

Examining Efficacy Of Nursing Education Programs: A Comparative Analysis

Ahmad Hussien AlAbdulla¹, Abdullatif Hussein Alabdullatif², Sultan Abed Alie Dhiam Almutairy³, Mossa Salah Hilal Alsowat⁴, Meshari Saud Ali Ismail⁵, Ayman Hassan Alsugier⁶, Fatimah Awad Tamar Alamari⁷, Shuruq Mohammed Saleh Mohammed Alharbi⁸, Nayef Nahar Khalif Alshammari⁹, Abdulaziz Saleh Fahd Aljaloud¹⁰, Bader Salem Hammad Alamri¹¹, Enas Jameel Saleh Almehmadi¹²

1. Ahmad Hussien Alabdulla, Nursing technician, Alahsa Psychiatric Hospital
2. Abdullatif Hussein Alabdullatif, Nursing technician, Alahsa Psychiatric Hospital
3. Sultan Abed Alie Dhiam Almutairy, Technician-Nursing, Artawiya General Hospital at Riyadh
4. Mossa Salah Hilal Alsowat, Nursing Technician, Children's Hospital at Taif
5. Meshari Saud Ali Ismail, Nursing Technician, Prince Saud Ben Jalawi Hospital at Alhasa
6. Ayman Hassan Alsugier, Nursing Technician, Children Hospital at Taif
7. Fatimah Awad Tamar Alamari, Nursing Technician, Primary Care Center at Halba
8. Shuruq Mohammed Saleh Mohammed Alharbi, Nursing Specialist, Maternity and Children Hospital at Madinah
9. Nayef Nahar Khalif Alshammari, Nurse Technician, King Khaled Hospital in Hail
10. Abdulaziz Saleh Fahd Aljaloud, Specialist Nursing, Health Outlets Management at Hail International Airport
11. Bader Salem Hammad Alamri, Nurse Technician, Madinah Cardiac Center
12. Enas Jameel Saleh Almehmadi, Nurse Technician, Al Salam Health Center at Madinah

Abstract

This systematic review is a comparative analysis on the efficacy of nursing education programs in terms of basic nursing

education programs. Nurses are the backbone of the health care system. There has been a tremendous change in the profession over the past five decades, which has changed the role of nurses in a hospital and the community. Most of the changes included the creation of nursing education programs for nurses and shifting patient care from a hospital-based system to a more community-based approach. Remote education programs become a new continuing education method. Different nursing education programs may reflect different educational ideas. Using different teaching methods can greatly impact the acceptance level of knowledge and the cultivation of practical ability. The nursing education programs, methods and evaluation systems must still be improved and further researches are still needed.

Keywords: Nursing education programs, comparative analysis, efficacy, efficiency and effectiveness

Introduction

Nurses are the backbone of the health care system. In health care system, nurses have a duty to comply with their professional codes of ethical conduct and have to provide the best care for patients in accordance with established standards (Griscti et al., 2006). Nursing efficacy includes more than only effective use of resources; it includes competent standard care in keeping with the Code of Ethics for nursing profession, the effective interpersonal relationship/communication, the appropriate use of technology and adequate Nurse-Patient Ratio. This level of high-quality nursing practice leads to efficient nursing care with reduced length of hospitalization stay for the patient thereby saving the cost of treatment for the hospital and the patient (Smart & Cappel, 2015).

Nursing is a service-oriented comprehensive applied discipline that includes scientific techniques. The nursing profession also occupies an extremely important position in the health system. Teaching fundamental concepts and basic knowledge of nursing and nursing skills are the first steps in the process of nursing education (Gutiérrez-Alemán et al., 2021). The task of nursing education is to provide the best understanding of how to meet the needs of society.

A nurse is an important part of the healthcare system. They have the unique role of taking care of patients, assisting them through their recovery period by providing the necessary medications and emotional and physical support (Bell, 2010). There has been a tremendous change in the profession over the past five decades, which has changed the role of nurses in a hospital and the community (Akpabio, 2011).

