

# Development Of Nursing Research In Saudi Arabia: A Review Study

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## Abstract

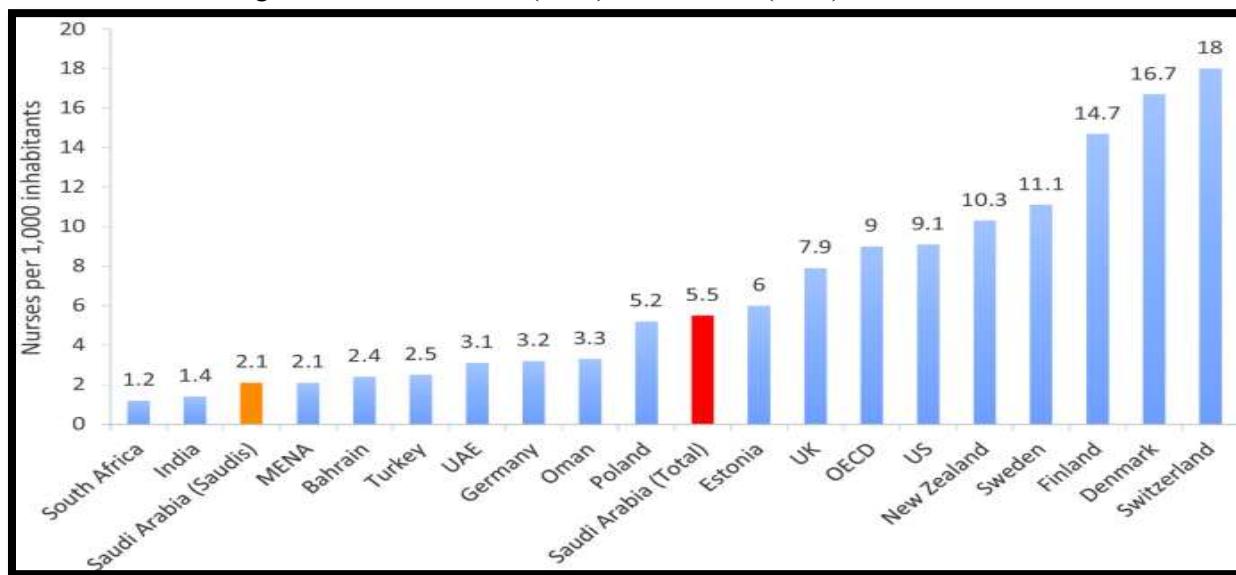
Both production and the caliber of publications can be used to assess nursing research in Saudi Arabia. Clinical, health system, and outcome-based research, education, and administration are now included in the broadened area of scientific inquiry in nursing research. Monitoring the advancement of nursing research in the Kingdom of Saudi Arabia is the primary goal of this study. A thorough analysis of earlier research will be done. This study searched for published nursing publications in Saudi Arabia using keywords and databases such as MEDLINE, CINAHL, and PubMed. After 191 publications were found through the search, 87 of them satisfied the requirements for inclusion and were added to the review.

**Keywords:** Nursing, Critical Nursing, Review study, Nursing Research.

## Introduction

Since the profession's expansion beyond the hospital to include schools, communities, homecare, and businesses, nurses' roles have undergone significant change with the goal of delivering high-quality, evidence-based care. Research has established nursing as a legitimate profession. **Arabi et al (2016)** In addition to validating and improving on current knowledge, nursing research is a methodical process that examines phenomena of nursing significance, including nursing education, administration, healthcare delivery, nurse traits, and roles. The roles of nurses, however, have not been given the same level of attention as those of other professional health areas. However, nursing research is important for improving nursing practice and influencing health policy. In nursing, the primary goal of research is to provide high-quality treatment by taking into account all aspects of patient care, including cultural beliefs. Nurses' research and contributions to diverse research teams can be catalysts for change. **Alluhidan et al (2020): Acebedo et al (2014)** The results of research have an impact on the nursing profession, inform and support professional decision-making, nursing actions, and policy. It is the cornerstone of nursing's superior body of evidence. Starting with Nightingale's groundbreaking research in the 1850s that connected nurse education to high-quality patient care, nursing research has a long and illustrious history. Environmental changes to patient care settings were made possible by her groundbreaking work during the Crimean War. **Jones et al (2016)** There was a dearth of literature on nursing research in the immediate post-Nightingale period. Nursing research concentrated on public health, patient care plans for particular patient groups, and the administration and provision of healthcare from the early 1900s until 1950. Nurse researchers began focusing on patient-centered research in 1960, which led them to examine practice approaches and their effects on patient outcomes. **Curtis et al (2017)** However, it was seen that the work of psychologists and

