PREVENTION OF MALNUTRITION AMONG OLDER PERSONS WITH DEMENTIA

An interview study of Cape Town Care Home Nurses’ preventative work
ABSTRACT

Background

Malnutrition among older persons with dementia is a common issue due to the consequences of the diagnosis, such as physical hindrances or forgetting to eat. Preventative work, against malnutrition for example, is part of the work responsibility of a registered nurse (Swedish Society of Nursing (SSN, 2011).

Aim

The aim was to describe how Cape Town Care home nurses work to identify and prevent malnutrition in older persons with dementia.

Method

A qualitative method was used with semi structured-interviews conducted with six nurses working at six different care homes in the Cape Town Area. A qualitative content analysis was used to analyse the interviews.

Result

It was found that nurses work differently in their preventative work, depending on the policies of the care home. Some uses assessments for identifying malnutrition while others rely on their capacity of observation. There were no standardized aids used overall on the care homes to ensure quality of the work.

Conclusion

It is important to look beyond the diagnosis of dementia in order to work according to a person-centered perspective with the residents wishes and autonomy in focus. To identify risks of malnutrition; identification is key in the preventative work. The nurses used their skills and experience, rather than standardized assessment aids, to observe changes in the residents’ behavior and outlook.

Keywords: Cape Town, Care Homes, Dementia, Identification, Malnutrition, Nurses, Older Persons, Prevention.
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INTRODUCTION

Every 3 seconds a person is affected by Dementia somewhere in the world. This amounts to approximately 10 million people every year (Alzheimer’s Disease International, 2015) One of the most common issues for older persons affected by dementia is malnutrition. South Africa is a country affected by both dementia and malnutrition. This study was made possible through SIDA and the Minor Field study program which allows us as students to travel to a development country to broaden our knowledge and worldview. We chose this country and subject as we wished to gain knowledge and experience on how dementia care regarding malnutrition is practiced in a country that is different from our own. The study was conducted in Cape Town, South Africa, with six nurses at six different dementia care homes.

BACKGROUND

Malnutrition is a common issue for older persons suffering from dementia. When influenced by a condition affecting mostly the short-term memory, it is shown that persons with dementia often forget to eat and/or do not eat enough for their nutritional needs (Steele, 2010; Brook, 2014; Gillette-Guyonnet et al., 2000; Meijers, Schols, Halfens, 2014). Malnutrition, if not treated, may lead to reduced ability to fight infection and reduced muscular strength, which ultimately can cause aspiration pneumonia related to dysphagia-issues (Brook, 2014; Parker & Power, 2013). In efforts to ensure that persons with dementia eats the option comes to serving non-nutritional food, usually based on the person’s preference. This might be the result of the nutrition transition has been taking place in the past ten years. All around the world populations have shifted from a low-fat, high-fibre diet alongside labour-intensive jobs and lives, to a “westernized” diet that is high in sugar and fat and eaten as part of a sedentary lifestyle (Lindstrand, 2006).

Dementia

Dementia is a cognitive condition resulting in decrement and impairments of the previous level of cognitive function (LoGiudice & Watson, 2014). Rabins, Lyketsos and Steele (2006) define dementia as a severe global intellectual decline that impairs social and/or occupational functioning in everyday life. Steele (2010) refers in her literature to four key elements that defines the diagnosis; the first being “global impairments” which affects memory, reasoning, language-usage and understanding, sight-perception, coordination, planning and decision-making. Second is “decline”, from previous level of functioning, affected by the global impairments. The third element is “severity”, how the impairments affect the daily life negatively, and then finally “normal consciousness”, the impairments occur in the person’s normal state while alert, emphasizing to observe abnormal states of consciousness such as delirium.
Causes of dementia

The main underlying causes of dementia in older persons include Alzheimer disease (AD), vascular cognitive impairment (VCI)/vascular dementia (VaD) and dementia with Lewy bodies (DLB). Dementia in older age reflects several pathological states. Although the main cause for developing dementia is age and genetic heritage, other risk factors such as diabetes mellitus, hypertension, obesity, hyperlipidemia and atrial fibrillation are found. Also smoking, alcoholism and depression may play a part, as can delirium and polypharmacy (LoGiudice & Watson, 2014). An estimated five to seven percent of the global population over the age of 60 is diagnosed with dementia, as are 20 percent of the population aged 85 or older (LoGiudice & Watson, 2014).

Eating difficulties in Dementia

With the impairments, persons with dementia may experience difficulties linked to the mealtime situation, such as not recognizing food as edible, motor command problems, distraction, resistance to eat as well as loss of the knowledge on how to chew and swallow food (Steele, 2010; Murphy, Holmes & Brooks, 2017). According to Chang and Roberts (2008), these impairments first and foremost lead to malnutrition and weight loss but can also result in aspiration and pulmonary complications. The most common symptoms of diseases leading to malnutrition are cognitive impairment, perceptual deficits and lack of motor control (Chang & Roberts, 2008). With a health-based view, Brook (2014) emphasizes that symptoms of malnutrition most often appear in the later stages of dementia. Since the early signs of malnutrition are not obvious, especially in dementia-patients, they are commonly missed and therefore often lead to morbidity. Early signs may include forgetting to eat and changes in appetite, mood and taste.

