

**CARE AND PREVENTION OF DEMENTIA AMONG THE
OLDER PEOPLE; NURSING POINT OF VIEW**

A Descriptive Literature Review

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To achieve a long lasting and successful care as well as prevention of dementia among the older people, it is a great benefit for public to have a general knowledge about dementia for example what is dementia, symptoms, risk factors etc. as this will help them prevent dementia by avoiding its risk factors e.g., Changing their lifestyles before dementia occur and be able to provide care for their loved one who are already affected by dementia. For nurses, nurse students and other healthcare professionals to be able to provide care for elderly with dementia, they should have good competence and knowledge about dementia.

The purpose of this thesis was to describe care and prevention of dementia among the older people from the nursing point of view and the goal was to guide nurses, nursing students and other healthcare professionals when providing care and prevention of dementia among the older people in any healthcare settings.

The data used to establish this study were sourced from CINAHL Ebsco e-journals and Science Direct Elsevier e-journals all from Lapland University of Applied Sciences Library databases. The research method used was descriptive literature review whereby 11 articles were found and were used to develop this work. An adapted version of inductive content analysis method was used to analyse the data.

The findings disclosed that nurses play various and vital roles such as ensuring quality of life, managing behavioural symptoms, solving nutrition problems, medication management, palliative care as well as helping families for older people. In addition, the effective methods of preventing dementia entails; physical exercise, dietary, psychosocial, and health promotion targeting change in lifestyles. Therefore, people should be advised to adopt and participate in these methods to avoid dementia since dementia have no specific cure for dementia.

Key words: caring, dementia, older people, nursing care, nurse's role, and prevention

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FOREWORD

I would like to express my sincere gratitude to my supervising teachers Seppo Kilpiäinen and Henna Kivipuro for their guidance and support from the start until the end of my thesis. They sacrifice their golden time to give me guidance and instructions for the accomplishment of my thesis. Secondly, I would like to also thank my family as well as friends who gave me support and motivation towards this research work. Lastly, I would like to thank our Almighty God for the good health and strength to finalize my thesis.

ABBREVIATIONS ACCORDING TO ORDER OF MENTIONING IN THESIS

WHO	World Health Organization
WAR	World Alzheimer Report.
AD	Alzheimer's Disease
LTCs	Long-Term Conditions
PSD	Post-Stroke Dementia
PWD	People with Dementia
GP	General Practitioner
CVDs	Cardiovascular diseases
DLB	Dementia with Lewy bodies
PACSLAC	Pain Assessment Checklist for Seniors with Limited Ability to Communicate
PAINAD	Pain Assessment in Advanced Dementia
LR	Literature review

2 INTRODUCTION

Dementia is estimated to affect 47 million people worldwide and is associated with dependence, poor quality of life as well as mortality. One of the main risk factors of dementia is age, and the world population is aging hence the number of people suffering from dementia is expected to increase to 131 million in 2050 (Ponjoan et al., 2019.). In the year 2017, almost 9,400 Finns died of dementia and AD, this was about 200 persons more as compared to 2016. The number of deaths reported about dementia has doubled over the past ten years. Dementia mortality has developed in a similar way in both men and women (Statistics Finland, 2020).

According to Finnish Institute for Health and Welfare (2020), approximately 190,000 Finnish residents have some form of memory disorder and about 14,500 new cases of dementia is reported each year (Finnish Institute for Health and Welfare, 2020).

Dementia is a medical condition in which there is a decline in cognitive abilities of a person as compared to many months or years before. The person with dementia has challenges with many types of cognitive abilities which in most cases is associated with memory and with other abilities such as language, attention, judgement, orientation as well as planning (Arvanitakis & Bennett, 2020.)

Diseases that result to decline in memory and other cognitive are known as memory disorders, and they are mostly referred to as dementia. Dementia is not a single disease, but a late stage of progressive memory disorder when cognitive functions are severely impaired and affect abilities of daily living. The increase number of memory disorders increases social welfare and health care expenditure, for example, in Finland, it has been estimated that direct costs for dementia care are in total around one billion euros annually and even double if indirect costs are considered (Finnish institute for health and welfare, 2020.)

In Finland, informal caregivers provide a great care for older people with dementia, but society hold the biggest responsibility for caregiving and rehabilitation. People with memory illness move to a long-term care development in the moderate or severe stages of the condition. Older people with dementia are moved to care institutional. This is decided by municipal social services depending on their own ,the doctor's assessment. The care and rehabilitation of people with memory illnesses is planned by many service providers, including municipalities and federations of municipalities e.g., public social and health care which involve home care, care homes and rehabilitation and implemented with government support, hospital districts as well as Kela (Alzheimer Europe,2013.)

Dementia being a progressive disease which affects mainly older people(WHO,2020), the author of this thesis develop interest in carrying out thesis concerning general dementia due to the following reasons. One of the main reasons for narrowing to dementia in general is the encounter of many people affected by dementia in different practices done by the author of this thesis, increase in social welfare and health care expenditure in caring of older people with dementia(Finnish institute for health and welfare, 2020) as well as the need for more research in prevention of dementia with the aging population(Langa,2017).

The purpose of this thesis was to describe care and prevention of dementia among the older people from the nursing point of view and the goal is to guide nurses, nursing students and other healthcare professions when caring for as well as ways of preventing dementia among the older people in any healthcare settings. Its objectives are to bring out best prevention and care methods of dementia, outline responsibilities of a nurse and support for high quality research in prevention and care of dementia among older people from nursing point of view.

3 BACKGROUND AND THEORETICAL BASIS

3.1 Dementia

Dementia is a clinical syndrome characterized by progressive cognitive decline that interrupt the ability to function independently. Symptoms of dementia are slow, persistent, and progressive. People suffering from dementia experience changes in recognition, function, and behaviour. The clinical presentation of dementia tends to differ from one individual to another and the cognitive deficit leads to memory loss, communication and language disruption, inability to recognize objects and impaired reasoning, judgment, and planning (Duong, Patel & Chang ,2017.)

According to WHO, dementia is a syndrome in which there is deterioration in memory, thinking, behaviour and the ability to perform everyday activities (WHO, 2020.)

3.2 Epidemiology of dementia

Dementia seems to progress daily. According to WHO 2015, the number of people affected by dementia worldwide was estimated to be 47.47 million and is expected to reach 75.63 million by 2030 and 135.46 million in 2050. The prevalence of dementia report, a study done in China and sub-Saharan Africa were slightly higher than the initial reported in 2009 World Alzheimer Report (WAR). Standardizing the age to a standard western European population, the prevalence for East Asia increased from 4.98% to 6.99% and sub-Saharan regions prevalence range from 2.07% to 4.00% - 4.76%. Dementia incidences tend to raise with aging. Basing on world incidences of dementia in 2010, adding up all the studies, dementia incidences tend to double with every 5.9-year increase in age, from 3.1/1000 person years at age 60-64 to 175.0/1000 person years at age 95 and above (WHO, 2015.)

