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The evolution of Saudi Arabian nursing education

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Abstract

Background-In 1948, a diploma program for male nurses was created in Saudi Arabia, marking the beginning of nursing education in the country. A lack of a standardized curriculum & governing bodies has contributed to the field of nursing's uneven expansion since then, as many organizations have served as suppliers of nursing education. Method: Saudi Arabia's nursing environment has lagged behind global trends in maturity or growth due, in particular, to a lack of competent nursing leaders and accurate statistics about the country's nursing workforce throughout the last several decades. Discussion: This research provides a comprehensive examination of the development of Saudi nursing education from 1948 to 2022. Conclusion: The review goes into the evolution of Saudi Arabian nursing education and its historical context. A look at the evolution of nursing education across time paints a picture of consistent progress, particularly in recent years.

Keywords: Saudi Arabia, education, nursing, university, bachelor

Introduction

The development of Saudi Arabia's nursing curriculum is indicative of a dynamic journey characterized by major turning points or paradigm shifts. The Kingdom's dedication to improving healthcare services & cultivating a competent healthcare workforce has had a significant impact on the nursing profession, which has experienced a dramatic transformation over the years. The nation's commitment to satisfy the changing healthcare demands of its population and keeping up with global standards is demonstrated by the development of nursing education in Saudi Arabia. Traditional practices had a much larger impact on Saudi Arabia's nursing education system in the past, and official training programs were few and far between. Still, the Kingdom set out on a full-scale reform program to improve nursing education because it knows nurses are vital to healthcare delivery. As a result of this transformation, specialized nursing schools have emerged, along with demanding new curricula & cutting-edge pedagogical practices. Collaborations between Saudi Arabia with foreign organizations and institutions have increased in recent decades, with the goal of importing nursing education practices from around the world. Partnerships like this have made it easier for people to share their experiences, insights, & resources, which has helped nursing programs all around the nation go better. The modern scene of Saudi Arabian nursing education has also been significantly shaped by technological developments & the incorporation of evidence-based methods. Adapting nursing education to meet Saudi Arabia's healthcare needs is an important part of the country's larger healthcare plan. This voyage highlights the nation's dedication to developing a nursing workforce that is capable of handling the complicated & diversified healthcare needs of the modern era. This historical analysis of Saudi Arabian nursing education will examine how the field has changed over time as a result of important policy initiatives, important historical events, and new trends.

Among the Riyadh-based colleges that make up King Saud University is the College of Nursing. There has been a bachelor's degree in nursing awarded by the College of Nursing since its establishment in 1977 (which is equivalent to 1396 AH). In 1988, the first master's degree in nursing was introduced. The college was one of eight academic departments within the College of Applied Medical Sciences. In 2004, the Council of Ministers decided to turn the Department of Nursing into an independent institution. Finding sufficient information regarding the origins of nursing education & evolution of the nursing profession throughout the nation was challenging due to a lack of resources at King Saud University, according to a literature review. In addition, there is a dearth of literature on certain nursing-related topics and

developments at King Saud University, including the role of female nurses in healthcare workforce development, the evolution of nursing education programs, & country's goals for the future of nursing education. Also, not much is known about how nursing education has evolved from its 1948 inception at the Arabian-American Oil Company to the present day. Consequently, the purpose of this study is to offer a concise overview of the evolution of nursing education at King Saud University, covering topics such as the background of the field, the legislation governing the profession, and the various players involved in this process [1].