Traditionally nurses were untrained in medicine and their key roles included, dressing patients' wounds, feeding and bathing them and administering medication assigned by the doctor (Reblando, 2018). In addition, it was primarily considered a woman's job. However as the importance of a nurse in a healthcare setting became more evident, changes needed to be made (Deng, 2015). Most of the changes included the creation of teaching programs for nurses and shifting patient care from a hospital-based system to a more community-based approach (Salminen, 2010).

This systematic review is a comparative analysis on the efficacy of nursing education programs in terms of basic nursing education programs and the importance of training, curriculum and teaching contents, teaching materials, and teaching methods and evaluated the characteristics of nursing education and continuing education, to draw experience and lessons from successful nursing education programs.

Methodology

The design of a systematic review is applied to synthesize the international evidence on the efficacy of nursing education programs. This systematic review is a comprehensive analysis and a synthesis of data from various types of research evidence to summarize gaps in the existing international evidence.

A preliminary search is conducted via three (3) databases, including EMBASE, PubMed, and MEDLINE from 2000 to 2021. Search terms used in this systematic review are "Nursing education programs", "comparative analysis", "efficacy", "efficiency" and "effectiveness." Furthermore, reference lists of related articles are manually reviewed to extract auxiliary studies to provide a vital interpretive synthesis.

This systematic review is completed by experienced healthcare professionals in different healthcare settings in Saudi Arabia, who

have developed a protocol for selection of studies that meet prearranged inclusion and exclusion criteria. The inclusion criteria in this systematic review depend on original studies with data on efficacy of nursing education programs and the role of nurses in getting improved outcomes and developments of nursing education. Studies are included irrespective of language or publication date. Likewise, the exclusion criteria are case reports, guidelines, reviews, non-peer reviewed papers and editorials.

Data is extracted and integrated across studies searched and assessed for eligibility, including study design, research methodology, strategy and findings. As well, a quality assessment of reviewed studies is performed by using standardized tools, which are appropriate for respective study designs. Furthermore, a critical interpretive synthesis is performed to extract data and draw conclusions.

Literature Review

This in-depth integrative literature review aims at investigating comparative efficacy of nursing education programs. Integration and synthesis were conducted from 2000 to 2021 using electronic databases, including EMBASE, PubMed, and MEDLINE from 2000 to 2021. Search terms used in this systematic review are "Nursing education programs", "comparative analysis", "efficacy", "efficiency" and "effectiveness." Furthermore, reference lists of related articles are manually reviewed to extract auxiliary studies to provide a vital interpretive synthesis.

The inclusion criteria in this systematic review depend on original studies with data on efficacy of nursing education programs and the role of nurses in getting improved outcomes and developments of nursing education. Studies are included irrespective of language or publication date. Likewise, the exclusion criteria are case reports, guidelines, reviews, non-peer reviewed papers and editorials.

Furthermore, a number of 24 studies meet the eligibility criteria. The study design includes randomized controlled trials and cohort studies. Key intervention components examined are efficacy of nursing education programs, cost-effectiveness, and the roles of nurses in the healthcare system. Findings assessed are improved

support, collaboration and good understanding among different stakeholders of nursing education programs.

Findings indicate that teaching fundamental concepts and basic knowledge of nursing and nursing skills are the first steps in the process of nursing education. The task of nursing education programs is to provide the best understanding of how to meet the needs of society. Remote education programs become a new continuing education method

Discussion

A nurse is an important part of the healthcare system. They have the unique role of taking care of patients, assisting them through their recovery period by providing the necessary medications and emotional and physical support (Bell, 2010). There has been a tremendous change in the profession over the past five decades, which has changed the role of nurses in a hospital and the community (Akpabio, 2011). Traditionally nurses were untrained in medicine and their key roles included, dressing patients' wounds, feeding and bathing them and administering medication assigned by the doctor (Reblando, 2018). In addition, it was primarily considered a woman's job. However as the importance of a nurse in a healthcare setting became more evident, changes needed to be made (Deng, 2015). Most of the changes included the creation of teaching programs for nurses and shifting patient care from a hospital-based system to a more community-based approach (Salminen, 2010).