sociologists had an impact on nursing research. Nursing research underwent a dramatic change in the late 20th century, moving from descriptive studies to more explanatory and predictive approaches that frequently combined qualitative and quantitative techniques. In order to reflect its increasing complexity and breadth, nursing research now adopts a multidisciplinary approach. **Kristensen et al (2016)** In nursing research, clinical, health system, and outcome-based research, teaching, and administration are all included in the broadening of scientific inquiry. Clinical research is concerned with how people are treated in a community and can be conducted in any clinical setting, according to the American Academy of Clinical Nursing (2022). In order to improve healthcare delivery, health systems and outcomes research examines a range of issues that impact the caliber, amount, and cost of healthcare services. Although nursing education research focuses on students and teachers, it also addresses the science of teaching and learning. Nursing management practices, nursing ethics, and nursing qualities related to job satisfaction, employee retention, patient satisfaction, care quality, and cost were the final areas of focus for nursing administrative research. Compared to many developing nations, especially Arab ones, high-income nations have made more strides in nursing research. **Sadat et al (2019); Arabi et al (2016)**



Source: Alluhidan, et al (2020)

**Figure 1: Nurses/1000 Citizen in KSA and other countries**

But in the past forty years, there have been more Arab nursing publications, especially in Jordan, Saudi Arabia, and Egypt. In order to achieve an international standard in higher education, Saudi Arabia's Vision 2030 project prioritizes research and development. Therefore, Saudi Arabia is the leader in scientific research among Arab nations, according to the Nature Index report 2022, which places it in the top 50 countries worldwide in terms of the percentage of scientific research. **Egerod et al (2020)**

Institution group	N (%)*
University	368 (56.2)
MOH	163 (24.9)
International Institutions	37 (5.6)
Military Hospitals	29 (4.4)
King Faisal Specialist Hospitals	17 (2.6)
National Guard Hospitals	16 (2.4)
Other institutions in Saudi Arabia	16 (2.4)
Unknown	9 (1.4)
Total	655 (~100.0)

Source: Jahan et al (2020)

**Figure 2: Health Care Institution in KSA**

However, nursing only made up 2.7% of all health sciences research papers in Saudi Arabia, which is fewer than the other fields. According to nursing publishing, King Saud University, King Abdulaziz University, and King Faisal Specialist Hospital and Research Centre are ranked 5, 11, and 15, respectively, among the top 15 most productive Arab universities. The state of nursing research in Saudi Arabia has not yet been properly investigated. By following the evolution of nursing research in Saudi Arabia, this present study will try to give a general overview of the field's current situation. **Darawad et al (2018); Sweileh et al (2019); Deeb et al (2018)**

### **Objective of Study**

The main objective of this present study is to assess the present scenario and previous status of nursing research in Saudi Arabia, the study will also compare scenario of nursing research of Saudi with other countries.

### **Research Process**

We performed a PubMed search using the following search terms to ascertain the quantity of nursing research publications published or contributed from Saudi Arabia between 2013 and 2023: Nursing and the Kingdom of Saudi Arabia (KSA), Saudi Arabia, Saudi Arabia.