In Finland, one in three people over the age of 65 report suffering from memory symptoms, even though most of them does not reveals a progressive memory condition. It is estimated that 200,000 people in Finland with a slight data progressing, and the year 2013, almost 100,000 people suffered from mild and

93,000 having moderate dementia. About 7,000 of working age population also in Finland have memory problems and 14,500 people happened to be suffering from memory problems every year (National Institute for Health and Welfare,2020.)

According to Rizzi et al. (2014), prevalence of dementia rapidly increases from about 2-3 % among the people aged 70-75 years to 20-25% among the one who are aged 85 years and above. Based on age, there is insufficient of data to prove whether dementia prevalence tend to raise or stagnate. Women have higher risk of developing dementia as compare to men at older age due to increase in age which is a risk factor for AD (Rizzi et al.,2014.)

3.3 Symptoms and risk factors

Dementia symptoms manifest themselves in various forms both behavioural and psychological symptoms. These symptoms sometimes are referred to as neuropsychiatric symptoms. These symptoms are usually clinically important since they are related to cognitive destruction. The behavioural and psychological symptoms of dementia involve; agitation, delusions, depression, anxiety, sleeping problem or change in appetite and hallucination. It is speculated that behavioural and psychological symptoms affect up to 90% of dementia within a period and in most cases are related to poor results like distress among the patients and caregivers, overstay in hospital, improper utilization of medication and high cost of health care (Cerejeira et al.,2012.)

According to WHO (2020), dementia affects each person differently, depending on the impact of the disease and the person's personality before falling ill. To better the understanding of the dementia symptoms, WHO divided the symptoms into three stages. The first stage is the early stage which happened to be overlooked because the start of the dementia is slow. The symptoms noticed in this stage are forgetfulness, losing track of the time and getting lost in familiar places. The second stage is the middle stage. In this middle stage, the dementia symptoms are clearer. These symptoms include forgetting the recent events and people's names, becoming lost at home, needing help in personal care, change in behaviour e.g., wandering and difficulty in communication. Finally, the late

stage which is the stage whereby it is near total dependence and inactivity. The symptoms in this stage include unaware of the time, difficulty in recognizing relatives or friends, increase need for assistance in self-care, difficulty in walking as well as aggression (WHO,2020.)

The risk factors of dementia have been categorized into modifiable and nonmodifiable risk factors. According to O'Donnell et al. (2015) non-modifiable risk factors such as age and genetics also plays a major role in dementia development (O'Donnell et al.,2015).

Modifiable risk factors which result to cognitive decline and dementia have been clearly outlined and majority of those risk factors are like the one for cancer as well as cardiovascular disease. These modifiable factors include low physical exercise, smoking, high cholesterol intake, high blood pressure, excess intake of alcohol, obesity, and diabetes. Other factors linked to risk factors of dementia are depression, low cognitive engagement, and low social engagement (Peters et al.,2019.)

3.4 Diagnosis and treatment methods

Diagnosing dementia can be done by a psychiatrist, geriatrician, or neurologist. Dementia has no single test. Therefore, it needs a combination of variety of things. These includes a doctor taking history of the person and someone who happened to be closer to the affected person and knows how their problem began and how it affects their daily life. Physical examinations and test e.g., blood test can be taken to differentiate other potential causes of the person's symptoms. A nurse or a doctor can carry out tests of the mental abilities e.g., thinking, memory and a brain scan can be done if needed to diagnose dementia (Alzheimer society,2020.)

According to Louise et al. (2015), one need to keenly observe the affected person since the ability of the person to accept or deny symptoms and signs of dementia need to be consider too. Family members are so important when diagnosing dementia since they can easily identify some symptoms such as difficulty in communications and mood changes in the affected person. Some signs such as

missing appointments and confusing drugs can be an alarming sign one has dementia onset (Robinson, Tang & Taylor,2015).

In Finland, a memory nurse carries out dementia diagnosis. In every municipality, there is a memory nurse whom older people can consult in case they have concern about their memory. Memory nurses are fully trained to administer the MMSE and detect a problem, they can make a report in which a person diagnosed can take to the doctor. Municipalities are required to provide such services and, memory nurses can visit people in the homes and perform the diagnosis. In most cases, computed tomography (CT) or Magnetic resonance imaging (MRI) as well as MMSE are used to carry out dementia diagnosis in Finland (Alzheimer Europe,2013.)

Treatment methods for dementia take different forms. Based on Alzheimer's Society (2020), there are variety of non-drug treatments available that can be used to help someone live well with dementia. These involve advice, information, support, therapies, and activities. After the diagnosis, support for the person and their caregiver should be provided. They should be given chance to talk with profession, ask questions and focus about the future. It is good to get information on planning ahead and how to stay both physically and mentally fit. One should talk to a therapist e.g., counselling, performing cognitive stimulation which involves doing themed activities many times to help keep one's mind active and participating in cognitive rehabilitation which help someone to retain skills and cope better (Alzheimer's Society, 2020.)

Drugs can also be used with the symptoms of dementia. A person experiencing mild to moderate AD or mixed dementia in which Alzheimer happened to be the cause can be prescribed either donepezil, rivastigmine or galantamine. It may temporarily aid memory, motivation, concentration, and daily living. In severe stages, one can be given memantine which help in attention, distressing, and daily life. Donepezil, rivastigmine and galantamine can be used also with Lewy bodies dementia to reduce delusions, distressing hallucination, aggression, or agitation. For someone with vascular dementia, drugs will be given to treat the underlying condition which has resulted to dementia. In most cases, these conditions are high blood pressure, high cholesterol, diabetes, or heart problems.

Therefore, bringing these conditions under control may slow the progression of dementia (Alzheimer's Society, 2020.)

4 IMPLEMENTATION OF THESIS

4.1 Purpose, goal/aim, and Research questions

The purpose of this thesis was to describe care and prevention of dementia among the older people from the nursing point of view.

The goal of this thesis is to guide nurses, nursing students and other healthcare professionals when providing care as well as preventing dementia among the older people in any healthcare settings.

The following are the research questions of this thesis:

- what are the roles played by a nurse in caring of older people with dementia?
- What are the nursing care ways for dementia prevention?