For nurses today, competence is a key learning outcome. A nurse has the responsibility to provide the appropriate care to a patient, following all the key nursing ethical standards and fulfill the mission statement of the institution they work for (Hasani et al., 2017). In the nursing training programs, the roles of the nurse have to be clearly outlined, together with common skills such as communication and organization which are secondary to the nurse's role but they remain a key component of patient care (Rafati et al., 2015).

Nursing education programs

In the United States, nursing education is classified as follows: the licensed practical nursing program (LNP), diploma nursing

program, associate degree nursing program (AND), bachelor of science in nursing (BSN), master of science nursing program, and the doctoral nursing program (Gutiérrez-Alemán et al., 2021). These seven levels range from low to high, and all levels are connected to one another. Students can increase their education level to continue learning. These nursing education programs provide students with a variety of choices. Undergraduate nursing education is quite common in Australia, which also provides masters and doctoral programs. Thus, a considerable number of nurses have master's and doctoral degrees (Deng et al., 2015).

Nursing education in Canada is divided into several stages. Someone who finishes 2 or 3 years of education in technical secondary school can only be an assistant nurse (Salehi et al., 2012). Someone who completes the 3-year junior college education program can qualify for the registered nurse examination to qualify as a registered nurse (Smart & Cappel, 2015). After 4 years of bachelor's education or continuing education to obtain a bachelor's degree, they are eligible to participate in community medical care services (Hasani et al., 2017).

At present, there are 5 nursing education levels in China: technical secondary school, college, undergraduate, postgraduate and PhD (Rafati et al., 2015). Although nursing education in China has developed rapidly in the past 30 years, the number of technical secondary and tertiary education schools is large, but the number of master's and doctoral programs is small. Continuing nursing education is still limited (Reblando, 2018).

Provision of nursing education programs

Different nursing education programs may reflect different educational ideas. In Britain, nursing education programs are many in basic, few in practical; this is the style of traditional medical education (Griscti et al., 2006). They put particular emphasis on the courses of Prophylactic and pharmacology medicine (Bell, 2010). In the United States, nursing education programs are based on education resources, school concepts and the characteristics of students, and they follow the nursing professional higher education standards (Akpabio, 2011). Nursing theory, nursing process, "Biological-Psychological-Social" pattern, etc. form the

framework of nursing education programs (Deng, 2015). Courses focus on community care and disease prevention, and they attach importance to the humanities and emphasize independent thought; there is a greater level of clinical practice (Salminen, 2010). They pay attention to evidence-based practices. At the same time, the programs attach great importance to the cultivation of the ability to work with high and new technology. In addition, the nursing education programs vary according to the different levels of nursing education.

In Australia, undergraduate nursing courses at the university level consist of fundamental nursing, nursing research and application, biological science, social science and clinical practice (Salehi et al., 2012). Fundamental nursing courses primarily involve emergency care, preoperative nursing care and geriatric care (Akpabio, 2011). Biological science provides knowledge such as physiology, pathology, immunology and pharmacology. In addition, social science teaches about the nursing ethics, law, politics, and economics and cultures that impact nursing (Griscti et al., 2006). Nursing research and application is a course that teaches nursing students about nursing technology. The master's degree program has two focuses: nursing theory research and nursing scientific research and clinical nursing teaching and nursing management (Gutiérrez-Alemán et al., 2021).

In China, nursing education programs in most nursing colleges are still the traditional “Discipline-Centered” model, which primarily includes the public elementary courses, basic medical course, and nursing and clinical practices. The nursing education programs emphasize discipline theory knowledge systems and integrity (Reblando, 2018). However, the disconnection between theory and practice is serious.