Malnutrition

Even though malnutrition is a globally widespread health-problem, the definition and identification may vary. In some countries, malnutrition may be under- and over-nourishing, while it in others is defined based on clinical outcomes (Marinos, 2017). Malnutrition is defined as the state of an imbalanced status of nutrition which is resulting from an insufficient intake of nutrients in comparison to the normal physiological requirements (World Health Organization (WHO), 2016). Malnutrition is therefore not merely the state in which a person is undernourished. It is also found in the parts of the population who are considered overweight and obese (WHO, 2016). The worldwide problems with overweight and obesity has become referred to as a global epidemic. It no longer only affects the high-income countries, but problems can be found all over the income spectra. In low-income and parts of the middle-income societies this is viewed as a “double burden of disease”; when countries suffer from both over- and under-nutrition. The human body is not designed to cope with the constant access to excess of food available to a large part of the population, it is biologically prepared to handle periods of scarcity of food. There is no physiological function in the body to avoid over-consumption leading to obesity. These actions are behaviors that have to be learned in the same way the population learns what food is needed to survive (Lindstrand, 2006).
Nutritional needs of older persons with dementia

The nutritional and caloric need of an older person is not an exact number, there are many variables to consider when calculating that need. The first defining factor is gender, the nutritional need differs greatly between men and women. The second factor is the level of activity with the person being studied, an active person consumes more calories than an immobile person (Folkhälsoguiden, 2015). The nutritional need of older persons, persons aged 65 years and older, is therefore varied by gender; according to the Swedish public health institute the intake for men should be about 2325 kcal per day while the women have an intake need of 1925 kcal (Folkhälsoguiden, 2015).

In countries where the government has not provided an exact numerical calorie intake the responsibility is placed upon nurses and the health care staff. Nurses need to be well-versed in nutritional awareness as well as assessing older persons nutritional need in order to increase the overall quality of life of their patients and residents (Beattie, O’Reilly, Strange, Franklin, Isenring, 2014; Lea, Goldberg, Price, Tierney, McInerney, 2017; Gaskill et al. 2008). Therefore, caregivers preferably should receive education enabling them to adequately help cognitively impaired adults with enough nutrients, fluids and calories (Bonnel, 1995; Amella, 1999, 2002, 2004). Since persons with dementia often are more physical active and often have a different sleeping pattern than older persons without dementia, weight-loss may occur. In those cases, meals fortified with additional energy and protein is recommended (Murphy, Holmes & Brooks, 2017; Smoliner, Norman, Scheufele, Hartig, Pirlich & Lochs, 2008; Odlund Olin, Armyr, Soop, Jerstrom, Classon, Cederholm, Ljungren & Ljungqvist, 2003).

Registered Nurses core competencies - Preventative work

According to the Swedish Society of Nursing (SSN, 2011) one of the important core competencies of registered nurses (RN) is to prevent ill health as well as discomfort and lack of well-being in a patient. A major part of RNs preventative work is performed through health promotion, to halt negative habits and lifestyles from becoming dangerous to the public health (SSN, 2011). It is of importance to include the social environment when working health-promoting. Family and friends are one way to activate the person with dementia and to reach to them in situations where the nursing-staff may not be able to. Another health-promoting way to treat persons with dementia is to offer group-therapy sessions (Brook, 2014). Personal management when suffering from a chronic disease is an essential part in both physical and psychological health and well-being. The RN plays a significant part in motivating and informing the person on how to reach self-managing to sustaining optimal positive health outcome. The person’s perception and intention of health is important to consider and take into account when setting a goal. Accepting and fully adapting to their illness and the fluctuating physical and psychological experiences is crucial for functioning and everyday stability. Symptoms may be unpredictable in chronic diseases, which is key for both the patient and the relatives to understand. Lack of adaptation and motivation are essential to consider when helping the person to self-managing. The person should be aware of their perception of self and possible influences to successful personal management (Donnelly, 2017).
Preventative nursing-care

It has been proven that persons with dementia are more likely to eat more if they are accompanied by nursing-staff. Their appetite may be triggered by the smell from food-preparation, and it is easier for them to eat while in a calm, quiet environment due to the fact that they are easily distracted. While working person-centered, to allow the patient insight as well as participation in their care, and holistically, to see the whole as more valuable than individual parts, it is important to include the social environment in the treatment. Family and friends are vital tools in the health-improving work (Brook, 2014). Brook (2014) highlights the importance of screening persons continuously to discover malnutrition in the early stages and to promote health. In Sweden the guideline for prevention of malnutrition is that all patients or residents should be assessed within 24 hours of admission (Rothenburg, 2017). The assessment can be done in different ways, either through a simple interview or through filling out a questionnaire. When dealing with older persons with dementia the questionnaire would be the favourable option as it is based on the RNs observation and examination of the person and is therefore not dependent on their ability to comprehend and communicate (Rothenburg, 2017).

Identification aids for nurses

For health care staff working with persons with dementia the Nestlé Nutrition Institute have developed two questionnaires specifically targeting older persons when identifying risks of malnutrition. These questionnaires are the Mini Nutritional Assessment-(MNA®) and Mini Nutritional Assessment- Short form-(MNA-SF®), (Appendix A-B). The permission of illustrating the MNA-SF form were given to the authors by the Nestlé Nutrition Institute (Appendix B). These questionnaires make it possible for RNs and other health care professions to identify the nutritional need of a patient or resident to prevent or treat malnutrition. The MNA full form is used within research while the MNA-SF is the developed tool for health care personnel. The MNA-SF consists of 6 questions which simply and concisely evaluates an older person’s nutritional status. The form is available in a total of 24 languages, in Sweden it is a standardized tool available for RNs within geriatric care and frail care. This tool makes it possible for nurses to early identify risks or signs of malnutrition which in turn allows for an early intervention (Nestlé Nutrition Institute, n.d.). If the health care facility choses to not use the above-mentioned questionnaire it should perform assessments that include a collective judgement of the persons weight loss, eating difficulties, either a recording of food intake or the calculated Body Mass Index (BMI) (Rothenburg, 2017).

