JOB SATISFACTION OF NURSING MANAGERS
Literature Review

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Abstract

The aim of the study was to research levels of job satisfaction, factors affecting job satisfaction/dissatisfaction, and ways to improve job satisfaction among nursing managers. The purposes of the study were to extend knowledge in the field of healthcare management, to raise awareness about factors that affect job satisfaction in nursing management career, and to provide suggestions regarding how to increase job satisfaction among nursing managers.

The method of this study is literature review. Twelve (n=12) articles dated 2004-2014 were selected from CINAHL (EBSCO), PubMed, Academic Search Elite (EBSCO), OVID, Elsevier Science Direct, and by manual search. The studies investigated only nursing managers’ perceptions of job satisfaction.

The study revealed overall moderate levels of job satisfaction among nursing managers with slight variations across different levels of management and depending on geographical location. Factors affecting job satisfaction/dissatisfaction of nursing managers were determined and sorted in six groups: working conditions, support, opportunities for professional development, autonomy and decision-making, power, and stress. Job satisfaction of nursing managers can be improved by ensuring safe and enabling working environment, reduction of workload, span of control, and stress, providing access to resources, power, and information, implementing a co-management model, giving opportunities for professional and educational development, and promoting autonomy and decision-making.

The results of the study may benefit to the nursing students who are interested in pursuing career in nursing management and to healthcare organizations that can utilize the suggestions regarding improvement of job satisfaction among nursing managers presented in the research.

Keywords/tags (subjects)

Nursing managers, job satisfaction, factors, improvement, literature review
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1 Introduction

According to the World Health Organization (2015), nursing encompasses autonomous and collaborative care of people of all ages, families, groups, and communities, sick or healthy, in all settings. Nursing includes health promotion, prevention of illness, and care of sick, disabled, and dying people, which means that there is a wide range of career opportunities for registered nurses. (WHO 2015)

Nowadays nursing does not necessarily involve direct encounter with patients. Moreover, nurses can work not only in clinical settings but also in public institutions, military service, municipalities, research facilities, and other facilities. Healthcare management is an example of a career option available for individuals with the nursing education.

Yoder-Wise (2015, 54) among other researchers states that healthcare management involves several foundational concepts such as management of personnel, decentralization, productivity, manager development and professional growth, use of information and data analysis in decision-making, marketing of services, and planning for future needs. Manager is essential to driving results in work performance.

Nowadays the role of a manager has dramatically changed. Many senior executives took on additional responsibilities apart from nursing services, while some have lost direct operational line responsibility for nursing services. Roles of middle line and first line managers expanded as well to include more responsibilities beyond nursing. (Laschinger, Wong, Ritchie, D’Amour, Vincent, Wilk, Armstrong Stassen, Matthews, Saxe-Braithwaite, Grinspun, Shamian, McCutcheon, Kerr, MacDonald-Renicz, Oke, Denney, White, Almost 2008, 86)

The need for this research is justified by the lack of knowledge of career opportunities in healthcare management expressed by nursing students. Although, a course is designed in order to give them basic understanding of management and leadership in healthcare, the information is more theoretical than practical. Moreover, during clinical placements students do not have many opportunities to
learn about the work of ward managers. Therefore, nursing students lack understanding of how to pursue career of their choice and what exactly is healthcare management career with its duties and possible challenges.

Furthermore, there is an urgent need for succession planning to ensure the future of nursing leadership. Attracting new nursing managers under the age of 40 is of great importance nowadays as the current generation retires within 10-15 years. Massive exit from the workforce will lead to nursing shortage and leave a gap in nursing clinical knowledge as well as in organizational and managerial knowledge. (Brown, Fraser, Wong, Muise, Cummings 2013, 470; Laschinger et al. 2008, 87)

Besides, it is becoming increasingly challenging to recruit experienced professionals into management positions due to a major shift toward more clinical opportunities for advance practice nurses (Brown et al. 2013, 460).

Finally, the choice of the topic was determined by researchers’ personal interest in this area. The issue of healthcare management is closely related to newly graduated nurses’ future professional development, and it is important to provide them with the structured information regarding careers in nursing.

The aim of the study is to research levels of job satisfaction, factors affecting job satisfaction/dissatisfaction, and ways to improve job satisfaction among nursing managers.

The purposes of the study are to extend knowledge in the field of healthcare management, to raise awareness about factors that affect job satisfaction in nursing management career, and to provide suggestions regarding how to increase job satisfaction among nursing managers.

2 Nursing as a career

2.1 History of nursing profession

care for the sick people has always existed in the human history; however, due to the lifestyle, needs and influence of technology and science, the differences between
care in ancient times and nowadays are humongous. Initially, the sick were provided primarily with palliative care. (Klainberg & Dirschel 2010, 22)

In the majority of societies, healthcare was the responsibility of female members. Since women naturally nurture and care for own their children, it was considered that the same approach could be applied to care for the sick people. Nevertheless, in some communities, medicine men, shamans or other male members were assigned to be care providers. (Halstead & Roux 2009, 2)

The first healthcare system was created by the Egyptians 3000 B.C. They introduced the use of medical records and classification of medications, and developed a system of maintaining health of their society. Later on, Babylonians, Italians, Persians and Chinese made attempts to organize healthcare systems in their communities. The Greek idea of healthcare was emphasized on the individual rather than community health. The Romans were the first to introduce regulations of medical practice. (Klainberg & Dirschel 2010, 22-23)

Principles of Christianity supported the idea of charity and self-sacrifice encompassed by nursing. In the early Christian period, nurses or deaconesses, as they were called back then, formed organized groups to provide home visits and care of the sick. Early hospitals were also initiated by religious communities. (Halstead & Roux 2009, 2)

In the Renaissance, technological progress led to some improvements in healthcare. Rich people paid nurses to care for the sick at homes, but often their responsibilities included household chores. At that time, hospitals were intended for the care of the poor and orphans. Since the majority of them were ill, they only needed palliative care. Hospitals were primarily associated with the place where people were sent to die. (Klainberg & Dirschel 2010, 23-24)

The 18th century was the time of major technological advancements. People became more aware of hygiene matters and its effect on health; attempts were made to improve healthcare and unsanitary environment. During this time, nursing profession was acknowledged and first nursing schools were established. (Klainberg & Dirschel 2010, 24)
2.2 Modern nursing

The nineteenth century was significant for development of nursing as a profession. Several nurses became nursing leaders by introducing changes into the practice and making a difference. (Klainberg & Dirschel 2010, 25)

- Florence Nightingale is a ‘pioneer of modern nursing’. Her participation in care of the wounded soldiers in the Crimean War resulted in lower death rates from infections, and her writings, for example, ‘Notes on Nursing’, are still significant and influential in nursing science nowadays. Nightingale had become a leader and a powerful and successful role model in academic, political and managerial aspects of nursing. (Klainberg & Dirschel 2010, 25-26; Stanley & Sherrat 2010, 121)

- Mary Seacole worked in the Caribbean region during cholera and yellow fever epidemics. During the Crimean War, she funded her own trip to Crimea and established a hospital for the wounded. However, initially Seacole did not receive any recognition due to her ethncical background. Only later, when her work was publicized, her work was appreciated in England and Jamaica. (Klainberg & Dirschel 2010, 26)

- Clara Barton was a nursing volunteer during American Civil War providing supplies to the army. American Red Cross, established by Barton, continues to functioning nowadays providing care around the globe with her idea of selfless service for the sick. (Klainberg & Dirschel 2010, 26-27; Spitzer 2004, 255)

In the twentieth century, improved sanitation, discovery of antibiotics and other medical breakthroughs had significantly changed the healthcare. The concept of health insurance was introduced in the society and changed the approach to organization of treatment. Healthcare related expenses have been continually increasing since then. Moreover, ethical issues arose regarding rights and access to healthcare. (Klainberg & Dirschel 2010, 28)
3 Career opportunities

Nowadays nursing offers infinite career opportunities, despite the fact that nurses receive relatively the same training and possess similar skills. Nursing care is always client-oriented, but, depending on the field, essential requirements might include knowledge of technology or excellent hands-on skills. Moreover, due to development of new treatments and rapid technological progress, nursing becomes highly specialized. (Sacks 2003, 5-6)

Hospitals are major providers of employment and clinical training of nursing staff. However, nurses can be found in private clinics, home care organizations, physician’s offices, nursing homes, health centers, schools and industrial complexes, and many other facilities (Sacks 2003, 6).

