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Xiangrong Fang, Juan Chen, Cailu Ye

PREVENTION OF DEMENTIA AND CARE OF DEMENTIA PATIENTS FROM NURSING PERSPECTIVE

-BEST PRACTICES AND DEVELOPMENT NEEDS

TURKU AMK
TURKU UNIVERSITY OF APPLIED SCIENCES

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Supervisor: Tiina Nurmela PhD

Xiangrong Fang, Juan Chen, Cailu Ye

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Dementia is a syndrome characterized by neurodegeneration leading to irreversible progressive deterioration in cognitive ability and capacity for everyday activities in independent living. Alzheimer's Disease is the most common type of dementia. The population of dementia is growing rapidly as the world population aging. It dramatically affects the quality of life of patients and burdens the pressure of society. (Ferri, Prince et al. 2005.) Conquering dementia is a long war globally based on the huge influence for the patients and society from this disease. The preventions and therapies of disease are significant to improve the patients' daily life. However, it is difficult to find out the best way to prevent and cure dementia. The medications for treating this disease also have their limitations and side effects.

The aim of this thesis is to find out the best ways to prevent and care dementia patients from nursing perspective. To achieve the aim of this paper, these 3 following research questions were formulated: What are the nursing means in preventing dementia? What is the role of nurses in dementia patients' care? What kind of nursing care is provided for dementia patients in different phase of the disease? The method used in this thesis was literature review. Choosing the keywords of this topic, combining inclusive and exclusive criteria to search the relevant articles. The databases which authors used were Cinahl Complete (EBSCOhost), PubMed and Elsevier: Science Direct. Databases are available in Turku University of Applied Sciences library.

The evidence and results gathered in this thesis demonstrate that there are preponderant advantages related with effective prevention and quality nursing care for dementia patients. In the early stage of dementia, available information and medical service will improve the prognosis and decrease the complication of disease. The information presented in this literature review provides nurses with current and relevant material concerning best practices in care for patients with dementia such as the role of nurses in prevention and care of dementia patients, communication, support family caregivers and improvement of palliative care.

KEYWORDS:

Dementia, Alzheimer disease, care, prevention

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LIST OF ABBREVIATIONS (OR) SYMBOLS

ACP	Advanced care planning
AD	Alzheimer’s disease
ADRDA	Alzheimer’s Disease and Related Disorders Association
ADL	Activities of daily living
BBB	Blood–brain barrier
CARE	Communicating About Relationships and Emotions
CVD	Cardiovascular disease
NHS	National Health Service
PAINAD	Pain Assessment in Advanced Dementia
T2D	Type 2 diabetes

1 INTRODUCTION

Dementia is a syndrome characterized by neurodegeneration leading to irreversible progressive deterioration in cognitive ability and capacity for everyday activities in independent living. Pathologies of dementia include Alzheimer's disease, vascular dementia, Lewy body, and frontotemporal dementia. (Prince, Bryce et al. 2013.) The European Union has reported prevalence rate of 5.9 to 9.4 percent for the aged above 65. Alzheimer's disease (AD) is the most common type in dementia and it takes up around 60% of the prevalence. Dementia causes disturbance of multiple brain functions including memory loss, difficulties with thinking, orientation, comprehension, problem-solving, learning capacity, language, and judgement. And the impairments of cognitive function are commonly accompanied, and occasionally preceded, by deterioration in emotional control, social behavior, or motivation. (Kalaria, Maestre et al. 2008.)

Statistics shows that total population with dementia globally in 2015 is around 47 million. A new onset of dementia will be diagnosed per 3 seconds, the population with dementia will increase to 75 million by 2030 and 132 million by 2050. (Lee, Bamford et al. 2017.)

Population aging is having a significant influence on the tendency of the dementia epidemic, and is getting society attention. Even though the diagnosed age for dementia is becoming younger. The risk of developing dementia is increasing as people getting older. People who are over the age of 65 years old are more likely to have dementia. There are 50% of people over age 85 diagnosed as dementia. This disease has become a severe society problem as the trend of aging population globally. (Duthey 2013.) It is reported that 60% of dementia patients are living in low and middle-income countries such as China, but the extraordinary huge amount cost of this disease will challenge the health care system (Ferri, Prince et al. 2005). Drastic growth in the numbers and percentage of aging population are predicted in China, India and other

developing countries. By 2050, people who are over 60 will increase up to 1.25 billion which constitutes 22% of the global population, accounts for 79% of population in the developing areas due to lack of education and awareness and insufficient diagnostic assessment. (United Nations. Population Division 2002.) For instance, people with dementia categorized as ordinary ageing account for 49% of patients and only 21% of which had proper access to diagnostic assessment (Zhang, Zahner et al. 2005).

Most cases of dementia are not widely affected by genetics, even though 0.1% of patients under age 65 are found related with genetic reason (Blennow, de Leon et al. 2006). A couple of researches demonstrated that environmental effects play an important role to dementia progress. In a recent review Richard Mayeux and Yaakov Stern concluded that diet, daily activities or chronic diseases are key risk factors in the onset of dementia. Diabetes, hypertension, smoking, obesity, and dyslipidemia have all been found to raise risk as well a history of brain trauma, cerebrovascular disease, and vasculopathies. A higher level of education, as well as Mediterranean diet were shown to decrease the risk of developing AD. The possible mechanisms include cerebrovascular effects, parenchymal destruction, oxidative stress, insulin, increased risk of type 2 diabetes inflammatory, lipid metabolism and mental stimulation. (Reitz, Mayeux 2014.)

As the rapid ageing population and estimated increase in dementia patients, dementia is now at the forefront of health care. And the necessity of nurses in a variety of clinical settings understanding dementia is becoming more significant. Nurses are the persons who contact dementia patients especially in acute cases where 97% of nurses already care for someone with dementia. (Alzheimer's Society 2009.) It is essential that nurses have the knowledge of the disease and being able to set individual nursing care plan according to each patient’s needs. Person-centered scenario and interventions of dementia have been expanding, and nursing is the key point to accomplish them. Even though dementia care has expanded, plenty of progress is needed. Nurses should make sure that their knowledge should keep pace with times and care plan should be updated in time. The objective of this thesis is to discuss the effective prevention

methods for dementia patients, and provide the best approach in caring dementia patients. It is emphasized to understand different roles in caring dementia patients as a nurse, this paper includes the detailed procedures which can be utilized in nursing care and how to support family care givers with dementia patients. Dementia is an incurable progressive disease which is increasing rapidly for the moment globally, the pressing situation calls for attention from medical professionals as well as the whole society, nurses are those who spend the most time with the dementia patients and they can implement the advance care planning to improve the quality of late stage patients. It is crucial to identify and avoid the risk factors of dementia to minimize the onset and avoid poor prognosis, nurses should take the initiative action to help dementia patients to achieve the best quality of life they could.

2 FACTS OF DEMENTIA

2.1 Epidemiology of dementia

Dementia is currently now a critical issue in public health, economic, social and political, and accumulates numerous investment in to research. According to numbers from the World Alzheimer Report 2016, the total amount of people who have dementia is 46.8 million and it is estimated to increase to 74.7million by 2030 and 131.5 million by 2050. (Wu, Beiser et al. 2017.)The grave consequence of the alarming prevalence is that more and older aged may get demented.

The total budgets of dementia care accounts for large part in finical output of a country. For instance, the cost in diagnosis of dementia accounts for the UK economy £26 billion a year and just the treatment attributed to around £4.3 billion of National Health Service(NHS). (Knight, Harrison Dening 2017.) It is a huge pressure for the society to support the patients who have dementia. It is a persistent war to fight against dementia.

There are several types of dementias including Alzheimer's disease, vascular dementia, dementia with Lewy bodies, and a group of diseases that contribute to frontotemporal dementia. The distinctive between subtypes are obscure and always

co-exist. AD is the most common type of dementia and approximately accounts for 60% to 70% of cases. The typical early sign is having difficulty remembering recent events or people's names, and gradually accompanied by diminished communication, disorientation and difficulty in talking, eating even walking in end stage. (Draper 2011.) 20 to 30 percent of cases belong to vascular dementia which consists of the secondary amount of dementia. Frontotemporal dementia including Pick's disease accounts for 5 to 10 percent of cases and usually diagnosed in young people. Dementia with Lewy bodies is expanding wildly accounts for up to 5 percent of cases. If it occurs with Alzheimer's disease, that figure would be 15 percent. Other chronic disease and misbehavior could lead to dementia such as alcohol abuse, hypothyroidism, vitamin B12 deficiency and Parkinson's disease, there are also rare possibilities of brain tumors, normal pressure hydrocephalus, progressive supranuclear could cause dementia. To summary, dominant reason of dementia is Alzheimer's disease or vascular dementia. (Draper 2011.)

The pathogenesis of Alzheimer's disease is a gradual neurodegeneration and impaired brain function process explained by dysregulation of brain cell function. It would cause subsequent symptoms such as apraxia (distorted motor functions), aphasia (language disorder) and disorientation of space and time. (Draper 2011.) Vascular dementia is characterized by impaired blood vessels and various circulatory disorders in brain. Pathology of Dementia with Lewy bodies and frontotemporal lobe dementia is remaining unknown. There is a tendency that frontotemporal lobe dementia is subjective to genetic inheritance. (Pryjmachuk 2011.)This disease affects day to day activities of the person and reflected in the individual behavior, changes in personality and cause many clinical complications. In the early stage, the disease does not show any symptom. The aged person may be exposed to the risks such as hip fracture and urinary incontinence. The patients will require the personalized treatments and the symptoms may go on vary with passage of time and may be different from each patient. It may finally result in "permanent cerebral dysfunction". (Crisp, Taylor, Douglas & Rebeiro, 2013.) This clinical condition increases the dependency on nursing care.

2.2 Diagnostic criteria and Risk factors

The Alzheimer's Disease and Related Disorders Association (ADRDA) emphasizes problems of patient's history, clinical examination, neuropsychological testing and laboratory results in diagnosing dementia.