4.2 Research method

This study was formulated through a qualitative approach in which it is characterized by inductive analysis. According to Pathak et al.(2013),qualitative research focuses in understanding a research query as a humanistic or idealistic approach. 'Qualitative methods generally aim to understand the experiences and attitudes of patients, the community or health care worker. These methods aim to answer questions about the 'what', 'how' or 'why' of a phenomenon rather than 'how many' or 'how much', which are answered by quantitative methods' (Kennedy,2019).

The author used a descriptive review as a method to conduct this thesis because it follows a systematic and clear procedure involving searching, screening, and classifying studies (Paré et al.,2015). Paré et al.(2015) went ahead and stated that the goal of descriptive literature review is to reveal an extent to which a body of knowledge in a specific research topic shows any interpretable trend with respect to pre-existing propositions, theories, methodologies or findings.

Sylvester et al.(2013), also added that authors of descriptive reviews extract from each study certain characteristics of interest, such as publication year, research methods, data collection techniques, and direction or strength of research outcomes (e.g., positive, negative, or non-significant) in the form of frequency analysis to produce quantitative results (Sylvester et al., 2013).

As described by Anderson et al.(2008), health sciences as well as medical informatics fields, reviews that pay attention on examining the range, evolution of a certain topic area and nature are referred as mapping reviews. In descriptive reviews, the research questions are generic and, in most cases, relate to publication trends.

4.3 Data collection

The method used in data collection was literature review. According to Rouse, data collection is the systematic approach to gathering and measuring information from a variety of sources to get a complete and accurate picture of an area of interest. Rouse went ahead and explained that data collection helps a person or organization to answer relevant questions, evaluate results and make predictions about future probabilities and trends(Rouse,2013.)

The proceeding of literature searching began by searching electronic databases such as EBSCO and Science Direct Elsevier e-journals all from Lapland University of Applied Sciences Library databases. The keywords such as Dementia, nurse's role, caring, prevention, nursing care and older people were used. The author run these keywords with the combination of Boolean operators ,that is, 'AND' or 'OR' to attain the relevant articles. Data were also collected from grey online articles which were free as well as fully accessible. Thereafter, the inclusion and exclusion criteria was decided. The inclusion and exclusion criteria are shown in Table 1.

Table 1. The inclusion and exclusion criteria

INCLUSION CRITERIA	EXCLUSION CRITERIA
Full articles available	Not full articles available
Language: English articles	Language: Other languages
Articles written 2010-2020	Articles not written 2010-2020
Open access articles	Close access articles
Review articles	Non-review articles
Age : above 65 years	Age : Other age groups
Evidence-based articles	Non-evidence-based articles
Relevant articles to the study topic	Irrelevant articles to the study topic
Nursing science articles	Other field articles

A total of 41,555 articles were found altogether when literature search was conducted and 315 articles were identified and examined, of which 11 articles were noticed to be relevant and were therefore used in developing this study.

Table 2. used to collect data

Name of the database	Initial search outcomes	Intensive search outcomes	Relevant Articles found
EBSCO	32,334	261	9
ScienceDirect	9,221	54	2
Total	41,555	315	11

4.4 Extraction of data

Data extraction is a process that involves retrieval of data from various sources (Alley, 2018). Data extraction help researchers to collect relevant data concerning their research. Data extracted were those which consisted relevant data needed for the development of this study through descriptive literature

search. The database obtained from, authors' name, title of the article, research method, purpose, general findings as well as important of the findings. These are shown in the table 3. Which contain articles used in this research work.

Extraction table 3.

Databases	Author & Year of publication	Title of the article	research method	purpose	general findings	Important findings
CINAHL	Jordan & carole,2010.	Caring for those with dementia at the end of their life	Nursing Journal	To determine nurse role between patient and their families	Care staff should, and usually do welcome family visitors and encourage them	Nurses can encourage families to visit every now and then ,to stay longer and to keep regular contact
CINAHL	Otaegui-Arrazola A., Amiano.P., Elbust.A., Urdaneta.E., & Marti'nez-Lage.P.,2014.	Diet, cognition, and Alzheimer's disease: food for	Nutritional journal	To identify the specific kind of nutrition needed to prevent dementia	Several dietary factors are known to be protective for cardiovascular comorbidities, such as	The intake of fruits and vegetables contain antioxidants such as

		though t		a risk factors	obesity, hypertension, diabetes, and hypercholesterolemia, which in addition are well- established conditions related to AD risk.	vitamin C and vegetable oils and nuts contain vitamin E should be also be taken to prevent AD which is the main cause of dementia
CINAHL	Helena, 2017.	Improving care for patients with dementia in the recovery room	Nursing Journal	To identify nurse role in keeping care environment conducive for elderly	Hospital environments as well as processes can be poorly suited to people with dementia	Hospital environments as well as processes can be poorly suited to people with

						dementia because the environment is typically noisy, busy, and brightly lit and patients encountering multiple members of staff
CINAHL	Barber & Murphy, 2011.	Challenges that specialist palliative care nurses encounter when caring for patients with	Scientific Journal	To identify the role of a nurse in solving nutrition problem among the elderly with advanced dementia	swallowing is also a symptom that a person seems to reach the dying phase of advanced dementia	A patient can no longer swallow food, nurses can consider nutritional support which includes artificial

		advanced dementia				
CINAHL	Kevin,H.,2020	Role of nurses in addressing modifiable risk factors for early Alzheimer's disease and mild cognitive impairment	Nursing Journal	To identify the role played by nurse in addressing modifiable risk factors for AD and mild cognitive	Nurses are at the forefront of patient care and, as such, are ideally placed to offer advice to patients that may proactively help mitigate the risks of cognitive decline and the development of Alzheimer's disease	Nurses can use specifically strategies at mealtimes to reduce destruction e.g. by turning off television during mealtimes as this help to reduce agitation.
CINAHL	Tina,W. et al.,2011.	The Special Needs of the Hospitalized Patient	Scientific Journal	To determine the role of a nurse in solving nutritional	The appetite center of the brain may result in low decreasing in eating and sweet craving	Nurses can maintain nutrition through offering

		with Dementia		problems	affecting food intake	favorite foods.
CINAHL	Edel M.,2016.	Practical nutritional measures in patients with dementia	Scientific Journal	To identify how nurses, help people with dementia during mealtime	Malnutrition is a big problem in elderly people with dementia since majority of them tend to have a decreased in appetite, thereby reducing dietary intake.	Community nurses should have a strategy on how to help dementia patients during mealtimes
CINAHL	Eichenseher r.T.,2020.	Mind games	Nursing Journal	To identify how physical exercise, improve cognitive functioning	Physical exercise has a plethora of brain- boosting benefits	Physical exercise can also prevent dementia since exercising has got benefits to our brains

