. Elderly people are not aging similarly, aging is an independent period of time. Personality and individuality may be increased during old age, this is good to be taken into account when taking care of an old patient. Elderly people appreciate when their privacy has been taken into account during their care. Privacy increases patient's feelings of safety and self-determination. (Kivelä & Vaapio 2011, 20-21.)

Human proximity is one of the most important things in elderly care. This will not be fully realized if the patient does not receive enough time from the nurse or if the nurse does not consider the patient as an individual. Ethicalness is present in the care of elderly. This implies that the nurse meets the patient genuinely and is willing to create safe and open ambience. Elderly care emphasizes customer oriented approach, dialogue interaction and mutual trust. The nurse should aim for the best of the elderly with all his actions. (Räsänen 2011, 37, 41.)

According to an article Choosing and using: patient choice in 'Choose and Book' elderly people appreciate trust and loyalty instead of medical decision and decision making even if they are aware of their rights in medical care. The relationship between a patient and a nurse is highly important when concerning to a patient's status in his care. When an older patient receives trust and loyalty with his nurse, the patient feels that their choice is based on accurate information. Nurses should be honest to their patients. Truthful care will lead to realistic expectations. (Bentley & Fletcher, 559, 562.)

6 Discussion

6.1 Ethical considerations, validity, reliability

Ethical acceptability and reliability of the results of scientific research require the research to be conducted in accordance with scientific guidance. (Finnish advisory board on research integrity 2006.) According to Finnish advisory board on research integrity, scientific research should be honest, accurate and meticulousness. References should be written with respect to the work of other researchers. Each writer is responsible of his study's scientific aspect. Research misconduct consist of four main categories: fabrication, falsification, plagiarism and misappropriation (2012.) Reliability and validity assess the quality of data collection. In order for the research results to be valid, the collection of information must be reliable. (Laerd Dissertation 2012.)

The educational background and experiences in working life influenced in the selection of the topic. As the number of elderly people is increasing, the study is topical and it has societal meaning. Information has been retrieved from several sources, concentrating on the newest information. Other researchers' studies are respected, there is no plagiarism or misappropriation. There are no fictitious results in the study nor fictitious observations. The study is written alone. The study might be more valid if there would have been more writers, thus there would be all the time more critical feedback.

6.2 Discussion of the results

Based on the results, impairment of vision affects to medical treatment, ability to move and to communicate. Elderly people are the biggest group which is using medicines. Several drugs, synergies and incorrect medical treatment may lead to severe disadvantages among elderly. (Jaatinen & Raudasoja 2013,

40.) Nurse is responsible to have knowledge of effects of medicines and inspect more information if needed. The nurse is responsible of giving information of the medicines to the patient. The nurse has extensive responsibility of his patient's medication. (Huupponen, Huupponen, Torniainen & Veräjänkorva 2006, 84-85.) Nurse should take care of his patients so that the care would be most beneficial and least disadvantageous. (Ketola 2008, 114.)

It is common that an elderly people has several different diseases. One of the diseases may be memory disorder. Memory disorders affects negatively to the goal of the treatment, and it may be more complicated to start the treatment. (Finne-Soveri 2016.) Hence the nurse needs to be professional and trustworthy. Good communication skills promote the relationship between the nurse and the patient. The nurse should be present and appreciate elderly's own opinions. Ensuring if the patient is able to take care of his own treatment is one of the nurse's tasks. The nurse should be able to combine several information into one entity to reach the goals of the treatment. (Lähdesmäki & Vornanen 2009, 26-28.) Relatives can cooperate with nurses to strengthen the patient's best quality of life. (Räsänen 2011, 38.)

Nurse needs to be precise in his guidance, as he is talking to a visually impaired patient. It is good to explain what the nurse is doing. The patient should not be left alone without telling about it. Visually impaired and blind people should be treated like normal people, for instance words "see" and "read" can be used normally, visually impaired people have the same vocabulary as people with normal vision. Talking should be directed to the patient at the same level, facing the patient if possible. Nurse should tell the patient about possible sounds but there is no need to raise voice, visually impaired patients usually hears well. (Stevens 2003.)

As the number of older people increases, more knowledge and skills are required from nurses. Studying the anatomy of the eye and eye diseases is quite limited during nursing studies. Further research is needed on how nursing

students experience the received information about eye's anatomy and eye diseases, is it adequate?

More attention should be already paid for wellbeing of elderly people. The increase of different diseases is increasing with aging. Preventing illnesses with nurses' reliable knowledge and skills prevent early transmission of elderly to nursing homes, thus improving the quality of life of elderly.

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