Nursing clinical specialties include critical and emergency care, medical-surgical field, anesthesia and perioperative care, mental health, rehabilitation, and others. Another possibility for nurses is to specialize in a certain disease or medical condition such as diabetes, depression, addiction, geriatrics, oncology, HIV/AIDS, or stoma care. Community and public health nurses provide care for clients in homes, communities, and health centers. (Jenkins 2007, 17-19)

Nurses in outpatient care or self-employed can obtain one of the following specializations: cardiac and vascular care, dermatology, gastroenterology, gynecology, midwifery, nephrology, neurology, orthopedics, and many other. Moreover, nurses have a possibility to advance their education to become nurse practitioners, educators, managers, legal nursing consultants, case managers, and many other career options are available. (Jenkins 2007, 19-23)

Armed forces provide employment opportunities for registered nurses as well; field hospitals, military ships or airplanes require presence of healthcare professionals. Major tasks of a military nurse include providing assistance to physicians, drug administration, wound care, life support treatment during emergencies, mental health care, keeping records, and first aid. For experienced nurses with good performance record there are possibilities to advance in management-level positions.
to assistant head nurse or head nurse, assistant director, director, and vice president. However, such career advancements would require a graduate degree in nursing or healthcare administration. (Henderson, Dolphin, Fehl, Davenport 2007, 171-172)

Healthcare managers are also be referred to as healthcare executives or healthcare administrators. They might be responsible for an entire facility, specific clinical area or department and work in hospitals, nursing homes, ambulatory services, or government. Depending on the facility or a specialty area, there are various types of healthcare managers such as nursing home administrators, clinical managers, health information managers, or assistant administrators. Their basic duties include planning, directing and coordinating health services; moreover, they must be able to respond to changes in healthcare laws, regulations and technology. The majorities of healthcare managers have at least an occupational Bachelor’s degree; although, Master’s degree programs in health services, long-term care administration, public health, public administration, or business administration are very common nowadays. (Bureau of Labor Statistics 2015)

4 Healthcare management and leadership

4.1 Healthcare management
When thinking about hospital system one tends to remember about physicians, nurses, physiotherapists and other healthcare professionals. Rarely would anyone think about a healthcare manager as a part of the hospital system. In a way, this career can be called “hidden”, since the work is mainly not visible for the patients. However, healthcare management plays an essential role in hospital functioning and is vital in providing healthcare services. The main aim of a healthcare executive is to create an environment, in which members of the multi-professional team can cooperate successfully and proficiently. Healthcare managers are always concerned with the health of clients they serve, along with the business side of the service. (Haddock, McLean, Chapman 2002, 1-2)

In a modern healthcare system, a manager is defined as an employee whose responsibility is to ensure the efficient achievement of the objectives set. A
healthcare manager should have appropriate knowledge and skills to be able to recognize the priorities of specific tasks and ensure that the personnel implementing those activities are competent and skillful. Managers usually work together and comprise a management team. (Gopee & Galloway 2009, 28-29)

A good clinical manager is expected to be able to successfully perform several roles, which are displayed in the Figure 1 below.

![Diagram of roles of a clinical manager](image)

*Figure 1. Roles of a clinical manager (Gopee & Galloway 2009, 29).*

Management activities have to be evidence based; therefore, a manager has to justify his/her actions in accordance with the chosen management theory. Numerous evidence-based theories exist. In general, those theories can be divided into “conventional management” and “managerial role theory”. There are four key conventional theories: classical theory, human relations theory, systems theory, and contingency theory. (Curtis, de Vries, Sheerin 2011, 307; Gopee & Galloway 2009, 32-33)

The human relations theory is the most widely utilized in the field of healthcare. This approach, also known as “behavioral” or “informal approach”, is based on the neo-human relations theory. According to this theory, every organization includes
interrelations among members and the manager’s goal is to minimize conflicts and ensure safe environment, where employees share the goal of the organization. In this approach psychological and social needs of the staff are taken into account by the manager. A manager should aim to increase levels of staff motivation by taking into consideration each individual, being close with employees, encouraging teamwork, and showing interest in employees’ personalities. This approach is considered ideal for the field of healthcare management, since its values are similar to main principles of the healthcare services: to provide holistic care and ensure well-being of people. (Shidhar 2011, 8; Gopee & Galloway 2009, 34-35)

It is important to define different perspectives on managerial styles. One of the key perspectives is the theory of Blake and Mouton (1961), which divides managerial style into “concern for people” and “concern for production”. In other words, two main management behaviors are: worrying for getting the job done and worrying for people who are getting the job done. Those managers, whose actions are based on the human relations theory, will use the “concern for people” style; while concern for productivity implies a different structure, where manager’s goal is to increase the efficiency, which is related to the classical approach theory. (Zeidan 2009, 84)

4.2 Leadership in healthcare

A classic definition of leadership by Dawson (1996) states: “Leadership exists when someone exercises the influence over others in their group or organization. Their influence might be wide-ranging or narrowly-focused but within formal organizations they particularly emphasize: values that are espoused, directions in which future development are guided, and the manner in which everyday tasks are accomplished.” (Goodwin 2006, 6)

There are three vital aspects to consider when defining leadership. Firstly, leadership is a concept that can be implemented only if between leaders and followers. A person cannot be a leader or a follower on his/her own. Secondly, there might be numerous leaders within one organization. Thirdly, leaders are not made in accordance to hierarchical pyramids. They can be found on different levels or departments across an organization. (Goodwin 2006, 6)
It is important to point out the differences between a leader and a manager. Management refers to monitoring of the working process and measurement of the completion of the goals, ensuring accordance with policies and procedures, and maximizing profit while minimizing expanses. It is a very formal and scientific concept and includes specific analytical and decision-making tools, which are based on rational thinking and designed to be used similarly in various range of situations. Leadership is a far more creative concept, which requires being far-sighted, leading forward, foreseeing and implementing changes, innovating, thinking outside the box, inspiring and encouraging personal development. Being a leader is one of many roles of a manager. (Goodwin 2013, 7; Gopee & Galloway 2009, 48)

It is a widely known fact that the level of employees’ job satisfaction is directly related to the style of leadership they work under. Effective leadership not only increases the satisfaction and productivity levels of team, but consequently leads to increased quality of patient care.

Over the years, leadership theories have developed significantly. Today main theories are divided into four main groups: trait approach, functional approach, behavioral and styles theories, and contemporary theories. (Gopee & Galloway 2009, 51-52, 56) In this work, researches will concentrate on the transactional and transformational contemporary theories, since they are most recently developed and predicted to develop further in the future.

It has been discovered that transactional and transformational leadership styles have a positive influence on employees’ perception of their job. Transactional leadership is significantly related and transformational leadership is highly related to elevated levels job success and career satisfaction. (Riaz & Haider 2010, 29)

According to transactional leadership theory, leaders follow policies and procedures of an organization as well as maintain interpersonal relations within a group to increase employees’ efficiency. A leader promotes compliance with the rules and aims of the organization through the system of both rewards and punishments. Transactional leaders are concerned about the on-going processes, but are not far-
sighted. This type of leadership is especially effective in emergency and crisis situations. (Odumeru & Ifeanyi 2013, 358)

Transformational leadership is focused on a leader who is capable of transforming the goals of the organization into every employee’s personal goals. In other words, a leader can influence people’s behavior without being in an authoritarian position. Transformational leaders have strong vision and are not afraid of breaking professional boundaries in order to achieve better results. This kind of leaders would motivate people, encourage initiative and allow others to exercise leadership as well. Key practices of a transformational leader include stimulating the process, inspiring shared vision, boosting others to act, sculpting the way, and encouraging the heart. This leadership theory is widely recommended to use in healthcare settings. It enables managers to develop an approach, in which multidisciplinary teamwork is achieved and, therefore, the quality of patient care increases. (Gopee & Galloway 2009, 57-58)

4.3 Nurse as a healthcare manager

Nursing staff comprises the largest employment group in healthcare. In order to be competent, every nurse needs to understand basic principles of healthcare system, its main mechanisms and functions. An individual practicing in this field has to understand that today healthcare is a business, and as every business it needs to be well-managed in order to be efficient. (Basavanthappa 2009, 20)

The role of a nurse administrator is critical in developing high quality of patient care. Nurses must recognize the need of managerial activities in their work. These activities usually vary depending on circumstances, but include effective communication, delegation, human relations, and management of people, time, and resources. (Basavanthappa 2009, 20)

A deputy clinical manager of the ward (also known as a chief nursing officer or a ward sister) has to possess specific professional and personal characteristics needed for the job. Professional characteristics include being service-oriented, radiating positive energy, having belief in other people, considering work as an adventure,
being synergistic, constantly exercising professional self-education and improvement. Personal skills include communication skills, being able to encourage, motivate, and influence people, ability to adapt and respond positively to new plans and changes. (Gopee & Galloway 2009, 41)

Nurse managers influence the performance of their units in different ways. First of all, they play a vital role in promoting job satisfaction levels among staff nurses. Low levels of job satisfaction are proven to lead to high turnover rates among staff nurses. A nursing manager must be able to provide moral support and encourage personal development of their employees. Leadership behavior of a manager is very likely to affect the levels of job satisfaction. Especially effective are managers with transformational leadership style. This style has proven to have a positive impact on levels of job satisfaction. (Mäntynen, Vehviläinen-Julkunen, Partanen, Turunen, Miettinen, Kvist 2014; Andrews & Dziegielewski 2005, 288)

Nurse managers are important in the process of creating a safe environment for patients. Nursing managers should provide appropriate support for their junior nurses and create conditions, in which every employee is able to provide patient care of high quality and avoid errors. Successful nurse managers perform techniques to increase the prospects for staff’s professional development, provide access to information essential for care, and ensure support and adequate guidance together with resources. Staff nurses working with those managers are able to implement more effective patient safety practices, which leads to positive outcomes in the quality of patient care. (Mäntynen et al. 2014; Purdy, Laschinger, Finegan, Kerr, Olivera 2010, 910)

Ensuring high quality of service is vital for the nurse managers. Patient safety is an important element in the quality control. As pointed earlier, nurse managers are responsible for adopting patient safety techniques of high standards. Main patient safety areas can be seen below. (Figure 2) (Gopee & Galloway 2009, 94-95)
Every nurse is familiar with the decision-making process. It is especially important for the manager to be skilled in the problem-solving and decision-making processes. Since the responsibilities of a nurse manager differ greatly from those of a staff nurse, nurse managers should continuously ensure the development of their critical problem-solving skills. From the point when a nurse manager accepts the position, he/she should realize that this job may require specific knowledge that a staff nurse does not possess. This knowledge might include skills related to financial management, human resources, communicating with multiple departments and employees, and quality management. Therefore, there is a need for nurse managers to develop their professional growth in order to gain specific skills that they might not have been able to receive in their earlier career. (Zori & Morrison 2009, 75-76)

Conflict management is another important task in the work of a nurse manager. As a part of normal organizational life, conflicts occur on a frequent basis in the field of healthcare. Reasons for conflicts might vary from interpersonal negotiations, to disagreement of employees with working policies, or unwillingness of the team to perform extra work. Negative outcomes of conflicts include cold social atmosphere, mistrust, or lack of motivation leading to the increased amount of sick leaves or turnover. Studies have shown that conflicts influence directly the level of job stress.
In order to improve clinical practice of the team, the nurse manager should be always open and ready for changes that usually occur in order to improve standards of patient care. The management of changing environment has to be based on a planned systematic approach. Figure 3 below represents a framework for the effective change management. (Gopee & Galloway 2009, 113-114)