Patients with dementia usually experience impaired function ability in daily activities or work, the diagnosing of dementia mainly involves the cognitive and behavioral alterations in a minimum of two of these domains: 1. Impaired ability in remembering information—such as forgetting appointments or getting lost on a familiar route. 2. Impaired ability in inference and handling complicated matters, poor judgment such as poor understanding risks, symptoms include: poor understanding of daily risks, can't manage normal finances, inability to make decision, inability to make plans. 3. Impaired ability in visuospatial abilities symptoms include poor ability to recognize relatives or normal objects, inability to operate simple facilities, or orient clothing to the body. 4. Impaired ability in language related abilities such as speaking, reading, writing-symptoms include difficulty in expressing simple words while speaking, reading, writing or appear tiny errors about language. 5. Alteration in personality, behavior-symptoms include unstable mood such as agitation, anxious, apathy, obsessive compulsive disorders, indifferent to previous activity, socially unacceptable behaviors. (McKhann, Knopman et al. 2011.)

In addition to the above findings, there are two major categories of dementia risk factors, namely modifiable and non-modifiable. The modifiable risk factors are related to personal life styles, medical and dietary. On the other hand, the non-modifiable ones are closely related to age and genetic factors. If the care processes address the modifiable risks in advance, it is possible to reduce the risk of vulnerability to dementia.

Same with other chronical diseases, dementia also has its own risk factors including cerebrovascular disease, hypertension, type 2 diabetes, body weight, traumatic brain injury, etc. Dementias is progressive and can't be cured yet it is important to recognize risk factors of dementia because we need to prevent dementia from minimizing these

risks. Understanding these risks is a key point.

It is unclear that how cerebrovascular changes increase the risk of dementia such as hemorrhagic infarcts, small and large ischemic cortical infarcts, vasculopathies and white matter changes. Damage of brain regions caused by infarcts or white matter hyperintense leads to poor memory such as thalamus and the thalamocortical projections. There is a divergence about blood pressure levels measured in late life with decreasing cognitive ability and dementia from several studies. (Posner, Tang et al. 2000.) Hypertension may increase the risk of AD by vascular integrity of the blood–brain barrier (BBB), leading to protein extravasation into brain tissue. As people getting older, the influence of high blood pressure on dementia risks decreases. (SHEP Cooperative Research Group 1991.) Type 2 diabetes(T2D) would double the incidence of dementia. T2D is also a risk factor for stroke and is accompanied by other vascular risk factors including hypertension and dyslipidemia. Both low and high body weight have the trend to increase the risk of dementia with U-shaped relationship, dementia patients with high body weight seems to be caused by central obesity. (Whitmer, Gustafson et al. 2008.) Besides, evidence showed that preceding dementia onset caused by loss of body weight due to malnutrition during the prodromal phase of dementia (Gustafson, Bckman et al. 2009). Retrospective studies revealed that patients who have traumatic brain injury history are prone to higher risk of dementia. Fleminger (2003) demonstrated that the risk of dementia was higher in men than in women among patients with traumatic brain injury.

Protective non-genetic factors include diet, physical activities and Intellectual activity. Evidence shows that Mediterranean diet which is characterized by a high intake of vegetables and fish, with olive oil as the main source of monounsaturated fatty acids, a low intake of red meat and poultry and a moderate intake of wine, is related to a reduced incidence of AD. (Scarmeas, Stern et al. 2009.) Epidemiological and experimental data showed that brain health can be improved by physical exercise. Physical activity could enhance cognition through an increase in blood circulation, oxygen extraction and glucose utilization, as well as activation of growth factors

promoting structural brain changes, such as an increase in capillary density. (Dishman, Berthoud et al. 2006.) Several studies suggested that people who did not participate in cognitively stimulating activities, such as learning, reading or playing games, had higher possibilities to develop dementia than individuals who did (Reitz, Mayeux 2014).

2.3 Prevention of dementia

Prevention is a series of actions taken to “eradication, elimination, or minimization” of the impact of the disease of dementia (Frankish, Horton 2017). There are three types of prevention methods practiced in the health care system. In the first stage, the prevention happens before the onset of the symptoms of disease; in the second stage, symptoms are identified and the progression is reduced with the help of medication and surgical procedures. In the third stage, the treatments are given to halt the progression. All the three types of preventions are used in the dementia prevention. (Savica, Petersen 2011.)

The studies show that one in three dementia can be prevented. Lifestyle changes can help reduce the onset of dementia. In prevention of dementia, eliminating the risk factors at various stages in life has a key role. (Frankish, Horton 2017.) informed that socially activity, childhood instructions, anti- smoking therapies can prevent the risk of developing dementia. The dementia can be prevented with the help of exercise, socializing, healthy diet, preventing head injuries, and mental activities.

3 AIM OF THE STUDY AND RESEARCH QUESTIONS

This thesis aims at investigating the methods to prevent dementia in terms of nursing situation and how nurses can provide the high quality care in caring dementia patients.

The purpose of this thesis is to conduct a literature review which examines the following questions:

- What is the role of nurses in dementia patients' care?
- What can nurses do to help patients in prevention of dementia?
- What kind of nursing care is provided for dementia patients in different phase of the disease?

Ultimately, this review is to answer the questions listed above to provide nurses with relevant information relating to best practices in dementia patient care. This content can be interpreted for those, and their loved ones, suffering from dementia.

4 METHODOLOGY

Data search method of this thesis is the literature review which is a survey to search the relevant research or non-research articles, books and other sources related to research topic. Critical analysis of a segment of knowledge through summary, classification and comparison of prior research studies, reviews of literature and the theoretical articles.

4.1 Literature review

The literature review is an important way to combine the previous published research articles and findings with the relevant topic which researchers want to analyze. It should be clear of search and selection strategy. A good literature review should have sufficient and useful data to support the specific topic. Personal viewpoints shouldn't be written and contained in the review. (Cronin, Ryan et al. 2008.) It presents a summary, description and critical evaluation of a topic, issue or area of research. It

should not be mixed with a book review which sums up the book and has a less structured format. (Daren 2015.)

According to Cronin, Ryan et al. (2008), there are four categories of literature review: narrative or traditional literature review, systematic literature review, meta-analysis and meta-synthesis. The narrative or traditional and systematic literature review are the two important classifications among these types. Traditional review provides a wide summary without a clear methodological method. Information is collected and interpreted unsystematically with subjective summaries of findings. Authors describe and discuss the literature from a contextual or theoretical point of view. The purpose of this review provides the complete background to understand current knowledge and shows up the meaning of the new research. However, systematic reviews are overviews of a literature which should be undertaken by identifying, critically appraising and synthesizing. The results come from primary research studies under using a clear and methodological approach. Systematic review aims to summarize the best available evidence on a specific research topic. (Cronin, Ryan et al. 2008.)

There are several aspects of literature review. It includes: Summarizing the review's subject and the objective; Analyzing the clear view which supports, opposes and shows neutral by author; Explaining the similarities and differences between the works; Comparing different ideas with other authors; Evaluating the methodology; Checking the gaps in the research; Evaluating each study how to explain the questions; Summarizing the literature review. (Daren 2015.)

It always reveals the small difference between the previous studies and the current knowledge. The most initial aspect of literature review is to ascertain one or several questions which are related to the researching topic. By these questions to identify the suitable methods. Next, to find out what other authors have already discovered and written about these research questions. In addition to the seminar pieces, these published articles should be current. It is best to search these articles which were published within 5 years of the present date. (Neill 2017.)

4.2 Data search

It is mentioned that there are five steps to write the literature review. First is using the standard format to write the literature review. Familiarize the cores of writing style, including fonts, margins, spacing, body text format, title pages, abstracts, text citations, bibliography, and quotations. The second one is the topic which is interested. Next, selecting the literature from numerous online databases. It should be correlated to the field of study. There are many kinds of searching engines such as the Google Scholar or Academic Info. Authors should set the criteria of inclusion and exclusion, decide what kind of material will be accepted for the studying thesis. Keywords are used to search the material through the following databases Cinahl Complete (EBSCOhost), PubMed and Elsevier: Science Direct. Databases are available in Turku University of Applied Sciences library. Authors chose these relevant articles by reading the titles first, then via reading the abstracts of the chosen ones and finally by reading the entire contents of the articles thoroughly. The fourth one is analyzing the literatures. The last step is writing review after analyzing the literatures. (Daren 2015.)

4.2.1 Searching the literature

Selecting the topic is crucial for starting the literature review. The topic shouldn’t be too broad or narrow. It is difficult to research the review with vast topic. (Neill 2017.) Detailed and focused topic is preferred recommendation for students. Nursing students prefer to choose topics which relate to nursing care or final thesis projects. (Daren 2015.) It is better for the reviewer to discuss the potential topic with other people to set up the interesting topic finally.

It is vital to have adequate materials for the topic which reviewer interest in. The time for the reviewer completes the literature review is always short, thus having enough literature is necessary to study the review and finish it punctually. (Cronin, Ryan et al. 2008.)

Searching the literatures from the computer is fast and essential way for literature

review. Make sure the clear topic of thesis, without the specific questions, literature searching will not be focused adequately. Searching process of the literature is a channel to examine these literatures that relate to questions and to ascertain sources which need to be identified in detail.

Databases used which mentioned before are Cinahl Complete (EBSCOhost), PubMed and Elsevier. Make sure to search the useful materials, the authors combined the keywords with the inclusion and exclusion standard. By the inclusion and exclusion criteria, many literatures are limited, just the most appropriate literatures are included. (Aveyard 2014.) Therefore, the criteria of inclusion and exclusion should be unmistakable.

According to Wakefield (2014), the process of filter the literatures by following five major aspects: 1) Title: the title of one literature is a determinant to decide whether it direct to the topic which authors are interested in. 2) Abstract: the content of full abstract compare with the topic, with inclusion and exclusion criteria to see if the articles are suitable. 3) Full text: compare the content of full text with the topic, using inclusion and exclusion criteria to see if the article meets all requirements. 4) Type of article: In this last stage, deciding whether the article is required.