						as we age
CINAHL	Morris J.,2015.	Alzheimer's and Diet. Journal of Ideas Fitness	Nutritional Journal	To identify the importance of Mediterranean food in cognitive functioning	Certain dietaries seem to protect against cognitive decline	Mediterranean diets which elicited significant reductions in cognitive with the condition that one need to adhere to them
ScienceDirect	Livingston et al.,2017.	Dementia prevention, intervention, and care	The Lancet Commissions	To determine the impact and prevention of social isolation as a risk factor for dementia	Less social contact increases the risk of dementia.	Social isolation also lead to cognitive inactivity, which is associated cognitive decline

						as well as low mood
ScienceDirect	Grande, G, Haaksma, M, L., Rizzuto, D., Melis, R, J., Marengoni, A., Onder, G., & Vetrano, D, L.,2019.	Co-occurrence of cognitive impairment and physical frailty, and incidence of dementia: Systematic review and meta-analyses	Neuroscience Journal	To determine how the nursing care addresses dementia risk factors prevention	Alcohol consumption have been linked to risk factors for dementia	Light to moderate alcohol intake should be recommended and if possible, avoiding alcohol intake is the best

4.5 Data Analysis

The author used adapted version of Inductive content analysis by using themes. This is because inductive content analysis is important where there is not enough research information as supported by Elo & Kyngäs (2008) that the

inductive content analysis is more suitable when there is not enough former knowledge about the phenomenon.

Elo et al.(2014) reveals that inductive content analysis involves three main parts, that is, preparation, organization, and reporting of results. In the preparation phase, the author started by collecting data that seem to be relevant to his topic of research(Care and Prevention of Dementia Among the older People; Nursing point of view).The collected were sourced from CINAHL Ebsco e-journals and Science Direct Elsevier e-journals all from Lapland University of Applied Sciences Library databases.

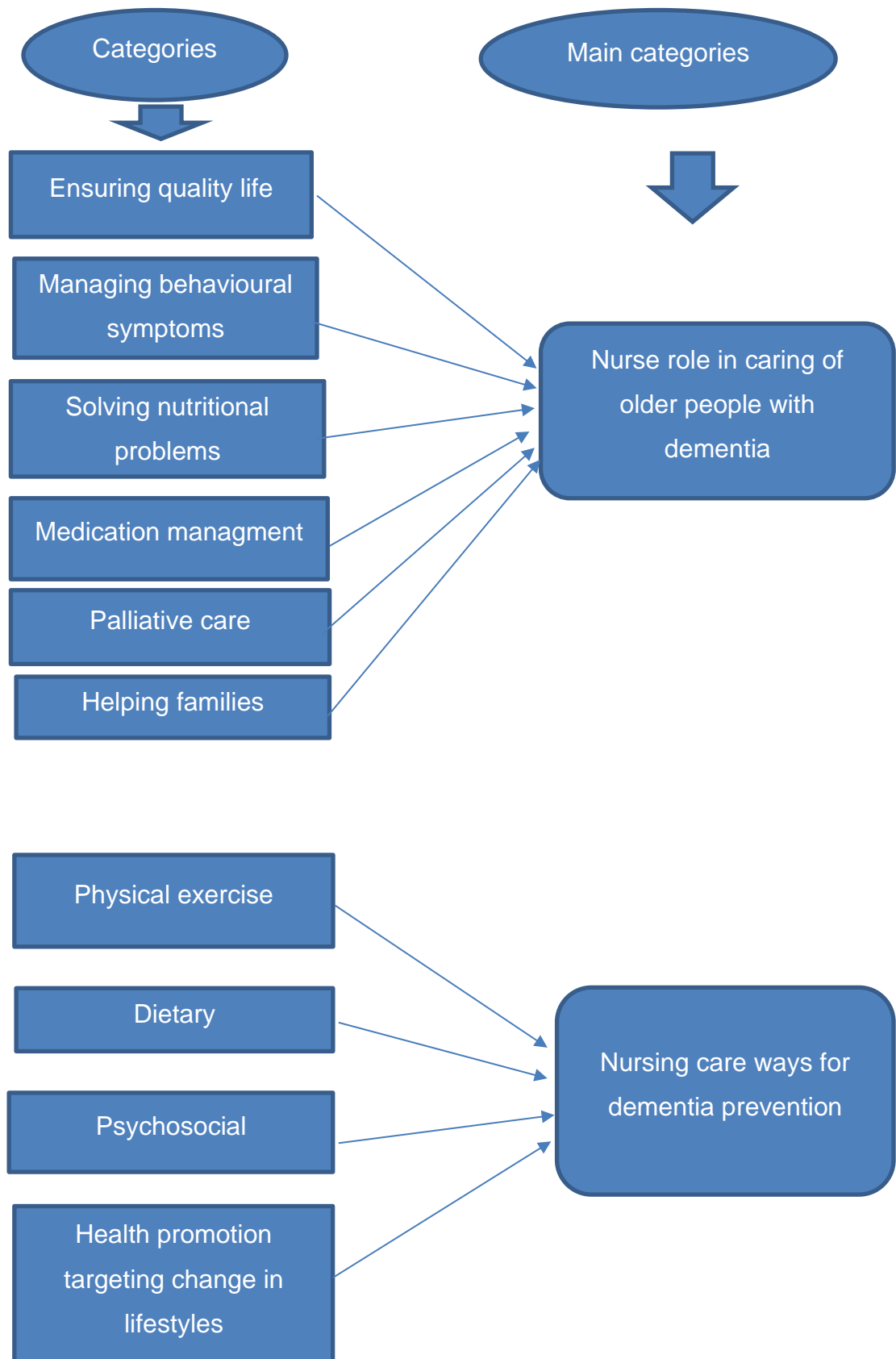
Given that the researchers are held by aim and the research question which gives a sequence in preparation phase to proceed to the organization phase. Elo & Kyngäs(2008) described organization phase in inductive content analysis to entails opening coding, formulating categories and abstraction. This stage target to simplify the data into smaller groups which gives one to comprehend easily and more so explain.

The adapted version of Inductive content analysis approach was used whereby the author open coding and creating categories. The purpose of creating categories is to provide a means of describing the phenomenon, to increase understanding and to generate knowledge(Satu Elo & Kyngäs,2008). According to Satu Elo & Kyngäs(2008), Open coding means that notes and headings are written in the text while reading it.

