FACTORS ASSOCIATED WITH PREFERENTIAL PLACE OF DEATH FOR PATIENTS WITH CANCER RECEIVING PALLIATIVE CARE

A literature review

Master of Science in Nursing, Palliative Care,
60 higher education credits
Degree project, 15 higher education credits
Second cycle
Examination date: May 4, 2016
Course: HT15

Author: Yenni Ferawati
Advisor: Anna Klarare
Examiner: Maria Kumlin
ABSTRACT

Cancer is a disease caused by uncontrolled growth of abnormal cells. Cancer is often related to a need for palliative care. Palliative care is an approach and treatment provided to improve quality of life for patients with life threatening illness, such as cancer. Dying patients at the end of their life may lose their autonomy towards themselves especially related to their desires and preference. Patients’ preference towards place of death may be influenced by many factors. Patients with cancer require support from their family members as well as health care professionals, especially nurses, they are the one who frequently keep in touch with patients. Therefore, through the support given, patients’ might be able to express their desires.

The purpose of this study was to describe factors associated with preferential place of death for cancer patients receiving palliative care. This study also described how patients’ autonomy affect patients’ decision making related to preferential place of death and how nurses provide support in patients decision making with regards of preferential place of death.

A literature review of 17 scientific articles that met the inclusion criteria was carried out. The articles were collected using two electronic database searches: PubMed and CINAHL. Moreover, four of articles were identified through manual search.

Majority of cancer patients preferred their home as their place of death. Demographic factors such as, gender, age, marital status, economic status, country of birth and place of residence were found to be the most influential factors regarding the preference of home as place of death. The wishes related to place of death of both patients and family caregivers were expected to be recorded in the first meeting. Nurses in providing support for patients with cancer should have to empower patients express their desires.

In conclusion, this literature review showed that promoting autonomy and decision making are challenging for nurses. Nurses can help patients express their preferences or desires by providing decision making support. There are many factors that contribute to the decision of location of death. Therefore, it is important for nurses to empower patients’ autonomy and to respect their values in order to provide support for patients with cancer in making decision related to place of death

Keywords: Cancer, autonomy, decision making, preferential place of death, nurses role
# TABLE OF CONTENTS

BACKGROUND .............................................................................................................. 1  
Palliative Care .............................................................................................................. 1  
Palliative Care .............................................................................................................. 1  
Cancer ......................................................................................................................... 1  
End of life .................................................................................................................... 2  
Autonomy .................................................................................................................... 2  
Decision making .......................................................................................................... 3  
Patients’ preferential place of death .......................................................................... 3  
Nursing theory and practice ....................................................................................... 4  
Nurses role in palliative care ...................................................................................... 4  
Problem statement ...................................................................................................... 5  
AIM ............................................................................................................................... 5  
Research question ...................................................................................................... 5  
METHOD ..................................................................................................................... 5  
Design .......................................................................................................................... 6  
Data collection ............................................................................................................ 6  
Inclusion criteria ......................................................................................................... 7  
Exclusion criteria ......................................................................................................... 7  
Data analysis ............................................................................................................... 8  
Ethical considerations ................................................................................................. 9  
RESULTS ..................................................................................................................... 9  
Variety of preferential place of death for patients with cancer .................................. 9  
Factors associated with preferential place of death .................................................... 10  
Patient autonomy affecting decision making ............................................................ 13  
Nurses support in patients decision making ............................................................... 13  
DISCUSSION .............................................................................................................. 14  
Method discussion ..................................................................................................... 14  
Result discussion ....................................................................................................... 16  
Conclusion .................................................................................................................. 20  
Clinical implications ................................................................................................. 20  
REFERENCES ........................................................................................................... 21  

Appendix I - Matrix and assessment of articles 
Appendix II - Classification guide of academic articles
BACKGROUND

Palliative care

Palliative care is an approach to improve the quality of life for both patients and their families in facing problems which related to life threatening illness, through prevention and release of suffering by early identification and assessment as well as implementation of treatment of pain and other consequences of the illness and its treatment including physical, psychosocial and spiritual (World Health Organization [WHO], 2005). The definition of palliative care is also described by National Cancer Institute ([NCI], 2010) as treatment given to improve the quality of life of patients who have life threatening illness such as cancer. The patients with a life threatening illness such as chronic diseases and cancer may develop many problems and symptoms affecting their quality of life (Stoppelenburg, Philipsen & Van der Heide, 2015). The problems may include physical, psychological and spiritual problem which may be distressing. Therefore, a patient with the end of life condition requires palliative care treatment in order to minimize patients’ and families’ suffering as well as to improve the quality of life of both patients and families (Stoppelenburg et al., 2015).

Palliative care should be offered from the first time a person diagnosed until the end of life (Izumi, Nagae, Sakurai & Imamura, 2012). In palliative care setting, many family members choose to be the primary care givers to look after their loved ones. Family care giver can be either their own family, relative, friend, partner or whoever have a relationship with and provides assistance to a sick person (Hudson & Payne, 2009). Family caregiver also called carer, which means a family member who regularly look after sick children, older people or disabled people (Oxford dictionary, 2016).

Patients may come to condition of suffering especially when it is related to ineffective treatment (Cogo & Lunardi, 2015). Based on American Cancer Society ([ACS], 2016), ineffective treatment was explained as when one treatment stops working and still the cancer have the tendency to increase growing or metastasized, then another treatment is done but still cannot control the cancer. Moreover, Cogo & Lunardi (2015) also mention that when it is related to inadequacy of resources that may lead being disrespectful of dignity and autonomy during end of life decision making process can also cause suffering. Some studies report that palliative care play an essential role in alleviating suffering and distress of the patients by providing physical, psychological and spiritual supports (Klindworth et al, 2015).

Cancer

Cancer is a disease caused by uncontrolled growth of cells in the body (World Health Organization [WHO], 2015). Based on WHO (2015), cancer is the leading causes of mortality all over the world, with around 14 million of new cases and about 8.2 million cancer related deaths in 2012. WHO (2015) stated that cancer is one of the four main types of non-communicable diseases after cardiovascular diseases (heart attacks and stroke), chronic respiratory diseases (Asthma and chronic pulmonary disease) and diabetes. Non-
communicable disease also known as chronic disease which the disease is not contagious or transmit from one to another (WHO, 2015). According to International Agency for Research and Control (IARC) there were 32.6 million people living with cancer worldwide in year of 2012 (Ferlay et al., 2013). Ferlay et al (2013) assumed that the number of people with cancer will increase up to 24 million by 2035. Data from WHO, there were five most common cancer diagnosed in 2012 for men; lung cancer, prostate cancer, colorectal cancer, stomach cancer, and liver cancer. On the other hand, breast cancer, colorectal cancer, lung cancer, cervix cancer, and stomach cancer are the most common for women.

Cancer is known as malignant tumors or neoplasms. Cancer is described as a rapid creation of abnormal cells that grows fast and beyond the usual limits (WHO, 2015). Based on WHO (2015), cancer started from a single cell that transforms from a normal cell into a malignant tumor cell. Moreover, Unhealthy diet and life style, tobacco, physical inactivity and alcohol use are the crucial cancer risk all over the world.

Cancer frequently associated with the needs of palliative care (Visser, Hadley & Wee, 2015). Cancer cannot be controlled for some people which then affect the body and spreads to all over the organs (NCI, 2010). The process of cancer cells that spread to other parts of body is called metastatic. As a result of the metastatic cancer, people who suffered from cancer may die which then make them need palliative care at the end of their life (NCI, 2010).

End of life

End of life has no exact meaning or definition but the term has been used in health care setting and nursing literatures. According to Izumi (2012), end of life period can be seen from the presence or developing of chronic disease and the presence of impairments that leads to death. End of life period may affect people through the death of someone that are very close to them (Lindqvist, 2012). Patients at the end of life may experience symptoms that might related to their physical, social, psychological and spiritual suffering (Rome, Luminais, Bourgeois & Blais, 2011). Likewise, challenges faced by patients at the end of life such as physical pain, depression, emotions, hopelessness and loss of dignity (Woo, Maytal & Stern, 2006). These conditions are complex situation which will involve family and health care providers. Hence, an understanding of the experience of dying patients will help clinicians improve their care towards terminally ill patients (Woo et al., 2006).

Howel et al. (2010) confirm, the aim of National End of Life care program in the UK is to ensure every individual has more choices related to their needs of where they want to live or die. However, during the end of life period, patients’ wishes or hope associated with location of death are sometimes not recognize by their relatives (Van der Heide, 2007). In addition to this, Cogo & Lunardi (2015) mentioned that family members of the patients with life threatening illness may also struggle between their own longings and patients’ wishes to achieve the chance of recovery of their loved ones. Thus, most of the times family members are the one who make decision for their parents, spouses, adult or children especially when they cannot speak for themselves (Nishie et al, 2014).
Autonomy

Autonomy is the ability of individual to express choice without constraint from others (Wheatley & Baker, 2007). Autonomy is respecting an individual uniqueness for what beliefs, choices, and values they hold on (Lugton & McIntyre, 2005; Wheatley & Baker, 2007). Another definition of autonomy by Merriem Webster (2016) is “the quality or state of being self-governing”. Wheatley & Baker (2007) state that dying patients often lost their autonomy. This may be due to patients with life threatening illness inability or find it difficult to express their end of life preference and may sometimes miss the opportunity to express it (Abba et al., 2013).