Methods

The study made extensive use of sources by employing the integrative literature review approach. Problem identification, study search, assessment of data, analysis, and presentation are the five stages that make up the integrative framework that Whitemore and Knafl created [3]. The study adhered to the PRISMA methodology, which is designed to improve the reporting and presentation of data in systematic examinations and meta-analyses [11]. A number of bibliographic databases were searched for articles mentioning Saudi Arabia, including PubMed, Web of Science, EBSCO-CINAHL, Ovid, and Google Scholar. Articles had to be peer-reviewed and written in English. Additionally, they had to be specific to nursing education at King Saud University's College of Applied Medical Sciences (KSU). Sources from the government, especially those in Arabic, were incorporated. We did not include discussion pieces, editorial letters, or articles with sketchy citations. Two hundred articles were located through direct database searches, while forty-eight items were located from supplementary sources, such as government publications. A total of 230 articles were obtained after duplication was removed. Thirty sources were found to be relevant after the first screening and full-text evaluation. Our study's rationale for collecting & analyzing data was to learn more about the evolution of the nursing program at King Saud University's College of Applied Medical Sciences. During the time when this study was being written (February-April 2019), the search persisted.

Results

Nursing in Saudi Arabia: A Historical Review

It was not the Ministry of Education (MoE) that first proposed the idea of nursing programs at KSU College of Applied Medical Sciences. This might be because, back then, the Ministry of Education didn't have jurisdiction over technical schools. In 1948, the first officially recorded nursing education sessions were started by a male American nurse working for the Arabian-American Oil Company [4]. After the Saudi Ministry of Health (MOH) officially recognized nursing as a profession in 1954, the country's first official nursing school opened its doors to fifteen male students with only an elementary school education in 1958 for a first-year nursing program [5]. It was extended to two years in 1961 [6]. When I was in nursing school, I saw two main tracks for students to take. In 1958, the first trend started when the Ministry of Health & Ministry of Defense needed nurses to staff and manage their health organizations [7]. Students who had finished sixth grade were welcomed into these programs, regardless of gender [8]. The entrance criterion was raised twice: in 1982 to the 9th grade (intermediate level) and again in 1992 to secondary school [9]. The second development

began in 1975 with the establishment of the MoE and the launch of university-level programs [10]. No males participated in these initiatives at all [11]. In 2004, male students were admitted to the program. Students who already possessed a nursing diploma or associate's degree might take advantage of a bridge program that would allow them to transfer to a bachelor's nursing program and earn a BSN. A pioneering MSN program for female nurses was established in the 1980s at Riyadh's King Saud University. In 2013, the same school started offering a similar training to male nurses. The 39 health institutes & colleges were transferred from the Ministry of Health to the Ministry of Education in July 2011 by royal decree. Fifteen public universities were formed from these former institutes. According to the colleges' system of operating these programs, all students have graduated with a BSN degree since then. But in 2018, the SCFHS brought back vocational nursing programs. Many public and commercial healthcare institutions have jumped on the bandwagon to become training centers for these programs, allowing them to meet their nursing workforce demands without resorting to college grads.

Saudi Arabian Nursing Schools

Saudi women have access to nursing programs in the kingdom. The shortage of Saudi nurses is a serious issue, as the Kingdom's nursing needs much outstrip its supply. The Kingdom employs around 35,000 foreign nurses. The Saudization program for advanced clinical specialty nurses (including those in school nursing, primary care, midwifery, maternal-child health, medical-surgical, and psychiatric/mental health), as well as nurse administrators, managers, instructors, and researchers, requires fewer than 2,000 Saudi-educated nurses. Few women choose to become registered nurses, which has put the nursing profession in a precarious position. This is due in large part to many cultural & socioeconomic variables.

There is a severe shortage of registered nurses in the majority of industrialized and many developing nations. The shortage of nurses might put the Kingdom's health delivery programs at risk if current trends persist. Finding competent nurses to fill open positions has been challenging. Deceptive terminology would use one word to describe all nurses. As a profession, nurses vary greatly in their degree of expertise. A professional nurse performs more than just attend to patients' physiological requirements, but this is one of the skills taught to certain nurses. For the benefit of the patient and their loved ones, the professional nurse acts selflessly by attending to all aspects of the patient's health, including physical, mental, and social well-being.