![Figure 3. RAPSIES framework of effective change management (Gopee & Galloway 2009, 113).](image)

Resource management (both human and non-human) is a responsibility of a nurse manager as well. Various resources are required in order for an organization to function efficiently. The utilization of resources must be carefully planned. A manager has to consider effectiveness and benefit of the resources for the organization in terms of economy. Moreover, a nurse manager is responsible for the process of staff recruitment and retention; thus, he/she has to monitor the levels of skillfulness and morale of staff. Non-human resource control includes budgeting, equipment, information technology, and consumables. (Gopee & Galloway 2009, 134-135, 138-139)

5 Job satisfaction as a result of effective clinical management

Job satisfaction can be defined as feelings an employee has about his/her job. There are numerous factors that influence job satisfaction levels such as nature of the job, working conditions, nursing leader’s leadership style, strengthening of human
resources, work performance, achieving desired results, feeling of belonging, employee’s expectations, attitude and behavior. (Kvist, Mäntynen, Vehiläinen-Julkunen 2013; Lu, While, Bariball 2005, 211)

It is essential to avoid generalization due to the fact that job satisfaction levels may significantly vary within different hospitals of the same country, in different countries, and among different groups of employees in the same workplace. (Kvist et al. (a) 2013)

Sources of job satisfaction among nurses are relatively similar: physical working conditions, interaction with colleagues and patients, salary, promotion, job security, praise and recognition, responsibility, and working hours. Moreover, nurses with tertiary education reported lower levels of job satisfaction compared to those without. (Lu et al. 2005, 215)

According to the research in 2013 held in the United States, 90% of participants are very satisfied with their career choice; this number is similar for nurses of all age groups and educational backgrounds. Female nurses (90%) are more satisfied with their career choice compared to their male colleagues (84%). Job satisfaction is generally high (above 80%) for representatives of all specialties, education and oncology being the most satisfying (95-96%) and neonatal care and mental health – the least (82%). Healthcare management is also among the most satisfying careers - 93% of nursing managers have reported to be satisfied with their career choice. Younger nurses are more positive about the quality of healthcare nowadays. Moreover, they stated that electronic medical records have improved job satisfaction, time management and quality of care. (AMN Healthcare 2013, 4-5)

According to the research conducted in Kuopio University Hospital in 2010, overall job satisfaction among the nursing was evaluated as 3.71 on the scale from 1 (the lowest) to 5 (the highest). The nurses gave lowest scores to the requiring factors of work (3.16), working environment (3.28), and participation in decision-making (3.44); motivating factors of the work and working welfare were scored the highest, 4.27 and 4.19 respectively. The nursing staff was found to be the least satisfied group at
the hospital; their major complaints were the lack of staff, inadequate amount of
time available for patients, demanding and stressful work environment, poor
building maintenance, bureaucracy, and few opportunities to participate in decision-
making. Therefore, it was suggested that nursing leaders should examine the staffing
levels and caring models in different units and promote staff welfare. (Kvist et al. (a)
2013)

Furthermore, numerous studies indicate that nurse managers have strong influence
on job satisfaction of the staff. Role, behavior and leadership style affect staff
psychological and structural empowerment, productivity, commitment,
organizational culture and climate, and employees’ role and job satisfaction
leadership has a positive effect on structural empowerment of employees and
increases job satisfaction and self-rated performance (Wong & Laschinger 2013).
Moreover, leadership behavior affects job satisfaction via creative work environment
(Sellgren, Ekvall, Tomson 2008, 583).

Several research studies revealed that there is significant positive correlation
between transformational leadership of a nursing manager and staff satisfaction,
because these leaders promote a healthy nurse practice environment that allows
individuals to perform to their fullest potential, improve patient safety climate, and
bring about positive change (Roberts-Turner, Hinds, Nelson, Pryor, Robinson, Wang
2014, 237; Wang, Chontawan, Nantsupawat 2012, 448; Kvist, Mäntynen, Turunen,

Finally, nurse managers have the power to facilitate staff retention and subsequently
the quality of patient care (Brown, Fraser, Wong, Muise, Cummings 2013, 460).

6 Purpose and aims of the study

The aim of the study is to research levels of job satisfaction, factors affecting job
satisfaction/dissatisfaction, and ways to improve job satisfaction among nursing
managers.
The purposes of the study are to extend knowledge in the field of healthcare management, to raise awareness about factors that affect job satisfaction in nursing management career, and to provide suggestions regarding how to increase job satisfaction among nursing managers.

The main questions of the research study are the following:

- How do nurses working in the field of healthcare management perceive their job satisfaction?
- What are the factors that influence job satisfaction and dissatisfaction of nursing managers?
- How can job satisfaction of nursing managers be improved?

7 Methodology

7.1 Literature review

The research method used in this study is systematic literature review.

Literature review is a systematic, explicit, and reproducible approach to identifying, assessing, and synthesizing the already existing completed and recorded work done by researchers, scholars and practitioners; in other words, it is a review of what is known about a specific subject. The goal is to create a complete, precise representation of research-based information available on the topic. Since review is based on the outcomes of the original works, it is essential to use high-quality original conclusions rather than interpreted findings to ensure accurate results. (Dawidowicz 2010, 5; Fink 2010, 3)

Systematic review refers to the review of evidence on a precisely formulated question that uses rigorous approach and systematic and explicit methods to identify, select and critically appraise relevant high quality primary research relevant to the research question, and to extract and synthesize evidence from the studies used in review. The aim of doing a systematic literature review is to create a summary of the research on the specific topic and to provide good quality pre-appraised evidence. A systematic review is referred to as secondary research,
because it does not collect new data but uses previous findings as opposed to primary research. (Goodman & Moule 2013; Bettany-Saltikov 2012, 5)

Traditional narrative literature reviews are still common and can be useful if conducted properly. However, there is evidence that narrative reviews are often of poor quality, biased, and provide inappropriate recommendations. Authors tend to use informal methods to gather and analyze the studies, are likely to reinforce preconceived ideas or promote their own opinions, and prevent readers from assessing bias in reviewing process. Therefore, systematic literature review is a more preferable approach. (Akobeng 2005)

High quality research includes studies with an explicit and rigorous design that allow the finding to be examined against clear contexts and research intentions. Systematic reviews require an understanding of a hierarchy of evidence and empirical knowledge. (Bettany-Saltikov 2012, 5)

*Figure 4. EBM resource pyramid (Glover et al. 2006).*

The figure 4 above provides visual representation of evidence hierarchy; the quality of evidence is increasing from bottom to top levels. (Glover, Izzo, Odato, Wang 2006)

There is growing emphasis that decisions in all areas of healthcare must be based on the best evidence available with the focus on quality and validity of scientific bases.
The main aim of hierarchies of evidence is to help researchers to interpret and evaluate findings, rank research according to its validity, and select the best evidence to guide the practice. (Evans 2003 77-78, 82)

Nurses and other healthcare professionals need to have an understanding of systematic reviews and know how to implement them in practice. Due to enormous amounts of information published worldwide, it is a big challenge for healthcare professionals to be aware of all latest developments. Moreover, individual studies are more likely to be biased or methodologically unsound and come to conflicting conclusions. Use of systematic reviews allows managing overwhelming amount of information in the field of expertise. (Bettany-Saltikov 2012, 5-6)

Systematic reviews of high quality randomized controlled trials and meta-analyses are referred to as the most useful, valid and reliable sources, because they present the current state of scientific development. (Holmes & Le May 2012, 10)

Literature review can be opposed to a more subjective analysis of information. Subjective reviews choose sources without justification and may equally recognize poor and excellent studies, while literature review is based on the systematic analysis, description, and justification of the approach. Producing a systematic, explicit, comprehensive, and reproducible literature review depends on the quality of information sources. (Fink 2010, 15-16)

Since reproducible approach is used when conducting a literature review, peer review protocol or plan is an essential part of the process. The authors have to include explanation of the scientific background or context of the study, the rationale indicating why the review is necessary, precise objectives, and data selection criteria. The quality of each source must be examined. Data synthesis is performed in unbiased manner, and findings are interpreted and summarized in independent and objective way. (Bettany-Saltikov 2012, 6)

The choice of literature review as a research method is justified by several reasons. First of all, the goal of this study is to create an integrated review of existing information about healthcare management. Therefore, it is assumed that the
literature review is the most appropriate method to use for this particular study. Second of all, the research is focused on the experiences of healthcare managers worldwide. Finding participants and conducting interviews on a global level is anticipated to be rather challenging and time consuming process for the capacity of Bachelor thesis. Thus, use of already existing body of research-based knowledge was the optimal option for this study. Moreover, method of literature review benefits the readers, because they do not have to access each source used by the researchers separately.

7.2 Methods for literature search

Search of literature for the review consists of two parts. First, practical screening criteria will be applied; it means that inclusion and exclusion criteria will be determined and used for the search. Then, the second screening is performed by implementing methodological quality criteria. The aim of the secondary screening is to set standards for high quality studies, narrow the search and produce accurate results. High quality research works should meet certain standards: external and internal validity of research design, validity and reliability of data sources, use of appropriate analytic methods according to the characteristics and quality of the study data, and importance of results in practical and statistical context. (Fink 2010, 62-63)

Several databases were selected for the data search: CINAHL, PubMed, Academic Search Elite (EBSCO), OVID, and Elsevier Science Direct. To address the issue from various directions and to improve the strength of the research, it is important to utilize multiple databases (Boswell & Cannon 2012). Furthermore, use of single electronic database lack sensitivity, and relevant articles are more likely to be missed (Akobeng 2005).