Autonomy and patients’ desires are the crucial part in medical setting especially while planning treatments (Kinoshita, 2007). Therefore, it is necessary to discuss each and every plan of care and make decision together with the patients in order to maintain person-centered care (Lugton & McIntyre, 2005). Person centered care focuses on providing care through a variety of activities that operationalize person-centered nursing approach including working with patients’ values and beliefs, having compassionate presence, and shared decision making and providing physical needs of the patients (McCormack & McCance, 2006). Moreover, respecting patients’ autonomy may help health care professionals get a better understanding of what patients’ wants and needs (Levi & Green, 2010). Consequently, patients’ autonomy is a main part that need to be promoted by nurses (Lugton & McIntyre, 2005).

In palliative care as well as in health care, ethical dilemma may arise and may be difficult to solve especially when it is related to choices, preferences and demands of the patients (Balducci, 2012). The author stated that verbal expression of an individual is so essential in palliative care. Munday, Petrova & Dale (2009) described that patient would prefer to be notified and involved in a discussion by accepting that they are dying. For this reason, it is important to have patients’ desires expressed before the end of life, and patients’ autonomy is supported so that patients’ values are respected (Balducci, 2012). Not only patient at the end of life want to be heard while making decision, during planning a treatment they also would like to be informed and involved (Munday et al., 2009). Therefore, according to Klindworth et al (2015), to facilitate and to meet the needs of patients between family and health care providers, it is important to have an advanced care planning so that the autonomy of patients in making a decision is respected at the end of life.

Decision making

In health care, decision making has become an ethical dilemma that often is difficult to solve. This is because ethical dilemma involves options that are an equal alternatives (Lugton & McIntyre, 2005). Health care professionals might face a condition where the decision has to be made without any harm to patients and family (Balducci, 2012). Moreover, Balducci (2012) state it is important that decisions are made that reduce patients’ suffering and improve their quality of life.

According to National Hospice and Palliative Care Organization (NHPCO, n.d.), palliative care is focusing on patients and family-centered care to enhances the quality of life by preventing and reduce suffering. It has explained further that palliative care addresses the
needs of physical, social, intellectual, emotional as well as spiritual to assist patients’ autonomy, access to information and choice. Though in life threatening illness situation, patients’ value needs to be maintained while making decision using effective communication and by coordination with other health care member (NHPCO, n.d.). Furthermore, patients have to be involved in making decision based on their own choice to respect their autonomy.

Patients’ preferential place of death

Place of death might be influenced by some factors. Munday et al. (2009) explain that there were some patients who were very clearly expressed their preference for place of death, however, that preference usually changed in the last hours of their life. Moreover, Munday et al. (2009) state that the experience of relatives of home death may affect patient’s preferential place of death.

Many patients would rather be cared at home and die at home during their final stage of their illness (Munday et al., 2009; Abba, Birne, Horton & Williams, 2013). However, this preference are less expressed when death is approaching (Munday et al., 2009). This also supported by Abba et al. (2013) that many home care residents in the UK recognized that the decision of staying at a place of death during end of life was not made by the patient. As a consequence, patients do not have choices when it comes to an end of life care decision. There is evidence that patients at the end of their life would choose to be treated at home (Gomes & Higginson, 2006). Gomes & Higginson (2006) found that when patients are in their home they feel that they are in a comfortable place with the presence of their family members and that they are able to enjoy their day by day life.

Nursing Theory and practice

Nursing is a complex activity which is based on practice and discipline. Nursing involves a therapeutic relationship with other human beings, professionals, practice in nursing and process of decision making (Lugton & McIntyre, 2005). According to Meleis (2012) nursing is a human science that is concerned with the life experiences of human beings and their meanings, with health and illness matters and their significance in their lives, as well as with the experience of dying” (p.105). Four essential nurses’ responsibilities according to ICN (2012) are to promote health, prevent disease, and reestablish health and to alleviate suffering. Nurses are the one who are the most frequently meet patients and the one who have strong relationship to both patients and their families (Dobrina, Tenze & Palese, 2014; Pollock & Wilson, 2015). Moreover, Dobrina et al. (2014) explain that because nurses are the one who regularly contact patients, it is very often patients share their feeling and needs to the nurses. Through strong relationship between nurses and patients, trust relationship can be achieved.

Nurses implement comprehensive assessments such as family assessment and medical histories to reach a better care and achieve a better understanding from patients’ perspectives (Meleis, 2012). Therefore, during care plan making, nurses should consider patients’ perspectives on preferences, decision making, patients’ characteristic and the needs of the patients to maintain patients ’centeredness (Dobrina et al., 2014). In addition, based on ICN, (2012), it is important for nurses to be aware of patients’ human rights, values and belief while
providing care so that patients’ needs can be promoted. This related to the theory of nursing by Betty Neuman (1982). Betty Neuman (1982) in her theory explained that it is very important that patients are seen from a holistic perspective (Petiprin, 2015). Holistic perspective means that patients are not only seen from their illness that need a treatment but also involve the individual itself as a human being. Moreover, as each patient have to be cared with a holistic perspectives, Betty Neuman (1982) added that patients’ decision should be considered when it comes to treatment and recovery (Petiprin, 2015).

**Nursing role in palliative care**

In palliative care, nurses always deal with the care of the dying patients as well as the family members. Nurses are responsible for giving the care to the patients from the sick condition to the dying process include giving support to psychological, social, physical and spiritual of patient (Lugton & McIntyre, 2005).

Nurses play an essential role in palliative care as they provide direct and indirect patient care in patients’ care (Dobrina et al., 2014; Husaini, 2014). Husaini (2014) identified direct patient care including assessment to patients and providing psychological and physical care, whereas indirect patients care is a team working on professional health cares and management skills to meet patients’ needs. Similarly, Lugton & McIntyre (2005) claims that the role of palliative care nurses is to assess the needs of physical, psychological, spiritual and social needs and also to plan care, implement and evaluate the interventions. Lugton & McIntyre (2005) notes that the dimensions of palliative care nurses are: valuing, connecting, empowering, finding meaning, preserving integrity.

Patients are the key to decision-making in patient centered palliative care. Palliative care nurses can assist both patients and families to discuss the dying process and end of life concerns (Dobrina et al., 2014). End of life are related to the preservation of dignity, the needs to be respected and honored, dealing with financial problems and legal issues such as organizing wills (Woo, Maytal & Stern, 2006). Organizing will at the end of life also includes choosing their preferential place of death. Therefore, in providing care to patients, palliative care nurses need to empower patient’s right related to their needs so that the autonomy of the patient’s is maintained (Dobrina et al., 2014). Through empowering patients’ autonomy, health care team can collaborate with patients’ relatives so that they will not feel abandoned while expressing their needs and wants (Kuhl, Stanbrook & Hebert, 2010).

**Problem Statement**

The number of cancer is estimated to increase to up to 24 million in 2035. Cancer may cause death as a consequence of complications of the illness. Therefore, cancer patients commonly related to a requirement of palliative care. Many of patients’ preferences not been recognized by family or health care professionals especially when it relates to the preferential place of death. Moreover, many of decision making are made by the family or health care professionals. Decision making can be very hard to make especially when patients express their needs but on the other hand the family disagrees with their chosen needs and decision. Accordingly nurses need to pay attention in providing support and ways to promote the autonomy of patients. Nurses also need to involve family and patients to participate in
decision-making so that the decision that will be taken will benefit all parties. It is necessary for nurses to know what possible factors that connected with the preferential place of death. Moreover, it is also essential for nurses to support an action related to holistic needs of the patients.

**AIM**

The aim of this study is to describe factors associated with preferential place of death for patients with cancer receiving palliative care.

**Research question**

1. What factors associated with preferential place of death for cancer patients receiving palliative care?
2. How does patient autonomy affect patients’ decision making with regards of preferential place of death?
3. How nurses support patients in their decision making in relation to preferential place of death?

**METHOD**

The method used to conduct this study was a literature review. Literature review method was chosen because it gave information or it can be as a foundation to a new evidence of a study. Literature review can be a source that gives many perspectives from different point of view of researchers. Polit & Beck (2012) define literature review as making a summary of a chosen topic from available research resources which includes the research problem. According to Garrard (2011, p.5), A literature review is “an analysis of scientific materials about a specific topic that requires the reviewer to carefully read each of the studies to evaluate the study purpose, determine the appropriateness and quality of the scientific methods, examine the analysis of the questions and answers posed by the authors, summarize the findings across the studies and write an objective synthesis of the findings”.

A literature review can be considered as the secondary source, since secondary sources according to Polit & Beck (2012) is facts or events from research that prepared by other than the original researcher. However, the information that used in the literature review all have to be based on primary sources research that written by the original researcher who conduct the study (Polit & Beck, 2012). The literature review used scientific articles and research publications and focused on analyzing the aims, methods, results, strengths and weaknesses of those articles and publications (Garrard, 2011).

The purpose of literature review is to develop researcher’s understanding of the study topic from various perspectives and may include examining different sources that discuss the study topic (Polit & Beck, 2012). Besides, literature review also provides overview of evidence or facts to readers about a specific study (Polit & Beck, 2012).
Design

A research design was used to obtain answer to research. “Research design is actually the architectural backbone of the study itself” (Polit & Beck, 2012). Based on Polit & Beck (2012), research design is to specify how data is collected, where study will be done and what comparison will be made. The design of this study is retrospective design. Retrospective design described by Polit & Beck (2012) is a phenomena which exist to present and allied to the phenomena happened in the past. The articles that were collected and included for this study was have previously carried out by other researchers and still applicable to now. Then articles were sorted and chosen based on the study aim. Afterwards, the articles were analyzed and reviewed.