The South African context

South Africa is a country with a population of approximately 55 million people. The diversity is not only visible in the different types of landscapes but also in the ethnicity and age structure of the country. The South African age structure differs from the rest of the sub-Saharan countries in the sense that it is more similar to North Africa than its neighboring countries. The total fertility rate has dropped in the past 50 years from about six children born per woman to two children born per woman. According to CIA’s estimation of 2017 the male life expectancy is 62.4 years while the female is 65.3 years (Central Intelligence Agency, (CIA), 2017). Due to past epidemics and considering the low life expectancy the population of older persons in South Africa is small, the estimate for 2017 is that a mere 5.68 percent of the population is 65 years of age and older (CIA, 2017).
Exact numbers of how many persons in South Africa are affected by dementia are not available, globally however approximately 7.7 million people are diagnosed every year. The 2012 estimate of people worldwide living with dementia is 36.5 million, this number is expected increase over time and by 2030 have doubled and by 2050 the number will be more than triple (WHO, 2012)

Nursing in South Africa

The nursing program in South Africa includes four years of full-time studies, including both theoretical studies and clinical training. Community service must be done at an establishment designated by the minister of health, or it will not be recognized (The South African Nursing Council, SANC, 2017). After graduation the nurse registers with the South African Nursing Council and pay an annual fee. If the fee is not paid the RN cannot keep the Practicing Certificate that ensures performing the profession within the Republic of South Africa. There are several different grades of nursing in South Africa; Registered Nurse (RN), Enrolled Nurses and Enrolled Nursing Auxiliaries. The registered nurses’ responsibilities are to supervise both enrolled and enrolled auxiliary nurses apart from performing standardized tasks such as medicine dispensing and rounding with the doctors. The enrolled nurses assist the registered nurses in their work through delegation. The enrolled auxiliary nurses perform the basic care for patients and residents. The difference in grade is reflected on their uniforms. Maroon epaulettes are worn by RNs with a general nursing diploma. Depending on further education different colored strips are added to the epaulettes, for example yellow, representing community nursing. Enrolled nurses wear white epaulettes while the enrolled nursing auxiliaries wear a blue button (SANC, 2017).

Problem statement

Malnutrition is a common issue for individuals suffering from dementia, since dementia may result in for example not recognizing food as edible, not wanting or not being able to eat (Steele, 2010). An insufficient intake of nutrients in comparison to the normal physiological requirements results in an imbalanced status of nutrition commonly named malnutrition (WHO, 2016). Among South Africa's small population of older persons, approximately six percent are 65 years or older, both dementia and malnutrition play a large role in diminished quality of life as well as cause of death (CIA, 2017). This study was performed in order to highlight and gain understanding of the preventative work performed by nurses at care homes in Cape Town.

AIM

The aim was to describe how Cape Town care home nurses work to identify and prevent malnutrition in older persons with dementia.
METHOD

Study Design

The focus of a qualitative study is to understand a reality from a subjective and narrative point of view (Polit & Beck, 2017). A qualitative study method offers an emergent design as well as flexibility, both which helps to unearth the complex issues involved in the subject of frail care and malnutrition.

Inclusion Criteria

In order to retrieve relevant information criterion were created regarding which persons were to be interviewed. The criteria were that the interviewed should be a nurse who has worked a minimum of two years within dementia care, this to ensure that the nurse is confident in their field and not a novice without the analyzed perspective of an experienced nurse (Benner, 1982). The nurse was also to be employed at a dementia care home, to speak from their own knowledge and experience. They should also can perform the interview in English. This to receive the information about the study, and to make sure that no misconceptions regarding interview questions and answers could occur (Polit & Beck, 2017).

Study participants and recruitment

Six nurses, employed at six different care homes, who met the inclusion criteria were interviewed. All participants were women between thirty and sixty years of age, between them their experience within dementia care ranged from the criteria minimum of two years up to twenty years. The nurses interviewed were selected by their employers in order to fulfill the language criteria. Not all nurses interviewed had complementary education in malnutrition nor dementia. The care homes that were invited to participate in the study were found through searching the internet for Dementia Care Homes in the Cape Town area. An invitation was sent out via email to contact addresses of six care homes with information regarding the study (Appendix D), two months prior to when the study were to be conducted. In the invitation the participants were informed about the purpose of the study and about whom would be performing the interviews. Upon arrival in South Africa none of the participants had responded to the written invitation. The interviewers therefore sought out the care homes via telephone and visitation.

Data Collection

When conducting a qualitative study, interviews are appropriate to use as this allows the researchers to draw out the essence of the aim from the collected data (Polit & Beck, 2017). The interviews are preferably semi-structured with an interview guide with questions which have been prepared in advance. The interview guide forms a support and frame when conducting the interviews with the participants, to ensure that the researchers retrieve all the information necessary for the study (Polit & Beck, 2017). Semi-structured interviews are preferred to obtain the nurses own understanding, thoughts and feelings about their work.
Having the interview consist of open questions would allow more freedom for the person being interviewed to express themselves, which results in a higher quality of the data (Danielson, 2017). The care homes were sought out via telephone and visitation in order to arrange an appointment for a meeting. The appointments were made through the staff manager, who consulted the participants’ schedules and asked for interest to participate in the interviews among the nurses. The nurses interested in participating were then able to choose when they wanted to be interviewed, to suit their work schedule.