The following key words for literature search have been identified: nurse/nursing, manager/management, job satisfaction, factors, performance; combinations of these words will be used as well.
Identical data search was intended to be implemented in every database. The researchers performed three searches in every database using three different combinations of key terms: nursing management AND job satisfaction AND factors; nurse manager AND job satisfaction; nurse manager AND performance.

Manual literature search is an additional step of the data search process; it is performed in order to identify studies that were not found during primary search. There are no specific guidelines on how to conduct manual literature search. Key sources such as specific journals, conference proceedings, key articles and reference lists need to be examined. Each reference is evaluated by its title and, if the title is relevant, the abstract. Moreover, original inclusion and exclusion criteria must be applied to sources found manually. In this study, manual search of reference lists and relevant journals will be performed to find additional data. (Chapman, Morgant, Gartlehner 2009, 23)

7.3 Inclusion and exclusion criteria

Articles must meet following inclusion criteria:

- Relation to nursing sciences;
- Date of publication later than 2004;
- The language of publication is English;
- Availability free of charge;
- Free access to full text;
- Availability of abstract and references.

Exclusion criteria:

- Sources not related to healthcare management;
- Sources do not describe job satisfaction of nursing managers;
- Validity and reliability of sources are doubtful.
7.4 Critical appraisal

Critical appraisal refers to systematic approach used to assess strengths and weaknesses of a research study in order to evaluate usefulness, relevance and validity of its findings (Young & Solomon 2009; Gerrish & Lacey 2013, 80).

Data analysis starts from carefully reading through and familiarizing with the sources chosen. Contribution of every source to the study will be evaluated. Critical appraisal is of great importance at this stage of the research. This is the process of analyzing every source in order to evaluate its strengths and limitations. Researchers will analyze every reference for relevance and quality of information. (Aveyard 2007, 76-78)

Critical appraisal is the process of examining every source in order to determine its strengths and limitations, and weight it should have in a literature review. Critical appraisal is an essential feature of literature review, which distinguishes it from essay. The researchers are encouraged to critically appraise the sources in literature review to help readers identify the context of the information included. Critical appraisal is to be used when examining the literature resources that relate specifically to addressing the research questions. (Aveyard 2007, 77-79)

Critical appraisal tool is a checklist used to assess the quality of evidence (Aveyard 2007, 140). There are numerous critical appraisal tools available to guide the evaluation of literature. The use of critical appraisal tool is highly recommended for those researchers who do a literature review for the first time and/or do not have deep understanding of the research approaches. Moreover, it is advisable to use a tool that is specific to the type of research conducted. (Aveyard 2007, 81-82)

The research is focused on the literature that describes experiences of nursing managers in the context of job satisfaction. Qualitative method of data analysis will be used; however, in case of analyzing numerical values, the possibility of using quantitative method is not excluded.
To conduct the literature review critical appraisal approach will be used. In order to carefully examine each article involved in the final review, critical appraisal framework designed by Caldwell et al. (2005) will be utilized (Figure 6). This framework is suitable for this particular study, since it contains appraisal questions for both quantitative and qualitative researches. Furthermore, the authors provide guidelines designed to help researchers critically appraise the material. These guidelines will be utilized in this study. (Caldwell, Henshaw, Taylor 2005, 49-51)

Appendix 3 represents an example of a critically appraised article using Caldwell’s framework.

Figure 5. Framework of critical appraisal (Caldwell et al. 2005, 50)
7.5 Selection process
The figure 7 below represents the selection process performed by the researchers for this study. The database search was performed on 24.01.2015 and 26.01.2015. The manual search was performed on 26.01.2015 and 27.01.2015. Reference lists of the chosen articles were manually examined according to exclusion and inclusion criteria. Duplicates were not included; if the same article was found more than once in different databases or reference lists, it was only included in the study once.

Each article was assessed by its title and abstract. Then, the full text of selected articles was examined in order to confirm relevance. Articles that described the influence of nursing managers on the staff nurses’ job satisfaction were excluded due to irrelevance to the research questions of the study.

**Figure 6. Data selection process.**
7.6 Summary of selected articles

In total twelve (n=12) articles were included in the literature review based on the title, abstract, and full text relevance to the research questions. The table below represents the results of literature search.

<table>
<thead>
<tr>
<th>Database search</th>
<th>Selection</th>
</tr>
</thead>
<tbody>
<tr>
<td>CINAHL</td>
<td>5</td>
</tr>
<tr>
<td>PubMed</td>
<td>1</td>
</tr>
<tr>
<td>Academic Search Elite (EBSCO)</td>
<td>5</td>
</tr>
<tr>
<td>OVID</td>
<td>0</td>
</tr>
<tr>
<td>Elsevier Science Direct</td>
<td>0</td>
</tr>
<tr>
<td>Manual search</td>
<td>1</td>
</tr>
<tr>
<td><strong>Total:</strong></td>
<td><strong>12</strong></td>
</tr>
</tbody>
</table>

*Table 1. Literature search results.*

The majority (n=10) of chosen articles were qualitative studies, and two (n=2) of them were systematic literature reviews.

Two (n=2) of the qualitative studies represented secondary analysis of data collected earlier. Four (n=4) qualitative research studies were based in the US, three (n=3) – in Canada, one (n=1) – in South Africa, one (n=1) – in Sweden, and one (n=1) study was a comparison of data gathered in Egypt and Sweden. Three (n=3) qualitative studies focused on acute care setting, one (n=1) – primary health care, one (n=1) – elderly care, and five (n=5) studies did not contain precise indication of a clinical setting. These studies described the setting as randomly selected hospitals, patient care setting, or hospitals in general. The total number of participants of qualitative studies is 3025. The largest sample group consisted of 1164 participants, and the smallest sample group – of 16. Two (n=2) studies focused on first-line managers, one (n=1) –
nurse managers/leaders in general, two (n=2) – all levels of management, one (n=1) – first-line managers who left their posts, one (n=1) – middle level managers, one (n=1) – female nursing managers, and one (n=1) described experiences of nurse managers who are responsible for a unique primary healthcare clinic.

In total twenty seven (n=27) articles were utilized in systematic literature reviews. Fifteen (n=15) articles were written in the US, seven (n=7) – in Canada, two (n=2) – in the UK, one (n=1) – in Hong Kong, one (n=1) – in Sweden, and one (n=1) – in Australia.

7.7 Data analysis and synthesis

For this study, thematic analysis approach will be used in order to analyze articles and synthesize the findings. This approach is widely used for the literature reviews, because it enables the reviewers to identify main, repeatedly arising topics of the sources and to summarize gathered information under common headings. (Pope, Mays, Popay 2007, 96-97; Dixon-Woods, Agarwal, Jones, Young, Sutton 2005, 47)

This particular approach is beneficial to this study, since it can be utilized for analyzing sources that use both qualitative and quantitative research methodologies (Pope et al. 2007, 96-97). By thematically analyzing the sources, researchers can clearly outline the themes and deal with the literature in a structured way (Dixon-Woods et al. 2005, 47). Thus, the chance of omitting important information is minimized.

However, this approach suffers from the lack of transparency. In other words, it may not always be clear to the reader how and on which stage the main themes were identified (Pope et al. 2007, 96-97). The summary of articles chosen for data analysis is available (Appendix 3); its purpose is to familiarize the readers with the main ideas of the articles used in this research study.

Data analysis is focused on three main themes chosen in regard to the research questions of the study: level of job satisfaction among nursing managers, factors that affect job satisfaction/dissatisfaction of nursing managers, and ways to improve job satisfaction among nursing managers.
8 Ethical considerations

8.1 General principles
The ethical issues in research can be concerned either with the values of honesty and personal integrity or with the ethical responsibilities to the subjects of research. Honesty is to be maintained regardless of the topic of the work. It particularly refers to plagiarism, citation, responsibility and accountability, and data interpretations. (Walliman 2011, 240)

Plagiarism is the direct copying of someone’s work into your own without acknowledging the author. It is considered unethical because it leads to misconceptions about intellectual ownership. Since literature review is the research method of the study, the issue of plagiarism is important to consider. Therefore, when ideas of other researchers are mentioned, intellectual ownership will be stated in order to acknowledge the original authors. (Walliman 2011, 240-241)

Citation refers to the direct quotations from the work of other researchers (Walliman 2011, 241). Possibility of using citations in this work is recognized. In order to follow the ethical principles, any citations will be referenced.

Responsibility and accountability relate to accurate description of every part of the research including information obtained, data analysis, techniques used and results (Walliman 2011, 242). Therefore, this research will include precise explanations of every stage of work.

Ethics of data interpretation refer to recognition of all facts and opinions even if they are contrary to one’s beliefs (Walliman 2011, 242). The goal of this research is to gather versatile evidence; therefore, all experiences mentioned in the literature selected for data analysis will be acknowledged. Moreover, data interpretation will be attempted to be unaffected by the researchers’ own perceptions.

8.2 Validity and reliability
Validity and reliability are two ways of demonstrating credibility and trustfulness of the research findings. There are various features that influence validity and reliability
of the study: original research questions, precise method of data collection, analysis of gathered data, and conclusions. (Roberts & Priest 2006, 41)

Validity determines the truthfulness of the research results (Golafshani 2003, 599). The data search should be extensive in order to identify all relevant sources. Comprehensive literature search enables reviewers to clearly identify up-to-date knowledge regarding the concepts relevant to the topic of literature review. (Bettany-Saltikov 2012, 66-67)

Validity of the literature review is determined according to the validity of the sources used, which can be accomplished only when comprehensive search strategy is performed. Implementation of wide research aids reviewers to avoid the selection bias problem, because not all articles can be found in a single database or be easily accessible. (Bettany-Saltikov 2012, 66-67)

Literature search methods of this study were described earlier. Validity factors may differ for quantitative and qualitative research methods. However, ensuring the validity of study is crucial for any research method chosen.