Educational Programs

For the Saudi baccalaureate nurse, self-organization is the one and only professional requirement. The establishment of a Saudi Arabian Nurses' Association is now underway. There has been ongoing discussion over the organization among the Ministry of Health, universities, or nurses with university degrees for roughly seven years.

The professional nurse's responsibilities are growing to encompass not only patient care but also management, teaching, & research. Nurses need to acquire more expertise as their job grows. The Saudi Arabian government has established a system that allows both diploma and baccalaureate (professional) nurses to continue their studies.

Enrollment in one of the two current bachelor nursing programs is highly suggested for the eligible diploma nurse. The newly formed master of nursing program at KSU College is open to all qualified baccalaureate-level nurses. Two master's degree programs will be offered initially: one in nursing service administration and one in primary care nursing. Both the requirements of the Kingdom and the interests of the students were considered when making this program selection. The demand from students & availability of funds will determine the number of further master's degree programs.

The Baccalaureate Nursing Program at the University

Two Saudi universities, King Saud University and King Abdul Aziz University, provide four years of college plus an internship for aspiring nurses. Students are required to demonstrate their competency in English before they may be admitted to the programs, as the language is used for instruction. One or two terms of intensive English language instruction may be necessary to raise an unsatisfactory test result.

For a quick overview of King Saud University's College of Applied Medical Sciences (CAMS) nursing curriculum, consider the following.

In the first year, students at Malaz's Women's College Campus take unified fundamental sciences courses, which are a prerequisite for any career in health care.

In the second year, the female part of CAMS offers the first semester of nursing courses as well as the mandatory core semester for all students.

The female portion of CAMS teaches nursing and associated disciplines in Years 3 and 4, including topics like microbiology, nutrition, pharmacology, & growth and development. The University Hospital and a few local municipal hospitals offer clinical practice. At all times, a nursing professor is there to oversee the student's progress. The science, nursing theory, & practical experience form the student's foundation for nursing knowledge.

In the fifth year, interns work to build their confidence while honing their nursing skills.

It is necessary to take the following nursing classes

Nursing Theory and Practice, Nursing Foundations, Maternal and Child Health, Medical-Surgical, Mental Health, & Primary Care/Community Nursing. Furthermore, students are required to take a professional elective, which they can choose from any of the clinical specializations during their last semester of school. Nursing administration is an example of a professional elective.

In order to prepare students for careers as nurses, academic programs draw from a wide range of disciplines, including the hard and soft sciences, the arts and humanities, or nursing philosophy. In the first unit, students study health and how to promote wellness among customers, patients, and their families. Clinical nursing interventions are supervised and taught. There is clinical practice. Students learn a method for addressing problems that is known as the nursing process on a global scale. To help students get better at making key nursing decisions, educators employ the five-step nursing process. Steps in the process involve assessing the patient, making a nursing diagnosis, creating a nursing care plan, putting the plan into action, and finally, evaluating the results. As a nurse, you're trained to multitask. The collaborative role

is one example of this. Abraham Flexner made a reference to the nurse's function alongside doctors in 1915. He implied that she might be almost a collaborator in some interactions. Physicians & nurses now work together in what is commonly known as a collaborative role, where they divide up the tasks associated with patient care. It is in this dynamic that the nurse takes personal responsibility for her care and acts as a nurse.

In both general care and emergency rooms, nurses play the function of patient health educator. Health promotion and maintenance decisions will increasingly involve educated persons around the globe. These patients are asking for, and will continue to ask for, further details from the doctor or nurses regarding their nutrition, sleeping habits, physical activity levels, and bowel movements.

This type of nurse is sometimes called a professional nurse since she satisfies the standards of her chosen career path. In other words, she takes personal responsibility for her actions, determines what her patients need, and then plans, executes, and assesses nursing care. A scientific corpus of knowledge based on theory and enhanced via research exists in the field of nursing. Nursing diagnosis is the conventional name for the specialized vocabulary and taxonomy used in the field.