There were plenty of articles which focused on not only just on prevention or nursing care but also on all the aspect of dementia. Meantime, there were also many articles which explained about different therapies for treating or preventing the symptoms of dementia. In some articles explained about the prevention and care could be conducted whereas only mentioned the name and its significance without the previous discussing.

Keywords searching is the most usual and convenient way to find out the relevant articles. Different databases may have the dissimilar terms to search. Using substitute keywords with similar meanings that might bring out further information. (Cronin, Ryan et al. 2008.) There were several keywords: prevention, care and dementia used in this thesis.

In this thesis, prevention means the act of stopping dementia. Health prevention of dementia will play a significant part in supporting the early diagnosis and treatment, keeping the older dementia patients with functions as long as possible. (Andrieu, Aboderin et al. 2011.) Care that authors decided to focus on nursing care relates to the moral, human trait, ethic. The caring targets in this thesis are weak and vulnerable dementia patients. Dementia is a disease with declining cognitive function or losing behavioral ability that can intervene with a person's daily life and affects older people mainly (Fink, Snook et al. 2017).

4.2.2 Inclusion and exclusion criteria

There were several optional languages for authors to utilize when analyzed these articles from different scientific journals. The free full text articles were available for students in Turku University of Applied Sciences, and these literatures chosen were published after the year 2007. The criteria of exclusion and inclusion for choosing articles by the authors are cited in table 1.

Table 1. Inclusion and exclusion criteria of the literature

Inclusion criteria	Exclusion criteria
Literature published in English language.	Literature published in language other than English
Full text articles with citations.	Articles with only abstract available
Published in 2007 or later	Published before the year 2007
Published literature	Non-published literature
Available free for Turku University of Applied science students	Non-free journals and articles

4.2.3 Data found as search result

The final chosen databases for this thesis included Cinahl Complete (EBSCOhost), PubMed and Elsevier. Different keywords were used in databases to find out sufficient

and relevant literatures. After that, certain number of articles were excluded by using inclusive and exclusive criteria. Finally, articles were selected for the literature review.

During the search process in **Cinahl Complete (EBSCOhost)** with full text the keywords dementia, prevention, care and nursing were used. Different Boolean operators were used such as 'AND','OR' and 'NOT'. (Ely, Scott 2007.) The basic criteria such as: full text, articles in English and published from year 2007. CINAHL with full text showed 215 hits initially. After reading the titles and 95 articles were included. Subsequently, there were 80 articles were chosen and 15 were excluded by reading abstracts. Finally, there were 65 literatures included and 15 were excluded after reading carefully. Hence, the last numbers of relevant articles were 65 in this database.

In **Pubmed**, prevention, care and dementia were used as search words like before. 16 articles left in the beginning. After reading the titles of these articles, 5 article was included and 11 articles were excluded. With reading abstract of that 5 article and that was still excluded after that.

While searching articles from **Elsevier: Science Direct**, keywords dementia, nursing care, were used along with Boolean operators AND and OR. Additional screening condition of article type is review, publication titles are International Journal of Nursing Studies and Nursing Clinics of North America. Different available criteria's including searching only full text articles with abstracts were being used to limit the amount of search results. The search resulted in 56 hits. After reading the topic of the articles, the irrelevant articles were discarded as the researched topics were too specific and had no relevance to this thesis. The remainder 30 articles were further read thoroughly. After reading the abstract of all these 30 articles, 20 articles were found to be valid for this thesis. After carefully reading these 20 articles, they were included for use in this thesis（figure1）.

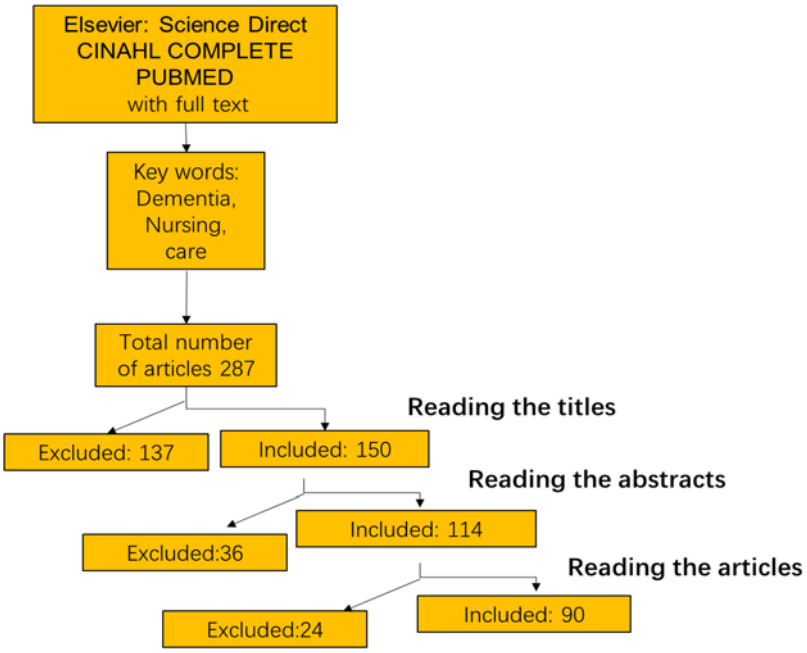

Figure 1. The search process of Elsevier: Science direct with Full Text articles.

The topic of this thesis was prevention and care of dementia which has been a huge attention in the world. Not only the scientists who study the developing of dementia disease but also the health givers who take care the patient living with dementia in his or her daily life. These concepts which authors chosen for the thesis were based on previous researched theories, literature reviews and models.

At this stage of analysis of thesis, that the authors should determine which literatures are available for explaining the topic or solving the questions. The overall aim in authors' mind is to select the relevant literature. (Cronin, Ryan et al. 2008.)

In this thesis, the objective was prevention and care of dementia from nursing perspective-best practices and development needs. The process of analyzing can be divided into three parts: preparation, organizing and reporting. These three phases were used throughout the process of analysis. The usage of deductive reasoning was to gather information from different source and induction reasoning was running for the compilation of categories. The reviewers should check these literatures carefully. After reading, sorting the literatures and writing the headlines to make sure all aspects are presented. In this thesis, the final categories were the preventions and care solutions to improve the quality of life of a dementia patient.

The list of articles chosen for explaining the methodology can be referred from appendix 1.

4.3 Reliability and Ethics

Ethics is one of the important sides of literature review, especially in the nursing aspect which contains the practice and the research. Nurses should recognize many ethical issues in practice and research. Using the nursing code of ethics to solve these ethical issues. (Badzek 2008.) The targets of nursing care or research of nurses are always connected with the welfare of the sick, injured, and weak persons in society (Mallari, Grace et al. 2016). The principles of ethics are relevant to respect for persons, kindness and justice (Cartwright, Hickman 2007). The ideas and ethical norms are essential to set about a nursing research. A practice of ethics and ethical decision making is significant for the nursing practice or research. (Mallari, Grace et al. 2016.)

The databases chosen in this thesis come from scientific journals and research articles which have already established to be valid and ethical. The original literature are mentioned in the text and bibliography. Because of this thesis is a literature review that there is no necessary to get patient identification or approval from ethics committee. The reliability of this thesis is maintained by admitting the used original literatures and citations. This core of literature review is based on previous research material and suggestions. Further studying and analysis needed to prove or modify the contents further to attain a scientific conclusion by the standard research methods. All used material collected from trustful databases with free access.

The list of articles chosen for explaining the reliability and ethics of methodology can be referred from appendix 2

5 METHODS FOR DEMENTIA PREVENTION

5.1 The effect of physical exercise and diet

The physical exercises will provide following benefits: the exercise will help in improving joints and muscles. It also gives the person a sense of independence. These benefits can prevent the onset and further progression of the disease. It may also include cardiovascular disease (CVD) and hypertension. (Kwak, Um et al. 2008.) The role of the nurses is clear, they should supervise the daily activities of the aged at the care facility and they will encourage the patients to participate in the daily exercises. Nurses are expected to develop therapeutic relationship with the patients. They will help the patients to develop realistic goals for physical activity. Daily physical regimen will improve the cognitive capacity and help in socialization. It is important to reduce sense of loneliness in the affected person. (Nazarko 2009.) Thus, nursing intervention has a key role in continuation and conduct of physical exercises, which can prevent the onset and progression of dementia.

A nutritional diet is the most promising form of preventing the progression of dementia. There is evidence to show that the Alzheimer's disease (AD) can be prevented by way of proper food intake. (Swaminathan, Jicha 2014.) AD is a most common cause of dementia found in the old aged persons. At present there exists no cure for this type of dementia; however the evidence shows the environmental risk factors can be managed in prevention. (Gillette-Guyonnet, Secher et al. 2013.) The nutritional diet strategy can be applied to "prevent, halt and slow" the process of progression of dementia.

There is evidence to show that "metabolic derangements" are caused due to inadequate nutrition in dementia (Cardoso, Cominetti et al. 2013). Further the nutritional supplements and modified diets can affect the pathological state of the person with dementia. Mediterranean diet is recommended in some epidemiological cohort studies. They suggest that diet with cereals, fruits, fish and vegetables can lower

the risk of deterioration cognitive abilities.

Some dementia forms impact appetite. It results in weight loss and other related problems. In such cases, malnutrition becomes an issue for the patient. So, the patient food intake has to be regulated to prevent the behavioral and cognitive problems.

The nutritional diet cannot reduce the progression in dementia but it has therapeutic advantages. E.g. Vitamin E can reduce the clinical progression of dementia. The studies show that Vitamin B12 with higher mechanistic plausibility can reduce possibility of dementia. Micronutrient supplementation can reduce the course of dementia. (ADI, 2014.) Thus, the nutritional diet and supplements can effectively reduce the risk of dementia.

5.2 Nurse encourages mental stimulation

Nurses have a role of mediator in the inter-professional team handling the cases of patients with dementia. Nurses are part of the medical team and take care of the patients for 24 hours. (Hughes 2008.) Nurses are delivering holistic care with the help of the team. So, they are engaged with the patients almost all the time. Nurses accompany with the patient in performance of Activities of daily living (ADL), which gives the person a mental stimulation. (Polidori, Nelles et al. 2010.) This is important for developing positive thoughts in the mind of the patient and promotes his wellbeing.