**Pilot Study**

The main purpose of a pilot study is to test the methods planned to be used and discover the likely success of the participant selection strategy (Polit & Beck, 2017). Therefore, a pilot interview was performed to recognize any inadequacies or eventual problems with the questions and/or structure. Since the pilot interview resulted in information equivalent with the aim, and was conducted with a qualified participant, a nurse who had been working with dementia patients at a care home for at least two years, it was included in the result in accordance with Polit and Beck’s (2017) advice. In total, six interviews were conducted.

**Interview process**

The interviews were conducted at the different dementia care home facilities in the Cape Town area, with nurses who met the inclusion criteria (Polit & Beck, 2017). Through face-to-face interviews that were recorded with an audio recorder the interviewer would be able to establish a good relationship and a trust with the person being interviewed (Danielson, 2017). The interviews were performed with both authors present in order to obtain a good balance between taking notes and moderating the interview. Before starting the actual interview, the authors informed the participant of informed consent during the interview and the right to discontinue the interview at any time. All participants of the study approved of a recorder being used during the interview to aid the interviewers in the data analysis process. The interviews were conducted in secluded areas of the facilities, at all care home except one. After the finished interviews, the participants were asked if they wanted a copy of the final thesis (Polit & Beck, 2017).

Prior to conduction of the interviews, an interview guide was created with subject categories and questions paired with each category (Appendix C). The interview guide was composed with five subjects; start-up questions and information, background questions, questions about the care home and the residents, tools for identification and preventative work. From these subjects, 21 open-ended questions and two information points were formed to obtain credible data for the study; ensure that the participants are aware of their rights to discontinue and to avoid “yes” or “no” answers. The interview guide was designed with the purpose to be a support for the researchers and act as a guideline while performing the interviews, as well as collecting as much credible data possible (Polit & Beck, 2017).
Data Processing and Analysis

A qualitative analysis was used on the interviews conducted. The interviews were divided between the two authors and then transcribed in direct correlation to the data, highlighting the questions asked to facilitate the process (Danielson, 2017). As stated by Graneheim and Lundman (2003) it is valuable to notice changes in the conversation that possibly could influence the meaning of what is said, such as long silence, sighs or laughter. Therefore, all sounds and pauses were transcribed in order make sure the meaning of the spoken word was not misunderstood during the transcription. The coding process was selective, meaning solely utterances related to the core variable were condensed (Polit & Beck, 2017). The data and the transcripts were read, processed and cross checked multiple times by both authors; thereafter essential formulations and utterances for the aim were highlighted and selected to be condensed for better overview and managing. The selected utterances were sorted into six thematic sub-categories, depending on the substance. This was done to group the utterances alike. The sub-categories were further comprised into two categories. The categories allowed future overview and easy comparison. The coding was processed by the two authors and discussed until consensus arose. All the processed material was written into an analysis scheme, example presented below in Table 1 (Danielson, 2017).

Table 1. Example of analysis process

<table>
<thead>
<tr>
<th>Codes</th>
<th>Condensing units</th>
<th>Subcategories</th>
<th>Category</th>
</tr>
</thead>
<tbody>
<tr>
<td>“We discuss why a person may lose weight, for example we had those who suffers from depression, or swallowing difficulties.”</td>
<td>Discussions about possible underlying causes in weight-loss.</td>
<td>Observations to identify risk of malnutrition</td>
<td>Identifying residents at risk of malnutrition</td>
</tr>
<tr>
<td>“take into consideration is dental health. That can influence a person's ability to eat and take in nutrition.”</td>
<td>Dental health considered for nutritional intake.</td>
<td>Health Maintenance</td>
<td>Preventative work to avoid malnutrition among residents</td>
</tr>
</tbody>
</table>

Ethical Considerations

The main purpose of research ethics is to protect all people's worth, integrity and autonomy. In accordance with the Declaration of Helsinki (The World Medical Association, [WMA] 2013), possible risks for the participants has been considered beforehand, and measures to minimize the risks has been taken. In this qualitative interview study the main ethical focus was on the confidentiality of the person being interviewed, therefore every precaution possible was made (Kjellström, 2017; WMA, 2013). The participants were informed beforehand of the individual protection claim codex, as well as the significance of informed consent, covering the rights to avoid certain questions or discontinuing the interview (WMA, 2013).
During the interviews and transcribing, names and workplaces were written down in a separate notebook to keep track of which interview were used, upon finishing the transcribing the material were destroyed. During the finished version of the transcribed material all names of people and workplaces were erased to maintain confidentiality. One of the main ethical aspects of the study were not applying our own subjective thoughts and values into the result. The participants answers were therefore presented as received without alterations. The interviews were recorded so no answers given by the interviewed persons could be altered due to the human factor of memory. Upon finishing the transcribing all audio files of the interviews were deleted to maintain confidentiality (Swedish Research Council, 2017).