Two types of validity measures, internal and external, are applicable to the quantitative research. Internal validity means that the results of research are legitimate because of the group selection, data recording, and data analysis. External validity (generalizability) refers to the possibility to transfer the results obtained from one group to another. Internal and external validity are co-dependent concepts. (Roberts & Priest 2006, 43)

In qualitative studies, researchers are likely to be affected by their personal perspective, which significantly decreases the levels of validity. Those researchers, who are deeply knowledgeable in their research area, tend to overlook important nuances of data, which need to be clarified to the readers. Being familiar with the study area can be beneficial and problematic simultaneously. The validity of findings increases if the researchers try to suspend their own beliefs and judgments in order to provide clear, non-biased information to the readers. (Roberts & Priest 2006, 44)
Reliability is demonstrated if a specific test, technique or tool, i.e. survey, will produce similar outcomes, supposing that nothing else has changed. In quantitative research, reliability should assure readers that no matter which tool is used or which short-time circumstances are changed, the results of the study would be the same. There are various tools of assessing reliability of an article, for example, a Cronbach’s alpha coefficient. (Roberts & Priest 2006, 43)

In qualitative research, reliability refers to generalizability of the research findings. It measures to which extent the results of a study can be adopted in different circumstances. (Roberts & Priest 2006, 44)

In this work, systematic approach to data search and data analysis will be implemented. Validity and reliability of every article is to be ensured, as it is stated in exclusion criteria in this study. Every article is to be examined, and no article may be used if validity and reliability are doubtful. Besides, literature search will be implemented in several databases; therefore, obtained results can be assumed valid and reliable.

9 Findings

9.1 Job satisfaction

Although all articles are focused on job satisfaction of nurse managers, levels of job satisfaction are only mentioned in seven.

Results slightly varied depending on level of management and geographic location.

In general, participants reported moderate levels of job satisfaction. In the study by Hurley (2005, 8), 96.5% of nursing managers rated their level of job satisfaction as high or moderate; similar results were indicated by Abdelrazek et al. (2010, 741), whereas values are higher for respondents from Egypt compared to Sweden. Moreover, positive job satisfaction is reported by nursing managers at all levels of management according to Laschinger et al. (2008, 89).

Nevertheless, some studies indicated slightly lower results for level of job satisfaction among nurse managers. 70% were very satisfied or satisfied with their job
(Warshawsky & Havens 2014, 36); 50% demonstrated job satisfaction (Gianfermi & Buchholz 2011, 1016); while nursing managers from South Africa rated job satisfaction moderately approximately 143 out of maximum 215 (Munyewende, Rispel, Chirwa 2014, 4). Moreover, some nursing managers that had left their posts reported that their job satisfaction had increased between when they worked as first-line managers and present (Skytt, Ljunggren, Carlsson 2007, 297).

### 9.2 Factors affecting job satisfaction/dissatisfaction

All twelve articles chosen for data analysis contain information regarding the factors that affect job satisfaction or dissatisfaction of nurse managers. The most commonly described factors were revealed and grouped in six categories: working conditions, support, opportunities for professional development, autonomy and decision-making, power, and stress.

<table>
<thead>
<tr>
<th>FACTORS</th>
<th>ELEMENTS</th>
<th>SOURCE</th>
</tr>
</thead>
<tbody>
<tr>
<td>WORKING CONDITIONS</td>
<td>WORK/LIFE BALANCE</td>
<td>Keys 2014, 102; Brown et al. 2013, 468; Skytt et al. 2007, 299</td>
</tr>
<tr>
<td></td>
<td>JOB FLEXIBILITY</td>
<td>Keys 2014, 101; Patrick &amp; Laschinger 2006, 19</td>
</tr>
<tr>
<td></td>
<td>WORKLOAD</td>
<td>Munyewende et al. 2014, 7; Brown et al. 2013, 469; Skytt et al. 2007, 297</td>
</tr>
<tr>
<td></td>
<td>INADEQUATE PAY</td>
<td>Gianfermi &amp; Buchholz 2011, 1017; Skytt et al. 2007, 298; Munyewende et al. 2014</td>
</tr>
<tr>
<td></td>
<td>STAFFING AND BUDGETING</td>
<td>Skytt et al. 2007, 300</td>
</tr>
<tr>
<td></td>
<td>SPAN OF CONTROL</td>
<td>Warshawsky &amp; Havens 2014, 37; Brown et al. 2013, 468</td>
</tr>
<tr>
<td></td>
<td>SECURITY</td>
<td>Munyewende et al. 2014</td>
</tr>
<tr>
<td>OPPORTUNITIES FOR PROFESSIONAL DEVELOPMENT</td>
<td>2007, 298-299; Laschinger et al. 2011, 885</td>
<td></td>
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<tr>
<td>-------------------------------------------</td>
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</tr>
<tr>
<td>STRUCTURAL AND PSYCHOLOGICAL EMPOWERMENT</td>
<td>Lee &amp; Cummings 2008, 774; Laschinger et al. 2008, 91; Abdelrazek et al. 2010, 742</td>
<td></td>
</tr>
<tr>
<td>ADEQUACY OF RESOURCES AVAILABLE</td>
<td>Brown et al. 2013, 465</td>
<td></td>
</tr>
<tr>
<td>RECOGNITION, FEELING VALUED</td>
<td>Brown et al. 2013, 469; Abdelrazek et al. 2010, 742; Munyewende et al. 2014, 11; Patrick &amp; Laschinger 2006, 19</td>
<td></td>
</tr>
<tr>
<td>EMOTIONAL SUPPORT</td>
<td>Lee &amp; Cummings 2008, 778; Skytt et al. 2007, 299; Keys 2014, 101</td>
<td></td>
</tr>
<tr>
<td>CO-MANAGEMENT</td>
<td>Gianfermi &amp; Buchholz 2011, 1017; Keys 2014, 103; Warshawsky &amp; Havens 2014, 37</td>
<td></td>
</tr>
<tr>
<td>DEVELOPMENT AND EDUCATION</td>
<td>Skytt et al. 2013, 299; Munyewende et al. 2014, 8; Lee &amp; Cummings 2008, 774; Brown et al. 2013, 470; Keys 2014, 101</td>
<td></td>
</tr>
<tr>
<td>AUTONOMY AND DECISION-MAKING</td>
<td>Gianfermi &amp; Buchholz 2011, 1017; Brown et al. 2013, 468</td>
<td></td>
</tr>
<tr>
<td>FEELING OF AUTONOMY AND INDEPENDENCE</td>
<td>Lee &amp; Cummings 2008, 778</td>
<td></td>
</tr>
<tr>
<td>AUTONOMOUS USE OF TIME</td>
<td>Skytt et al. 2013, 299; Lee &amp; Cummings 2008, 778</td>
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<tr>
<td>PARTICIPATION IN DECISION-MAKING</td>
<td></td>
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<tr>
<td>POWER</td>
<td>Hurley 2005, 7; Patrick &amp; Laschinger 2006, 19</td>
<td></td>
</tr>
<tr>
<td>ABILITY TO EXERCISE POWER</td>
<td>Lee &amp; Cummings 2008, 774; Brown et al. 2013, 468</td>
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</tr>
<tr>
<td>POWER TO IMPLEMENT CHANGE</td>
<td></td>
<td></td>
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<tr>
<td>STRESS</td>
<td>Gianfermi &amp; Buchholz 2011, 1017; Warshawsky &amp; Havens 2014, 37;</td>
<td></td>
</tr>
</tbody>
</table>
Table 2. Factors affecting job satisfaction/dissatisfaction of nursing managers.

Working conditions

Nurse managers experience lack of time and high demands and feel the need to be available all the time, which makes it difficult to find a balance between work and life (Keys 2014, 102; Brown et al. 2013, 468; Skytt et al. 2007, 299). Thus, job flexibility such as possibility to leave the workplace for urgent personal matters play an important part of managers’ perception of job satisfaction. (Keys 2014, 101; Patrick & Laschinger 2006, 19)

Some studies report workload as one of the factors affecting job satisfaction (Munyewende et al. 2014, 7; Brown et al. 2013, 469; Skytt et al. 2007, 297); although, according to Hurley (2005, 8), workload does not have significant impact. Furthermore, inadequate pay (Gianfermi & Buchholz 2011, 1017; Skytt et al. 2007, 298; Munyewende et al. 2014), everyday issues such as staffing and economics (Skytt et al. 2007, 300), span of control (Warshawsky & Havens 2014, 37; Brown et al. 2013, 468) and security issues (Munyewende et al. 2014) are mentioned.

Support

Relationship with supervisors as one of the manifestations of organizational support is a frequently discussed subject. Those managers who experience organizational and social support from the supervisors had higher levels of job satisfaction (Lee & Cummings 2008, 773). Moreover, adequate and appropriate feedback, support and communication with supervisors (Patrick & Laschinger 2006, 19; Brown et al. 2013, 465; Munyewende et al. 2014, 7; Skytt et al. 2007, 298-299), leadership style of senior managers (Brown et al. 2013, 465; Laschinger et al. 2011, 885), and recognition (Brown et al. 2013, 465; Munyewende et al. 2014, 11; Patrick & Laschinger 2006, 19) are related to job satisfaction of nurse managers.

According to Lee & Cummings (2008, 774), managers who are structurally and psychologically empowered and have resources to do their job reported significantly
higher levels of job satisfaction; moreover, Laschinger et al. (2008, 91) and Abdelrazek et al. (2010, 742) support similar idea that structural empowerment is strongly related to job satisfaction across all levels of management. Brown et al. (2013, 465) also mention adequacy of resources, both human and financial, as one of the organizational factors of job satisfaction. Sense of meaning and feeling valued is an important empowering factor (Brown et al. 2013, 469; Abdelrazek et al. 2010, 742). Finally, when nursing managers perceive that the organization supports their efforts to create empowering work environment, they feel valued and ultimately satisfied as effective leaders (Laschinger et al. 2011, 885).