Inclusion criteria

This literature review used articles that were published in English language and that had been peer reviewed within the past ten years between years 2006 to 2016. Articles which focus on adults patients (≥18 years old) with cancer were included in the study. Articles graded as high quality (I) and moderate quality (II) were used for the result section. Article with quantitative and qualitative methods were both included in this study.

Exclusion criteria

The exclusion criteria of this literature were all articles that are published before ten years’ time (before 2006) and the article published in other languages were excluded. Additionally, articles which were not peer reviewed were excluded. Articles that highlight on children (≤17 years) and pediatric with cancer were excluded as this study only review on adults patients with cancer in related to factors associated with preferential place of death of cancer patients.

Data Collection

Data collection is a procedure used to gather information from or about particular subject in the study (Garrard, 2011). Information related to the topic in this literature was collected using database search such as PubMed and CINAHL (Cumulative Index to Nursing and Allied Health Literature). CINAHL is an important database that covers references to health journal, books, dissertations and all in English language (Polit & beck, 2012). Manual search was also conducted by searching the articles about cancer patients and preferential place of death.

In searching scientific articles, some hits appeared. Articles were initially selected by the articles’ title, then by reading the abstracts of these articles included background, aim, method and result. Abstract were read to detect whether the articles were relevant to the aim of this study. According to Aveyard (2010), the summary of articles’ content are summarized in the abstract. However, the author did not only read the abstract of the study, the full articles were downloaded and the whole articles were read and assessed. The search was stopped after 17 articles were selected from both electronic database and manual search. Manual search was done by searching reference list from the articles founded in the database. Four articles selected by manual search and 13 articles from data base were included in this study. Therefore, a total of 17 articles were included in the review (Matrix method, appendix I).
The data collection was described in table 1 which showed the database search used, keywords, hits appeared, articles been reviewed and examined with articles that included in the study. Some characteristics applied in order to limit the finding of the articles. The characteristics included in the search were the availability of full text articles, English language, limited within ten years period of time (2006 – 2016), had been peer reviewed, academic journals of adult patients with cancer. In addition, articles that were not formally published and not peer reviewed (grey literature) were not included to this study. The author used Boolean operators such as AND and OR to delimit or expand the search result (Polit & Beck, 2012). Besides Boolean operators, a truncation symbol (use asterisk *) was also applied to expand the search term. Different term for the same concept by using Medical subject heading (MeSH) and keywords were applied such as cancer OR neoplasm, place of death OR location of death, preferential OR preference AND decision making AND autonomy AND nurses role*. Even though symbols and Boolean operators were used to delimit and expand the search, duplicates of the articles were still appeared. This proved for saturation of the search to occur. Saturation means when data collection attained not bring any new information (Poit & Beck, 2012).

Table 1: Databases search process

<table>
<thead>
<tr>
<th>Database Date of search</th>
<th>Key words</th>
<th>Identified articles (hits)</th>
<th>Abstract reviewed</th>
<th>Articles examined</th>
<th>Articles included</th>
</tr>
</thead>
<tbody>
<tr>
<td>PubMed 16-03-05</td>
<td>Place of death AND preference AND decision making</td>
<td>25</td>
<td>10</td>
<td>5</td>
<td>2</td>
</tr>
<tr>
<td>PubMed 16-03-6</td>
<td>Place of death AND Preferences AND Cancer</td>
<td>69</td>
<td>15</td>
<td>8</td>
<td>5</td>
</tr>
<tr>
<td>CINAHL 16-03-12</td>
<td>Place of death OR Location of death AND preferential AND Autonomy AND Decision making AND Nurses role*</td>
<td>85</td>
<td>19</td>
<td>9</td>
<td>6</td>
</tr>
</tbody>
</table>

Manual Search 16-03-13 – 16-03-15 Articles examined: 4, articles included: 4
Data Analysis

Data analysis has a purpose of bringing data together, in providing structure and bring a meaning from primary data sources (Polit & Beck, 2012). An analysis was done by reading all the articles, and re-reading several times. The author highlighted the point’s related to preferential place of death from each article and grouped them together. Moreover, the author highlighted themes in different color.

In analyzing the articles, the author used thematic analysis. According to Braun & Clarke (2006), thematic analysis is “a method for identifying, analyzing and reporting patterns (themes) within data” (p.6). Another definition of thematic analysis is common method used for summarizing the findings in descriptive methods and applicable for all literatures method studies (Coughlan, Cronin & Ryan, 2013). Thematic analysis was done by identifying patterns and regularities found in the articles.

Themes and patterns were classified based on deductive approach. According to Braun & Clarke (2006), deductive approach also called theoretical analysis is where themes categorized based on theoretical or analyst interest or can be called explicitly analyst driven. The themes can be classified from the theoretical approach or specific research questions. In this study, the themes were categorized based on research questions on preferential place of death for cancer patients, factors associated with place of death, how patients’ autonomy affecting decision making and how nurses provide support for patients in decision making.

A result matrix (appendix II) that has been standardized by Sophiahemmet University (appendix II) were used to classify the quality of the articles into a high quality (I) or moderate quality (II). In this literature review, low quality article (III) was not included. A methodologic matrix is a table that used to record keywords and methods of the study (Polit & Beck, 2012). Articles was classified. The articles of high quality (I) and moderate quality (II) are presented in the matrix (Appendix I).

Matrix method is a process and structure of reviewing the literature systematically (Garrard, 2011). The author used table to categorize the selected articles to clearly present the title, researcher’s name, aim, sample, method of the study and result.

Ethical considerations

Ethics is a moral value that concern on procedure adhere to legal and professional to the study participants (Polit & Beck, 2012). Based on Helsinki declaration (World Medical Association [WMA], 2016), Every medical research study involving human subjects must be preceded by careful assessment of predictable risks and burdens to the individuals and communities involved in the research in comparison with foreseeable benefits to them and to other individuals or communities affected by the condition under investigation. In this literature review, risks and burdens to both individuals and communities have been assessed by the authors of the investigated studies. The author made sure that all participants included in the investigated study was given informed consents to be involved and participants’ privacy were made sure protected.
In regards of professionals’ code of ethics, nurses have to consider roles and responsibility while doing a literature review. Based on ICN (2012), nurses as a role of researcher should conduct and utilize research to develop nursing profession.

This study used several sources which followed the academic writing guidelines of Sophiahemmet University. The author was sure no changes were made related to facts or findings from the articles. Moreover, all content in the article was read carefully to make sure no misinterpretation of the meaning and result occurred. Included articles were discussed together with the advisor in order to make sure that the articles that used were high quality to be included for this study. In this study, research misconduct such as falsification, fabrication and plagiarism were avoided. According to Polit & Beck (2012), fabrication is creating up study or the result of the study, falsification is when the materials are manipulated, including changing, ignoring data and twisting the result. Plagiarism is when someone claiming the work (ideas and published material) of others as theirs (Aveyard, 2010; Garrard, 2011).

RESULTS

From the findings, the author highlighted preferential place of death from patients’ perspectives, family perspectives and health care professional’s perspectives as well as factors associated with preferential place of death.

**Variety of preferential place of death for patients with cancer receiving palliative care**

The majority of articles obtained a variety location of death for cancer patients that were expressed by patients, family members and health care team members. Places of death described in the studies were home, hospital, hospice, palliative care unit and nursing home (De graaf, Zwees, Valkenburg, Uyttewaal & Teunissen, 2016; Gomes, Calanzani, Koffman & Higginson, 2015; Loucka, Payne & Brearley, 2014; Choi et al., 2010; Foreman, Hunt, Luke & Roder, 2006; Hyun, et al., 2013; Fukui, Fujita, Tsujimura, Sumikawa & Hayashi, 2011a; Fukui, Fujita, Tsujimura, Sumikawa & Hayashi, 2011b; Howat, Veitch & Cairns, 2007; Schou-Andersen, Ullersted, Jensen & Neergaard, 2015; Alonso-babarro et al., 2011 & Agar et al., 2008).

Home was the most preferable place of death chosen by patients and patients’ relatives; it was described in more than half of studies included in this review. Studies in Japan and Australia showed home death rate was chosen by more than 40 percent by patients (Fukui, 2011a; Agar et al., 2008). Additionally, four studies reported more than 60 percent patients with cancer prefer home for their end of life place (Foreman et al., 2006; Schou-Andersen et al., 2015; Choi et al., 2010; Gomes et al., 2015; Alonso-Babarro et al., 2011; De Graaf et al., 2016). Even though many studies proved that home is the most preferred place of death chosen by cancer patients, there were also a lot of cancer patients who chose hospital as their end of life place as stated in three studies (Foreman et al., 2006; Howat, Veitch & Cairns, 2007; Hyun et al, 2013). About 70 percent to 90 percent patients with cancer died in hospital with the preference of both patients and their caregiver (Howat et al., 2007; Hyun et al, 2013). Moreover, study by Schou-Andersen et al. (2015) reported the majority of cancer patients stated that they preferred to die at home in the beginning of palliative care, however, these preference changed during the end of life stage. They preferred hospital and hospice when the
death approaches. According to Howat et al. (2007), patients chose hospital as their place of death due to unavailability of carer (spouse, family members, and children) to look after them during their terminal illness.