Nursing Education at the Postgraduate Stage

In 2017, 956 students from Saudi Arabia were enrolled in postgraduate nursing programs, as recorded in the SCFHS register. One hundred thirty-five are enrolled in domestic institutions, while the remaining ones are receiving financial aid from foreign organizations ^[2]. In 1987, King Saud University launched the first master's degree in nursing at its College of Applied Medical Sciences, which admitted exclusively female students ^[12]. At the same university, male nurses were eligible to enroll in the master's degree by 2013. Many public universities now offer master's degrees in nursing. These programs are offered only as full-time courses and last for two years. Students typically study nursing theory, advanced education & learning skills, biostatistics in nursing, and other general nursing courses during the first semester of their chosen nursing specialty. The Unified Law Organizing the Graduate Studies in Saudi Universities ^[13] states that master's degree nursing programs have a total of 42 credit hours of coursework, with the ratio of theoretical to clinical components varying by specialty. Community health, mental and psychiatric health, nursing leadership and education, medical-surgical the field of nursing, and maternal-child nursing are some of the primary nursing specialties offered by universities ^[15]. Starting with the 2019-20 school year, King Saud University became the sole institution in the nation to offer a doctoral degree in nursing ^[14]. Furthermore, a partnership between Saudi Aramco and Johns Hopkins University has launched a new program to offer a Doctorate in Nursing Practice (DNP).

At the King Saud bin Abdulaziz University for Health Sciences, you can choose from six different Master's degree programs.

- MME (Master of Medical Education) - Medical School The College of Medicine's Department of Medical Education is the biggest and first of its kind in the Kingdom. The department pioneered the provision of a master's degree in health profession education in the region. Launched in the 2006-2007 academic year with an intake of about 20 students, the Master's Program has

maintained an annual intake of about the same size ever since. Although the majority of the program's instruction takes place in Riyadh, it is also available at the other two campuses through video conference. Medical, dental, pharmacy, and nursing professionals, among others, can take advantage of the master's program's educational leadership chances and hone their teaching abilities. Leadership in education, classroom instruction, evaluating programs and students, doing educational research, and enhancing and evaluating staff are all areas that this degree trains students to excel in. Through its three semesters of instruction, the curriculum covers every facet of health professions education. The capstone research project takes place in the final semester of the program. Numerous program alums have gone on to hold positions of national leadership, and nine cohorts have thus far graduated.

- The College of Public Health & Health Informatics offers a Master of Science in Health Informatics (MPHIS) program. Graduates from a Master of Health Informatics program should be well-versed in the field and have strong technical, professional, and knowledge-based abilities. Success in a variety of administrative, planning, and implementation roles involving health information systems, as well as the ability to effectively address challenges related to these systems, are expected of graduates of this program. This program was developed and launched in partnership with the University of Illinois (UIC), Chicago, USA, a leading institution in the field of health informatics, to provide students with the most cutting-edge and all-encompassing master's degree in the nation. Graduates of our advanced program will be well-equipped to make a difference in the world, playing key roles in shaping the future of healthcare, particularly in light of the pressing need to deliver high-quality treatment that is in line with the nation's 2030 goal.
- MPH in Health Systems & Quality Management - Aiming to solve the scarcity of trained health systems executives and managers, this master's degree program in public health focuses on health systems management. The College of Public Health & Health Informatics offers it with the goal of becoming the go-to place for health services administration on a national and regional level.
- The College of Public Health and Health Informatics offers a Master of Public Health (MPH) program in Epidemiology and Biostatistics (MPHEB). Earn your MPH with a concentration in epidemiology and biostatistics from the field's prestigious department. Health care providers can learn to apply research concepts and understand biostatistics & epidemiology data through the MPH program in these areas.
- CEH Master of Public Health (MPH) - A Master of Public Health degree is currently offered by the Community & Environmental Health department. This program is designed to address the critical lack of trained public health professionals in the Kingdom of Saudi Arabia. Upon completion of the program, students will have the knowledge & skills necessary to address barriers to public health innovation and implementation in healthcare settings and the community at large. With the goal of becoming the regional and national hub for public health improvement, KSAU-HS offers this degree in accordance with the highest international standards in the

field.