Dementia patients look upon themselves as obstruction due to decline in their physical activities and socialization. They are aware of the limitations of their sense of independence and capabilities of managing their lives. So, the nurses have to provide an appropriate and tender nursing care to increase the internal capacities of the person. (Zamanzadeh, Jasemi et al. 2015.) The patient will be involved in the health care decisions, which is significant to prevent the deterioration as it improves the self-worth of the person and stimulates the mind. In the dementia-affected elderly, the formative phase of dementia includes loss of memory, confusion and fall in attention span. (Desai, Grossberg 2001.) The brain needs regular mental activity and demands challenges to

remain alert. This alertness can reduce the onset of mental collapse and dementia.

Nurses need to make a holistic assessment of the person looking at different dimensions of the life style (Zamanzadeh, Jasemi et al. 2015). The nurses will evaluate the mental capabilities and limitations and functional abilities. In some cases, families and physicians consider minor impairments as a sign of aging. This is dangerous as medical interventions may not be considered. Therefore, nursing assessment is the main element of prevention strategy in the dementia affected patients. (Polidori, Nelles et al. 2010.)

5.3 The effect of socialization

The dementia-affected patients experience isolation due to limited social interaction. It causes memory loss and reduces the cognitive ability. Roach & Drummond (2014) informs that the daily socialization is essential to prevent the feeling of isolation experienced by the old aged persons. This helps to maintain the sense of liveliness. The elderly persons have a feeling of being caught by others in the course of social interaction for not equipped cognitively. They avoid social activities and consider it to be distasteful experience. This causes loss of self-esteem. The aged also consider the social participation demands higher mental abilities, so they become insecure and secluded in the social gatherings. (Brataas, Bjugan et al. 2010.) The longitudinal studies show that the aged people who are socially engaged in regular basic social activities relatively lower decline in cognitive abilities (Pillai, Verghese 2009). In the brain cells, the social activities and experiences promote mental connections. They stimulate the mind i.e. growth of muscle cells. The personal social network for dementia patient is crucial as it leads to interaction between the patient and the people. It is useful for the person to reach out to the people.

Social conversations are important for healthier life styles in the dementia patients. Health of the dementia patients will be affected due to social network in following ways: “social engagement, social support, access to resources and social influence”. (Pillai, Verghese 2009.) Each of these can affect the person at psychological level, behavioral

level and physiological level.

The studies confirmed that socializing can effectively modify biological pathways by psychological and behavioral forces. At the same time, social withdrawal causes harm to decline in cognitive capacities. Even if the patient may have little interaction in early life, the higher interaction in later life can prevent the progression of dementia.

6 ROLE OF NURSES IN DEMENTIA CARE

Nursing care becomes important in case of dementia as it can adopt the holistic care model with special attention given to different dimensions of a patient's health – physical, social, emotional and mental. Nurses can provide dignified and long duration care for intensive periods. They can develop therapeutic relationship through intimate care. Nurses are trained in evidence based care, which can give optimal patient outcomes. Nursing can provide quality care so the affected person can retain cognitive ability and lead a quality life for a longer period of time.

Nurses have multiple roles in dementia care. A large quantity of dementia patients is being taken care of by their family members at home, nurses play a role as family based care supporters and coordinators. Nurses are obligated to ensure family care givers have access to available medical service. Nurses participate in the supply of medication and treatment according to physician's order. Another aspect, nurses should be able to build an environment where the patients could be understood correctly based on impaired cognitive function or disabilities. Nurses are responsible in conducting effective communication with patients and other medical professional teams so that they can create a positive care setting. Besides, nurses are responsible in patients' education as well as family care givers. In addition, nurses identify patients' needs and carry out the care plan with the assistance of other professional teams such as occupational therapists, physiotherapists, and social workers.

Most of all, nurses play an important role in prevention care of dementia patients. Dementia is incurable; however, life style factors are held responsible for the progression of the disorder. (Desai, Grossberg 2001.) The nurses can prevent the

development of risk factors by appropriate nursing care. Increase in cholesterol levels, smoking, and hypertension are some of them. Nurses should educate the community to prevent the onset of dementia by adopting healthy lifestyles. They should be learned in the patient centered care to provide optimal solutions. They give patient's diet and nutritional guidance, weight control and recommendations in daily activities and regular check-ups. There are several key elements in dementia care: firstly, an early diagnosis is significant to prolong the deteriorating progress and achieve the optimized prognosis. Then, coordination among different medical professionals should be prepared adequately beforehand to enhance the care in various circumstances (hospital, nursing home, home care). Those prerequisites will allow care givers to implement the advance care planning for dementia patients. (Bkberg, Ahlstrm et al. 2014.)

Care planning for patients with advanced dementia is often suboptimal compared to those with cancer. The situation of dementia's nursing care with increased hospitalization, insufficient pain control and fewer palliative care interference. (Lee, Bamford et al. 2017.) Patients with dementia always live with obvious co-morbidity, these comorbidities affect the patients who have dementia significantly. The quality of life in dementia patients is always unsatisfied due to the poor communication between staff, health services and families. (Agar, Luckett et al. 2017.) Not only does dementia impact the patients' life quality, but also the relatives who take care of the patients.

There are three major places to take care of dementia patients: care homes, own dwellings and hospital. The hospital which provides caring with a both public and private health care system. In the early stage of dementia, the family members are always the caregivers in most of countries. It is a vital process to prevent the aggravation of dementia. As the developing of disease, there are some other organic changes which need to be cared in special caring place such as the hospital. It is necessary to utilize medicines to relieve the symptoms of patients.

Nowadays, there are more and more health care systems trying their best to increase care skills and improve nurses' overall ability to make sure the standard of caring. Dementia is a long-term condition that can't be cured at present, but it can be controlled

by medication and/or other treatments or therapies. The health condition impacts the person's life. (Knight, Harrison Dening 2017.) The specific nursing care of dementia depends on the status of patient. There are many ways to take care of the patients as the developing of disease. There are only four recommended medicines to treat dementia currently. These medicines can't cure this disease but can relieve symptoms or slow down the developing of the disease. The medicine caring is vital for the patients' treatment. Longer hospitalization and greater treatment costs are initial problems of dementia. The care situation of dementia is serious and urgently to be solved.

7 NURSING CARE OF DEMENTIA PATIENTS

7.1 Nursing care of early stage of dementia

The symptoms of dementia in early stage are always not obvious and easily to ignore. Besides, most of nursing studies on dementia have concentrated on caring of patients with moderate to late phase of disease and on caregivers' burden. There is less information about the experience of patients in the early stage of dementia or the shared news of the dementia patients and their relative caregivers. In the early stage of dementia, the individuals without supporting thanks to the few supports of community and absent of early diagnosis. (Elkins 2012.) Patients in the early phase of dementia and their caregivers may need different care and more research is needed to decide which interventions are most useful for them (Burgener, Buettner et al. 2008). The current care methods are mostly applied to the middle to late stage dementia, however, they may not be suitable for the early stage disease. In addition, in this stage, most patients are not ready to learn about the development of dementia. The caregivers receive little information about the disease and supports from clinics during this stage. Hence, the clinical workers especially nurses should pay attention to these ignored situations and try their best to assist patients and family caregivers to achieve

better quality of life. (Hain, Touhy et al. 2014.)

It indicates that patients with early stage disease also have the problem in communicating with others effectively, and patients are quite aware of their problems. Both the patients and the caregivers stated that they are frustrated about the communication difficulties. Therefore, the obsolete ways of communication and administration should be reevaluated. The available methods to maintain and improve communication and cope with stress effectively can be educated. (Williams 2009.) mentioned Communicating About Relationships and Emotions (CARE) as a pioneering route to improve the communication difficulty among the patients and caregivers. CARE assists the patients and caregivers to keep their relationship regardless of the declining verbal communication of dementia person. Nurses should make sure the families know the effective methods to reply to challenging communication and it is useful for dementia patients to practice conversation with a nurse who acts as a caregiver role.

Loss is another concern about the individual in early stage dementia. Many patients indicate the feeling of loss of the relationship with their family members, former roles and the pressure on the relatives related to the disease. (Hain, Touhy et al. 2014.) Sorrow and losses can be reflected from the unobvious reflections like changing of behavior, depression and frustration (Langdon, Eagle et al. 2007). It is significant to evaluate these symptoms in patients with early stage dementia. Even though the developing of dementia is frightening and unpredictable, keep the positive emotion and enjoy life is a way to cope with dementia in early stage. Some previous studies indicate that create a consciousness of dementia and how to live with it is an active and meaningful means that considering emotion of patients and caregivers. The uncertain feeling of disease may be beneficial. This can build a sense of existence but failing to control daily life. It is vital for the patients and caregivers living with the disease. Encouraging them tell their situations and express their feelings. The needs of caregivers are the major part of nursing assessments and interventions, meantime, the express of the dementia patients is also important. (Hain, Touhy et al. 2014.)

Considering individual wish to live day to day is better rather than learn the problems which may be happened in the future. Thinking about the many challenging things instantly is overwhelmed for the caregivers. (Hellstrm, Nolan et al. 2007.) However, this can stop them from undertaking positive planning. Considering that, the clinical workers should encourage and support patients and caregivers of planning for the future. The early diagnosis of disease is beneficial for the planning of forthcoming neediness of the dementia patients. Base on the early diagnosis, the healthcare workers can prepare for the supervisions and treatments of the dementia patients in the early phase properly and successfully.

It is a beneficial way to encourage patients to participate in the programs that improve the function of cognition and physical and slow down the developing of the disease. The feeling of capacity in learning new things, activity in the stimulating activities, and feeling respected are positive for the self-protection of patients. (Hain, Touhy et al. 2014.)

It is necessary to create a setting where the early dementia patients and their relatives can express freely of their feelings and thoughts. Through this, their special needs and challenges can be heard. At the same time, it also avoids the caregivers to conceal their inner side feelings of the dementia patients. Enhancement of relationships between patients and caregivers is significant and may produces a positive effect on them. (Norton, Piercy et al. 2009.) The intention to participate in these activities helps the early stage dementia patients keep maximum cognitive and physical functions as long as possible.