RESULT

Throughout the results, quotes from participants in the interviews were presented to support and clarify our findings, the quotes have been modified to become grammatically correct. Each headline in the result section represent the categories which answered the study's aim. The categories emerged during the analysis of the interview data and describe the identifying work as well as the preventative work against malnutrition performed and the circumstances around this work. The presented results were summarized below two headlines for structural integrity as well as providing more clarity for the reader.

Identifying residents at risk of malnutrition

The ability to identify residents at risk of malnutrition comes down to routine and the work of the nurses. A majority of the nurses interviewed stated that they work with discovering difficulties before those become issues;

“We don't have specific program to target malnutrition, mainly because we work hard to make sure it never goes so far”

Admission controls and assessments

The importance of admission controls was equally expressed by the nurses throughout all the conducted interviews. The significance of the process is according to the nurses in the ability to observe and track the residents’ health and well-being from time of admission and through their stay at the care home. The interviews have shown that although the thoughts on admission controls were the same, the process for carrying them out differs greatly. One nurse explained that the routines of admission included the residents’ private doctors measuring their vitals beforehand, leading to care home-nurses not being able to record for example weight themselves upon admission. The nurse, describing the admission policy, did not see any problems in not being able to record the residents weigh over time. Instead, she emphasized the importance of the care home giving the feeling of living at home. This led to better mental health, and in the long run affect the appetite positively, minimizing the risk of malnutrition. Another care home had routines with basic vital observation, mouth status and dental health, completed on the exact day of admission by the registered nurse. A full risk and functional assessment were done by nurses at the care home with the overall most policies among the nurses interviewed. These assessments included weighing and personal monitoring of food intake among the newly admitted, as well as tracking bowel movement. The nurse explained the close contact they had with the residents’ personal doctors, especially in the first period of time, making phone calls for guidance.
Observations to identify risk of malnutrition

By discovering changes in appetite among the residents or observing that residents were struggling to fulfil their nutritional needs, the nurses could take action and prevent even the early stages of malnutrition. The nurses disclosed that they rely on their own experience rather than guidelines when observing the residents and their well-being. They also felt that their close work with the residents ensured that they early on could discover changes in appetite, mood or functional abilities. Upon observing residents that have difficulties with food the nurses also looked into the possibly underlying causes for the changes. How the nurses aided the resident became dependent on if the cause were dementia progression or for example depression.

“We discuss why a person may lose weight, for example we had those who suffers from depression, or swallowing difficulties.”

During the interviews a subject that repeatedly surfaced was education about dementia and malnutrition among the staff. The majority of the nurses accentuated that feeding difficulties in persons with dementia often were expressed differently than in those without the diagnosis. For example, early signs of dementia may include forgetting to eat, motor command problems, distraction, resistance to eat as well as loss of the knowledge on or competence to chew and swallow food. By knowing the cause, the nurses could set up individual rectifying and preventative plans, such as meal supplements and dining aid. These routines were however not standard practice at all care homes, some of the studied care homes relied on the experience of their nurses to observe malnutrition among their residents.

Significance of continuous controls

A majority of the care homes did not have as a policy to record any specific vitals regularly, the nurses interviewed described that doing so would affect the residents negatively, giving the impression of living in a hospital. Other nurses saw monthly weights as a strength in their work to acknowledge changes among the residents, feeling the routines gave them the possibility to rectify any issues before they could occur and cause problems for the resident. In one care home a special chart was used, on which the nurses recorded what and how much the resident ate and drank as well as the amount of bathroom visits and their bowel movements. The nurse explained that they evaluate this information after each shift in order to detect any changes among the residents.

“Every month we have a staff-meeting when we write the monthly weight next to the last monthly weight to see and discuss any changes”

The care home with most control-routines also charted blood pressure and did a urine analysis every month. Mainly to make sure not to weigh fluids among the edematous residents, or to discover urine tract infections which may lead to restlessness and added on confusion, especially among those with dementia. One nurse disclosed that they have residents that are on weight-management plans which required changes in routines for the staff. A resident on this plan was weighed every week and the nurse recorded all intakes and outputs from the resident in order to achieve balance in their diet. It was explained that the weight-management plan was used for both edges of the spectrum, for residents suffering from underweight as well as overweight.
Preventative work to avoid malnutrition among residents

During the interviews the nurses described that even though a majority of the them did not have fixed ideas of their preventative work regarding malnutrition it was nonetheless performed. The nurses described that they work continuously to rule out obstacles for good nutrition, such as poor dental status or residents’ inability to handle cutlery. These issues were dealt with through daily dental care and that struggling residents received help with feeding by nurses during meal-times. Preventative work does not only include actions directly related to food or food intake. A nurse expressed that there were many factors that can affect the resident negatively;

“Making sure people sleep, people are not in pain, and making sure they are not depressed, so those are what we do”

The nurses worked to ensure a positive environment for the residents through promoting healthy sleep routines, for example maintaining a proper number of hours of sleeping. As well as making sure the residents were not living with pain prevented them from entering a negative spiral of behavior. The nurses expressed that the mental status and wellbeing of the resident played an important role in their overall health, and therefore their nutritional status. Nurses observations for signs of depression were a preventative action that affected all aspects of the residents’ life, including appetite, weight loss and risk of malnutrition.