The fact has shown that besides home and hospital, hospice and nursing home also chosen by cancer patients and the relatives as their alternative places for end of life (Foreman et al., 2006). Foreman et al. (2006) in his study reported that only about 10 percent patients chose hospice and 1 percent preferred nursing home for their place of death, while eight percent had no preference. About 20 percent patients chose hospice for their place to die (De Graaf et al., 2016). There were two studies that showed patients who had no preference of where they preferred to die (De Graaf et al., 2016; Foreman et al., 2006). The fact showed that preferential place of death and the actual place of death are sometimes not the same. One example for this reported in a study done by De Graaf et al. (2016), some patients desire to die at home but were actually died in hospice or hospital. Similarly, the study by Hyun et al. (2013) showed the survey result that there were 191 patients wanted to die in home but only 26 of them who were exactly died at home. According to De Graaf et al. (2016), patients did not die in their preferred place because the family members did not have the capacity to take care their loved ones at home or may also because of medical emergency that required hospital admission.

Factors associated with preferential place of death

Demographic factors associated with preferential place of death

Gender

Male patients with cancer were more likely to choose home as their location of death compared to women (Choi et al, 2010; Foreman et al., 2006; Howat, Veitch & Cairns, 2007; Loucka, Payne & Brearley, 2014; Schou et al., 2015). According to Choi et al (2010), this is because men would prefer their spouse or wife to look after them during their terminal illness. It is further explained by Foreman et al. (2006) that women have more caring role compared to men. They also described that male partners were less willing to provide care at home. Women were less likely to die at home as they did not want to be a burden for family member especially their children, also they did not want their husband as their caregivers and the one who taking care of the housework (Choi et al., 2010). Therefore, women would prefer hospice as their place of death (Foreman et al., 2006).

Age

The fact showed from two studies that young adult were more commonly wished to die at home compared to older people (Foreman et al., 2006; Howat et al., 2007). The availability of the caregiver affects both young and older people in choosing home as their place of death (Choi et al., 2010; Nakamura et al., 2010). Younger people preferred home because they usually have a younger and healthy spouse who will be able to help them with the care and can be their committed carer (Howat et al., 2007). In contrast, Loucka et al. (2014) described in their study that people who are more than 70 years old more likely to die at home compared to younger people. Interestingly, study by Foreman et al. (2006) described that older people would like to die in hospital instead of home because their spouse may have deceased or too frail to help them with the care.
Marital status

Marital status was also seen as a factor that affect the preferential location of death (Gomes et al., 2015; Foreman et al., 2006; Howat et al., 2007; Nakamura, Kuzuya, Funaki, Matsui & Ishiguro, 2010; Fukui et al., 2011a & b). Howat et al. (2007) explained in their study that male patients who were married would like to die at home compared to married women. This was because they (male patients) have spouse who had committed to be their carer to support them at the end of their life (Howat et al., 2007). Thus, Foreman et al. (2006) reported that women preferred hospice as their place of death.

Two studies described that patients who were married and have children were more likely to die in home rather than hospital because they have their daughter or daughter in law as their primary caregiver (Fukui et al., 2011a). Therefore, patients who lived with their relatives/family caregiver influence patients in choosing home as place of death (Choi et al., 2010; Nakamura et al., 2010). It further explained that living with family members/care givers would provide support to patients (Alonso-babarro et al., 2011).

Education

According to Hyun et al. (2013), higher education of the caregiver was one of the factors of hospital death. In the contrast, Loucka et al. (2014), stated that people in Czech Republic with higher education were more commonly chose home as their location of death than people in Slovakia. Loucka et al. (2014) explained that people with higher education used to move to a small flat which made them less likely to access informal care at their home while nowadays educated people moved to the city so they were more possible to access care.

Economic status

Patients with cancer prefer home as their place of death when they have high income or well economic status (Schou-Andersen et al., 2015). While, patients with low income would choose hospital as their place of death (Foreman et al., 2006). Moreover, Choi et al. (2010) explained that length of stay in hospice might be one factor that can influence patients to choose home as their place of death due to payment or the cost of the care.

Residence and country of birth

Other demographic factor that was mentioned, which influences patients’ choice about place of death is residence and country of birth. People who lived in a smaller community tend to die at home (Foreman et al., 2006; Schou-Andersen et al, 2015). Schou-Andersen et al. (2015) added that metropolitan people preferred hospice as a place to die. This can be related to the fact that cancer patients preferred to die at home because they feel more peace at their end of life compared to cancer patients who died in hospital (Gomes et al., 2015).

Foreman et al. (2006) in their study also added that people who were born in Australia, UK and Ireland were more common to die in hospice.

Others factors associated with preferential place of death

Besides demographic factors, there were some other factors reported allied with preferential place of death. Some others factors mentioned in some studies that related to home death were
strong preference of both patients and caregiver (Alonso-Babarro et al., 2011; Nakamura et al., 2010; Fukui et al., 2011a), the availability of health care professionals through home visit more than three times by palliative home care nurse or doctors (Nakamura et al., 2010; Alonso-Babarro et al., 2010; Gomes et al., 2015) and 24 hours support by nurses and physician which the physician have to be involved in home palliative care (Fukui et al., 2011b). Home visit experience in collaboration with the relatives in charge was also considered as factor that associated with the place of death and home care rates (Sasao et al, 2015).

On the other hand, Choi et al., (2010) stated the higher concept of good or peaceful death and the experience of mastery as a result of caregiving affected patients with cancer to choose home as their place of death.

Interestingly, there were two studies that described different factors from the previous factors mentioned above. Fukui et al. (2011b) reported in their study that there were five others factors which influence the option of home death for patients with cancer. The factors were when patients’ condition is bed bound, had early referral eight days pre discharge, when timing for referral is appropriate, hospital staffs had explained related discharge to both patients and families, and nurses consulted patients’ condition to the primary physician more than three times during the first week of discharge. Additionally, two factors that influenced home death described by Gomes et al. (2015) were the relatives awareness of incurability of their loved ones at least one week before death, and if the relatives take more than two weeks off from their work in the last three months before patients’ death.

In contrast, study by Gomes et al. (2015) described the factors that caused hospital death were when patients were hospitalized more than a month in the last three months and patients only received one visit or even no visit from their GP (General practitioner).

Patient’s autonomy affect decision making with regards preferential place of death

Patient’s autonomy influence decision making related to preferential place of death. It was described in studies by Alonso-Babarro et al. (2011); Nakamura et al. (2010); Fukui et al. (2011a) that a strong preference of patients and their caregiver were affecting their decision making to choose where they would like to die. However, many patients were worried of being burden to their family while making decision associated with place of death (Choi et al., 2010). Therefore, Foreman et al. (2006) found that women mostly chose hospice as their last place to die.

In a study done by Gu et al. (2015) more than 90 percent of cancer patients (424 out of 432) signed the authorization letter giving their right to the family member as their decision maker in relation to medical decision. In the study, it was described that spouse was the most main decision maker for cancer patients followed by offspring, parents, daughter in law and other relatives. Nevertheless, there were 12 patients in the study who signed the consent form and made end of life decision on their own.

One study by Gu et al. (2015) explained that in China, decision making occurred only between physician and family caregivers. The study also shown that most physicians in China would inform the family members when it comes to a serious condition/fatal diagnoses. In contrary,
the author believed that western people put the patients’ autonomy as the key focus of end of life decision making.

Patients’ autonomy highlights patients’ rights to be informed about their condition, treatments and the possibility to refuse or withdraw Life Sustaining Treatment (LST) (Gu et al., 2015). Concerning patients’ autonomy, Holdsworth & King (2011) in their study reported that one of the patients was strongly expressed that it is patients’ decision to raise the issue related to location of death with the health care staff. However, De Graaf et al. (2016) explained that some of the patients were found less likely to express their preferences and even denied their own condition. Thus, it is very crucial to have both patients and the carers’ wishes recorded in writing (Holdsworth & King, 2011). In addition, De Graaf et al. (2006) informed that anticipatory care and communication were realized to be important in primary care to patients. Moreover, they believed that hospice that assisted in home would able to empower patients’ autonomy to speak their preferences during palliative care stages.

**Nurses support in patients decision making related to preferential place of death**

According to Agar et al., (2008), preferential place of death can be very challenging topic at the end of life, however health care professionals need to discuss this to the patients and the family. In a study done by Holdsworth & King (2011), Community Nurses Specialist (CNS) explained that around 90 percent cancer patients’ preference about place of care and death were recorded. However, there was one patient in the study stated that place of death should be patient’s decision while some patients would not like to discuss their preference. The CNS stated that they did not ask patients where they would like to die but CNS relied on their professional expertise to elicit crucial information during the discussion with patients (Holdsworth & King, 2011). This action can be done as the experience of home visit and collaboration with family and physician had deepening nurses’ insight of patients in building face to face relationship (Sasao et al, 2015).

Agar et al., (2008); Holdsworth & King, (2011) explained that it is essential to record the preferences of both family and patients related to place of care and place of death. Although discussing the preferences of dying is not easy (Holdsworth & King, 2011), discussing patients’ preference to their carers were more vital. Moreover, Holdsworth & King (2011), added that an agreement between both patients and their caregivers related to preferential place of death were also essential (Agar et al., 2008). Communication was seen to be very crucial in primary care to patients (De Graaf et al., 2016). As a consequence, patients’ preferences should be discussed at the first meeting in order to help patients in making consideration (Holdsworth & King, 2011). Even though discussing preferential place of death is essential, one Community Nurse Specialist (CNS) stated that it was difficult to discuss patients’ preference at the end of life condition when the patients were not yet possibly at dying stage (Holdsworth & King, 2011). It is rather than important for relatives to know their loved ones wishes, have more knowledge about dying process and understand the role of hospice and palliative care (Holdsworth & King, 2011).