As mentioned before that the early and timely diagnosis is beneficial for the caring of dementia patients. However, it is hard for the doctors to recognize the early symptoms of dementia (Hansen, Hughes et al. 2008). The diagnosis of dementia can be a sustained and repetitive process especially in the early stage. Thus, the nurses play an important role to discover and notice the early signs of dementia depends on the close contact with the patients and their social setting. (Leach, Hicks 2013.) Community nursing provides specialized services to recognize the persons who are

easily to get the dementia that could be a useful route to improve secondary prevention ways (Chin, Negash et al. 2011). Dementia has a big impact on the whole family, hence, all delivered care should consider the situation of family members at the same time. This is essential for nurses to build a good relationship between the patients with the caregivers, and recognizing the initial problems of them. Cooperate with other health and social care providers is also important. (Harrison-Dening 2013.)

The medications treatment is a common way to treat the early stage dementia patients. Hence, the cooperation between the pharmacists and nurses is important to assist the patients receive the best effect from medications. Patients may forget to take medications because of the loss of memory, thus, the nurses can combine with the technology solutions such as medication dispensers. Overall, the early diagnosis, suitable cares and treatments enhance the situations and symptoms of persons with dementia, particularly in hospital or care settings. (Jenkins, McKay 2013.)

The researches indicate that the independent outdoor activities are good for the early stage dementia who prefer to be and are capable of taking part in the outdoors' activities. It will improve the well-being and feelings of self-esteem among the early stage dementia patients. Therefore, the encouragements and actions from relatives and clinical staff to help patients participate in the outdoor activities are significant for the patients. The discussion of outdoor activities also could be a path for the dementia patients to tell the clinical workers who they have been and still are. (Olsson, Lampic et al. 2013.)

There is no doubt that the positive psychology is important for the recovery and treatment of diseases. Without exception that the patients with developing disease like dementia also need the positive emotion. Among these psychology, the hope is vital for the well-being of dementia patients with early-stage who have ability to explore the positive moods from their daily life. The clinical caregivers with hope is important in caring of dementia. (Spector, Orrell 2006.) The health institutions and social organizations play an important role to foster the hope of early phase dementia patients (Wolverson, Clarke et al. 2010).

7.2 Memory care of dementia patients

There are several types of dementia nowadays. Different type of dementia influence different part of a patient's brain, however, the tendency that having difficulty with thinking, problem-solving, language and memory is the overall symptoms of dementia patients. Particularly reflects in shorter-term memory and the abilities to connect with their current life. Memory problems are the common symptom of dementia. Memory loss dramatically decrease the quality of life of patients along with the caregivers around them. This affects the individuals, families and wider community hugely. Unfortunately, some studies which have been researched over many years mentioned that primary care services didn't play an important role in patients and families with dementia. There is inadequate information and advices to the patients and caregivers. It is easy to ignore the symptoms of dementia in the early of stage. Thus, the services to patients and families should be improved, and primary care ability in the recognition and management of memory disorders also be strengthened. (Greening, Greaves et al. 2009.)

Even though patients may be unwilling to see specialists in mental health, geriatrics or even neurology, it is also happy for them to receive assistances from specialist. Therefore, encouragement and support from the Alzheimer's Society or a memory clinic is useful and essential for dementia primary care. Health workers should diagnose the disease as early as possible, it would be positive for patients to take following treatments and cares. Help patients within the practice to improve their general health, slow down the advance of symptoms and secondary injuries. Give patients the memory service with skills, advices and continuous supports. (Greening, Greaves et al. 2009.)

There is a situation for the dementia patients and their families. It indicates that dementia patients with a range of acute physical symptoms are mostly admitted to general medical and surgical wards. Memory loss or dementia disease without serious conditions is not the indication to be admitted to hospital. Overall consideration that it

is not necessary and helpful for the patients who are prone to hospital borne infections or physical and mental health deteriorating to stay in hospital for long-term. Many patients with memory loss return to their own homes in the community is becoming an increasing pressure for the society without sufficient funding. It is significant to develop services and recommendations for patients living with memory loss from acute hospital to the community which will be still afforded continuous health care in their daily life. (Mockford, Seers et al. 2017.) Not only the patients but also the family caregivers should be considered.

Person-centered care should be considered throughout the caring. Clinical solutions to meet the needs of patients with memory loss that reduce unwanted incidents, such as falls and aggressive behavior. Due to the loss of memory, the safety and security come to the top concern of family. (Thompson 2013.) Nurses should give sufficient advices specifically to family members to avoid the injury of patients. Preparing a paper with detailed information about the patients includes the name, address and phone number in case of the loss of patients.

If the patients live in the hospital or care organization, as the health workers, nurses should assess the relatives' visiting, the visits of family members better to be effective and functional for the patients with memory loss. Family members always try their best to help patients to understand the reality. Hence, it is essential to help families build a new relationship with their loved ones, and then to relieve their anxieties and improve the quality of visits. Nurses should assist families to accept the reality that their loved ones with memory losing, they need to know the patients are still their family members, but he or she is changing with dementia. (SULLIVAN RESLOCK 2015.)

As SULLIVAN RESLOCK (2015) mentioned that caregivers play a key role to remind the relatives about the importance of an ongoing relationship with dementia patients, even though the patients don't know who is visiting. Caregivers can educate the visitors that a conversation doesn't just contain asking questions about the current time. Instead, family members need to know how to have a conversation without worrying about what time frame of the patient's memory. Storytelling is efficient for the

communication between patients and visitors. Try to tell a story about the patients' old friends instead of forcing patients to know who they are. It is a trigger of memory when visitors tell a story about patients' life. Families also need to know that there are many kinds of non-verbal things can do which to help patient comfortable. Such as back rubs, massages and holding hands are all nice ways to interact with patient, or just listen to music together.

As the authors referred to before that music is beneficial for the emotion changing of patients, meantime, it is also important for patients with memory loss. There are many kinds of music therapies in the world to improve the memory loss of dementia patients. It was mentioned that even though many memories are losing but the musical memory is always reserved with intact emotions. Music can evoke the emotion of patients and create more important memories, at the same time, the same music can help patients get back those memories. (Jacobsen, Stelzer et al. 2015.)

Musical therapy not only helps patients with memory but also improves the communication, mood and relationships. It is a feasible and easy mean for the caregivers to promote the memory of patients. It is cheap but effective therapy for the dementia patients.

7.3 Effective communication and daily care for patients

It is essential to communicate smoothly with dementia patients in daily nursing care to give them the best care nurses could offer. Patients with dementia cannot express themselves clearly or understand their family members and nurses accurately because of their cognitive impairments and decline in verbal communication skills. (Blair, Marczinski et al. 2007.) Nurses usually report that they have difficulties in communication with dementia patients, which suggest the necessity for interventions to enhance nurses' ability to communicate with dementia patients.

Communication is defined as an interaction between two (or more) parties, who are sender or receiver of information (Kourkouta, Papathanasiou 2014). It consists of

verbal aspects such as tone and speech, but also of non-verbal aspects like body language and touch (Powell 2000).

Ability to send and receive information is impaired in dementia patients. It could vary in degree of communication difficulties, in people with dementia both the sending as well as receiving aspect of communication could be affected. Communication difficulties may vary among individuals, they are usually reflected in these aspects: selection of correct words and building complicated sentences, difficulties in understanding verbal information, and remembering what has been recently said. (Mendez, Clark et al. 2003.) However, they have the ability to receive and understand short or simple sentences, to some extent, body language is the easiest way to give or receive the information. Sometimes they even can remember specific things happened long time ago. The communication problem usually happens verbally, so they often show themselves by body language or facial expression. Dementia patients have strong tendency to communicate and express themselves when they get annoyed or irritated. (Blair, Marczinski et al. 2007.)

The problem is that lacking in knowledge of communication skills with dementia patients is prevailed phenomenon in nursing staff (Stans, Dalemans et al. 2013). Hence, mastering and understanding body language or facial expression is very important to nurses when communicating with dementia patients (Wang, Hsieh et al. 2013). Due to the heavy workload and lacking in knowledge of communication skill with dementia, communication with patients is usually not nurses' priority (Stans, Dalemans et al. 2013). This comes to the result that simple and task-oriented communication usually occur during nursing care (Williams, Herman et al. 2009). However, it is important to communicate with dementia patients to get useful information and give effective nursing care. Communication difficulties could have effect on the quality of nursing care. (Yorkston, Bourgeois et al. 2010.)

All in all, training for nurses aimed to improve communication skill with dementia patients is necessary. There was a study for verbal communication skills, such as short and general instructions, biographical statements, positive speech and avoiding

complicated sentences or difficulty instructions. A study indicated that training about basic emotions, expression of emotions, personal emotional triggers and recognizing emotion triggers could have positive effect on communication. (Magai, Cohen et al. 2002.) Nurses could get feedback after communication with dementia patients using communication skill they have learned in the training (Sprangers, Dijkstra et al. 2015). Another effective way to enhance communication skill is that nurses could use memory books as an instruction for communicating with dementia people which could offer advices to other nurses, family and doctor. Everything could be documented on the memory book, it could be a word, sound, picture, sign and even a number. (Dijkstra, Bourgeois et al. 2002.)

The significance of communication is not limited between nurses and dementia patients. It is also crucial to find out how nurses should communicate with family care givers and doctors, how the society treats dementia patients. Nurses should give clear instructions to family care givers, report concrete and accurate symptoms of patients to doctors. Our society need to survey the dementia disease and give a correct estimation which suits for current situation, subsequently, provide an acceptable and beneficial way to prevent or cure dementia.