- The MSNM, or Master of Science in Nursing with a Concentration in Midwifery, is a two-year master's degree program that offers a certificate or degree in nurse-midwifery. Graduates are qualified to care for mothers and their newborns as primary health care providers; they are also certified nurse-midwives. As the client's needs dictate, they are required to work within a healthcare system that offers consultation, collaboration, or referral. In order to earn a master's degree in nurse-midwifery, students need to finish 54 credits ^[15].

The Department of Education (DoE)

We have already established that the MoE is the new home of the Ministry of Higher Education. Both public and private institutions of higher learning are subject to oversight and approval by the MoE. The idea of forming the Deans of Nursing Colleges Committee (DNCC) was initially proposed during the National Guard Health Sciences Conference in February 2014. Minutes: Alfozan H, Jawharji I, Omar T, *et al.* Meeting One for the Deans of Nursing Colleges, 2014) note that this proposal was greenlit by the MoE and went into force in November 2014 during the initial meet at King Saud Bin Abdulaziz University for Health Sciences in Jeddah. Coordinating and supporting nursing programs and acting as a consulting body for the MoE on nursing-related concerns are the primary responsibilities of the DNCC.

Framework for Qualifications in Saudi Arabia Improving the educational system through the implementation of new rules & regulations is one of the primary goals of Saudi Vision 2030 ^[16]. Hence, ETEC was established in October 2018 by royal order, replacing the Education Evaluation Commission. The National Framework System & NCAAA are two of the four branches that make up the ETEC, and they both deal with nursing education. When it comes to ensuring the quality of higher education organizations, the NCAA acts as an independent entity ^[17]. The Saudi Arabia Qualifications Framework (SAQF) was established by ETEC with the aim of accomplishing various goals. These included standardizing course designs across higher education training and education institutions, determining the core competencies for each area of study, and facilitating the internal or external approval of academic credentials. The ten levels of SAQF encompass every facet of the educational process. These levels outline the intended objectives for learners in terms of their knowledge, understanding, and abilities upon graduation. As a tool for developing learning outcomes at various levels, ranging from the most basic level 1 to the most complicated level 10, the characterisation of these levels can be utilized ^[18]. The ETEC is the bedrock upon which national education authorities build their nursing programs.

Health Specialties in Saudi Arabia's Commission for At KSU College, the SCFHS is in charge of health specialty registration & professional classification. The SCFHS must approve any degree program leading to a health specialty. For instance, it certifies that students completing various health programs have the skills and knowledge needed to work for the Ministry of Civil Services by issuing licenses to individuals who successfully complete the associated tests. Nevertheless, the responsibility of accrediting institutions of higher learning has been delegated to the National Collegiate Athletic Association (NCAA) as part of the national agenda of Vision 2030. Three organizations control the nursing

profession according to SCFHS regulations: First, there's the Nursing Department, which handles day-to-day nursing matters within the SCFHS's purview. Second, there's the Nursing Scientific Council, which consults with the SCFHS on matters related to nursing education, particularly postgraduate training programs. Third, in April 2017, the SCFHS developed the Council of Professional Nursing Practice, whose goals include improving nursing practice, helping to classify health specialty certificates, creating career paths for nurses, finding solutions for nurses who failed the Saudi nursing examination, and developing courses for professional nursing development ^[19, 20].