Contents of nursing education programs

In Britain, the teaching contents reflect the model of “Theory-Practice-Professional Theory-Clinical Practice”, from the basic theory rose to professional theory and practice gradually (Deng, 2015). In the United States, the teaching focus ranges from clinical nursing to community nursing and from disease management to disease prevention (Bell, 2010). It attaches greater importance to the students, who gain cross-cultural nursing abilities, and it

focuses on the latest technology (Salminen, 2010). The time arrangement is more efficient and flexible between theory and clinical practice, and the clinical practice teaching lasts throughout the whole clinical nursing course rather than being concentrated in the last years (Smart & Cappel, 2015).

Australia always pays more attention to the multicultural development of students, teaching them more about humanities and community nursing; the teaching content reflects the “Biological-Psychological-Social Medical” model (Hasani et al., 2017). There are close connections between practice and theoretical learning, alternately, highlighting the characteristics of nursing with cultural and practical knowledge (Rafati et al., 2015).

In China, the nursing courses focus on clinical nursing. The teaching focuses on the classification of clinical diseases, includes labor education and emphasizes political and professional knowledge. To impart knowledge, the teachers have long led the teaching process, with students rarely actively learning. Clinical practice is arranged after finishing all of the theoretical learning (Salehi et al., 2012).

Forms and features of nursing education programs

Using different teaching methods can greatly impact the acceptance level of knowledge and the cultivation of practical ability. In America, classroom teaching is flexible, and it fully manifests the educational concept of student-oriented ideology, emphasizes students' clinical decision making and practical problem solving skills (Griscti et al., 2006).

Teaching methods are also flexible, such as case analysis, scenario simulation, group discussion, cooperative learning, etc (Gutiérrez-Alemán et al., 2021). Clinical education and school education are performed simultaneously, and clinical practice is often arranged 2–3 times per week (Bell, 2010). It is not rigid emphasis on the unity of the operational steps and procedures. In Australia, teaching methods are combined with theoretical study, inspiration thinking and ability cultivation (Akpabio, 2011). In China, the traditional teaching method of lectures is still used.

Evaluation of nursing education programs

Evaluation of education is a process that is based on objective standards, using a variety of measurements and related data collection to measure the effects of the teaching activities objectively and scientifically (Reblando, 2018). Developed countries establish the evaluation system according to the course outline. Course content is required to be memorized in the form of written examination (Deng, 2015). The contents of nursing education program that must be understood and analyzed are always tested through comprehensive evaluation forms (e.g. through experimental reports and writing science and technology articles).

The method of simulating standard wards is used to evaluate the clinical abilities of students (Salminen, 2010). In America, nursing education is evaluated by NLNAC and CCNE, which are responsible for implementing educational assessments (Smart & Cappel, 2015). The agencies aim to ensure program authenticity, standardize the characteristics of the nursing profession and ensure that the standard evaluation and index system accurately reflects the requirements to cultivate the nursing talents and develop nursing profession (Rafati et al., 2015).

In Australia, the evaluation methods consist of a variety of procedures, including written and oral book reports, case discussions and clinical ability tests, etc (Hasani et al., 2017). State government departments of education and the Association of State Boards of Nursing jointly review the nursing educational standards. Computer network information management provides a fundamental guarantee of quality control (Salehi et al., 2012).

In China, education evaluation particularly stresses theory; therefore, written examination is the primary teaching evaluation method. However, the student evaluation system changed greatly in recent years. It has also attached great importance to theoretical, clinical and comprehensive evaluations, but the system still needs many improvements (Griscti et al., 2006). It cannot comprehensively test independent analysis and problem solving abilities. Another problem is that nursing education is not independent, and it lacks special features compared to the whole nursing field (Bell, 2010). As a result, it systematically limits the professional development of nursing education and nursing knowledge.

Continuing education programs

Continuing nursing education programs in America is flexible and varied; it includes academic conferences, special skill training, seminars, topic discussion, etc (Gutiérrez-Alemán et al., 2021). The American Nursing Association (ANA) provides many opportunities and projects for improving the continuing education of nursing staff, including special courses, seminars, short-term training, etc (Akpabio, 2011). It is equipped with professional learning and education websites, such as the American Association of Critical-Care Nurses premier continuing education selections, etc (Reblando, 2018).