Study by Howat et al. (2007), community nurses required support from the physician to help patients express their preference related to place of death. When the support is not available, patients tend to be admitted to hospital as they did not have any chance to speak their wish.
Therefore, support from palliative care services in the community help patients to verbalize their preference related to place of death (De Graaf et al., 2016). Nurses’ role in supporting patients’ decision were providing information and helping implement the decision frequently (Murray, Wilson, Kryworuchko, Stacey & O’connor, 2009). Moreover, Murray et al. (2009) mentioned in their study, factors that influence nurses’ provision of decision making support were attitudes, subjective norms and perceived control. They explained attitudes were when nurses believed that by valuing patients’ decision support means providing patient centered care and confirming patient’ preference. Subjective norms were any possible conflict with other health care professionals such as physician and social workers. Sources of conflict was mentioned to be the overlapping role and protection issues. Private nursing homes were acknowledged to disapprove nurses to provide decision support. Perceived control was explained as circumstances that made easier to deliver support and barriers that made decision support difficult to do. Circumstances that made easy were skills training, process of decision making and system of care embedded were integrated and early detection of patients’ disease and needs.

Murray et al. (2009), described good patients’ decision support was attributed to knowledge of resources, openness to revisiting decision as situation changing and using facilitative approach. They added that there were five sources influencing nurses in providing decision support for place of end-of-life care: allied health team members, patients themselves, GPs, professional bodies and the employers.

Visiting nurses should be able to support patients’ desire while choosing the location of death (Sasao et al, 2015). However, sometimes nurses were rejected by other health care members while supporting the patients (Murray et al., 2009). Therefore, the collaboration between general palliative care and specialist palliative care was very crucial in health care services. The collaboration between general palliative care and specialist palliative care would support patients in expressing their preferences at the end of life especially the location of death (De Graaf et al. (2016). Not only that, Murray et al. (2009) added that physician might provide support for nurses while nurses providing support for patients in decision making.

**DISCUSSION**

**Method Discussion**

The aim of this study was to describe factors associated with preferential place of death for cancer patients receiving palliative care. There were many scientific articles discussing preferential place of death for cancer patients. As this studies intention was to determine factors associated with preferential place of death, it was suitable to use literature review through collecting and selecting various scientific articles and researches. Literature review was essential as it seek to summarize the literature on one topic (Aveyard, 2010). Moreover, literature review can improve researcher’s understanding about topic of study from different viewpoints as well as examining the sources (Polit & Beck, 2012).

Doing a literature review was beneficial for the author, as it let the author learn and analyze the topic from different studies and found information updates and new discoveries related to
the particular topic. This literature review’s result might also benefit readers especially nurses to have new viewpoints on patients’ desire towards place of death and nurses role in supporting patients autonomy in making decision.

Articles included in this study were found from database search MEDLINE and CINAHL. While searching the articles, author faced some difficulties such as the use of different terms for the concept, combining keywords and selecting articles that related to the aim. Some duplication were found and some articles were not even related to the aim. Saturation of the search occurred while searching for the articles. Saturation means when data collection attained could not bring any new information (Polit & Beck, 2012). Moreover, the authors found very limited articles related to nurses’ role in supporting patients’ autonomy on making decision. Different keywords using medical terms (MESH) might have given more hits of articles. Manual search was also implemented. Matrix method in table setting used to see the quality of each articles and their connection to the aim of the study.

All reviewed articles used were published in between 2006 – 2016 and were found to be relevant to the aim of this study. All articles included were published and reviewed which strengthen the validity of the articles. There were 17 articles from electronic database searches and manual searches were identified and eligible for this study. The articles had discussed the location of death preferences in patients with cancer from patients’ perspectives as well as relatives’ perspectives and health care team perspectives. In addition, there were three articles that specifically discussed about nurses roles and decision making related support for place of death at the end of life. The included studies were from several different countries such as Denmark (1), Australia (3), United Kingdom (3), Canada (1), Japan (5), Spain (1), Netherland (1), China (1) and Korea (1). Many of the studies included were very limited in discussion, which made the transferability of the studies limited (Polit & Beck, 2012). Even though the studies described about which preferred place of death that mostly chosen by cancer patients in some different countries, but it might have lower tendency to generalize the findings to all palliative care around the world.

The strength of this study was that this study used scientific articles from different range of countries within 10 years period of time. This study might represent a wide range of different practice in different countries. Not only that, all articles included in this study were assessed for its quality based on SophiaHemmet University classification guide for articles. However, there are some weaknesses of this study such as, the articles might not be the newest or latest articles on this topic, the search were limited and was found to be duplicated hits appeared though different keywords used, related to language issue, there might be misunderstanding meaning appeared in interpreting the findings or results.

For the process of analyzing, a matrix method was used to grade the quality of the article. A methodologic matrix is a table that used to record keywords and methods of the study (Polit & Beck, 2012). Articles were classified into high quality (I) or moderate quality (II) based on the guidelines from SophiaHemmet University. Matrix method is a process and structure of reviewing the literature systematically (Garrard, 2011). The author found it very useful and helpful using matrix method to organize the findings and retrieved the results. Matrix method had helped the author to see the patterns/themes that might gone undetected. This structure of method had also aided the author to easily synthesize and analyze the results.
The data analysis was done by reading the articles and re-read for several times and highlighted the common themes in different color. Deductive approach was used to categorize the themes and patterns. Deductive approach also called theoretical analysis is where themes categorized based on theoretical or analyst interest (Braun & Clarke, 2006). The themes was actually made following specific research questions in this study.

Concerning ethical consideration, the author used standard from Helsinki declaration (World Medical Association [WMA], 2016), that all research involving human as the subjects must carefully assess the possible risk and burdens to the respondents. In relation to the studies included for this literature review, all researchers use ethical principles of the participants. For example a study by Holdsworth & King (2011), they received the ethical approval from the research committee and all direct quotes from the respondents were anonymized and all names that used were changed. Murray et al. (2009) in their study also obtained ethical approval from research committee and informed consent from the respondents gained. All studies attained informed consent as well as the permission from ethics committee.

The type of the studies included in this literature review were varied. There were qualitative studies, quantitative studies, and randomized control trial, both retrospective and prospective studies with different size of samples used. Studies ranged from hundreds to thousands sample.

Even though the literature review was chosen for this study, the author realized that other method such as quantitative study and qualitative study can also be done to answer this research question. Qualitative study can be done through interviewing cancer patients or their caregiver where they would like their loved ones to die. The interview can use a semi structure interview questionnaire. A quantitative study may also be used to answer the aim of this study by developing questionnaire of where patients with cancer and family caregiver prefer their last place of death. However, the result may not vary if using quantitative or qualitative study while literature review give a different range of results.

**Result discussion**

The result of this literature review displays the preferential place of death for patients with cancer receiving palliative care, the factors associated with the preferential location of death, and how autonomy affect patients decision making and how nurses supporting patients in making decision related to place of death. This topic is essential in the health care as nowadays, patients are ought to be involved in making decision for themselves and expressing their own preference. Moreover, as the number of patients with cancer is increasing and predicted to be about 24 million cases in 2035 (Ferlay et al, 2013), there will be more people to receive palliative care. Cancer can lead to death, as a result, promoting patients’ autonomy will help patients able to verbalize their own preference towards the place of death.

The literature review showed that more than 60 percent patients chose home as the place of death (Foreman et al., 2006; Choi et al., 2010; Gomes et al., 2015; Alonso-Babarro et al, 2011). However, there is also one study that shows the majority of patients with cancer (90 percent) that preferred hospital than home as their las place to die (Hyun et al, 2013). Cancer patients who died at home feel more peaceful compared to patients who died in hospital.
(Gomes et al., 2015). Even though many patients with cancer would prefer home as their location of death, in one study by De Graaf et al. (2016) mentioned that patients who preferred home as their place of death actually did not die in their preferred place. The findings defines that there were two reasons that caused this; family member were unable to look after the patients and when patients need to be admitted to hospital because of emergency situation (De Graaf et al., 2016).

Demographic factors such as gender, age, marital status, education, economic status, residence and country of birth are found to be the most significant factors that related to patients’ preferential place of death. Several studies found that male patients and who were married more likely prefer to die at home compared to women. This was explained by Foreman et al. (2006) that because women are more caring than men and men were less likely to provide care for their family. Moreover, married man have their own wife who are willing to be their carer (Howat, Veitch & Cairns, 2007). This can show that men mostly easy to express their own feeling compared to women. While women are usually afraid to express their wish or wants and more careful when making decision. Women were thinking more in making decision, they were more likely to be in hospice rather than in home, even though they may actually would like to be at home when they die. This is related to the autonomy, where patient’s right affecting themselves in making decision. Moreover, regarding marital status, men would like to die at home because they believe that their family member can be with them to look after them. It can be seen that the patient use their right in choosing a place where they want to stay at the end of their life.

This was also related to the age, where younger patients preferred home because they have a healthy and young spouse who can provide care for them at home (Howat, Veitch & Cairns, 2007). The decision of stay in a place for younger age possibly affected by their parents where they may be considered as young adult who are under their parents’ responsibility and cannot make decision for themselves. Whereas, older people have their own right to choose where they would like to die as they are mature enough to decide their own choice. The strong preference of patient is showing how patient would like to be heard in regards of the option of place of death (Alonso-Babarro et al, 2011; Nakamura et al., 2010; Fukui et al., 2011a). These factors are common founded in many articles. It is evident that younger patients, men and married preferred home as their place of death because they have their family to look after them and can support them during their disease phases. Overall, the availability of caregiver affects patients with cancer to choose home as their last place to die as the family/caregiver can look after them (Choi et al., 2010; Nakamura et al., 2010).