Professional Postgraduate Programs at SCFHS

In order to meet the goals set out by the national strategy Vision 2030, the SCFHS has spearheaded initiatives to better prepare nurses for their careers. Adult critical care, cardiology, emergency, neonatal intensive care, midwifery, & oncology were among the 38 new postgraduate nursing programs that debuted in 2017-2018 ^[21]. Other initiatives, such as home care and community nursing, were also introduced in 2019. There is an emphasis on clinical training and assessment throughout these two-year programs. Prior to graduation, the trainee must pass a theoretical exam & Objective Structured Clinical Examination (OSCE), as well as a promotion exam to advance in the program. The curriculum for these graduate programs is developed by a specially appointed scientific committee that reports to the SCFHS. At the SCFHS, there are multiple steps to the process of being accepted into these programs. Participating healthcare organizations have been approved by the SCFHS to serve as training sites for these programs. The e-learning platform on the SCFHS website provides universal training courses, including patient safety & infection control ^[22].

Discussion

From its inception in 1948 until 2022, this overview provides a comprehensive examination of the changing landscape of Saudi nursing education. The review has succeeded in highlighting the significant role that government agencies or policies have performed in the expansion and growth of nursing higher education at KSU, even though there are few sources documenting nursing education at this institution. Furthermore, this study found that an American nurse with support from the Arabian-American Oil Company was the driving force behind the establishment of nursing education programs in Saudi Arabia. This contradicts previous studies that claimed the first program had been set up by the WHO. The study's review of primary sources confirmed this ^[12]. Saudi Arabia's nursing curriculum has evolved through numerous stages. In the first stage, which began in 1948, the Arabian-American Oil Company initiative saw the birth of nursing education. During this time, 256 male nurses from Saudi Arabia and the United States graduated to meet the demands of the Arabian-American Oil Company, a trend marked by male dominance. Additionally, American efforts were noticeable in neighboring Jordan, where American nurses established the Ministry of Health School of Nursing in 1953 ^[23]. The second stage, which lasted from 1958 to 1975, was propelled by the Saudi government's imperative to enhance the supply of competent nurses. Working in tandem with the World Health Organization, the first male nursing institute was launched. Soon after, in 1961, more women

entered the nursing profession. In the third stage, which lasted from 1976 to 1990, colleges and universities began to play an active role in graduate and postgraduate nursing education. These initiatives, in contrast to the initial phase, primarily aimed at female students as well. No such thing as male programs existed in those days.

During the correctional phase, which lasted from 2004 to 2020, male nursing programs at the graduate and postgraduate levels were established at several universities. Additionally, Ph.D. programs were established during this phase. The postgraduate nursing programs offered by the SCFHS were the catalyst for nursing professional advancement. Looking into the past of nursing programs at King Saud University's College of Applied Medical Sciences uncovered an interesting development: in 2011, the Ministry of Health (MOH) stepped down as an educator, but in 2017, it returned as the main organizer of training centers for postgraduate professional nursing programs. Considering the results of past modifications or variances in the management of the nursing schools, this may cause graduates to question their educational preparation.

Additionally, private sector hospitals have been incentivized to establish their own nursing schools in order to train their nursing staff for specialized nursing care by hospital-based nursing programs. Nevertheless, these worries may be allayed by the SCFHS's administration in its capacity as an oversight organization. The results cannot be evaluated at this time because no trainees have graduated from such postgraduate professional programs. When looking at both the academic preparation of students and the projected demands of healthcare organizations for nursing graduates, gender-related difficulties have become apparent in Saudi nursing education. Nursing schools are under additional pressure to build state-of-the-art simulation laboratories to meet the training demands in maternity, delivery, as well as female-only units because of cultural norms that prohibit male students from receiving their education in these settings. Unfortunately, data does not support the idea that nursing schools should implement gender quotas for incoming students. There are 13,001 female students and 4,084 male students enrolled in nursing programs now, according to a SCFHS report ^[2]. Having said that, the gender-specific requirements of the healthcare system are not addressed in the paper. As part of its mission, SCFHS is working to address a critical issue in the nursing profession: the absence of a uniform national scope of practice. This problem hinders the advancement of nursing education in two ways. To start, there isn't a single national scope of nursing practice, thus different countries' nursing schools are using their own, which could affect the quality of education students receive. Secondly, it is not always the case that nurses actually put their training to use in the real world. These problems also affect Saudi nurses who get their degrees from foreign nursing programs, especially advanced practice nurses who aren't bound by transparent standards of care ^[24]. Academic & professional nursing programs at King Saud University's College of Applied Medical Sciences have recently seen some encouraging advancements. The requirement to raise Saudization in the nursing profession by 60% in Saudi Vision 2030 would provide a significant obstacle to nursing education.