Quality of life of dementia patients is decreasing as the developing of disease. Patients cannot take care of by themselves. They depend on surrounding caregivers to help them with activities largely. (Cook, Fay et al. 2008.) Hence, caregivers try to assist patients to attain the best quality of life through a variety of measures in long time care. The options of medicine treatments are still limited. Non-pharmacotherapies are always the choices of health workers for moderate to severe patients. Daily activity care is essential to improve the quality of life of patients. Base on a wide range of researches, helping the patients take part in the activities is a preferred way to reach good life and well-being. (Gerritsen, Steverink et al. 2004.) Participation in activities would help patients full of hope and satisfaction (Westerhof, Bohlmeijer et al. 2010). Absence of activity involvement will lead to additional disability, more loss of skills and functional capacities than the disease entity (Smit, de Lange et al. 2016).

As clinical health worker, the initial thing is to evaluate the activities of daily living (ADL) of patients which divided into two kinds of categories: one is instrumental activities of daily living (IADLs) includes finances, household tasks, laundry, meal preparation, medication management, shopping, telephoning and transport, and the other one is basic activities of daily living (ADLs), including bathing, continence, dressing, feeding, toileting and transfer. When patients' condition is developing from the early and pre-diagnostic stage, the figure of IADLs of patients will decline. (Mioshi, Kipps et al. 2007.) The outcome of evaluation from basic ADL is significant for following nursing care of dementia patient. After that, decide which aspects should be cared and assisted to improve the well-being of patient. (Giebel, Sutcliffe et al. 2015.) There are some non-pharmacological interventions to improve quality of life of dementia patients with learning or relearning useful IADL possibly. With reasonable methods to help patients maintain some of daily activities is meaning for patients or family members. Even though the period of intervention is long and there are still some limitations, it is still significant for dementia patients. (Bourgeois, Laye et al. 2016.)

The result of ADL provides basic information about the level of physical function and degree of dementia patient, and ADL scores are relevant to physical harm and complications with dementia closely. For instance, low ADL scores mean low physical ability in daily life. (Choi, Kim et al. 2016.)

Caregivers should pay attention to the risk elements of daily living activities for preventing dementia patients from injuries or accidents. There are many kinds of problems in daily life: diet disorders, walking difficulties, sleep disorders, wandering and so forth. To analyze the risk elements in real-life situation, includes patients who live in homecare and welfare facilities, and detailed measures to protect patients from these risk elements should be conducted. Educate the family caregivers about that, give them advices and instructions to avoid patients from injury.

Daily activity care of dementia patients is closely interrelated to the quality of life of patients. It is a long war to conquer the disease. Even though the care is burdensome and long-lasting, it's too significant to improve the well-being of dementia patients.

Patient medication adherence is essential to care of people with disease especially with dementia since dementia patients have defectiveness of cognitive function which has negative effect on medication adherence. There are factors influencing medication adherence. For the factors, cognitive function is the first concern which influence medication adherence mostly. Other factors include poor knowledge of the drug regimen and the purpose of the drugs, type of prescriber, complexity of drug regimen schedules, occurrence of adverse drug effects, living alone, low income, low education, personal and cultural beliefs about medication, depressive symptoms and depression, current smoking, problem drinking, race and drug cost sharing. some researches indicated that female dementia patients have higher tendency to have problem in patient adherence. (Weintraub 1976.) Personal aspects could also influence it, such as personality traits, health beliefs, intra-psychic dynamics and the patient-caregiver relationship are highly associated with dementia in some researches (Ownby, Hertzog et al. 2006). Hence improvement should be made in medication adherence. In order to give a better care by improving medication adherence, we should do assessment of medication adherence first. Assessment of drug regimen is important to identify if a patient is at risk of non-adherence or not.

Knowledge of non-adherence behavior is an integral part for improvements of non-adherence, majority of the researches indicated that there's no relationship between medication adherence and medication effects. The methods used to evaluate medication adherence have been discussed and showed in table 2. (Kripalani, Yao et al. 2007.)

Table 4. Measures (single components) for helping patients take their medications as directed identified in randomized, controlled, compliance intervention studies(Arlt, Lindner et al. 2008).

More instructions for patients, e.g. verbal, written and visual material
Counselling about the patient's disease, importance of therapy and compliance with therapy, possible adverse effects of treatment, the Tools for Health and Empowerment course
Automated telephone, computer-assisted patient monitoring and counselling
Manual telephone follow-up
Family intervention
Various ways to increase the convenience of care, e.g. at home

Simplified dosing
Reminders, e.g. tailoring the regimen to daily habits
Special 'reminder* pill packaging
Dose-dispensing units of medication and medication charts
Appointment and prescription refill reminders
Reinforcement or rewards for both improved adherence and treatment response, e.g. reduced frequency of visits
Different medication formulations, e.g. tablet versus syrup
Crisis intervention when necessary, e.g. for attempted suicide, aggressive and destructive behavior
Direct observation of treatments by health workers or family members
Comprehensive pharmaceutical care services, such as Pharmacist's Management of Drug-Related Problems
Psychosocial therapy, e.g. cognitive-behavioral therapy.

7.4 Support family care givers and Improve palliative care

Dementia is a chronic ongoing and neurodegenerative disease that leads to the decrease of memory and cognitive function along with emotional and behavioral disturbances. It is described that continuing loss in memory together with other mental functions such as judgment and language. (American Psychiatric Association 2013.) It is necessary to notice symptoms in the early stage and carry out treatments as soon as possible to relieve its development and improve the patients' quality of life (Alexopoulos, Jeste et al. 2005).

Emotional distress and depression are normal symptoms in dementia. It may be related to the changed brain chemistry, or internalized stigma and social isolation. (Rewston, Moniz-Cook 2008). Low mood can lead to the loss of independence especially the driving ability (Byszewski, Molnar et al. 2010). It was mentioned that antidepressants are not beneficial for a person with both dementia and depression. It is important for the dementia patients to be diagnosed with depression and treat it early. (Banerjee 2009.)

There are several interventions to treat the patients with behavioral and psychological symptoms: pharmacologic intervention, nonpharmacologic intervention and psychosocial intervention. Medicines include antidepressants, antipsychotics,

anxiolytics, and hypnotics along with antidementia drugs. However, the side effects of medicines have a huge negative impact on dementia patients especially with physiologic changes. Nonpharmacologic and psychosocial interventions have been concerned recently. These interventions have been recommended in general dementia guidelines combining with the pharmacologic intervention. Psychosocial interventions improve cognitive abilities, enhance emotional well-being, reduce behavioral symptoms, and promote daily functioning of patients. It is also safer comparing with the medicine treating. For instance, there was a research about the combination of aromatherapy and massage used to treat the emotional symptoms of dementia in Japan. It showed that clinical aromatherapy is safe but does not provide significant improvement for patients with dementia. Further research of aromatherapy should be implemented to find out the beneficial for dementia. (Yoshiyama, Arita et al. 2015.)

The other psychosocial intervention is musical therapy for the dementia patients. It has a positive influence for the patients in all levels of individual. It was mentioned that dementia people who do not participate in activities for long time, would dramatically worsen in symptoms such as anxiety, depression and paranoia. (Cohen-Mansfield, Marx et al. 2011.) Active participation in a variety of activities owns accomplishment feeling and decreases negative emotions (Han, Kwan et al. 2010, Wall, Duffy 2010). Music therapy promotes active participation even in advanced stages of dementia and influence emotional well-being of patients (Sol, Mercadal-Brotons et al. 2014).

Both passive and active musical activities can have a vital role in the patients' perceptions of their quality of life from physical, psychological, and social aspects (Cohen-Mansfield, Marx et al. 2011). It is an activity that facilitates patients to communicate with others, share their daily lives and provides a chance to connect with a sense of spirituality.

Quality of life is essential to the dementia patients. One aspect reflection of quality of life is personal development, which comes from the acquiring of new knowledge and gaining self-fulfillment. The other one is emotional well-being, which the person feels happy, relaxed and keen to manage his/her emotions without stress and depression.

Emotional well-being of dementia patients with cognitive deficits is poorer than patients without cognitive deficits. Some researches indicated that the good mutual activities such as the musical intervention is beneficial for the patients who have the symptoms of cognitive deficits. Thus, the more time the person participates in mutual activities, the better their emotional well-being, which developing a better quality of life. (Colver 2009.) Music programs and interventions have also been indicated that have positive effects in diminishing behavior problems (e.g., wandering, continuous crying and shouting, and agitation). It was referred to in previous studies that musical therapy is meaningful for the quality of life of patients in different phase of dementia (Ridder, Wigram et al. 2009). Each intervention has a long time to be accomplished because of the patients' slow reaction. However, it is significant for the dementia patients from their emotional sides. (Sol, Mercadal-Brotons et al. 2014.)

Dementia patients are sensitive to emotion from outside. Therefore, the facial and non-verbal messages of health workers are effective to patients' emotion. The nurses who take care of them should be polite, friendly and make sure the clients feel good. Due to the depression and distress of patients, nurses should pay attention to a risk of suicide after early diagnosis of this disease. Making a detail and specific plan and sorting out the ways for living well with the condition in the future. Relatives or friends who look after patients should be educated about the dementia disease and encouraged to give supports with maintaining their mental, physical and social relationships. It is essential to consider from holistic view to provide appropriate treatments and person-centered cares. (Jenkins, McKay 2013.)

Besides the vital attentions of nursing care. The medication management is still important. Nurses should obey the '5 Rights' of medication management: right patient, right drug, right dose, right route and right time when giving medication all the time. Another responsibility is to observe the side effects of medicines. (Banning 2007.) Be good at finding out the problems before they turn to be serious. The dose should be reduced step by step to avoid discontinuation symptoms such as restlessness, irritability, anxiety, dizziness, sleep disturbances and sweating when an antidepressant

is stopped.

Dementia care may take place many a times in the family settings. In those cases, the nurses play the role of care giver and educator in the nursing strategy (Reinhard, Given et al. 2008). The families are immediate affected after the diagnosis of the dementia affected patient. The families who are affected along with patients, the evidence show lack the information about the disease. Families face following problems in managing the care. They should educate about the relationship approach to be take in dementia care. Community nurse has a vital role to play in families living in the community. These inputs can help the families to live well in the community. (Dening, Hibberd 2016.)
Nurses need collaborate with the families to give patient centered care in case of dementia. Wilson, Aggarwal et al. (2009) provided the data to show that the nurses are aware of the need to involve families to organize the care. However, in majority of cases they will avoid taking help. Nurses argue that they do the things themselves in the hospital settings so that the care giving is not hampered. (Hughes 2008.) Sometimes the nurses find the interaction with patient family challenging.