Nutrition and assistance

An aspect of health emphasized by all of the nurses when asked how they prevent problems and maintain good health was the food intake. Food and proper nutrition is vital to everyone, especially older persons. Majority of the kitchens at the care homes have therefore composed their menus in cooperation with a dietician to ensure that the residents received their daily intake of proteins, carbohydrates, fats, vitamins and minerals. However, few of the nurses had policies themselves regarding nutritional guidelines and caloric intake appropriate for the residents. It was described that only when a resident was placed on a weight-management plan food intake and calories were recorded. For the residents who were unable to fulfil their nutritional need the nurses prescribed a meal supplement. In order to stimulate appetite one of the nurses described that they had educated the staff in the environment of care, such as having soft music playing in the background during dining-hours. They also had a service etiquette covering the display and order in which the food is served. Several of the nurses explained how they have arranged their dining rooms to ensure the preeminent environment for the residents. Most of the care home facilities have two separate dining rooms, one where residents who were independent in their feeding eats and one where the residents in need of aid from the nurses ate. The aid given by the nurses could be anything from specialized cutlery to physically feeding the residents to secure their nutritional intake. The smaller care homes had one dining room, but the nurses explained that they made efforts to separate the residents’ dependent on needs to provide a harmonic dining situation.
Health maintenance

One of the nurses interviewed had a bowel care policy including daily recordings of bowel movements and quality of the stool, connecting constipation to unwillingness to eat. Intake and output, regularity of the stool and eventual constipation was only evaluated after every shift by only a few of the nurses. Another consideration for health maintenance mentioned by the nurses was dental health, since dryness and sores may affect the eating habits and intake of food negatively. Therefore, majority of the nurses emphasized dental hygiene as a basis for maintenance of good health. An occupational therapist was often employed or consulted by the majority of the nurses. Activities were offered every day, and in some cases the residents had the opportunity to take a walk one-on-one with a personal caregiver. One nurse presented a preventative nutritional program that included daily exercise. The aim was to highlight and incorporate the correlation between movement, sedentary and appetite in the residents’ everyday life;

“I find that the more people move, the more likely they are to eat, the more sedate, the more they tend not to eat.”

A subject discussed by some of the nurses was the importance of mental health, and how it affects the individual with dementia, in the aspect of eating patterns and willingness to eat. Three main aspect were discussed; lack of sleep, influence of pain, and depression. Whereas pain could be measured with pain assessment scales, sleep patterns and foremost depression could be difficult to evaluate. By observing and sometimes charting these areas, the nurses described a convenient way to maintaining a satisfying nutritional status.

Relatives

A majority of the participating nurses emphasized the importance of a familiar environment as one of the most important aspects for overall-health, avoiding the impression of an industrial or hospital-like setting. One nurse declared that it was not only a familiar environment that made a difference for the resident. Having relatives visit them had a large impact on both their mood and appetite. The nurses reckoned that it was because the families usually brings food and sweets from home that the residents like and are used to. According to the nurses this is not true among all the residents, they testify that some residents respond negatively to visits from relatives. It is most common among new residents who has not yet to settle into the new environment of the care home. The visits reminded them of their “real” home and placed them in a bad mood that often led to a disinterest in eating. Many of the nurses shared the same opinion, namely;

“This is the people's home, we become their family”

DISCUSSION

Result Discussion

The main finding in this study was the vast difference in policies regarding identification of malnutrition among the residents with dementia, and that a great deal of the preventative work relied on the nurses’ observations. The result shows that not all nurses do the admission controls themselves, and that in some cases, all controls are done by a private doctor.
Solely one of the care homes visited had policies regarding controlling and charting vitals regularly. A couple of care homes had a close relationship with the residents’ private doctors, a few even weighing the residents monthly themselves and then turning to the private doctors for consulting. A few care homes did not chart any vital data, nor kept in touch with the private doctors. Some nurses claimed that repeated weighing and monitoring of the residents would lead to them feeling more ill and the feeling of being hospitalised.

Studies however show that weighing patients is vital to nutritional screening, especially those with dementia since they are at higher risk of malnutrition (Evans & Best, 2014), rendering the nurses’ routines not scientifically based. The fact that the nurses do not base their work on scientific studies created a different standpoint from the European model, where a majority of the nurses’ responsibilities are evidence-based.

Eating difficulties among persons with dementia is expressed as forgetfulness, distraction, resistance, motor command problems or not being able or knowing how to chew food (Steele, 2010). All nurses agreed that knowing how dementia expresses itself is mandatory in the work of preventing malnutrition. By observing the residents during dining, the nurses argued that they did not need any forms to aid them when identifying malnutrition. The care standard in Sweden includes assessments and forms, monitoring health and vitals, for example with the MNA-form tracking the nutritional intake and possible risk of malnutrition (Nestlé Nutritional Institute, n.d.). The form could be an effective tool to use by nurses in care homes since it is predictive of nutritional outcome as well as follow-up evaluation of outcome (Guigoz, Lauque, Vellas, 2002). Routines regarding weighing residents or patients regularly, for example monthly in care homes, are encouraged when identifying and preventing malnutrition (Evans & Best, 2014).

The concept of person-centered care is a subject that within Swedish health care is described as the patient or resident being a valuable and equal partner in their own health and care (Ekman, 2014). The South African nursing home care places the focus on the residents’ comfort and autonomy.

The nurses at the interviewed homes empathized that the atmosphere should be of home and not a hospital. The South African view on the residents adheres to Brook’s (2014) view on the social environment being of great importance in the care of older persons. Another way this expressed itself was how the nurses spoke about their work at the care home, they said that the nursing staff becomes like the residents’ family over time. The familiar perspective expressed by the nurses erases the line between being personal and private in the relationship with the residents.