Moreover, managers appreciate emotional support such as ability to be heard from colleagues, staff on the ward and management (Lee & Cummings 2008, 778; Skytt et al. 2007, 299) and support from personal network (Keys 2014, 101; Skytt et al. 2007, 299). However, family commitments are also a frequent cause of turnover (Brown et al. 2013, 469).

Co-management is also a source of support for nurse managers. Positive correlation between job satisfaction and nursing outcome attainment capability demonstrates importance for nurse administrators to achieve their goals as a unified team with a common purpose (Gianfermi & Buchholz 2011, 1017). Furthermore, higher job satisfaction and reduced stress levels are associated with those managers who have an equal professional partner, because they are more flexible and able to share job responsibilities (Keys 2014, 103; Warshawsky & Havens 2014, 37).

**Opportunities for professional development**

Managers consider development and education important (Skytt et al. 2013, 299; Munywende et al. 2014, 8) and are more satisfied when they have opportunities for educational development and job training (Lee & Cummings 2008, 774). Adequate orientation and training (Brown et al. 2013, 470) and business and management skills (Keys 2014, 101) are pointed out as essential in order to be prepared for the manager role. Nevertheless, Hurley (2005, 7) states that educational preparation is not related to job satisfaction.
**Autonomy and decision-making**

Feeling of autonomy and independence positively affect job satisfaction (Gianfermi & Buchholz 2011, 1017) as well as autonomous use of time (Lee & Cummings 2008, 778). Participation in decision-making is an important area for nursing managers (Skytt et al. 2013, 299), which leads to feeling of connectedness and ultimately affects job satisfaction (Lee & Cummings 2008, 778).

Furthermore, nurses express the need to use own judgment and be given opportunities to handle difficult situations (Brown et al. 2013, 468).

**Power**

Power is significantly and positively correlated to job satisfaction. (Hurley 2005, 7; Patrick & Laschinger 2006, 19).

Nurse managers that are highly motivated to actualize and experience their power demonstrate job satisfaction. As nursing managers are persons with increased awareness of power, they sought a position to be able to exercise power and this reflects in their job satisfaction. (Hurley 2005, 7-9)

Besides, managers who report to have power to implement change have higher job satisfaction (Lee & Cummings 2008, 774); moreover, they perceive professional success when they are able to positively impact their staff (Keys 2014, 100). Brown et al. (2013, 468) report that nursing managers express the need to have power to effect change. Implementing change and performing tasks related to change was perceived difficult while not being involved in decision-making (Skytt et al. 2007, 300).

**Stress**

Stressful working environment is a contributing factor of job satisfaction/dissatisfaction (Gianfermi & Buchholz 2011, 1017). Larger spans of control are often associated with source of stress for nursing managers (Warshawsky & Havens 2014, 37). Moreover, Munyewende et al. (2014, 9) report that nursing managers that experience verbal abuse at work are more than two times more likely
to be less satisfied with their job. Violence at the workplace is related to working conditions, safety issues in particular. On the other hand, job satisfaction is not related to stress and its manifestations according to Hurley (2005, 7).

9.3 Ways to improve job satisfaction

Eleven articles contain recommendations regarding ways to improve job satisfaction of nursing managers.

Working environment is strongly related to job satisfaction as stated earlier. Safe and enabling practice environments that include supportive supervision and management and address staff shortage, safety, violence, infrastructure and other concerns are essentially recommended for all types of healthcare facilities (Munyewende et al. 2014, 11). Healthcare facilities should actively promote work environment practices that increase job satisfaction (Gianfermi & Buchholz 2011, 1017).

It is important to focus on reduction of workload (Abdelrazek et al. 2010, 743) and span of control of nursing managers in order to improve job satisfaction (Lee & Cummings 2008, 781; Warshawsky & Havens 2014, 37; Laschinger et al. 2008, 92). Brown et al. (2013, 468) states that participants expressed the need to improve work/life balance by limiting working hours and finding outside interests. Besides, innovative scheduling alternatives such as working from home or participation in meetings from distance may increase satisfaction (Keys 2014, 103-104). Moreover, according to Abdelrazek et al. (2008, 743) increasing the access to resources and power may positively affect the workload and job satisfaction of nursing managers, as well as the access to clear, concise and rich in important information knowledge. Gianfermi & Buchholz (2011, 1018) and Patrick & Laschinger (2006, 20) state the importance of providing appropriate resources for nursing managers to set and achieve their professional goals and carry out their job effectively.

Implementation of co-manager model would allow broader span of control, greater balance between professional and personal lives and hence greater satisfaction (Keys 2014, 103; Warshawsky & Havens 2014, 37).
Munyewende et al. (2014, 11) highlight the importance of working in a clinic of choice for nursing managers and recommend greater flexibility of placements. Increased organizational support (Lee & Cummings 2008, 781) and structural empowerment (Abdelrazek et al. 2010, 743; Patrick & Laschinger 2006, 20) would improve job satisfaction. Furthermore, organizations need to provide sufficient human and fiscal resources to ensure adequate training, support (Brown et al., 2013, 470), and better preparation for the role of a nurse manager (Keys 2014, 104). Career development (Warshawsky & Havens 2014, 38) and leadership development programs initiated by healthcare facilities to generate the culture of learning and growing could increase nurse administrators’ job satisfaction (Gianfermi & Buchholz 2011, 1017; Laschinger et al. 2008, 92). Laschinger et al. (2008, 92) suggest that all levels of management should have access to financial resources and flexibility to pursue educational and mentorship opportunities for the long-term development of professional practice. Mentoring and professional coaching is also a promising strategy for improving job satisfaction of nursing managers (Laschinger et al. 2011, 886). Developing creative unit management strategies may reduce burnout and turnover (Warshawsky & Havens 2014, 38).

Job satisfaction may be increased by creating strategies that empower managers to actively participate in decision-making (Lee & Cummings 2008, 781). Shared governance, leadership, and inclusion of nursing managers in development of policies and strategies positively influence job satisfaction (Munyewende et al. 2014, 12). Furthermore, senior managers should provide middle managers with the opportunities to contribute to strategic decision-making (Laschinger et al. 2011, 886; Patrick & Laschinger 2006, 20).

Finally, decreasing stress (Abdelrazek et al. 2010, 743) and developing innovative strategies for managing the experience of stress (Hurley 2005, 9) can positively affect job satisfaction of nursing managers.
10 Discussion

10.1 Inspection of results

This study investigated the experiences of nursing managers in the context of job satisfaction by conducting a systematic literature review. The aim of the study is to research levels of job satisfaction, factors affecting job satisfaction/dissatisfaction, and ways to improve job satisfaction among nursing managers. The purposes of the study are to extend knowledge in the field of healthcare management, to raise awareness about factors that affect job satisfaction in nursing management career, and to provide suggestions regarding how to increase job satisfaction among nursing managers. Levels of job satisfaction, factors affecting job satisfaction/dissatisfaction, and ways to improve job satisfaction among nursing managers were the subjects of analysis. The aims and purposes of the study were achieved.

Job satisfaction is defined as a degree to which an employee likes his/her job (Kvist et al. (a) 2013). In this study, levels of job satisfaction are referred to as perceptions of individuals regarding how satisfied they are with their job and can be described as low, moderate, or high.

The research findings generally indicate moderate levels of job satisfaction among the participants of studies chosen for data analysis with slight variations. As mentioned earlier, results slightly varied depending on level of management and geographic location. Laschinger et al. (2008, 89) states that nurse leaders rated job satisfaction higher than did those in roles below them: senior managers’ ratings were higher than those of middle managers, and middle managers were more satisfied with their job than first-line managers. Researchers anticipated that job satisfaction levels would be lower in developing countries due to the lack of resources, poor infrastructure and workload. The study conducted in South Africa supports this idea. According to Munyewende et al. (2014) nursing managers are only moderately satisfied with their job (143 out of 215) and express dissatisfaction with safety issues, infrastructure, violence, and lack of resources. On the other hand, in the study by Abdelrazek et al. (2010, 741), elderly care nursing managers from Egypt rated job satisfaction higher than participants from Sweden due to cultural differences that
affect how work is valued and appreciated. Elderly care management in Egypt is perceived as a high status job as opposed to Sweden (Abdelrazek et al. 2010, 741). Therefore, the evidence does not support the anticipated theory.

Factors affecting job satisfaction/dissatisfaction of nursing managers are divided into six categories: working conditions, support, opportunities for professional development, autonomy and decision-making, power, and stress. Moreover, these factors are correlated. Work/life balance, job flexibility, workload, salary, budgeting and staffing, span of control and safety are most commonly mentioned factors related to working conditions that influence job satisfaction as stated by nursing managers. Concept of support is associated with adequate relationship with supervisors, organizational and social support, leadership styles of senior managers, recognition, structural and psychological empowerment, availability of resources, emotional support and co-management. Nurse managers stress the importance of the opportunities for professional development and adequate job training and orientation. Autonomy, independence, and participation in decision-making are also vital contributing factors of job satisfaction of nurse managers. Ability to actualize and exercise power as well as the need to have power to implement change is significantly correlated with satisfaction. Finally, stressful working environment, large spans of control, and workplace violence affect stress levels of nursing managers and ultimately job satisfaction.

The majority of articles presented similar findings; however, several contradictions were revealed. Although, workload, stress, and education are frequently mentioned contributing factors of job satisfaction among nursing managers, Hurley (2005, 7-8) suggests that there is no significant correlation between job satisfaction and workload, stress, and educational preparation. Moreover, support from family and significant others is an important component of emotional support for nursing managers, but family commitments might frequently lead to turnover, according to Brown et al. (2013, 469). Lastly, unsafe working environment such as workplace violence, verbal abuse, poor security system, infrastructure, and availability of functioning equipment are only mentioned by Munyewende et al. (2014, 4, 8); therefore, the evidence suggests that nursing managers in developing countries such
as South Africa are more likely to encounter difficulties due to the lack of resources and poor economic development as opposed to more developed countries such as the USA or Canada. Besides, the factors that affect job satisfaction of nursing managers might be different between those countries.