The author opened coding by writing down, forming headings and reading the chosen articles which were relevant and seem to answer the research questions. Then the author analyzed the 11 relevant articles that were selected and tend to answer the research questions..Finally, categories were formulated to form main category. The headings for categories were formulated from 11 articles that were selected by the author to answer the research questions(what are the roles played by a nurse in caring of older people with dementia? And what are the nursing care ways for dementia prevention?).These research questions happened to form the main categories of the data analysis.The main categories

are roles played by nurses in caring of older people with dementia and methods to prevent dementia. The summary of data analysis as shown below (Figure 2.).

Figure 2. Summary of data analysis



5 RESULTS

5.1 Nurse roles in caring of older people with dementia

Basing on the analysis of the literature material, the categories of nurse roles in caring of older people with dementia are ensuring quality life, managing behavioral symptoms, solving nutrition problems, medication management, palliative care and helping families.

5.1.1 Ensuring quality life

Nurses play a major role in making sure that older people with dementia are living their quality life. In most cases, nurses are acting like advocates between physicians and patients. According to Bryon et al. (2012), nurses are going through intense decisions-making process to achieve dignified care. Therefore, positioned themselves between the patients, the physician, the family, and the nursing team (Bryon et al.,2012).Nurses ensure that the nursing care environment is safe and conducive for older people with dementia. Basing on Helena (2017) argument that 'hospital environments as well as processes can be poorly suited to people with dementia because the environment is typically noisy, busy and brightly lit and patients encountering multiple members of staff. Helena added that distractive environment bring distress among the elderly with dementia and nurses reduce these factors by taking care of the nursing care environment in making sure these disturbing factors are avoided(Helena,2017).

Since dementia impaires communication, nurses are always doing their best to make sure that they understand those affected by dementia and meet their needs. According to Tina,W. et al.(2011), dementia affect communication due to changes in receptive and expressive language. They added that caregiver can improve communication by giving the patient full attention, maintaining quiet environment, and keeping sentences simple, conveying one thought at a time (Tina,W. et al.,2011).

Nurses also help older people with dementia by keeping their hygiene. According to Tina,W. et al.(2011),bathing is the most intimate of nursing care measures. They added that towel bath is useful when bathing people with dementia. They suggest that in towel bath, a bath blanket is placed on the patient, and patient's body massaged gently as the nurse removes the soiled hospital gown and replaced it slowly with a warm moistened non-rinse soap towel and replaced with dry towel. After that, the patient is dressed up. Nurses provide oral care to older people with dementia, (Tina,W. et al.,2011) suggest that providing oral care to patient with dementia can be a challenge for hospital nurse. They reveal that an adult with dementia is prone to dental caries as well as pneumonia from aspiration microflora from oral cavity but risk for this can be reduced through oral care. This reason for this is that patient with dementia may forget to brush the teeth and most of them become resistance to help (Tina,W. et al.,2011).

5.1.2 Managing Behavioral Symptoms

Nurses carry out assessment as well as pain management among the older people with dementia. Nurses may wish to control the pain among the older with dementia but may be difficult to know where the pain is being experienced. According to Jordan and Carole(2010), understanding patient's pain is important as dementia may impaired the ability of an individual to make themselves understood and some agitation behaviors encounter at late stage may be an expression of pain. They further explained that recognizing the signs of pain such as clutching stomach, groaning, refusal of food, aimless walking, resistance of being touched or rubbing the head or limb may indicate pain(Jordan & carole,2010).

Based on Barber and Murphy(2011) study, dementia causes a serious damage on the ability of those in advanced stage of the disease to communicate where their pain emanate from the body. They (Barber & Murphy,2011) went ahead and implied that traditional methods of pain assessment tools cannot be employed ,thus special non-verbal older adults pain assessment tools have been formulated for this kind of patients. They (Barber & Murphy) added that despite several non-verbal older adults pain assessment tools being designed only two

tools were recommended, that is, pain Assessment in Advanced Dementia (PAINAD) tool which was deemed useful for daily assessment including follow-up evaluation of pain intervention, and the Pain Assessment Checklist for Seniors with Limited Ability to Communicate (PACSLAC) was recommended as a baseline and monthly or quarterly maintenance assessment tool to reflect broader changes in behavior and activity (Barber & Murphy,2011). According to Horgas & Miller(2008) ,as quoted by Tina,W. et al.(2011),that no current evidence suggests older adults with dementia experience pain any differently than older adults who are not cognitively impaired (Tina,W. et al.,2011).The cognitive impairment that arises as a result of dementia makes adequate pain management challenging, as majority of the patients are not capable of verbally acknowledging that they are in pain or they have achieved relief of pain(Barber & Murphy,2011).

According to Tina,W. et al.(2011),agitation and aggression are common in mid-to-later stages of dementia. They further argued that a nurse can question if the behavior may be reflecting pain, physical illness, or medication side effects and always nurses manage agitation in dementia patients by pharmacologic interventions((Tina,W. et al.,2011.)

5.1.3 Solving nutrition problems

Older people with dementia have problems when it comes to taking meals. This is brought by symptoms of dementia whereby an older person tend to be forgetful ,confused, difficulty in carrying out daily tasks as well as poor concentration. Therefore, when it comes to meals time older people with dementia are not able to eat well. According to Tina,W. et al.(2011),as dementia progresses, individuals can suffer weight drop, anorexia as well as dysphagia. They added that changes in the appetite center of the brain may result in low decreasing in eating and sweet craving. To maintain nutrition during hospitalization is to determine the patient's usual eating habits from previous caregiver. Nurses can maintain nutrition through offering favorite foods, providing patients to eat between meal snacks and allowing the patients to eat when hungry, monitoring elimination to avoid

constipation, and recognizing the patient will require more time and assistance with meals (Tina,W. et al.,2011.)

Based on Edel (2015) it is important that community nurses consider the naturally occurring ageing process and its effect on nutrition alongside the effects of dementia. Edel(2015) went ahead to state that malnutrition is a big problem in elderly people with dementia since majority of them tend to have a decreased in appetite, thereby reducing dietary intake. This can results to increased risk of infections due to a depressed immune system, increased risk of pressure ulcers due to loss of subcutaneous fat and reduce mobility, reduced muscle mass in old age which can affect the lung function and reduce ability to cough properly hence increasing risk of respiratory infections and changes to lean muscle as well as fat mass leading to decreased body strength ,therefore decreasing mobility and increasing the risk of thromboembolism (Edel,2015.)