The result shows that a main focus for the care homes and the nurses were the residents’ nutritional status and self-sufficiency when eating. During the study it became clear that the nurses placed a large focus and amount of resources on ensuring that the residents reached a sufficient nutritional status. Among the residents who were incapable of feeding themselves the nurses assisted them during mealtimes either with specialized cutlery or through physical feeding. According to Brook (2014) it is shown that older people have an increased food intake when assisted with eating. Brook (2014) therefore proves that the practical work performed by the nurses is proven efficient through research, despite the nurses claiming to not work according to guidelines but simply on the basis of their own experience.
Among the nurses interviewed calorie intake were not regarded as an important aspect by all. Some nurses said that counting them did not give any significant information regarding the well-being of the resident, they argued observation in eating-patterns played a more important role. A few care homes had dieticians formulating the menus, another form of controlling the residents food-intake. Despite the imbalance of the routines among the nurses they boil down to the core factor, maintaining a good nutritional status among the residents. The importance of this is stated by several researchers (Beattie et al., 2014; Lea et al. 2017; Gaskill et al. 2008). They point out that the nurses’ knowledge of nutritional needs is vital to ensure a good quality of life among the residents.

We feel that this study has been giving us a new outlook on how to identify and prevent malnutrition among persons with dementia living at care homes in Cape Town. The aim of the study has been answered, perhaps not in the way we had predictions about but in a more satisfactory way. We now know that there is more to identifying unhealthy conditions than just filling out a form, and that the preventative work with dementia involves more dimensions than first expected. All of the nurses interviewed expressed an interest in reading this study and were open for the possibility of experience exchange between care homes. With an exchange of knowledge between the care homes, it is possible that a more unison work routine for dementia care could be established.

**Method Discussion**

The method used during this study was qualitative interviews with open questions, therefore avoiding “yes” or “no” answers, providing nuanced and credible information (Polit & Beck, 2017). Since the aim was to discover how the nurses of care homes work in identifying and preventing malnutrition among residents with dementia, a quantitative research would not have enabled the authors to explore the subject as profoundly. Using qualitative interviews ensured a high level of quality data as well as the possibility for us to ask follow-up questions to answers given by the nurses being interviewed (Danielson, 2017).

One disadvantage to this method may be that we did not get to interview as many nurses as we preferably would to get a broader view on the subject. If the resources and time were unlimited, we would of course interview a larger number of nurses over a longer period of time.

In our inclusion criteria we stated that the nurses should be able to perform the interview in English to ensure good quality data. What we had not considered were the language barriers that still could appear within one language. As Swedes we are accustomed to British or American English, in South Africa the English language entails a vastly different dialect and variety of slang words. This difference in language created some difficulties for us both during the interviews and transcribing, both with understanding the spoken words and their meaning. We have tried to the best of our abilities to decode the differences and feel that in the end we understood the essence of the interviews and the message they relayed. In the end we feel that the language differences did not affect our result either for the negative or positive (Polit & Beck, 2017).
Nurses of multiple grades were interviewed in this study, giving a broader view on their possibly different work. If we for example only would have interviewed the staff nurses, we most likely would have gotten a different result, due to their work perspective being divergent. Therefore, we see the dissimilar interviews as a great strength in our study.

The interview questions designed for this study were composed to get as much adequate information in relation to the study aim as possible. We therefore discussed the outcome of the interviews before conducting the next one, in order to discover if any changes in the interview guide needed to be done. We also consulted each other during the analyzing process, to make sure we did not imprint any of our own values, and to ensure credibility (Polit & Beck, 2017).

We feel that this study is credible due to many actions taken to ensure this. First of all that the interviews were audio recorded to elude any human errors of memory or note taking, this ensures that the data in the study is correct and not altered. Secondly that the data was fully transcribed to not miss any important data that was said or insinuated through non-verbal communication such as sighs, tone of voice or hesitations in answering (Swedish Research Council, 2017). This was all done to maintain the level of the data and create a scientifically valuable result. However, the use of an audio recorder may affect the interview if the participant is insecure about their opinion or of being on tape (Polit & Beck, 2017). With this in mind, we are aware that audio recordings may have affected our result. Nevertheless, the result is probably not affected majorly, since the subject of the study not is delicate or personal for the participants. The use of an audio recorder was always very well welcomed during the interviews. Another item of ethical value was to not ask leading questions during the interview that might steer the interviewees answer in a certain direction or might affect them in anyway.

Since this study only included the knowledge and experiences of six nurses, all from different care homes, the result may not be representative for the whole Cape Town area. We were also aware of how our own heritage of the western world possibly could affect the answers from the participants. Since the participants were asked by their employers, there was of course impossible for us to guarantee that the information given was not pre-approved.

Conclusion

The aim was to see how the nurses of care homes in Cape Town work to identify and prevent malnutrition among those with dementia. The result showed that the nurses placed great value on looking beyond the diagnosis of dementia to work according to a person-centered perspective with the residents wishes and autonomy in focus. The preventative work focused on not allowing malnutrition to develop. Efforts, such as specialized meal plans and physical activity, were taken to ensure the residents received the correct nutrition and maintained their overall health. Identification played a key role in the preventative work against malnutrition. The nurses used their skills and experience, rather than standardized identification aids, to observe changes in the residents’ behavior and outlook. As this study focused on privately run dementia care homes an interesting aspect to explore would be the care homes in the governmental sector.
Further Research

This study has created opportunities of further research in the future. It has highlighted the area of dementia care in South Africa as a relatively unexplored subject in need of more research in a near future. We think that a quantitative research of dementia care in South Africa would provide a broader view through statistics and comparable data, enabling a foundation for a more standardized care. Collected data would also allow a global perspective. Another fascinating perspective would be to research the potential cultural differences among the diverse communities of South Africa regarding views on dementia and dementia care.