The nursing program and governing nursing committees at King Saud University's College of Applied Medical Sciences will speed up the graduation rate of their students, which will

help the nursing profession expand & provide an even stronger foundation for the healthcare system's change. The research did not try to emphasize additional concerns in the area, such as the obstacles faced by faculty members, simulation proficiency, and the accessibility of clinical training, due to the broadness of the nursing education sector and the shortage of data. With any luck, this study will help to compensate for the dearth of literature on the topic of nursing education in Saudi Arabia by providing a historical and contextual overview of the field at KSU. The latest trends in Saudi nursing education highlight the importance of academic nursing leaders actively engaging in the formulation of nursing strategies and operational plans to support the growth of nursing education on a national level. It is also imperative that policymakers and legislators do all they can to help nursing grow into a fully autonomous profession. The Saudi nursing leadership and other national nursing organizations may be able to use the lessons learnt thus far to inform future efforts to improve nurse education. Saving time and improving program outcomes are both guaranteed by basing nursing education on national healthcare requirements and international standards.

Conclusion

The origins of nursing education at KSU are comparable to those of other nations. When looking at the evolution of nursing education across time, though, it becomes clear that there has been consistent progress, particularly in the previous fifteen years. There is a strong correlation between the Saudi government's Vision 2030 and the consolidation of initiatives to expand the nursing profession across the country. This highlights the importance of academic nursing leaders actively engaging in the development of nursing education on a national level by creating nursing strategies & operational plans. The growth of nursing into a fully autonomous profession also requires active assistance from policymakers and planners.

Ethical Consideration

The author has taken into account all relevant international ethical norms when composing this work.

Declaration of competing interest

The authors have declared that they have no conflicts of interest.