In addition, we included the following keywords to find the quantity of articles about critical care nursing for the same time period: critical care, critical ill, critical care, intensive care, etc. **Arabi et al (2019)**

Examining the affiliations, titles, and abstracts, we identified the articles that qualified. The articles were categorized by country: "Saudi Arabia" if all of the authors were Saudi Arabian, or "international" if some of the authors were from other nations but at least one was from Saudi Arabia. **Tume et al (2014)**

Information regarding the journal impact factor and study methodology was gathered.

### **Discussion**

Health promotion researchers contend that nurses have not yet demonstrated a distinct and conspicuous political role in carrying out health promotion programs. **Khalaf et al (2013); George et al (2020)** However, because of their efforts to provide patients with information and sound understanding, nurses may be considered general health promoters. Despite the fact that nursing is a great profession for promoting health, delivery is significantly impacted by a number of organizational culture-related restrictions. Therefore, further research is required to determine how nurses may incorporate health promotion into their multiple duties in healthcare settings. The current analysis demonstrated that while there are few interventional studies, descriptive research makes up the majority of nursing research conducted in Saudi Arabia. **Nashwan et al (2017)**

Research on nursing interventions could have a significant influence because Saudi Arabia places a strong emphasis on improving healthcare. **Al-Rawashdeh et al (2019)** The quality of healthcare can be greatly impacted by such research, particularly if they are contextually designed. The study's findings indicate a low percentage of nursing theory application. Furthermore, just 6% of study participants were patients, whereas 60% of participants were nurses. This study's findings are comparable to those of the Australian study by Borbasi et al. (2002), which found that nurses provided the majority of the data, followed by patients, and that the study did not look at significant health issues in Australia.

Therefore, the quality of the healthcare system will benefit from the integration and collaboration of researchers from universities or hospitals with the National Center for Public Agencies Performance Measurement, which measures the performance of government agencies, performance indicators of public agencies, and the satisfaction of beneficiaries with government services. **Williamson et al (2019)** Saudi Arabian nurses should actively participate in healthcare research as part of their professional practice in order to meet the demand for higher nursing research productivity. This study demonstrates a deficiency in theoretical direction. Considering the growing number of PhDs in nursing in Saudi Arabia as well as the overall growth in research initiatives, this problem may evolve over time. **NHS (2020); Moulton et al (2019)**

Saudi Arabia has made improving healthcare a national priority, bolstered by the country's transformative vision and extensive experience with crowd medicine during pilgrimages, as well as lessons learned during the most recent pandemic, COVID-19. Because nursing research plays a crucial role in advancing the body of knowledge that supports high-quality healthcare, it is essential for improving the health field, particularly interventional research.

This study demonstrates the current focus of nursing research in Saudi Arabia. This could influence the

topics that scholars and graduate students write on. Additionally, increasing the amount of money from various organizations is advantageous for researchers in general as well as for a certain kind of research that is needful.

145 nursing research publications or contributions from Saudi Arabia between 2013 and 2023 were found by our analysis. Furthermore, 41 publications pertaining to critical care nursing research were found. After evaluating these papers, however, 19 were disqualified since they either did not pertain to nursing or noncritical care, or Saudi Arabia did not contribute. Eighty-two articles in all, or 7% of all nursing articles, were deemed suitable. Most of these publications—57 percent—had something to do with nursing, and sixty-five percent of them were categorized as clinical practice articles. Of the published articles, 48% were classified as international cooperation. The most popular study design was an observational cohort study (64%), which was followed by review articles (10%) and interventional designs (6%).