Nurses help to resolve this problem of nutrition among the older people with dementia. As quoted by Edel(2015), it is important those community nurses who are involved in the care of patients with dementia also consider strategies that will help during mealtimes. He further claimed that in patients with dementia, particularly advanced dementia ,overcoming poor dietary intake needs more than diet advice and calorie supplementation. Some other factors such as patient's physical deterioration, environment, and types of food. For example, some patients may become sensitive to some types of food e.g. stew with chopped potatoes and meat and it can be worthy trying the softer food e.g. mashed potato with cream or butter. On the other hand, community nurses should check for any visible changes in the patient's ability to swallow food. Dysphagia can be due to behavioral, sensory, or motor problems and mostly occur with individuals with neurological diseases e.g. dementia (Edel,2015.)

Nurses providing care to older people should also consider environmental factors that may affect dietary intake among the elderly with dementia. According to Edel(2015), community nurses can use specifically strategies at mealtimes. These strategies includes reducing possible agitation around mealtimes by ensuring that environment is calm and suitable to eating, for example by reducing

distractions e.g. turning off television and making sure quiet and not loud music is playing, serving food on brightly colored plates and not on a white plates can draw attention to meal. If a patient moves away from an uncompleted meal, the community nurse should not assume that the elderly does not like the food or have had enough. They should guide him or her to come back and continue to eat. In case that fails, then it is good to recheck the patient's dietary requirements(Edel,2015).

During end of life, older people with dementia may have problem with nutrition. According to (Baines,2000) as quoted by (Edel,2015),patients with dementia may express very little interest in food and drink and this can lead to panic among the caregivers ,including nurses and relatives. Even though there is limited recommendation during this situation, some recommendation such as excluding the possible infection that might affect cognitive ability of the patient e.g. urinary tract infections and this may require a referral to the GP. According to British Medical Association of 1999 as quoted by Edel, it state that in case a patient seems to be close to dying it is still important to give small amounts of food and fluids but not giving up too early. In every attempt to feed the patient should be recorded. If death seems to be about to happen, decision to stop the giving food should be discussed with patient's family or next of kin and other care professionals' team and this needed to be recorded(Edel,2015).

5.1.4 Medication Management

Nurses play vital role when it comes to medication management for older people with dementia. According to Mainment et al.(2017),Medication management as been described as the entire way that medicines are selected, procured, delivered, prescribed, administered and reviewed to optimize the contribution that medicines make to producing informed and desired outcomes of patient care. They added that nurses often have a key role in ensuring safe and effective medication use as they may conduct up to 10 medication management activities every day, including awareness of and managing side effects, and decisions to administer medication. Basing on Daly et al.(2015),there are situations in which

antipsychotic use is considered appropriate by most clinicians. People with dementia may be prescribed with variety of medications which may be challenging for them and any caregivers involved to take care of it. (Mainment et al.,2017).

5.1.5 Palliative care

Dementia is a disease that progress to later stage and later lead to death. According to Bravo et al.(2018), nurses may decide to undertake various tasks including talking with the patients. Older people with dementia may have problem with intake of food. According to Barber & Murphy(2011),many patients with late-stage dementia develop difficulty in swallowing, weight loss and recurrent aspiration of pneumonia.They proposed that swallowing is also a symptom that a person seems to reached the dying phase of advanced dementia. At this level, whereby a patient can no longer swallow food, nurses can consider nutritional support which includes artificial feeding(Barber & Murphy,2011).

5.1.6 Helping Families

Nurses also help families of people with dementia. According to Jordan & Carole(2010), care stuff should be helpful by being pro-active with visitors, talking to them and relating events of the day with visitors. They added that where the nurses and the families know that the end of life is approaching, nurses can encourage families to visit every now and then ,to stay longer and to keep regular contact. They finalized by saying that after death and families want to have religious belief or feel that they want to spend time praying with the body of their loved one, nurses should facilitate it as this can create a valued memory(Jordan & Carole,2010.)

5.2 Nursing care ways for dementia prevention

According to analysis done by the author of this study, categories of nursing care ways for dementia prevention are physical exercise, dietary, psychological and health promotion targeting change in lifestyle.

5.2.1 Physical exercise

Studies reveals that physical exercise is among the best methods for preventing dementia among the elderly people. Mathersul et al states that exercise is increasingly recognized as having a positive impact on cognition in general and clinical population. Evidence reveals exercising has impact on cognitive performance including attention, processing speed, memory and performing functioning. He further reveals that a dose-response relationship between exercise and cognition, even having a small dose of exercise emerge to give attention as well as benefits for both healthy and depressed older adults. Furthermore, there is promising evidence from aerobic exercise for the role of strength exercise in promoting cognitive among older adults(Mathersul & Rosenbaum,2016).

Physical exercise can also prevent dementia since exercising has got benefits to our brains as we age. Physical exercise has brain-boosting benefits. Activities that makes the heart rate moving help to remove stress hormones and provide one to develop a more important relaxation response(Eichenseher,2020.)

According to De la Rosa et al.(2020), physical inactivity has contributed to about 5 million deaths in the world every year from noncommunicable diseases. Aerobic exercise has been used in most cases to study the effect of the physical activity in reducing the negative impact of aging on cognitive function. Studies reveals that Longer aerobic exercise training in sedentary older women reveals an improvement in reaction time, motor function and cognitive processing speed hence showing that exercise is effective in reversing or slowing the age-related reduction in motor performance as well as in speed of cognitive processing(De la Rosa et al.,2020.)

5.2.2 Dietary

A balance diet has been a major factor when it comes to maintaining our health. A well-balanced diet not only have importance in our daily life activities i.e.

providing energy for our bodies to carry out daily activities but also help in preventing risk factors that might cause dementia. According to Morris(2015), certain dietaries seem to protect against cognitive decline. These diets according to Morris involve Mediterranean diets which elicited significant reductions in cognitive with the condition that one need to adhere to them. As Morris noted, leafy greens and berries specifically protect the aging brain and therefore recommended for consumption. The therapeutic lifestyle changes in diets which can lead to reduction of intake of cholesterol. Intake of saturated fat which mostly originate from animal sources including red meat, cheeses and high-fat dairy products should be avoided and instead processed, high-fat grain products, lean meat ,fat-free dairy and limiting cheese which happened to be a large source of saturated fat should be taken(Morris,2015.)

The prevention of AD has become a challenge because of its rising prevalence and the lack of cure. Diet and nutrients have achieved interest as modifiable factor to prevent dementia. They claimed that intake of dietary antioxidants ,that is, vitamin E, vitamin C ,phenolic acids as well as flavonoids seems to be agents for prevention and treatment of AD; the reason being that it consist of variety of regular edible food. The intake of fruits and vegetables contain antioxidants such as vitamin C and vegetable oils and nuts contain vitamin E should be also be taken to prevent AD which is the main cause of dementia. (Otaegui-Arrazola et al.,2014.)