References

- Alharbi HA, Almutairi AF, Alhelih EM, Alshehry AS. The Learning Preferences among Nursing Students in the King Saud University in Saudi Arabia: A Cross-Sectional Survey. *Nurs. Res. Pract.* 2017;2017:3090387. DOI: 10.1155/2017/3090387. Epub 2017 May 23. PMID: 28630767; PMCID: PMC5463154.
- Alomran S, Alhosni A, Alzahrani K, Alamodi A, Alhazmi R. The reality of the Saudi health workforce during the next ten years 2018-2027. *Saudi Commission for Health Specialties.* 2017;1:17-19.
- Whittemore R, Knaf K. The integrative review: updated methodology. *J Adv. Nurs.* 2005;52:546-553. DOI: 10.1111/j.1365-2648.2005.03621.x
- Aziz IA. Becoming a nurse in Saudi Arabia. *Am J Nurs.* 1956;1:780.
- Tumulty G. Professional development of nursing in Saudi Arabia. *J Nurs. Scholarsh.* 2001;33:285-290. DOI: 10.1111/j.1547-5069.2001.00285.x
- Almalki M, FitzGerald G, Clark M. The nursing profession in Saudi Arabia: an overview. *Int. Nurs. Rev.* 2011;58:304-311. DOI: 10.1111/j.1466-7657.2011.00890.x
- Saleh MA. Development of higher education in Saudi Arabia. *High Educ.* 1986;15:17-23. DOI: 10.1007/BF00138089
- El-Sanabary N. The education and contribution of women health care professionals in Saudi Arabia: The case of nursing. *Soc. Sci. Med.* 1993;37:1331-1343. DOI: 10.1016/0277-9536(93)90163-x
- Obstacles to the efficiency and performance of Saudi nurses at the Ministry of Health, Riyadh Region: Analytical field study. Accessed; c2019 Dec 18. Available from: https://scholar.google.com/scholar?hl=en&as_sdt=0%2C5&q=Obstacles+to+the+efficiency+and+performance+of+Saudi+nurses+a.`>`
- Ministry of Education - establishment. Accessed; C2019 Dec 18. Available from: <https://www.moe.gov.sa/en/TheMinistry/AboutMinistry/Pages/EstablishmentoftheMinistryofEducation.aspx>.
- Berhie G. Emerging issues in health planning in Saudi Arabia: the effects of organization and development on the health care system. *Soc. Sci. Med.* 1991;33:815-824. DOI: 10.1016/0277-9536(91)90386-q
- Mitchell JE. Job satisfaction and burnout among foreign-trained nurses in Saudi Arabia: A mixed-method study. Accessed; c2020 Apr 27. Available from: https://www.researchgate.net/profile/Joan_Mitchell15/publication/36711977_Job_satisfaction_and_burnout_among_foreignt.`>`
- King Saud University Deanship of Graduate Studie. Unified law organizing the graduate studies in Saudi universities. Accessed; c2019 Nov 11. Available from: https://graduatestudies.ksu.edu.sa/sites/graduatestudies.ksu.edu.sa/files/imce_images/llyh_lmwhd_lldrst_lly_bllg_l_njl.`>`
- King Saud University College of Nursing. The graduate studies. Accessed; c2019 Dec 22. Available from: <https://graduatestudies.ksu.edu.sa/en/node/942>.
- Princess Nourah Bint Abdul Rahman University. Master of Nursing Program. Accessed; c2019 Dec 22. Available from: <http://www.pnu.edu.sa/arr/Deanships/PostGraduate>.
- KSA: Saudi Vision 2030. Accessed; c2019 Nov 28. Available from: <https://vision2030.gov.sa/en/node/68>.
- The establishment of National Commission for Academic Assessment and Accreditation. Accessed; c2019 Nov 28. Available from: <https://www.ncaaa.org.sa/enportal/aboutcenter/pages/default.aspx>.
- National Commission for Academic Accreditation & Assessment. National Qualifications Framework for Higher Education in the Kingdom of Saudi Arabia. Accessed; c2019 Dec 12. Available from: https://www.mu.edu.sa/sites/default/files/National%20Qualifications%20Framework%20for%20HE%20in%20KS_A.pdf.
- Nursing Scientific Council. Nursing Scientific Council Annual Report. Saudi Commission for Health Specialties,

- Riyadh; c2003.
20. Saudi Commission for Health Specialties. Health Specialties launches the Councils of Professional Practice. (Website in Arabic). Accessed; c2019 Nov 28. Available from:
<https://www.scfhs.org.sa/Media/News/Pages/news184.aspx>.
 21. Saudi Commission for Health Specialties. List of postgraduate programs. Accessed; c2019 Nov 28. Available from:
<https://www.scfhs.org.sa/en/MESPS/TrainingProgs/List%20graduate%20programs/Pages/default.aspx>.
 22. Saudi Commission for Health Specialties. E-learning platform. Accessed; c2019 Nov 28. Available from:
<https://www.scfhs.org.sa/en/eservices/trainees/Pages/elearningPlatform.aspx>.
 23. Zahran Z. Nurse education in Jordan: history and development. *Int. Nurs. Rev.* 2012;59:380-386. DOI: 10.1111/j.1466-7657.2011.00947.x
 24. Hibbert D, Aboshaiqah AE, Sienko KA, *et al.* Advancing nursing practice: The emergence of the role of advanced practice nurse in Saudi Arabia. *Ann Saudi Med.* 2017;37:72-78. DOI: 10.5144/0256-4947.2017.72