Increasing regional research collaboration and participation **Stevens et al (2013)** in nursing conferences, devoting resources and time for research, and offering research training and mentorship are some of these suggestions. Furthermore, nurses may be more inclined to contribute to nursing and multidisciplinary clinical research if they are involved in specialized local and worldwide critical care research groups or organizations. **Fain et al (2020); Ul Haq et al (2020)** More than half of Saudi Arabia's critical care nursing papers were the result of international cooperation. Furthermore, research for 46 percent of these works was done in conjunction with other fields. In order to conduct future study, these results motivate nurses to work together both inside and externally. According to our findings, peer-reviewed publications with an official impact factor published the majority of critical care nursing research conducted in Saudi Arabia. This could suggest that critical care nursing research published in Saudi Arabia is of a high caliber. Because the majority of the articles listed in PubMed's index are peer-reviewed, utilizing a search engine like PubMed could skew this. Clinical practice-related nursing research accounted for the majority of Saudi Arabia's published critical care nursing studies. **Elmorsheyd et al (2020)** This is to be expected in an environment that is so demanding and complex in comparison to other clinical nursing settings where it is essential to continuously monitor critically ill patients. However, current research goals in critical care nursing should be known to critical care nursing researchers. Putting research priorities front and center will assist coordinate efforts to close knowledge gaps and guide best practices. **Jahan et al (2017)**

The quantitative design was the predominant methodology used in the current investigations. The most popular research design in critical care nursing was the observational cohort. These findings are similar to those of earlier research conducted in other Arab nations, but they cannot be compared to those of other industrialized nations that use both quantitative and qualitative methods. Few interventional studies or randomized controlled trials were found in our evaluation. Similarly, Sweileh et al. found that there were very few randomized controlled trials in the Arab world for nursing. This could be due to a lack of funding, time, and expertise performing clinical trials, as well as a lack of knowledge about the rules governing these kinds of investigations.

Reduced public awareness and knowledge of clinical trials may potentially be the cause. Finding the best evidence to practice in critical care requires undertaking interventional research.

The outcomes of our review should be understood in light of its advantages and disadvantages. This is the first review of ten years of critical care nursing research in Saudi Arabia that we are aware of. The primary limitation of this study is the use of a single database (PubMed). There may be more studies if there are more search engines and databases. However, PubMed is one of the most dependable and readily available biomedical resources in the world.

## Conclusion

Saudi critical care nurses primarily publish in peer-reviewed journals since "clinical practice" is the main emphasis of critical care nursing research. Research in critical care nursing is growing in Saudi Arabia over time, despite the lower publication rate. To boost future research, it is advised to examine the obstacles to critical care nursing research in Saudi Arabia. It is also necessary to establish a local critical care nursing research plan and encourage both domestic and foreign research collaboration. In Saudi Arabia's critical care settings, more interventional nursing research is required.