According to Kevin(2020),maintaining healthy diet is very important to any patient. A balance diet can protect one against cognitive declines because it is associated with decreased in cardiovascular risk factors. In addition, hypertension is a potential modifiable risk factor of dementia, diets that are specific in targeting reduction of hypertension may also have an impact in reduction of dementia risk. Dietary management to stop hypertension have no specific food recommendation but gives daily and weekly nutritional goals and also suggest eating vegetables, fruits, whole grains ,fat-free or low fat dairy products, poultry, fish, nuts, beans and vegetables oil and food rich in high saturated fat and sugar-sweetened beverages should be avoided(Kevin,2020.)

5.2.3 Psychosocial

Maintaining social group has beneficial to our brains as our brains get engaged in various activities when we are with other people. According to Hope, psychosocial factors appears to be one of the factors that have contributed to the development of dementia in some people. It has been identified to be associated with dementia not only in psychiatric conditions e.g. depression but also social factors such as social engagement, loneliness, or cognitive stimulation. The risk of dementia has been found to be elevated among the people suffering from depression and this appears to be in connection with cognitive decline. Hope in their article argue that being socially active help to reduce dementia by improving mood, reducing stress, reducing depression and loneliness (Kevin,2020.)

Based on Livingston et al.(2017), social isolation can be part of dementia syndrome. They added that evidence emerge that social isolation is a risk factor of dementia and rises the risk of hypertension ,coronary heart disease and depression. Social isolation also lead to cognitive inactivity, which is associated with cognitive decline as well as low mood. They stated that all these are risk factors associated with dementia and it is important to consider the social engagement among the older people and not only their mental and physical health (Livingston et al.,2017.)

5.2.4 Health promotion targeting change in lifestyle

Dementia disease has been linked to lifestyle factors. Lifestyles tend to affect an individual mind when it comes to quality of life one will live in future. According to Hope, physical activity have health benefits which involves reduced risk of cerebrovascular and cardiovascular diseases e.g. obesity, diabetes as well as hypertension. Exercise should be recommended to all ages as a way of reducing cognitive risk and slowing cognitive decline. Physical exercise have been found to reduce AD which is the main cause of dementia. Cardiovascular diseases, diabetes, strokes, hypertension, and hypercholesterolemia has been found to be a modifiable risk factors of AD as well as vascular dementia. Smoking is also a

factor causing these diseases, its therefore smoking is also a modifiable risk factor which directly linked to dementia(Kevin,2020.)

According to Grande et al.(2020),the use of tobacco is the major risk factor not only for CVDs and cancer but dementia too. In consideration of global prevalence of smokers, about 14%,that is, around 4.7 million of AD cases are connected to smoking(Grande et al.,2020). Alcohol consumption hasn't been revealed well if it is one of the risk factors for dementia but due to the fact that, heavy consumption of alcohol causes thiamine(vitamin B1) deficiency and results to Korsakoff's syndrome, which it's symptoms are disorientation, amnesia and severe memory loss(Kevin,2020.)

Grande et al.(2020) added that the excessive and long-term use of alcohol has been linked to neurological conditions such as alcoholic dementia and Wernicke-Korsakoff syndrome. They argued that even small forms of cognitive decline and dementia have been linked to alcohol abuse, and this seems to attribute to neurotoxically as well as neuroinflammation(Grande et al.,2020).Therefore, light to moderate alcohol intake should be recommended and if possible avoiding alcohol intake is the best. According to (Ruitenberg et al.,2002) as quoted by Grande et al.,2020,light to moderate alcohol consumption is associated with a reduced risk of cardiovascular as well as cognitive decline and dementia ,with respect to alcohol and alcohol-free diet(Grande et al.,2020).

6 ETHICAL CONSIDERATION, RELIABILITY AND VALIDITY

6.1 Ethical Considerations

Ethics is an understanding of the nature of conflicts arising from moral imperatives and how best we can deal with them. It involves the choices we make and our actions towards the same choices (Avasthi et al., 2013). Ethics are very important when it comes to decision making when defining which is wrong and good. Research ethics forms an integral part especially when it involves human subjects (Dawson et al., 2019).

In Finland, The Finnish National Board on Research Integrity (TENK) is responsible in promoting good conduct of research, preventing research misconduct, promotes discussion and spreading information on research integrity. According to the European code of conduct for Research Integrity, good research practices are based on fundamental principles of research integrity. They guide researchers in their research and their involvement with practical, ethical and intellectual. These principles include reliability, honesty, respect, and the accountability (The European code of conduct for Research Integrity, 2017.)

Based on the rules and guidelines from Lapland University of Applied sciences, the author of this thesis made sure that ethical guidelines in performing this thesis was followed. Articles that were used while carrying out this thesis were properly cited to prevent plagiarism errors that might occur along the way while doing the research work. Furthermore, the author of this thesis was having a knowledge that on finalizing this thesis, it will be cross-checked through Urkund system to reveal cases of plagiarism.

6.2 Reliability and Validity

According to dictionary, reliable means dependable and trustworthy. Therefore, reliable data are data that have been accumulated in a scientifically sound manner (Swason, 2014). Lapland university of applied sciences has reliable

databases that are accessible for students and the author of this thesis used it to gather for articles that were used to establish this thesis. These databases provide the author with an opportunity to retrieve information from a reliable source. Databases that were used by the author to retrieve the information used in this thesis includes CINAHL Ebsco e-journals and Science Direct Elsevier e-journals.

Validity in research means how accurate a study answers the study question(Sullivan,2011).The author of this thesis ensures that during the search of data, the articles that were found and selected were able to answer the research questions. The articles that were found not to answer the research questions were excluded. The author ensured that consistency and quality of data exist throughout the thesis by employing limitations criteria which aid in maintaining validity of this thesis. Additionally, the author ensure that the selected articles are within the stated year of publication, that is, from the year 2010 up to the year 2020,as this ensures that the retrieved information are reliable and valid.

Furthermore, the descriptive literature review was done whereby the author integrated literature search involving inclusion and exclusion criteria, data collection, data extraction and data analysis to ensure that the articles used in the thesis are valid and reliable. The author of this thesis did not consider his opinion as this could lead to biasness in this thesis.

7 CONCLUSION

In conclusion, roles played by nurses in caring of older people with dementia includes ensuring quality life, managing behavioral symptoms ,solving nutrition problems ,medication management, palliative care and helping families for older people with dementia.