Besides demographic factors, there were also other factors associated with preferential place of death reported in some articles. However, the authors of the investigated articles did not discussed further reasons of other factors mentioned in their studies. Therefore, this may be a suggestion for future research in nursing.

Autonomy is considered as a very important part in medical setting especially while planning treatments (Kinoshita, 2007). It is necessary to discuss each plan and decision with the patents in order to maintain the person centered care, therefore, it is nurses’ role to promote the patients’ autonomy (Lugton & McIntyre, 2005). In palliative care, it is crucial to have patients’ wishes expressed and that their autonomy is supported so that patients’ values and desires are respected. However, the facts is that many patients with terminal disease such as
cancer were not able to make their own decision. There was no explanation given related to this. There was no description why patient not able to make their own decision. For example, a study by Gu et al. (2015) reported that more than 90 percent cancer patients gave their family members the authorization to make decision for them related to medical decision. The decision making is only happened between physician and family caregivers. This result is supported by Cohen et al. (2006) who explained that a physician tend to discuss end of life decision with family because when patients are in the hospital, the patients mostly are not capable to participate in end of life decision making. Cohen et al. (2006) mentioned in their study completed in Sweden, Switzerland, Denmark and Belgium, that home death decision was initiated by patients and/or patients’ relatives in two countries Belgium, and Denmark. Whereas, decision for patients in Sweden often made by their relatives and in Switzerland patients mostly made their own decision. In the study stated that, if the patients happen to be in hospital, most of the time decision made by the physician. It seems that decision maker in Europe countries was patient or relatives in home setting, while in hospital setting, doctors are the most decision maker.

In other words, patients themselves have no rights for themselves, as patients may be afraid that they could be a burden for the family (Choi et al., 2010). This can be related to other study by Tzuh Tang, Chen, Ru tang & Wu Liu (2010) that Taiwan families preferred their loved ones died in home due to special culture norm “the fallen leaves can return to their roots”. This idiom means returning someone to their hometown or their family. Moreover, Taiwanese people are mostly influenced by Confucius idea of caregiving is means repaying their parents or family members. Thus, it is very important for nurses to be aware of patients’ preference related to the place of death and how to accommodate the needs especially if it is associated with cultural diversity (Pollock, 2015).

Nurses are responsible in providing support for patients physically, socially, spiritually and psychologically (Lugton & McIntyre, 2005). Based on Neuman theory (1982), it is a main point that caring patients not only seen from their illness which required treatment and care but also the individuals as a whole human being or holistic. Though, discussing the preference of place of death is not easy, it is very important that both patients and families’ preferences are recorded (Holdsworth & King, 2011). Communication between patients, family members and health care professionals are seen as a key primary care to patients. In providing support for patients in decision making, nurses are also need support from other health care team. Howat, Weitch & Cairns (2007) stated that community nurses require support from the physician in order to enable patients verbalize their preferences related to place of death. Moreover, to support patient centered care and to affirm patients’ preference, nurses are required to value patients’ decision (Murray et al., 2009). It is very essential for nurses to empower patients’ autonomy in decision making related to preferential location of death. As a result of empowering patients’ autonomy, health care professionals can support patients to express their wants and needs (Kuhl, Stanbrook & Hebert, 2010).

In planning a care for persons with life threatening illness, health care professionals need to coordinate with patients by respecting patients’ autonomy (NHPCO). By involving patients in palliative care setting, the needs of physical, psychological and social can be addressed. Moreover, all parties could be beneficial and the quality of life both patients and family will be enhanced. It is needed in the future that all health care professionals can support each other,
so that health care members can also support patients and their family. Therefore, suffering and distress of the patients might be relieved (Klindworth et al, 2015).

**Conclusion**

Patients with cancer are mostly related to palliative care which can be treated either at home, hospice or other facility. At the end of life, patients may have their own desires towards place of death. It is important for nurses to provide support for patients with cancer in decision making related to preferential place of death. Preferential place of death is mostly affected by demographic factors such as age, gender, marital status, residence, economic status and country of birth. Others factors than demographic factors are also impacting patient’s preferential location of death. Nurses as the one who frequently meet the patients; therefore they are required to be aware of patient’s autonomy in order to be able to provide support for patients with cancer in making decision related to place of death.

**Clinical implications**

As the number of people with cancer is increasing, the needs for palliative care will also increase. During the end of life phase, patients with cancer may end up with decision related to end of life that are needed to be made. This can be a challenge that health care professionals especially nurses might face in the health care setting. Furthermore, respecting patients’ autonomy with regards of preferential place of death is more than important as it allows nurses to value and empower patients’ desires and needs.

As nurses are the most frequently in touch with patients as well as family, it is crucial that nurses have more knowledge through training or skills development to enable them in facilitating and providing support for patients and families while making decision. Through the result and discussion of this study, nurses may develop knowledge and has new perspectives on patients desires related to place of death. Moreover, nurses may use this study as their guidelines to provide support for patients especially in expressing their desires and having their autonomy to decide their choices.
REFERENCES

Abba, K., Birne, P., Horton, S & Williams, M.L. (2013). Intervention to encourage discussion of end of life preference between members of general population and the people closest to them- a systematic literature review. *BMC Palliative Care*


Polit, D. F & Beck, C.T. (2012). *Nursing research Generating evidence for nursing practice (9th ed)*. Lippincot Williams & wilkins


### Appendix I: Matrix and assessment of articles

<table>
<thead>
<tr>
<th>Author(s)</th>
<th>Year</th>
<th>Country</th>
<th>Title</th>
<th>Aim/Objective</th>
<th>Method</th>
<th>Participants</th>
<th>Attrition</th>
<th>Rate</th>
<th>Result</th>
<th>Quality design</th>
</tr>
</thead>
<tbody>
<tr>
<td>Alonso-Babarro, A., Bruera, E., Varela-cerdeira, M., Boya Christia, M. J., Madero, R., Torres-vigil, I., De Castro, J &amp; Gonzalez-Baron, M</td>
<td>2011</td>
<td>Spain</td>
<td>Can this patient be discharged home? Factors associated with at home death among patients with cancer</td>
<td>The purpose of the study is to identify the factors related with at home death among patients with advanced cancer and create a decision making model for discharging patients from an acute care hospital</td>
<td>We conducted observational cohort study to identify the association between place of death and the clinical and demographic characteristics of patients with advanced cancer who received care from a palliative home care team (PHCT) and their primary caregivers. We used logistic regression analysis to identify the predictors of at-home death.</td>
<td>n : 380 (0)</td>
<td></td>
<td>The result showed that about half of the total number of cancer patients were aware of their prognosis and they chose home as their place of death. Five factors that associated with at home death are: caregivers’ preferred place of death, patients preferred place of death, number of admission day in hospital, caregivers’ perceived social support and number of palliative home care visits. The author stated that it is essential to assess both patients and caregiver’s desire before planning care for patients, especially their preferential location of death.</td>
<td>I P</td>
<td></td>
</tr>
</tbody>
</table>
Agar, M., Currow, DC., Shelby-James, TM., Plummer, J., Sanderson, C & Abernethy, AP (2008) Australia

Preference for place of care and place of death in palliative care: are these different questions?

The aim of the study is to describe longitudinal preferences for place of care and place of death overtime for patients and their caregivers.

Longitudinal paired data of patients/caregiver dyads from a prospective unblended cluster randomized control trial were used. Patients and caregivers were separately asked by the palliative care nurse their preference at that time for place of care and place of death. Longitudinal changes overtime for both questions were mapped; patterns of agreement (patient and caregiver; and preference for place of death when last asked and actual place of death: n = 71 (0)

41 percent patients and 42 percent caregivers preferred home as the place of death. The agreement between patients and caregiver of preferential place of death is more crucial. Since the topic of preference place of death is challenging, health care professionals are require to discuss this. Moreover, it is also essential to document the preferences place of care and death of both patients and their relatives. As place of care and place of death are two different things, health professionals need to discuss and explain this.