The study has determined suggestions that can positively affect the level of job satisfaction among nursing managers. First of all, healthcare professionals have the right to practice in safe and enabling working environment. Therefore, healthcare facilities worldwide should aim to provide these conditions for their employees. This issue concerns developing countries in particular, where workplace safety is not yet ensured, and cases of violence and verbal abuse are still common. Besides, nurse managers should be given the opportunity to choose the clinical placement. Then, reduction of workload, span of control, and stress in combination with schedule flexibility can positively affect work/life balance and job satisfaction. Nursing managers should have access to appropriate resources, power, and information to be able to set and achieve professional goals effectively. Implementation of the co-management model is also anticipated to improve job satisfaction. A pair of nurse managers copes with larger spans of control with less stress; co-management allows greater flexibility and work/life balance, thus, increasing job satisfaction. Increased organizational support and structural empowerment would positively affect job satisfaction. Opportunities for professional and educational development including training and adequate preparation for the role as well as career and leadership development programs should be provided for nursing managers. Finally, it is important to promote autonomy and participation in decision-making. Although, inadequate pay was one of the factors, none of the studies suggest increasing salary as one of the ways to improve job satisfaction.

10.2 Validity and reliability
Research ethics guided the process of writing. Plagiarism was avoided by acknowledgement of intellectual property and ownership of other authors. Moreover, referencing and citations were done according to JAMK reporting instructions. Data interpretations were not influenced by personal opinions and perceptions of the researchers. Results are represented as they are, nothing was
changed or omitted. Since literature review is the chosen research method, no interviews were conducted; therefore, the issues of informed consent and anonymity of participants were irrelevant to this study. However, all studies included individual ethical implications, which were revealed during critical appraisal process. Every part of the research process was carefully described, thus, responsibility and accountability are ensured.

Validity of this literature review is based on the validity of articles chosen for data analysis, which was ensured during critical appraisal process. Extensive data search was implemented in several databases to ensure validity and identify all possible sources. Every article discussed ethical issues such as informed consent and anonymity of the participants and ethical approval for qualitative research studies and quality assessment for literature reviews. Interpretation of findings was not affected by researchers’ judgment; therefore, results are considered valid. Reliability of data was ensured; Cronbach’s Alpha coefficient was the most frequently mentioned instrument used to measure reliability of information. Although, the results are represented in a non-biased way, generalizability cannot be completely guaranteed due to several contradictions revealed during synthesis of findings.

10.3 Limitations of the study

Literature search was limited by inclusion criteria. English was the only language of publication; therefore, it is likely that some relevant studies were not included in the review. Moreover, some publications might not have been included, because literature search was only implemented electronically.

The amount of studies available for literature review was limited due to the lack of information regarding levels of job satisfaction among nursing managers. The majority of articles were dedicated to job satisfaction of staff nurses or the influence of management on job satisfaction of the staff; although, there are limited resources that focus on job satisfaction of nursing managers. Difficult process of literature search is also evident from Appendix 1; articles were retrieved from only three out of five databases searched.
In every article a different method or a combination of methods was used to analyze job satisfaction such as Measure of Job Satisfaction (MOS) by Traynor & Wade, Aiken model (2001), Minnesota Questionnaire Scale and others. Therefore, there was a difficulty in comparing results of different research studies.

Finally, the researchers made no distinction between different levels of management, which might have affected reliability and generalizability of the findings.

11 Conclusion and suggestions for further research

Systematic literature review of experiences of nursing managers in the context of job satisfaction was created. In general, moderate levels of job satisfaction were revealed. The study determined six groups of factors that affect job satisfaction or dissatisfaction among nursing managers; they include working conditions, support, opportunities for professional development, autonomy and decision-making, power, and stress. Moreover, the strategies to improve job satisfaction of nurse managers were developed.

The study is mainly designed for nursing students, however, can also be used by healthcare professionals. Nursing students may benefit from this review by expanding their knowledge about healthcare management in general and career opportunities in healthcare management. In several articles, nursing managers state that, when they undertook management position, they did not have sufficient understanding of the job. Therefore, this research allows students to make an informed decision about pursuing career in healthcare management being aware of and better prepared for its demands and possible difficulties. This can also relate to healthcare professionals who wish to become nursing managers. Moreover, healthcare organizations can utilize suggestions regarding improvement of job satisfaction among nursing managers presented in this research.

Nowadays, rapidly ageing population puts great stress on healthcare systems worldwide. So there is a growing need for recruiting more healthcare professionals including nursing managers to meet the increasing demands. Moreover, the current
generation of nursing managers is to retire within 10-15 years. Attracting young professionals to pursue career in healthcare management is of great importance. Moreover, healthcare organizations should aim to provide optimal working conditions for employees and act to improve their job satisfaction to promote recruitment and retention.

Several implications for further research rose from this literature review. Due to the lack of information regarding nurse managers’ job satisfaction as opposed to staff nurses’, there is a need for further and broader research focused specifically on nurse managers’ job satisfaction. Moreover, it is important to make a distinction between various levels of management, because there might be significant differences in results. Economic development of the country strongly affects the availability of resources in healthcare and security and safety issues; therefore, the results of the research conducted in a developed country might differ from a developing country. Further research is needed to investigate the experiences of nursing managers in developing countries taking into account the level of economic development and its effect on healthcare. Finally, one study used in this review revealed that cultural perceptions of the job are likely to have an impact on job satisfaction of employees. Further research is recommended to explore the correlation between these concepts.
References


Brown, P., Fraser, K., Wong, C.A., Muise, M., Cummings, G. 2013. Factors influencing intentions to stay and retention of nurse managers: a systematic review. Journal of


## Appendices

### Appendix 1. Results of the literature search.

<table>
<thead>
<tr>
<th>DATABASE</th>
<th>SEARCH TERMS</th>
<th>HITS</th>
<th>AFTER APPLYING SELECTION CRITERIA</th>
<th>AFTER EVALUATION OF TITLE AND ABSTRACT</th>
</tr>
</thead>
<tbody>
<tr>
<td>CINAHL</td>
<td>Nursing management AND job satisfaction AND factors</td>
<td>212</td>
<td>77</td>
<td>2</td>
</tr>
<tr>
<td>CINAHL</td>
<td>Nurse manager AND job satisfaction</td>
<td>119</td>
<td>20</td>
<td>2</td>
</tr>
<tr>
<td>CINAHL</td>
<td>Nurse manager AND performance</td>
<td>90</td>
<td>8</td>
<td>1</td>
</tr>
<tr>
<td>PubMed</td>
<td>Nursing management AND job satisfaction AND factors</td>
<td>437</td>
<td>26</td>
<td>0</td>
</tr>
<tr>
<td>PubMed</td>
<td>Nurse manager AND job satisfaction</td>
<td>970</td>
<td>16</td>
<td>1</td>
</tr>
<tr>
<td>PubMed</td>
<td>Nurse manager AND performance</td>
<td>587</td>
<td>19</td>
<td>0</td>
</tr>
<tr>
<td>Academic Search Elite (EBSCO)</td>
<td>Nursing management AND job satisfaction AND factors</td>
<td>133</td>
<td>73</td>
<td>0</td>
</tr>
<tr>
<td>Academic Search Elite (EBSCO)</td>
<td>Nurse manager AND job satisfaction</td>
<td>298</td>
<td>179</td>
<td>5</td>
</tr>
<tr>
<td>Academic Search Elite (EBSCO)</td>
<td>Nurse manager AND performance</td>
<td>346</td>
<td>170</td>
<td>0</td>
</tr>
<tr>
<td>OVID</td>
<td>Nursing management AND job satisfaction AND factors</td>
<td>44</td>
<td>14</td>
<td>0</td>
</tr>
<tr>
<td>OVID</td>
<td>Nurse manager AND job satisfaction</td>
<td>107</td>
<td>24</td>
<td>0</td>
</tr>
</tbody>
</table>
Appendix 2. Summary of chosen articles.