In home based care, the nurses have taken the family members on board to add value to the treatment. The information given by the family members is important for the clinical practice. (Reinhard, Given et al. 2008.) The family and nurse bonding are essential to overcome distorted expectations built among the family members. In dementia care, such expectations will create conflicts. Nurses have to overcome the expert syndrome, which prevents the communication between the families and the professionals. (Hughes 2008.) Good relationship concept of nurses many a time means, families have to become dependent on the nurses. In practice, the nurses have to determine the role and responsibilities of the families and nurses together in treating a dementia patient at home.

Health care system is facing the challenge of developing and implementing palliative care strategies to address the problems of dementia. The evidence showed that the palliative care was poorly implemented. (Bouça-Machado, Titova, Chaudhuri, Bloem, & Ferreira, 2017.) The health care system was found to neglect the minor symptoms;

however, the health intervention was given disproportionally to the observed symptoms. Harris (2007) informed that dementia care was equivalent to the care needs of a cancer patient. It must improve the quality of life and it should address the concerns in the areas of physical, psychosocial and spiritual. The biggest difficulty in palliative care is the system fail to recognize the extent of pain. (Bouça-Machado et al, 2017.)

The World Health Organization identified palliative care as 'an approach that improves the quality of life of patients and their families… through the prevention and relief of suffering…'. Palliative care relives some symptoms to increase quality of life and good communication between nurses, patients and families. (Hughes, Robinson et al. 2005.) Palliative care should be initiated in the early stage of illness including physical, psychological and spiritual care and support for families throughout the illness and bereavement period (Sampson, Burns et al. 2011).

Studies showed that patients who are dying with advanced dementia are frequently not seen as having a terminal disease, and are much less likely than others to be treated palliatively. There is a mass of evidence offered detailed plan to palliative care for people with dementia. Appropriate palliative care is often used in nursing homes during the period of last week of life. The most severe obstacle during palliative care in dementia patients is resistance to care. Dementia patients are becoming resistant to care as the symptoms of dementia deteriorate, and may even push away care providers.

Behaviors to push away cares can be explained as a defense towards a sensed threat of attack, which considered by people who lost the ability of understand daily situations. Communication skills play an important role in overcoming such problems and help patients to know the care fits their benefits. (Sampson, Burns et al. 2011.) Nurses should be aware that the patients is vulnerable due to progressive dementia and the treatment given should be compassionate enough to preserve the dignity of the person.

Dementia patients even suffered more pain compared with cancer patients, study

showed that patients with advanced dementia took less opioid analgesia than others at an equivalent stage of cancer, which means we need to reevaluate sensory, emotional and behavioral reactions to pain in dementia patients. (Monroe, Carter et al. 2012.) Pain measuring tools are available for identifying pain when patients lose the ability to express this verbally. These include the Pain Assessment in Advanced Dementia (PAINAD) scale, Abbey pain scale and Doloplus-2 observation of body posture, vocalizations and facial expression to assess pain. Nurses work with dementia patients ought to decide when is the appropriate timing to use objective measurement. (Barber, Murphy 2011, Sampson, Burns et al. 2011.) Analgesic medications are commonly used in advanced dementia patients. 73% of cases used opioid medication to relive the pain; 71% of cases used opioid medication in the circumstances of shortness of breath; Bronchodilators and diuretics were used for symptomatic relief; 62% of cases applied nonpharmacological interventions combined with anxiolytic or sedative medication for agitation. At the day of death, 77% received opioids, and 21% received palliative sedation. (Hendriks, Smalbrugge et al. 2014.)

Healthcare professionals and relatives do not usually consider dementia as a terminal disease, which may lead to insufficient advance discussion and treatment planning for the terminal stage of the patients(Hendriks, Smalbrugge et al. 2014). The ability of patients to discuss and deliver their wishes weakens as dementia deteriorates, and advance care planning(ACP) is not included routinely as part of dementia services in the early stage (Dempsey 2013).

8 VALIDITY AND ETHICAL ASPECTS

As the authors mentioned before in analyzing methodology part that the validity and ethical aspects are essential in this literature review. Validity and ethics should be considered in nursing researching and practice. The research has followed scientific procedures which contain following aspects: the topic about the dementia which is common disease nowadays, according to the topic authors focused on several major

researching aspects of dementia, using appropriate methods of data collection and analysis, through these data to draw conclusions which were related to the topic. The validity of databases was identified in the published journals or books. The original literatures are admitted by the medical region. These literatures can make sure the validity of this thesis. Literature review is based on the previous published and rational literatures, hence, the validity of this research by authors could be undisputed. It is essential for the authors to be objective about the literatures and personal opinions about the thesis shouldn't be involved. A range of quotes or descriptions from utilized literatures need to be written briefly in the authors' own words. (Cronin, Ryan et al. 2008.) The conclusion which acquired by authors was based on the analyzing these useful and valid literatures. The collection route of these used databases that were scientific and rational. Combining with the inclusion and exclusion criteria, choosing the correct and relevant databases, after evaluating these articles to get conclusion eventually. There were sufficient databases to be used in this thesis. It could avoid the deviation when studying these databases. Authors preferred to choose much more literatures to ascertain the validity of this thesis.

No doubt about it that the ethics is significant in researching. The ideas and ethical norms are essential to set in a nursing research. The targets of this thesis were the dementia patients and their relatives. Even though there was no need to obtain the permission from the ethical committee and research objects due to the style of research. However, the theme of ethics is interrelated to persons' esteem, kindness and justice. (Cartwright, Hickman 2007.) As the researchers, authors should consider the ethical aspects throughout. The materials which were chosen has already considered the ethics in their articles. The ethical sides were indicated in these literatures. Based on the ethical of original literatures, this thesis would be ethical and moral.

9 CONCLUSIONS

The evidence and results were gathered in this thesis demonstrate that there are preponderant advantages related with effective prevention and quality nursing care for dementia patients. The information presented in this literature review provides nurses with current and relevant material concerning best practices in care for patients with dementia such as the role of nurses in prevention and care of dementia patients, communication, support family caregivers and improvement of palliative care. These ultimately translate into better understanding and care for those suffering from dementia.

In prevention of dementia, there are several standing points. First, dementia is a terminal disease so the nurses have a crucial role in assessing the progression of the disease and develop and implement necessary nursing interventions. Nurses have a major responsibility in dementia care as they follow holistic intervention rather than only one dimension of health care. It has been found that the under treatment or over interventions are common in dementia care. Second, among the preventive steps which the nurses can help to promote are physical exercises, socialization and mental stimulation. Each of the measure has a distinct role for the nurses. For example, in socialization, the nurses will have to instigate in ending isolation. Third, palliative care strategies only can be improved though effective nursing care. In specialized care settings, the nurses can develop joint strategies with families and physicians to provide effective interventions.

In the early stage of dementia, available information and medical service will improve the prognosis and decrease the complication of disease. Thus, health education of dementia is helpful and necessary to improve the life quality of patients. The development and prognosis of dementia is closely related to the quality of care provided by professionals or family caregivers. Setting the standard of caring and avoiding the errors from daily care is crucial. Considering all the prevalence, incidence and risk factors for dementia, proper care and early prevention models minimize the

national cost of dementia. Currently dementia is incurable, however, nurses can use various methods to prevent and prolong the process of this disease. The holistic nursing care model plays an important role in patient-centered comprehensive care from physical, psychological and social aspects.

10 DISCUSSION

These literatures tell us that dementia is not a specific disease but an overall term that describes a wide range of symptoms associated with a decline in memory or thinking skills severe enough to impair a person's ability to perform everyday activities. As time goes by, it impairs patients' cognitive ability to remember and recall. It also constantly influences the patients' communication skills in daily life. Results indicate that the challenges were not negligible in caring and prevention for demented patients.

The prevention and care of dementia from nursing perspective are initial for the patients and the caregivers. The situation of nursing care of dementia patients should be improved and developed. As the increasing of number of dementia patients, the government and society need to pay more attention to studies about preventing and caring dementia. Early detection of diseases is beneficial to prognosis of patients and the benefits of society. Even though the symptoms of dementia are not obvious, but there are always some indications occurred in the early stage if observed carefully in daily life. Hence, the health education of dementia in communities and health clinical plays an important part in preventing the deterioration of disease from the early stage.

Meantime, the caring from health workers or family caregivers is essential to improve the quality of life for the diagnosed patients. Different caring methods target various symptoms of patients. As the developing of disease, there are some syndromes appear together, and the difficulties of caring are increasing. Therefore, the overall quality of caring should be improved to make sure the quality of life of patients. Besides the basic physical care of patients, the emotion care is also vital to the dementia patient

due to their disease. Memory loss and emotion changing are two major symptoms of dementia patients. It is difficult to communicate with patients because of the memory disorder and emotion changing. Even if there are many challenges for caring of dementia patients, with the developing of medical and nursing, the recovery and quality of life of dementia patients will be improved.

The purpose of this thesis was to answer the three following questions: What is the role of nurses in dementia patients' care? What can nurses do to help patients in prevention of dementia? What kind of nursing care is provided for dementia patients in different phase of the disease? After we made scrupulous searching and filtering of scientific literatures during this review, the answers to the research questions were found.

The thematic analysis discovered an amount of evidence supporting the research question that physical exercise, socialization, mental stimulation could help those with AD and their care givers to prevent dementia, however, these prevention methods are identified that the progress of these methods were lengthy and often problematic. This indicates that nursing care is essential during primary care which means nurses as professionals play a key role in this period. Besides, proper treatment for risk factors such as diabetes, hypertension, smoking, obesity, and dyslipidemia, as well as a history of brain trauma, cerebrovascular disease, and vasculopathies would have beneficial effect on dementia. In this way, they can be protected from Dementia. The dementia study related to these risk factors demonstrated that the earlier prevention of these risk factors is made, the lower possibility of the person getting dementia later in the old age.