The aim is to explain factors related to preference place of death for end of life cancer care and death from perspective of the bereaved family. In June 2007, in Japan, a cross sectional anonymous questionnaire, which included a well validated scale of component factors of hospice outcome, was administered to bereaved family members (N:294) of cancer patients who had died at home at least 6 months ago. Participants were recruited from 14 home hospices across the nation.

n : 294 (0) There were 68 percent of caregiver preferred die at home and males were more likely choose home as place of death. In Japan, males preferred his wife to look after them during their disease whereas the females not expect her husband to be their caregiver or taking the housework and not wanting to be a burden for the children. Four factors identified for those who more likely prefer home as choice of end of life care and death are: male participants, availability of other caregivers, higher good death concept and experience of mastery as a result of caregiving. Length of stay in hospice care could be one of factor that make patients choose home as their place at the end of life as it relates to a payment of the care. Worry of being a burden while decision making related to place of death is a consideration of the patients.
<table>
<thead>
<tr>
<th>De Graaf, E., Zweers, D., Valkenburg, A. CH., Uyttewaal, A &amp; Teunissen, S. CCM.</th>
<th>Hospice assist at home: does the integration of hospice care in primary healthcare support patients to die in their preferred location- A retrospective cross-sectional evaluation study</th>
</tr>
</thead>
<tbody>
<tr>
<td>The aim is to explore whether hospice assist at home service enable patients at home to express end-of-life preferences and die in their preferred location</td>
<td></td>
</tr>
<tr>
<td>A retrospective cross-sectional evaluation study was performed (December 2014- March 2015), using hospice assist at home patient records and documentation. Primary outcome includes congruence between preferred and actual place of death. Secondly outcomes include symptom burden, (in) stability ad early identification.</td>
<td></td>
</tr>
<tr>
<td>n : 130 (-5)</td>
<td></td>
</tr>
<tr>
<td>The majority of patients (68 percent) selected home as their preference place of death and 22 percent preferred hospice. Patients who had their own preference place of death is actually died in their preferred place even though some patients who preferred home as place of death were died in hospice and hospital because of medical emergency or because the family members unable to look after them. There were some patients’ preference place of death were unknown. This is as a result of not able to discuss about death and dying. It is explained that the support from specialist palliative care services in community help patients in expressing their preference location of death. Anticipatory care and communication is realized to be important in primary care to patients. Nevertheless, sometimes patients unwilling to speak about their preference or denial their condition. Anticipatory care is the health care team responsibility. Therefore, hospice assist home is believed able to empower patients and caregivers to verbalize their selection during palliative care period.</td>
<td></td>
</tr>
</tbody>
</table>
Predictors of home death of home palliative cancer care patients: A cross-sectional nationwide survey

To identify factors influencing the place of death among home palliative cancer care patients, focusing on the role of nurses in terms of pre-and post-discharge from hospital to home care settings

A cross sectional nationwide Questionnaire survey was conducted at 1000 randomly selected homecare agencies in Japan. Questionnaires were completed by primary community nurses of home palliative care patients just after the discharge. A total of 568 responses were analyzed

Half patients died at home and the other half died in hospital. Patients who are likely to die at home had family that both have expressed the will to die at home. Patients are more likely to die at home after discharge from hospital. Factors related to possible die at home is primary caregiver is daughter, and both patients and family desire for home death, nurses inform patients and caregiver about the availability of bed for 24 hours, dying process in detail and the availability of insurance of home care service. The integration between general palliative care and specialist palliative care by health care professionals in providing services helped patients to verbalize their end of life preference and preferential location of death.

Late referrals to home palliative care service affecting death at home in advanced cancer patients in Japan: a nationwide survey

To identify factors influencing place of death among home palliative care patients with advanced cancer, focusing on the timing of referrals from hospital to home care

A cross sectional nationwide questionnaire survey was conducted on home palliative care patients at 1000 randomly selected home care agencies

There were ten factors described by authors that influencing home death. These factors are patients’ desire for home referral, caregiver had stated their wish for home referral, the primary caregiver is daughter or daughter in law, patients’ condition is bed bound, had early referral 8 days pre discharge, timing for referral is appropriate, hospital staffs had explained related discharge to both
In population based survey, 2652 respondents aged 15+ years reported their preferred place of death if dying of a terminal illness such as cancer or emphysema.

<p>| Foreman, L. M., Hunt, R. W., Luke, C. G &amp; Roder, D. M (2006) Australia | Factors predictive of preferred place of death in the general population of South Australia | The objective of the study is to explore the socio demographic, physical and mental health predictors of preference death at home, hospital, nursing home and hospice in population based sample in South Australia | n : 3015 (363) | 70 percent respondents prefer to die at home, 9.8 percent hospice, nursing home 0.8 percent and 19 percent hospital while 8 percent have no preference. Predictors that related to the preference of place of death are age (younger people prefer die at home than older people. Older people may have a frail partner or deceased partner), sex (females prefer die in hospice while men in home. This is because women have a caring role compared to men, male partners may be less willing to give care at home), residence (metropolitan residents prefer hospice as a place to die), marital status (people who married and have de facto relationship more preferred home as their location of death), country of birth (people who were born in Australia, UK and Ireland more common to die in hospice) and household income (hospital chosen for people who have low income). |
|---|
| Is dying in hospital better than home in incurable cancer and what factors influence this? A population based study |
| The aim is to determine the association between place of death, health services, and pain, feeling at peace, and grief intensity |
| Mortality follow-back study of 352 cancer patients who died in hospital (n:177) or at home (n:175) in London, UK. Bereaved relatives identified from death registration completed a questionnaire including validated measures of patient’s pain and peace in the last week of life and their own grief intensity. We determine factors influencing death at home, and association between place of death and pain, peace and grief. |
| n: 352 (0) |
| There are two groups of patients who died in hospital (177) and died at home (175). More than 60 percent patients in both groups preferred home as their place of death following 92 percent relatives of patients who died in home and 32 percent of family members who died in hospital. Factors that cause hospital death are more hospital days (more than a month) in the last 3 months, patients received one or no visit from GP. On the other hand, factors are related to the possibility of patients died at home are; relatives aware of incurability &gt;1 week before death, when discussion of preference between patients and their family occur, more than three times GP visit, less hospital stays and if relatives take more than 14 days off from work in the last 3 months before the death of the patients. Patients who died at home were informed to feel more peace during last week of life compared to those in hospitals. |
| I P |
| Gu, X., Chen, M., Liu, M., Zhang, Z &amp; Cheng, W (2015) | End-of-life decision making of terminally ill cancer patients in a tertiary cancer center in Shanghai, China | The aim of the study is to investigate the characteristic and factors that associated with decision making in terminally ill cancer patients in a tertiary cancer center in Shanghai, China | A single center, retrospective study was performed among advanced cancer patients who died between March 2007 and December 2013 in ward at palliative care unit, Fudan University Shanghai Cancer Center | The majority of the patients had family members who were with them during the patients’ care. The study described that almost all decision making happened between physician and family caregivers. On the other hand, western people use patients’ autonomy as the key focus of decision making in the last stage of end of life. From 436 patients in the study, 424 patients signed the authorization letter giving family members as the decision maker related to medical decision for them. In contrary, western people put autonomy of the patients as the key focus in decision making. Almost half of the patients’ spouse was the main decision maker for the patients. Decision making process may affected by law, religious belief, economic status, decision maker attitudes and culture background. |
| Holdsworth, L &amp; King, A (2011) | Preferences for end of life: Views of hospice patients, family carers, and community nurse specialists | The aim of the study is to identify issues around discussing and recording preferences on place of death from the perspectives of hospice patients, carers and community nurses | A purposive sample was selected from three hospices in the south east of England of six community nurse specialists (CNSs), five patients, five carers and five | Community nurses explained that 90 percent of cancer patients’ preference place of care and death were recorded. In the study, there was one patient who was strongly expressively stated, it is patients’ choice to raise the issue of location of dying with the staff. Moreover, both patients and carers clarify that it is crucial to have their wishes recorded in writing. The result showed that it is essential to mention about patients’ preference in the first meeting. It is essential to discuss |
|---|
| A retrospective review of place of death of palliative care patients in regional north Queensland |
| The aim of the study is to explore place of death of palliative care patients in regional north Queensland and to review which patient, disease and other factors affecting place of death |
| All patients under the care of the specialist palliative care services (PCS) at the Townville Hospital, who died in 2004, were identified. Medical charts for these patients were analyzed for various demographic data, disease-related information and place of death |
| n : 286 (16) |
| Less than a quarter of patients died at home while more than three quarter died in hospital and more males who died at home than females with marital status of married. Factors identified to be the influence of home death are age, sex, and marital status, access to community nursing and having a carer. Married patients are prefer die at home because they have spouse who can be their committed carer to help them during their terminal stage. However, patients will choose hospital if the carer is not present or no carer. Being younger and having access to a community nursing are also factor that increase the possibility of dying at home. Younger patients usually have younger spouses and healthy who may able to help them in their care. It is said in the study that community nurses need support from GP to help patients express their own preference of place of death. When the support is not available, patients will often admitted to hospital because no choice. |</p>
<table>
<thead>
<tr>
<th>First Name</th>
<th>Last Name</th>
<th>Country</th>
<th>Study Title</th>
<th>Study Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hyun</td>
<td>M.K.</td>
<td>Korea</td>
<td>Factors associated with place of death in Korean patients with terminal cancer</td>
<td>To examine factors affecting the place of death (POD) of terminal cancer patients. 702 consecutive patients (≥18 years) from 12 centers during July 2005 to October 2006, and 481 completed the questionnaire. In April 2011, we linked data for 96 percent (n:462) of deceased patients to the place of death using the 2005-2009 death certificate data of Korea’s National Statistical Office. 411 patients (91.5 percent) died in hospital and only 38 patients (8.5 percent) died at home. Survey showed that 191 patients wanted to die at home but only 26 of these patients died at home. Three predictors of hospital death were higher education of the caregivers, patients preferences and caregiver preferences for hospital of terminal cancer.</td>
</tr>
<tr>
<td>Loucka</td>
<td>M.</td>
<td>United Kingdom</td>
<td>Place of death in the Czech Republic and Slovakia: a population based comparative study using death certificates data</td>
<td>The aim of the study is to analyze the place of death in the Czech republic and Slovakia in 2011. Whole population data from death certificates for all deaths in the Czech Republic and Slovakia in 2011 were used for bivariate and n : 154288 (102385 deaths in Czech &amp; 51903 deaths in Slovakia. Cancer patients (26166 in) Men in both countries (Czech and Slovakia) more likely to die at home than women. Cancer patients in Czech and Slovakia were tend to die at home compared to patients dying from other chronic diseases. Patients who died from cancer is only 25 percent from the total amount of patients. In Czech, people aged 70 – 84 years old preferred to die at home. Similarly, in Slovakia people above 85 years old were most</td>
</tr>
<tr>
<td>Murray, M. A., Wilson, K., Kryworuchko, J., Stacey, D &amp; O’connor, A (2009) Canada</td>
<td>Nurses’ perceptions of factors influencing patient decision support for place of care at the end of life</td>
<td>This study aim is to identify factors that influence nurses’ provision of decision support</td>
<td>A total of 22 nurses, from 3 health networks, participated in semi structured interviews. Most interviews were conducted in person, 7 were conducted via telephone.</td>
<td>n : 22 (0)</td>
</tr>
</tbody>
</table>
confirming patient’s preference. Subjective norms: any possible conflict with other health care professionals such as physician and social workers. Sources of conflict was mentioned to be the overlapping role and protection issues. Private nursing homes were acknowledged to disapprove nurses to provide decision support. Perceived control was explained as circumstances that made easier to deliver support and barriers that made decision support difficult to do. Circumstances that made easy were skills training, process of decision making and system of care embedded were integrated and early detection of patients’ disease and needs.