<table>
<thead>
<tr>
<th>AUTHOR, YEAR, DATABASE</th>
<th>TITLE</th>
<th>SAMPLING</th>
<th>RESEARCH METHOD</th>
<th>MAIN FINDINGS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lee, H.; Cummings, G.G. 2008, CINAHL</td>
<td>Factors influencing job satisfaction of front line nurse managers: a systematic review.</td>
<td>12 quantitative research articles</td>
<td>Systematic literature review</td>
<td>Main determinants of job satisfaction include levels of autonomy of managers, sustainable team, support from senior supervisors, empowerment, and educational development.</td>
</tr>
<tr>
<td>Abdelrazek, F.; Skytt, B.; Aly, M.; El-Sabour, M.A.; Ibrahim, N.; Engström, M. 2010, CINAHL</td>
<td>Leadership and management skills of first-line managers of elderly care and their work environment.</td>
<td>49 first-line managers from Egypt and 49 first-line managers from Sweden</td>
<td>Qualitative research, comparative study, questionnaires</td>
<td>Significant differences were discovered between managers in Sweden in Egypt regarding various factors. In general, Egyptian managers have higher levels of satisfaction, feel more supported and empowered by their organizations. However, Swedish managers show high levels of internal motivation.</td>
</tr>
<tr>
<td>Reference</td>
<td>Methodology</td>
<td>Research Design</td>
<td></td>
<td></td>
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<td>--------------------------------------------------------------------------</td>
<td>-----------------------------------------------------------------------------</td>
<td>--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------</td>
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</tr>
<tr>
<td>Keys, Y. 2014, CINAHL</td>
<td>Looking ahead to our next generation of nurse leaders: Generation X Nurse Managers.</td>
<td>16 nurse managers Qualitative research, interviews Managers need to have high levels of job satisfaction to be professionally successful. Managers reported feeling ill prepared for the specific organizational tasks, lacking schedule flexibility, and feeling under appreciated. These are major barriers which are faced by nurse managers not allowing them to achieve personal and professional fulfillment.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Brown, P.; Fraser, K.; Wong, C. A.; Muise, M.; Cummings, G. 2013, CINAHL</td>
<td>Factors influencing intentions to stay and retention of nurse managers: a systematic review.</td>
<td>13 research studies Systematic literature review Intent to leave/stay depends on the complex interrelation of several factors at organizational, managerial role and personal levels; job satisfaction is related to personal factors and positively affects retention.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Laschinger, H.K.S.; Wong, C.A.; Grau, A.L.; Read, E.A.; Pineau Stam, L.M. 2011, CINAHL</td>
<td>The influence of leadership practices and empowerment on Canadian nurse manager outcomes.</td>
<td>231 middle and 788 first line Canadian acute care managers Secondary analysis of data collected using non-experimental, predictive mailed survey design Middle and first-line nurse managers' job satisfaction is influenced directly by the leadership style of their senior supervisors. Transformational leadership practices of senior managers positively affects middle and first-line managers by empowering them, which leads to increased perceptions of organizational support, quality of care and decreased intent to leave.</td>
<td></td>
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</tr>
<tr>
<td>Munyewende, P.O.; Rispel, L.C.; Chirwa, T.</td>
<td>Positive practice environments influence job satisfaction of</td>
<td>108 nursing managers Qualitative research, cross-sectional study, survey Levels of job satisfactions among the participants were found to be very moderate. Factors affecting the satisfaction</td>
<td></td>
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<tr>
<td>2014, PubMed</td>
<td>2014, PubMed</td>
<td>levels include: challenging and unsafe working conditions, increased workload, lack of support from supervisors, lack of knowledge in specific areas, and inadequate salaries.</td>
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<tr>
<td>primary health care clinic nursing managers in two South African provinces.</td>
<td>Nurse manager job satisfaction and intent to leave.</td>
<td>291 nursing managers working in US hospitals</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2014, Academic Search Elite (EBSCO)</td>
<td>Qualitative research, electronic survey</td>
<td>The majority of nurse managers are satisfied or very satisfied with their job. However, over half of nurses were intended to leave their positions in the next 5 years. Burnout, career change, retirement, and promotion were reported as top reasons for the intent to leave.</td>
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<tr>
<td>Nurse manager job satisfaction and intent to leave.</td>
<td>291 nursing managers working in US hospitals</td>
<td>Qualitative research, electronic survey</td>
<td></td>
<td></td>
</tr>
<tr>
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<tr>
<td>The effect of structural empowerment and perceived organizational support on middle level. nurse managers role satisfaction</td>
<td>84 middle level nursing manager working in Canadian acute care hospitals</td>
<td>Qualitative research, questionnaires</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Patrick A.; Laschinger, H.K.S. 2006, Academic Search Elite (EBSCO)</td>
<td>Qualitative research, questionnaires and survey</td>
<td>Middle managers show higher levels of job satisfaction in the institutions where structural empowerment and organization support is provided. In there is a lack of support, middle managers feel frustrated and dissatisfied with their job.</td>
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</tr>
<tr>
<td>The effect of structural empowerment and perceived organizational support on middle level. nurse managers role satisfaction</td>
<td>84 middle level nursing manager working in Canadian acute care hospitals</td>
<td>Qualitative research, questionnaires and survey</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Patrick A.; Laschinger, H.K.S. 2006, Academic Search Elite (EBSCO)</td>
<td>Qualitative research, questionnaires and survey</td>
<td>Middle managers show higher levels of job satisfaction in the institutions where structural empowerment and organization support is provided. In there is a lack of support, middle managers feel frustrated and dissatisfied with their job.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Reasons to leave: the motives of first-line nurse managers’ for leaving their posts.</td>
<td>32 first-line managers</td>
<td>Qualitative research, questionnaires and qualitative content analysis</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Skytt, B.; Ljunggren, B.; Carlsson, M. 2007, Academic Search Elite (EBSCO)</td>
<td>Qualitative research, questionnaires and qualitative content analysis</td>
<td>Levels of job satisfaction increased after leaving manager post. Reasons to leave include reorganizations, unclear conditions, unsatisfactory relations with the superior managers, lack of support, dissatisfaction with salary, inability to participate in decision-making, economics and staffing, lack of recognition.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Author(s)</td>
<td>Year</td>
<td>Source</td>
<td>Title</td>
<td>Sample Size</td>
</tr>
<tr>
<td>-----------</td>
<td>------</td>
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<td>-------------</td>
</tr>
<tr>
<td>Hurley, M.</td>
<td>2005</td>
<td>Academic Search Elite (EBSCO)</td>
<td>A Rogerian exploration of nurse managers' experience of satisfaction, stress, and power.</td>
<td>124 female nurse managers</td>
</tr>
<tr>
<td>Gianfermi, R.E.; Buchholz, S.W.</td>
<td>2011</td>
<td>Academic Search Elite (EBSCO)</td>
<td>Exploring the relationship between job satisfaction and nursing group outcome attainment capability in nurse administrators.</td>
<td>20 nurse administrators employed in mid-size urban and suburban hospitals</td>
</tr>
<tr>
<td>Laschinger H.K.S.; Wong C.A.; Ritchie, J. et al.</td>
<td>2008</td>
<td>Manual search</td>
<td>A profile of the structure and impact of nursing management in Canadian hospitals.</td>
<td>1164 nurse leaders in 28 academic health centers and 38 community hospitals in 10 Canadian provinces</td>
</tr>
</tbody>
</table>

Appendix 3. Example of a critically appraised article.

<table>
<thead>
<tr>
<th>Does the title reflect the content?</th>
<th>The title is informative and indicates the focus and the content of the study.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Are the authors credible?</td>
<td>Munyewende is a researcher at Centre for Health Policy, University of the Witwatersrand, Johannesburg Area, South Africa. Rispel is a professor at University of the Witwatersrand, Johannesburg, Johannesburg Area, South Africa. Chirwa is a senior Lecturer in Biostatistics at University of the Witwatersrand, Johannesburg Area, South Africa.</td>
</tr>
<tr>
<td>Does the abstract summarize the key components?</td>
<td>The abstract summarizes the key components of the research and includes the objectives, methods, results and main findings, conclusion, and key words. It clearly describes the study and allows to easily determine its relevance to this research.</td>
</tr>
<tr>
<td>Is the rationale for undertaking the research clearly outlined?</td>
<td>The authors explained the need for research as contribution to the development of solutions to the current challenges faces by the nursing workforce in South Africa.</td>
</tr>
<tr>
<td>Is the literature review comprehensive and up-to-date?</td>
<td>The literature review included articles dated from 1970 to 2013. However, only few sources were published before 2000. The literature review reflects current knowledge relevant to the study, includes basic information about the topic.</td>
</tr>
<tr>
<td>Is the aim of the research clearly stated?</td>
<td>The objective of the research was clearly stated by the authors as to determine overall job satisfaction of PHC clinic nursing managers and the predictors of their job satisfaction in two South African provinces.</td>
</tr>
<tr>
<td>Are all ethical issues identified and addressed?</td>
<td>Ethical issues were considered by the authors. Ethics approval was obtained from the University’s Human Research Ethics Committee and all relevant healthcare authorities. The participants were given detailed information about the study. Anonymity of responded and maintained confidentiality of the data was ensured.</td>
</tr>
<tr>
<td>Is the methodology identified and justified?</td>
<td>The research method is identified as qualitative cross-sectional study with use of surveys as data collection tool. Methodology choice is not clearly justified by the authors.</td>
</tr>
<tr>
<td>Are the philosophical background and study design identified and the rationale for choice of design evident?</td>
<td>The choice of provinces for conducting research was justified by geographical proximity to the researchers, health authority approval, and budgetary constraints.</td>
</tr>
<tr>
<td>Question</td>
<td>Response</td>
</tr>
<tr>
<td>-------------------------------------------------------------------------</td>
<td>----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------</td>
</tr>
<tr>
<td>Are the major concepts identified?</td>
<td>Major concepts are clearly stated and defined.</td>
</tr>
<tr>
<td>Is the context of the study outlined?</td>
<td>Stratified random sampling was done by district to select primary healthcare managers from a list of day clinics in both provinces proportional to each of the health districts (5 in GP and 5 in FS).</td>
</tr>
<tr>
<td>Is the selection of the participants described and sampling method</td>
<td>Professional nurses possessing a four-year qualification and managing day PHC clinics constituted the population of interest. A PHC clinic nursing manager is a professional nurse in charge of a PHC clinic and is responsible for the overall management and administration of the clinic, including management of staff, health service delivery, patient care, equipment, pharmaceuticals, and supplies. A total of 108 questionnaires were returned representing a survey response rate of 97%. Authors defined a minimum sample size of 96 and included additional 15 to cater for 10% refusals, spoiled or incomplete questionnaires. Data collection methods were appropriate and were described by the authors.</td>
</tr>
<tr>
<td>identified? Is the method of data collection auditable?</td>
<td>The data analysis strategy is clearly defined, and the process is described. Validity and reliability were assessed using Cronbach’s alpha coefficients.</td>
</tr>
<tr>
<td>Is the method of data analysis credible and confirmable?</td>
<td>The findings were appropriately and clearly presented; the authors used tables for visual representation of results.</td>
</tr>
<tr>
<td>Are the results presented in a way that is appropriate and clear?</td>
<td>Conclusion is supported by the findings. Limitations are discussed. The authors mentioned concept of generalizability. Usefulness is justified by provided recommendations. The need for further research is stated.</td>
</tr>
</tbody>
</table>