Nurses ensure quality of life for the older people with dementia by ensuring safe living environment. This is confirmed by Helena (2017) that quality of life among the older people with dementia can be improved by improving communication. This was proved by finding according to Tina,W. et al.(2011) that dementia affect communication due to changes in receptive and expressive language and this can be solved by caregiver through giving the patient full attention, maintaining quiet environment, and keeping sentences simple, conveying one thought at a time. Tina,W. et al.2011) also added that quality of life can be ensured by keeping hygiene such as bathing and brushing teeth for the older people with dementia.

Managing behavioral symptoms need a nurse to be more observative to notice pain among the older people. Based on Tina,W. et al.2011), a nurse can question if the behavior may be reflecting pain, physical illness, or medication side effects and always nurses manage agitation in dementia patients by pharmacologic interventions.

Older people suffering from dementia have problems when it comes to food intake. This bring malnutrition. this has been confirmed by the finding according to Edel (2015) that malnutrition is a big problem in older people with dementia since majority of them tend to have a decreased in appetite, thereby reducing dietary intake. Despite that, this situation can be brought under control as recommended by Edel (2015) that reducing distractions e.g. turning off television and making sure quiet and not loud music is playing can improve food intake among older people with dementia.

Nurses play important role by helping families of older people with dementia when it comes to the end of life. according to the finding from Jordan &

Carole(2010), after death and families want to have religious belief or feel that they want to spend time praying with the body of their loved one, nurses should facilitate it as this can create a valued memory. Nurses provide care to older people with dementia during palliative care. Basing on finding according to Barber & Murphy(2011),swallowing problem in advanced dementia shows that a person seems to reach the dying phase and , nurses can consider nutritional support which includes artificial feeding.

There are methods to prevent dementia. these methods includes physical exercise, dietary, psychosocial and health promotion targeting change in lifestyle. According to Mathersul et al.(2016) and Eichenseher(2020) support the physical exercise as one of the effective methods to prevent dementia.

Diets have been found to be effective method in managing dementia. according to Morris (2015), certain dietaries such as Mediterranean diets which elicited significant reductions in cognitive with the condition that one need to adhere to them. This was supported by the finding according to Otaegui-Arrazola et al.(2014) that intake of fruits and vegetables contain antioxidants such as vitamin C and vegetable oils and nuts contain vitamin E should be also be taken to prevent AD which is the main cause of dementia.

Maintaining social group has beneficial to brains as our brain get engaged in different activities. According to Kevin(2020), psychosocial factors appears to be one of the factors that have contributed to the development of dementia in some people.

Dementia can be avoided by changing lifestyles. This has been supported by the findings according to Kevin (2020) and Grande et al.(2020). Kevin (2020) reveals that physical exercise have been found to reduce AD which is the main cause of dementia while Grande et al.(2020) argued that light to moderate alcohol consumption is associated with a reduced risk of Cardiovascular as well as cognitive decline and dementia ,with respect to alcohol and alcohol-free diet.

8 DISCUSSION AND RECOMMENDATION

8.1 Discussing results

From the author's thesis, it was found that nurses play vital roles in caring of older people. Nurses plays various roles such as ensuring quality of life, managing behavioral symptoms, solving nutrition problems, medication management, palliative care as well as helping families for the older people.

Older people with dementia are in most cases confused and on top of that their age also contribute to their deterioration of their quality of life. older people suffering from dementia also do have problem with eating as they are mostly confused ,agitated and forget to eat hence vulnerable to malnutrition. Nurses are always there to help them solve these problems and making sure whenever a doctor prescribed some medications ,they ensure that they take medications according to doctor's instructions.

Dementia has got no specific medication. It was found that there exist methods which can help to prevent it occurrence. These methods include physical exercise, dietary, psychological and health promotion targeting change in lifestyles.

Physical exercise help to boost brain, hence preventing cognitive decline. there is promising evidence from aerobic exercise for the role of strength exercise in promoting cognitive among older adults(Mathersul & Rosenbaum,2016).

A well-balanced diet not only have importance in our daily life activities i.e. providing energy for our bodies to carry out daily activities but also help in preventing risk factors that might cause dementia an example is Mediterranean diets.

Psychosocial factors appears to be one of the factors that have contributed to the development of dementia in some people. The risk of dementia has been found

to be elevated among the people suffering from depression and this appears to be in connection with cognitive decline (Kevin,2020.)

Dementia disease has been linked to lifestyle factors. For example, the use of tobacco is linked to dementia(Grande et al.,2020).On the other hand, heavy consumption of alcohol causes thiamine(vitamin B1) deficiency and results to Korsakoff's syndrome, which it's symptoms are disorientation, amnesia and severe memory loss(Kevin,2020).

8.2 Discussing own learning outcomes

Through this thesis review, the author learned a lot and improved his knowledge in comprehending the caring and ways to prevent dementia among the older people in nursing point of view. From various articles that author came across while carrying out this thesis, the author realize that dementia has no specific medications and nursing roles is of great importance among the older people who are suffering from dementia as most of them are fully dependent and need support in day-to-day activities.

According to the results found from this thesis, the author understood that dementia can be prevented by using various ways such as physical exercise, dietary, psychosocial and health promotion targeting change in lifestyle. Performing regular aerobic exercise help in preventing dementia since aerobic respiration is beneficial to our brain development.

The author noticed that carrying out health promotion targeting change in lifestyle help to prevent dementia as many people will get education on risk factors such heavy consumption of alcohol as well as smoking are associated with onset of dementia. Also, dietary intake help to prevent dementia as there are specific kind of food that help in health development of brain and also avoiding some types of food that are associated with risk factors for dementia for example high intake of fatty food are linked with cardiovascular disease.

Through this thesis, the author has gain knowledge on dementia care and prevention among the older people and this will help him to apply the same knowledge in working life in future.

8.3 Discussing research challenges

Being the first time for the author to write a thesis, it was quite challenging at the beginning for the author. The author had problem in searching the databases since it was something new to the author. A great thank you to supervisors who joined the author and give guidelines on how to go about when starting a thesis which according to the author, they safe the situation and solved the problem.

8.4 Recommendation

The author of this thesis recommend that results obtained from this thesis are useful to nurses, nurse students and other healthcare professionals in various healthcare settings that provide care among the older people as well as other people affected by dementia. The author suggest that this thesis is applicable to those countries where articles reviewed were carried out and author happened to source from them.

The author of this thesis also recommends that more research is needed in caring and ways of prevention of dementia among older people in nursing perspective. This is because the World population is ageing, and the prevalence of dementia expected to rise hence the need for more research.

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