Clinical Implications

This thesis presents how identification and preventative work regarding malnutrition within dementia care is carried out by care home nurses in Cape Town. The hope is to contribute to an understanding of different ways in dealing with malnutrition in various settings and countries.
REFERENCES


Mini Nutritional Assessment

Screening

A Has food intake declined over the past 3 months due to loss of appetite, digestive problems, chewing or swallowing difficulties?
0 = severe decrease in food intake
1 = moderate decrease in food intake
2 = no decrease in food intake

B Weight loss during the last 3 months
0 = weight loss greater than 3 kg (6.6 lbs)
1 = does not know
2 = weight loss between 1 and 3 kg (2.2 and 6.6 lbs)
3 = no weight loss

C Mobility
0 = bed or chair bound
1 = able to get out of bed / chair but does not go out
2 = goes out

D Has suffered psychological stress or acute disease in the past 3 months?
0 = yes
2 = no

E Neuropsychological problems
0 = severe dementia or depression
1 = mild dementia
2 = no psychological problems

F1 Body Mass Index (BMI) (weight in kg) / (height in m)²
0 = BMI less than 19
1 = BMI 19 to less than 21
2 = BMI 21 to less than 23
3 = BMI 23 or greater

F2 Calf circumference (CC) in cm
0 = CC less than 31
3 = CC 31 or greater

Screening score
(max. 14 points)

12-14 points: Normal nutritional status
8-11 points: At risk of malnutrition
0-7 points: Malnourished

IF BMI IS NOT AVAILABLE, REPLACE QUESTION F1 WITH QUESTION F2.
DO NOT ANSWER QUESTION F2 IF QUESTION F1 IS ALREADY COMPLETED.

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February 14, 2018

Sofia Adler Franzén and Lovisa Larsson.
Sophiahemmet University
Stockholm, Sweden
sofia.adler@live.se

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Moreno Perugini, MBA, MHE, MPA, CPP
Global Head Medical Affairs and Market Access
Nestec S.A.
Avenue Nestlé 55
1800 Vevey, Switzerland
APPENDIX C

INTERVIEW GUIDE

Start-up Questions & Information;

1. Is it alright if we record the interview?
2. Would you like to receive a copy of the finished study once it is completed?
3. Please note that you are anonymous throughout the entire study.
4. We wish to remind you that you may at anytime during the interview decline to answer specific questions or withdraw from the study completely.

Background Questions;

1. For how long have you been working here?
2. What education does the nurses at the home have?
3. Do you recieve training in Dementia Care?
4. How do you encounter elderly with dementia?

Questions about the home and the residents; Could you please describe...

1. Who are eligible to live at the home?
2. How involved are the residents families in the care?
3. How often do the families visit? (do you think it affects the residents? eg. appetite)
4. How many residents are currently at the home?
5. Do you run at “full-capacity”?
6. How many nurses work at the home?
7. How is the staff workload?

Tools for Identification;

1. In what way do you target malnutrition among persons with dementia?
2. What tools do you have to aid you in identifying persons at risk for malnutrition?
3. What possibilities do you have to receive expert help? Eg. Dietary Specialist.

Preventative Work;

1. How does your unit work preventative against malnutrition?
2. What are the main health-complications related to malnutrition that you come across?
3. How do you approach these complications?
4. What kind of long-term solutions do you believe to be necessary for this problem to diminish in the future?

What nutrition guidelines do you use for your work against malnutrition?
MISSIVE
To whom it may concern, 19 Dec 2017  Stockholm, Sweden

We are two students; Sofia Adler Franzén and Lovisa Larsson, from the Nursing Programme at Sophiahemmet University. We are currently in our final year of studies and are writing our Bachelor Thesis. We therefore wish to invite you to participate in our interview study.

Our study aims to investigate how care-home nurses identify risks of malnutrition among persons with dementia in South Africa, as well as how the nurses work to prevent malnutrition in said persons. The study is a qualitative interview study performed with a semi-structured model with prepared questions which allows for open ended answers.

With the permission of the interviewee the interview will be recorded to aid us in the data analysis process. This to ensure that all the data becomes transcribed correctly and no one is misquoted in the use of quotes. If the participant at any time wishes to withdraw from the interview it can be done without any reason or explanation. It is also possible for the interviewee to decline answering questions during the interview. The collected data will be transcribed together with data from other interviews conducted and processed to form the foundation for the study discussion.

One of the main ethical aspects of the research is not applying our own subjective thoughts and values into the participants answers. Another item of great ethical value is to not ask leading questions during the interview that might steer the interviewees answer in a certain direction or might affect them in anyway. Anonymity will be maintained throughout the study.

We hope that you wish to take part in our study. Further information will be presented upon request by undersigned.

Sofia Adler Franzén  Lovisa Larsson
Student  Student
Sophiahemmet University  Sophiahemmet University
sofia.adler@stud.shh.se  lovisa.larsson@stud.shh.se

Margareta Westerbotn
PhD, Senior Lecturer, RN RM
Supervisor
Sophiahemmet University
+4684062894
margareta.westerbotn@shh.se