In Canada, the Registered Nurses Association offers continuing nursing education and standardized training, including participation in various academic nursing activities to improve the nurses' professional skills and provide them with more career choices and higher salaries (Deng, 2015). In Australia, continuing nursing education combines nursing degree education and job training, which provides abundant learning opportunities and platforms for the nurses (Rafati et al., 2015). There are nursing upgrade courses, post-graduate education, a variety of short-term training courses and remote nursing education courses (Smart & Cappel, 2015).

In recent years, China has paid more attention to continuing nursing education. First comes professional knowledge and skills training, then specialist nurse training and continuing education, which are consistent with their jobs, according to the nurses' abilities (Hasani et al., 2017). Currently, remote education is a new continuing education method. However, there is currently no timely, targeted, systematic model of continuing education (Salminen, 2010). The nursing education programs, methods and evaluation systems must still be improved.

Conclusion

A nurse is an important part of the healthcare system. Nurses have the unique role of taking care of patients, assisting them through their recovery period by providing the necessary medications and emotional and physical support. There has been a tremendous change in the profession over the past five decades, which has changed the role of nurses in a hospital and the community. Most

of the changes included the creation of nursing education programs for nurses and shifting patient care from a hospital-based system to a more community-based approach

This systematic review is a comparative analysis on the efficacy of nursing education programs in terms of basic nursing education programs and the importance of training, curriculum and teaching contents, teaching materials, and teaching methods and evaluated the characteristics of nursing education and continuing education. Findings indicate that teaching fundamental concepts and basic knowledge of nursing and nursing skills are the first steps in the process of nursing education. The task of nursing education programs is to provide the best understanding of how to meet the needs of society. Remote education programs become a new continuing education method. Different nursing education programs may reflect different educational ideas. Using different teaching methods can greatly impact the acceptance level of knowledge and the cultivation of practical ability.

References

- Akpabio I. A Comparative Analysis of Nursing Education and Other Forms of Education in Nigeria: Implications for Global Standards to Promote International Collaboration and Advanced Entry Level Competency of Nurses. *Global Journal of Medical Sciences*. 2011, 10 (1 & 2):1-8.
- Bell J.M. Family nursing education: Faster, higher, stronger [Editorial]. *Journal of Family Nursing*, 2010, 16(2): 135-145.
- Deng F. Comparison of nursing education among different countries. *Chinese Nursing Research*, 2015, 2(4): 96-98.
- Griscti O, Jacono J. Effectiveness of continuing education programmes in nursing: literature review. *Journal of Advanced Nursing*, 2006, 55(4): 449-456
- Gutiérrez-Alemán T, Esandi N, Pardavila-Belio MI, et al. Effectiveness of Educational Programs for Clinical Competence in Family Nursing: A Systematic Review. *Journal of Family Nursing*. 2021; 27(4): 255-274.
- Hasani N, Valizadeh L, Bagheriyeh F. Comparative study of master's curriculum of neonatal intensive care nursing in Iran and Pennsylvania University of United States. *J Urmia Nurs Midwifery Fac*. 2017; 15(7):514-23.

Rafati F, Khandan M, Sabzevari S, Nouhi E. Comparative study of nursing PhD curriculum in Iran and Widener university. *Iran J Med Educ.* 2015; 15:555-68.

Reblando JR. A comparative analysis of the Philippine nursing curriculum from other countries. *Int. J. of Adv. Res.* 2018, 6(Jul): 526-532.

Salehi S, Taleghani F, Afghari P, Moghadasi MH. Investigating the efficiency of nursing education program from the perspective of graduate students of nursing and midwifery. *Iran J Nurs Midwifery Res.* 2012;17(4):284-9.

Salminen L, Stolt M, Saarikoski M, Suikkala A, Vaartio H, Leino-Kilpi H. Future challenges for nursing education: An European perspective. *Nurse Educ Today.* 2010; 30(3):233-8.

Smart K, J. Cappel J. Students' perceptions of online learning: A comparative study. *J Inf Technol Educ Res.* 2006; 5:201-19.