## References

- Arabi YM, Al Owais SM, Al-Attas K, Alamry A, AlZahrani K, Baig B, et al Learning from defects using a comprehensive management system for incident reports in critical care Anaesth Intensive Care. 2016; 44:210–20.
- Alluhidan, M., Tashkandi, N., Alblowi, F. et al. Challenges and policy opportunities in nursing in Saudi Arabia. *Hum Resour Health* 18, 98 (2020). <https://doi.org/10.1186/s12960-020-00535-2>
- Acebedo-Urdiales MS, Medina-Noya JL, Ferré-Grau C. Practical knowledge of experienced nurses in critical care: A qualitative study of their narratives *BMC Med Educ*. 2014;14:173
- Jones MB, Tucker D. Nursing considerations in pediatric cardiac critical care *Pediatr Crit Care Med*. 2016;17: S383–7
- Curtis K, Fry M, Shaban RZ, Considine J. Translating research findings to clinical nursing practice *J Clin Nurs*. 2017; 26:862–72
- Kristensen N, Nyman C, Konradsen H. Implementing research results in clinical practice—the experiences of healthcare professionals *BMC Health Serv Res*. 2016;16:48
- Sadat M, Arabi Y. Trends of critical care research in Saudi Arabia *Ann Thorac Med*. 2019;14:220–1
- Kingdom of Saudi Arabia 2030 Vision. Last accessed on 2020 Oct 06 Available from: <https://vision2030.gov.sa/en>.
- Egerod I, Kaldan G, Lindahl B, Hansen BS, Jensen JF, Collet MO, et al Trends and recommendations for critical care nursing research in the Nordic countries: Triangulation of review and survey data *Intensive Crit Care Nurs*. 2020; 56:102765
- Darawad MW, Alhussami M, Sa'aleek MA, Ateeq EA, Samarkandi OA, Al-Anati A. Nursing faculty members' attitudes and perceived barriers toward conducting scientific research: A descriptive study from Saudi Arabia *Int J Caring Sci*. 2018;11:1192
- Sweileh WM, Huijer HA, Al-Jabi SW, Zyoud SH, Sawalha AF. Nursing and midwifery research activity in Arab countries from 1950 to 2017 *BMC Health Serv Res*. 2019; 19:340
- Deeb A, Al Qasim E, Afesh L, Abdulkahil S, Sadat M, Arabi Y. Building capacity in critical care research coordination in Saudi Arabia: The role of the Saudi critical care trials group *Saudi Crit Care J*. 2018;2:35–41
- Arabi Y, Mandourah Y, Al-Hameed F, Maghrabi K, AL Shahrani M, Sadat M. Moving the critical care research agenda forward in Saudi Arabia *Saudi Crit Care J*. 2019;3:1–2
- Tume LN, van den Hoogen A, Wielenga JM, Latour JM. An electronic delphi study to establish pediatric intensive care nursing research priorities in twenty European countries\* *Pediatr Crit Care Med*. 2014;15: e206–13
- Khalaf I. Development of nursing research in Jordan (1986-2012) *Int Nurs Rev*. 2013; 60:461–8
- George M, Hernandez C, Smith S, Narsavage G, Kapella MC, Carno M, et al Nursing research priorities in critical care, pulmonary, and sleep: International delphi survey of nurses, patients, and caregivers *Ann Am Thorac Soc*. 2020;17:1–0
- Nashwan AJ, Mansour DB, Alzayyat A, Nair SK, Zawahreh AI. Development of nursing research in Qatar: 15-year status report *Open J Nurs*. 2017; 7:242–52
- Al-Rawashdeh N, Damsees R, Al-Jeraisy M, Al Qasim E, Deeb AM. Knowledge of and attitudes toward clinical trials in Saudi Arabia: A cross-sectional study *BMJ Open*. 2019;9:e031305
- Williamson PO, Minter CI. Exploring PubMed as a reliable resource for scholarly communications services *J Med Libr Assoc*. 2019; 107:16–29.
- NHS. Nursing Research and Evidence Underpinning Policy Dialogue and System Transformation 2020. 2020.
- Moulton, E.; Wilson, R.; Camargo Plazas, P.; Halverson, K. The central question and the scope of nursing research. *Nurs. Philos.* 2019, 20, e12228.
- Stevens, K.R. The impact of evidence-based practice in nursing and the next big ideas. *Online J. Issues Nurs.* 2013, 18, 4.
- Fain, J.A. Reading, Understanding, and Applying Nursing Research; F. A. Davis: Philadelphia, PA, USA, 2020

- Ul Haq, I.; Ur Rehman, S.; Al-Kadri, H.M.; Farooq, R.K. Research productivity in the health sciences in Saudi Arabia: 2008–2017. *Ann. Saudi Med.* 2020, 40, 147–154.
- Health Sector Transformation Program. *Vision 2030*. 2021.
- Elmorsheyd, H.; AlAmrani, A.; Hassan, M.H.A.; Fayed, A.; Albrecht, S.A. Contemporary public image of the nursing profession in Saudi Arabia. *BMC Nurs.* 2020, 19, 47.
- National Institute of Nursing Research. National Institute of Nursing Research (NINR), FY 2021 Budget. 2021.
- Jahan, S., & Al-Saigul, A.M. (2017). Primary health care research in Saudi Arabia: A quantitative analysis. *International Journal of Health Sciences*, 11, 9 - 15.