Nurses have multiple roles in dementia care. Nurses are family based care supporters and coordinators. Nurses participate in the medication and treatment according to physician's order. Another aspect, nurses should be able to build an environment where the patients could be understood correctly based on impaired cognitive function or disabilities. These are all based on conducting effective communication with patients and other medical professional teams.

There were many categories of dementia care aspects: effective communication with dementia patients, keep medication adherence and improvement of palliative care, support family caregivers and so on. Nurses should have abilities to recognize what the patients mean from sign of them such as short sentences, pictures, gestures. They must provide as much as information about dementia care to patients and their families, so they can make decision about it. Care for maintaining medication adherence is indispensable to dementia patients who have lost their cognitive ability. Palliative care should be started whenever the people are diagnosed at the end of life. The main point during palliative care is to keep patients comfortable and less painful. The nurse should explain palliative care to patients and families and give them mental consultation.

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APPENDICES

Appendix 1. The list of articles chosen for explaining the methodology

Article name	Author	Topical issue	Year	Status
IAGG Workshop: Health promotion program on prevention of late onset dementia	ANDRIEU, S., ABODERIN, I., BAEYENS, J., BEARD, J., BENETOS, A., BERRUT, G., BRAININ, M., CHA, H., CHEN, L., DU, P., FORETTE, B., FORETTE, K., FRANCO, A., FRATIGLIONI, L., GILLETTE-GUYONNET, S., GOLD, G., GOMEZ, F., GUIMARAES, R., GUSTAFSON, D. and KHACHATURIAN, A.	Dementia Definition	2011	Selected
Doing a literature review in health and social care: A practical guide	AVEYARD, H.	Literature Review	2014	Selected
Undertaking a literature review: a step-by-step	CRONIN, P., RYAN, F. and COUGHLAN, M.	Literature Review	2008	Selected

approach. *British Journal of Nursing*				
How to Write a Literature Review	DAREN, L.	Literature Review	2015	Selected
Essential study skills for nursing	ELY, C. and SCOTT, I.	Literature Review	2007	Selected
Shortfall of Dementia Education in Radiation Therapy	FINK, K.B., SNOOK, J.T. and ADAMS, R.	Literature Review	2017	Selected
Can caring be taught	HAWKE-EDER, S.	Literature Review	2017	Selected
The psychological goods on clinical social work: a content analysis of the clinical social work and social justice literature	MASCHI, T., BAER, J. and TURNER, S.G.	Literature Review	2011	Selected
Writing a Literature	NEILL, C.	Literature Review	2017	Selected

Review				
Searching and critiquing the research literature	WAKEFIELD, A.	Literature Review	2014	Selected

Appendix 2. The list of articles chosen for explaining the reliability and ethics of methodology

Article Name	Author	Topical Issue	Year	Status
Legacy and vision: The perspective of the American Nurses Association on nursing and health care ethics	BADZEK, L.	Ethics of Literature Review	2008	Selected
Conducting research in community-based care facilities: Ethical and regulatory implications	CARTWRIGHT, J.C. and HICKMAN, S.E.	Ethics of Literature Review	2007	Selected
Ethical Frameworks for Decision-Making in Nursing Practice and Research: An Integrative Literature Review	MALLARI, M.G.D. and TARIMAN, J.D.	Ethics of Literature Review	2017	Selected
Ethical Frameworks for Decision-Making in Nursing Practice and Research: An Integrative Review.	MALLARI, M., GRACE, M. and JOSEPH, D.	Ethics of Literature Review	2016	Selected

Appendix 3. The list of articles chosen for results

Article Name	Author	Topical Issue	Year	Status
Effects of facilitated family case conferencing for advanced dementia: A cluster randomised clinical trial	AGAR, M., LUCKETT, T., LUSCOMBE, G., PHILLIPS, J., BEATTIE, E., POND, D., MITCHELL, G., DAVIDSON, P.M., COOK, J. and BROOKS, D.	PREVENTION AND CARE OF DEMENTIA PATIENTS FROM NURSING PERSPECTIVE	2017	Selected
The expert consensus guideline series. Treatment of dementia and its behavioral disturbances. Introduction: methods, commentary, and summary	ALEXOPOULOS, G.S., JESTE, D.V., CHUNG, H., CARPENTER, D., ROSS, R. and DOCHERTY, J.P.	PREVENTION AND CARE OF DEMENTIA PATIENTS FROM NURSING PERSPECTIVE	2005	Selected
Counting the cost: caring for people with dementia on hospital wards.	ALZHEIMER'S SOCIETY	PREVENTION AND CARE OF DEMENTIA PATIENTS FROM NURSING PERSPECTIVE	2009	Selected
Diagnostic and statistical manual of mental disorders (DSM-5®)	AMERICAN PSYCHIATRIC ASSOCIATION	PREVENTION AND CARE OF DEMENTIA PATIENTS FROM NURSING PERSPECTIVE	2013	Selected
Adherence to Medication in Patients with	ARLT, S., LINDNER, R., RSLER, A. and	PREVENTION AND CARE OF DEMENTIA	2008	Selected

Dementia. Drugs & aging	VON RENTELN-KRUSE, W.	PATIENTS FROM NURSING PERSPECTIVE		
The use of antipsychotic medication for people with dementia: Time for action	BANERJEE, S.	PREVENTION AND CARE OF DEMENTIA PATIENTS FROM NURSING PERSPECTIVE	2009	Selected
Medication management and the older person. Medication Management in Care of Older People,	BANNING, M.	PREVENTION AND CARE OF DEMENTIA PATIENTS FROM NURSING PERSPECTIVE	2007	Selected
Challenges that specialist palliative care nurses encounter when caring for patients with advanced dementia	BARBER, J. and MURPHY, K.	PREVENTION AND CARE OF DEMENTIA PATIENTS FROM NURSING PERSPECTIVE	2011	Selected
Best practice and needs for improvement in the chain of care for persons with dementia in Sweden: a qualitative study based on focus group interviews	BKBERG, C., AHLSTRM, G., KARLSSON, S., HALLBERG, I.R. and JANLV, A.	PREVENTION AND CARE OF DEMENTIA PATIENTS FROM NURSING PERSPECTIVE	2014	Selected
Alzheimer's disease	BLENNOW, K., DE LEON, M.J.	PREVENTION AND CARE OF	2006	Selected

	and ZETTERBERG, H.	DEMENTIA PATIENTS FROM NURSING PERSPECTIVE		
The impact of disclosure of unfitness to drive in persons with newly diagnosed dementia: patient and caregiver perspectives	BYSZEWSKI, A.M., MOLNAR, F.J. and AMINZADEH, F.	PREVENTION AND CARE OF DEMENTIA PATIENTS FROM NURSING PERSPECTIVE	2010	Selected
Importance and management of micronutrient deficiencies in patients with Alzheimer's disease	CARDOSO, B.R., COMINETTI, C. and COZZOLINO, S.M.F.	PREVENTION AND CARE OF DEMENTIA PATIENTS FROM NURSING PERSPECTIVE	2013	Selected
Decreased initiation of usual activities in people with mild-to-moderate Alzheimer's disease: a descriptive analysis from the VISTA clinical trial	COOK, C., FAY, S. and ROCKWOOD, K.	PREVENTION AND CARE OF DEMENTIA PATIENTS FROM NURSING PERSPECTIVE	2008	Selected
Advance care planning for people with dementia: benefits and challenges	DEMPSEY, D.	PREVENTION AND CARE OF DEMENTIA PATIENTS FROM NURSING PERSPECTIVE	2013	Selected

Exploring the community nurse role in family-centred care for patients with dementia.	DENING, K.H. and HIBBERD, P.	PREVENTION AND CARE OF DEMENTIA PATIENTS FROM NURSING PERSPECTIVE	2016	Selected
Prevention and management of dementia: a priority for public health	FRANKISH, H. and HORTON, R.	PREVENTION AND CARE OF DEMENTIA PATIENTS FROM NURSING PERSPECTIVE	2017	Selected
Activities of daily living and quality of life across different stages of dementia: a UK study	GIEBEL, C.M., SUTCLIFFE, C. and CHALLIS, D.	PREVENTION AND CARE OF DEMENTIA PATIENTS FROM NURSING PERSPECTIVE	2015	Selected
Positive thinking on dementia in primary care: Gnosall Memory Clinic	GREENING, L., GREAVES, I., GREAVES, N. and JOLLEY, D.	PREVENTION AND CARE OF DEMENTIA PATIENTS FROM NURSING PERSPECTIVE	2009	Selected
General practitioners' experiences and understandings of diagnosing dementia: Factors impacting on early diagnosis	HANSEN, E.C., HUGHES, C., ROUTLEY, G. and ROBINSON, A.L.	PREVENTION AND CARE OF DEMENTIA PATIENTS FROM NURSING PERSPECTIVE	2008	Selected
Mental health	PRYJMACHUK,	PREVENTION	2011	Selected

nursing: an evidence-based introduction	S.	AND CARE OF DEMENTIA PATIENTS FROM NURSING PERSPECTIVE		
Supporting family caregivers in providing care	REINHARD, S.C., GIVEN, B., PETLICK, N.H. and BEMIS, A.	PREVENTION AND CARE OF DEMENTIA PATIENTS FROM NURSING PERSPECTIVE	2008	Selected
Nutrition and prevention of Alzheimer's dementia. Frontiers in aging neuroscience	SWAMINATHAN, A. and JICHA, G.A.	PREVENTION AND CARE OF DEMENTIA PATIENTS FROM NURSING PERSPECTIVE	2014	Selected
Remaining hopeful in early-stage dementia: A qualitative study	WOLVERSON, E.L., CLARKE, C. and MONIZ-COOK, E.	PREVENTION AND CARE OF DEMENTIA PATIENTS FROM NURSING PERSPECTIVE	2010	Selected
The Effect of Aroma Hand Massage Therapy for People with Dementia	YOSHIYAMA, K., ARITA, H. and SUZUKI, J.	PREVENTION AND CARE OF DEMENTIA PATIENTS FROM NURSING PERSPECTIVE	2015	Selected