There are five sources influencing nurses in providing decision support for place of end-of-life care: allied health team members, patients themselves, GPs, professional bodies and the employers.
Nakamura, S., Kuzuya, M., Funaki, Y., Matsui, W & Ishiguro, N (2010) Japan

<p>| Factors influencing death at home in terminally ill cancer patients | The aim of the study is to investigate factors affecting terminally ill cancer patients dying at home | Ninety two terminally ill cancer patients who were receiving home medical care services and died between April 2005 and December 2006 were included in the study. The data included patients’ and caregivers’ demographic characteristics, disease-related information, place of death and status of home care support. To identify factors predicting the place of death, multivariate logistic regression analyses were performed | 92 | Factors that affect the patients chose home as their place of death were patients who lived with family caregivers, had frequent home visits by family physician and home care nurses and strong preference from both family and patients. | I R |</p>
<table>
<thead>
<tr>
<th>Author(s)</th>
<th>Title</th>
<th>Abstract</th>
<th>Data</th>
<th>Country</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sasao, S., Tanabe, K., Morita, T., Takahashi, T., Yasuda, H., Kashii, T., Sawad, K., Tonomura, M &amp; Murakami, N (2015) Japan</td>
<td>Facility related factors influencing the place of death and home care rates for end stage cancer patients</td>
<td>The study aim is to clarify factors influencing the place of death and home care rates involving end stage cancer patients targeted for palliative care by a general home-visit nursing agency. A total of 87 patients who had used palliative care home nursing care services provided by the study facility within a 6-year period after its opening were studied.</td>
<td>n : 87 (0)</td>
<td>Home visit in collaboration with the family in charge are factors that associated with the place of death and home care rates. Factors affecting place of death and home care rates for last stage cancer patients are the experience of home visit in cooperation with family and physician. Home visit experience and collaboration deepens nurses’ insight into patients which help to build face to face relationship. Visiting nurses should support patients’ desire in choosing their place of death.</td>
</tr>
<tr>
<td>Schou-Andersen, M., Ullersted, M.P., Jensen, A.B., Neergaard, M.A (2015) Denmark</td>
<td>Factors associated with preference for dying at home among terminally ill patients with cancer</td>
<td>The aim of this study is to investigate whether demographic and socio-economic factors were associated with preference for dying at home. Danish patients with terminal cancer explore factors that associated with place of death in an unselected populations of patients with cancer. Population based, historic cohort study among 282 relatives of deceased patients who died of cancer in Denmark in 2006. Bereaved relatives were asked to state patient’s preference concerning place of death at the beginning and end of the palliative period.</td>
<td>n : 282 (84)</td>
<td>The majority (81 percent) relatives of cancer patients stated that in the beginning of palliative care patients preferred to die at home. However, these preference decreased during the end of palliative period to 64 percent. The rest of patients preferred hospital and hospice when dying is near. Men is one of the factors that related to desire of home death. Also patients with a high income/economic status well and those who lives in a smaller community tend to prefer home as their last place of death whereas metropolitan people preferred hospice.</td>
</tr>
</tbody>
</table>
Appendix II- Classification guide of academic articles

Classification guide of academic articles and studies regarding quality in both quantitative and qualitative research, modified Berg, Dencker & Skärsäter (1999), Willman, Stoltz & Bahtsevani (2006). This is one example of how articles may be graded using the matrix method. Read more in the course lit.

<table>
<thead>
<tr>
<th>CLASSIFICATION</th>
<th>GRADING OF ACADEMIC QUALITY</th>
</tr>
</thead>
<tbody>
<tr>
<td>I = High quality</td>
<td>II = Moderate</td>
</tr>
<tr>
<td>III = Low quality</td>
<td></td>
</tr>
<tr>
<td><strong>Randomized controlled trial (RCT)</strong> is a</td>
<td></td>
</tr>
<tr>
<td>prospective study that entails a comparison</td>
<td></td>
</tr>
<tr>
<td>between a control group and one or more</td>
<td></td>
</tr>
<tr>
<td>experiment groups.</td>
<td></td>
</tr>
<tr>
<td>Large, well planned and well executed</td>
<td></td>
</tr>
<tr>
<td>multicenter study with an adequate description</td>
<td></td>
</tr>
<tr>
<td>of protocol, material and methods including</td>
<td></td>
</tr>
<tr>
<td>treatment techniques. The number of patients/</td>
<td></td>
</tr>
<tr>
<td>participants is large enough to answer the</td>
<td></td>
</tr>
<tr>
<td>research question. Adequate statistical methods.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>*</td>
</tr>
<tr>
<td>**Randomized study with few patients/participants</td>
<td></td>
</tr>
<tr>
<td>and/or too many partial studies with insufficient</td>
<td></td>
</tr>
<tr>
<td>statistical strength. Insufficient number of</td>
<td></td>
</tr>
<tr>
<td>patients/participants, inadequately described</td>
<td></td>
</tr>
<tr>
<td>method or large attrition rate (participant</td>
<td></td>
</tr>
<tr>
<td>dropout rate).</td>
<td></td>
</tr>
<tr>
<td><strong>Clinical controlled trial (CCT)</strong> is a</td>
<td></td>
</tr>
<tr>
<td>prospective study that entails a comparison</td>
<td></td>
</tr>
<tr>
<td>between a control group and one or more</td>
<td></td>
</tr>
<tr>
<td>experiment groups. Not randomised.</td>
<td></td>
</tr>
<tr>
<td>Large, well planned and well executed study</td>
<td></td>
</tr>
<tr>
<td>with an adequate description of protocol,</td>
<td></td>
</tr>
<tr>
<td>material and methods including treatment</td>
<td></td>
</tr>
<tr>
<td>techniques. The number of patients/participants</td>
<td></td>
</tr>
<tr>
<td>is large enough to answer the research question.</td>
<td></td>
</tr>
<tr>
<td>Adequate statistical methods</td>
<td></td>
</tr>
<tr>
<td></td>
<td>*</td>
</tr>
<tr>
<td>Limited number of patients/participants, method</td>
<td></td>
</tr>
<tr>
<td>inadequately described, faults or lacking in</td>
<td></td>
</tr>
<tr>
<td>protocol and insufficient statistical strength.</td>
<td></td>
</tr>
<tr>
<td><strong>Non-controlled study (P)</strong> is a prospective</td>
<td></td>
</tr>
<tr>
<td>study but without a control group.</td>
<td></td>
</tr>
<tr>
<td>Well defined research questions, sufficient</td>
<td></td>
</tr>
<tr>
<td>number of patients/participants and adequate</td>
<td></td>
</tr>
<tr>
<td>statistical methods.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>*</td>
</tr>
<tr>
<td>Limited number of patients/participants, method</td>
<td></td>
</tr>
<tr>
<td>inadequately described, faults or lacking in</td>
<td></td>
</tr>
<tr>
<td>protocol and insufficient statistical strength.</td>
<td></td>
</tr>
<tr>
<td><strong>Retrospective study (R)</strong> is an analysis of a</td>
<td></td>
</tr>
<tr>
<td>historical material that is related to something</td>
<td></td>
</tr>
<tr>
<td>that already happened, for example patient</td>
<td></td>
</tr>
<tr>
<td>Number or patients/participants sufficient to</td>
<td></td>
</tr>
<tr>
<td>answer the research question. Well planned and</td>
<td></td>
</tr>
<tr>
<td>well executed study with an adequate</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>*</td>
</tr>
<tr>
<td>Limited number of patients/participants, method</td>
<td></td>
</tr>
</tbody>
</table>
| inadequately described, faults or
<table>
<thead>
<tr>
<th>charts.</th>
<th>description of protocol, material and methods.</th>
<th>lacking in protocol and insufficient statistical strength.</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Qualitative study (Q)</strong> often is an investigation where the aim is to study phenomena or interpret meaning, perceptions and experiences from the perspectives of the participants. The aim can also be to develop concepts, theories and models.</td>
<td>Context clearly described. Selection of participants motivated. Clearly described selection criteria, data collection, transcription process and method of analysis. Credibility and reliability described. Relation between data and interpretation evident. Critique of method.</td>
<td></td>
</tr>
</tbody>
</table>

* Poorly formulated research questions. Patient/participant group inadequately described. Method and analysis not sufficiently described. Presentation of results incomplete.

* Some of the criteria for level I are not met, but the academic quality is deemed higher than level III – Low quality.