Critical Analysis of The Intersections Between Nursing and Midwifery

Zakia Mubarak Said Altohefan¹, Sohylah Abdullah Hefzullah Al Mashni², Amal Nasser Salih Alyami³, Bedoor saeed Dafer Al Demshiq⁴, Smar Mushbab Hadi Al Mahbub⁵, Khlood Mubarak Said Altohefan⁶, Rawan Yahia Abdulah Alnusb⁷, Noora Hussein Mohd Algflah⁸, Nada Saleh Alhalali⁹, Yahya Mohammed Al abbas¹⁰

Abstract

Nursing and midwifery are two health professions related to the scope of practice. However, they differ, especially in women's and children's health services. It recently became important to address overlaps between these fields, particularly about collaborative care models. To this end, this paper aims to investigate the complex role, shared tasks and dynamics, and issues relating to nurses and midwives in today's society. It explores the role of the professions in patient care, defines the areas of convergence and drawbacks of these professions, and analyzes the effect of these professions on patient care. Some issues include role confusion, variation in professional training, and constraints of the overall health system, which are outlined in addition to the suggested approaches to enhance relations between nursing and midwifery.

Keywords: Nursing, Midwifery, Interdisciplinary Collaboration, Healthcare, Maternal and Child Health, Professional Roles, Healthcare Integration, Patient Outcomes.

Introduction

Nursing and midwifery are two occupations that are ever involved with patient care and are traditionally connected in many areas of medicine. Maternal and child health are two sections that cooperate to offer necessary care, and nurses and midwives share many responsibilities. However, the activities of being a nurse and being a midwife are different, but there is a synergy between the two professions; hence, integrating nurses and midwives could increase patient satisfaction, make health care delivery more effective and efficient, and enrich the kind of care offered.

The move towards a more integrated approach to care delivery and using members of a specific interdisciplinary workforce has raised awareness of the relationships between nursing and midwifery. However, there are still issues about role definition, skill mix, and system factors in expanding an effective collaboration (Mohammad et al., 2024a; Mohammad et al., 2023a; Mohammad et al., 2024b). This paper will discuss these intersections, emphasising commonalities, difficulties, and possible ways of improving the joint work of nurses and midwives.

¹ Nahogah phcc, Saudi Arabia, zmalyami@moh.gov.sa.

² NGH, Saudi Arabia, Saalhadad@moh.gov.sa.

³ AlQabil PHC in Najran, Saudi Arabia, amnalyami@moh.gov.sa.

⁴Dahadah phc, Saudi Arabia; baldemshiq@moh.gov.sa.

⁵ Wadi Ad Dawasir General Hospital, goooror@hotmail.com

⁶ New najran general hospital, Saudi Arabia, Khloodyami2030@gmail.com

⁷ abha maternity and pediatric hospital, Saudi Arabia, Ralansab@moh.gov.sa

⁸ Najran Dahda phc, Saudi Arabia, nalgfla@moh.gov.sa

⁹ alyamamah hospital, Saudi Arabia, nalhalali@moh.gov.sa

¹⁰ Ministry of Health, Saudi Arabia, ymalabbas@moh.gov.sa

DOI: https://doi.org/10.62754/joe.v3i8.5052

Literature Review

Nursing and Midwifery: Roles and Scope of Practice

Though nursing and midwifery are two different professions, nurses and midwives work in health and cater to the patient's needs. The nurse works in every dimension of patient care, encompassing all populations, whereas the midwife deals only with the treatment of care related to pregnancy, childbirth, and the postpartum period. Midwives are caregivers who prepare women for childbirth and practice normal birth; on the other hand, nurses may practice in various settings depending on their concentration; they may care for patients with acute and chronic illnesses in various populations.



- 1. The role of nurses: Nurses are educated to attend to basic human health needs that cut across all age groups and sexes. It is confined in its focus areas, also common undergraduate school health care education courses: patient management and care, critical care, and treatment. The nurses perform their duties in hospitals, general healthcare facilities, or community health facilities, though a nurse may pursue advanced maternal health training during her training.
- 2. The Role of Midwives: The nurses specialize in antenatal, intrapartum, and postnatal care related to pregnancy, birth, and the period immediately afterwards. Its principal function is to care for normal pregnant women and facilitate their labour and childbirth, with an emphasis on wellness promotion, illness prevention and teaching and counselling. Most midwives practice in birth centres, hospitals, and at home and may consult with obstetricians or other physicians in complicated cases (Al-Azzam et al., 2023; Al-Shormana et al., 2022; Al-E'wesat et al., 2024).

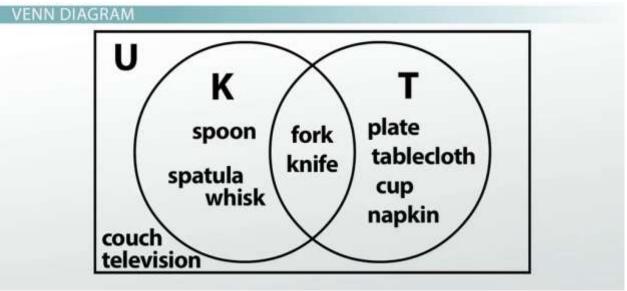
Overlap and Intersections in Practice

The areas that have been found to have a close association with both nursing and midwifery speciality focus mainly on maternal and child health. Midwifery and nursing emphasise customers who are women and infants in childbirth and, therefore, require cooperation for better results. Areas of intersection include:

1. Prenatal and Postpartum Care: Nurses and midwives also attend to pregnant women, while midwives are mainly responsible for normal antenatal care, birth, and puerperal care, whereas nurses are also involved in the treatment of complications and special care of various problems of high-risk pregnancies. Postpartum the midwife is responsible for handling the postpartum period and breastfeeding. In contrast, nurses may handle the early postpartum period and be involved in postnatal care for both mother and child.

https://ecohumanism.co.uk/joe/ecohumanism DOI: https://doi.org/10.62754/joe.v3i8.5052

- 2. Interdisciplinary Care: Today's health demands the integration of professions, especially when attending to pregnant women. They work with a team of obstetricians, paediatricians, midwives, and nurses.
- 3. Shared Responsibilities: Since they often work hand in hand in attending to clients, nurses and midwives are usually involved in the health education of pregnant women on their health, births, and the well-being of their newborns. Furthermore, the two roles include ongoing assessment of the newborn's health status, conducting initial assessment processes, and conducting any necessary interventions.



Challenges to Effective Collaboration

Despite their potential for collaboration, several challenges hinder effective integration between nursing and midwifery:

- 1. Role Ambiguity: Many times, there may be uncertainties in practice related to inadequately defined roles of nurses and midwives, which results in a gap in care. These professions have similarities but differences in education and practices and prescribed roles and responsibilities; hence, there is tension or confusion regarding the roles of the different professionals.
- 2. Training and Education: Nurses and midwives are educated in different schools of thought, and hence, they approach the care of patients in different manners. While midwives focus on pregnancy and childbirth, they receive general health care and medical care education. This can go a long way in influencing their interaction, especially when enhanced care modalities require certain procedures to be adhered to.
- 3. Healthcare System Limitations: Health organizations that fail to support such an initiative can promote some organizational structures that will hinder interdisciplinary collaboration between the nurses and the midwives. This can result from bureaucracy, beliefs and practices that are dear to a certain culture, or the absence of encouragement to use teamwork in handling patients.

Partnering Models and Success Strategies

Several models of collaboration between nursing and midwifery have been proposed to enhance care delivery and improve patient outcomes:

2024

Volume: 3, No: 8, pp. 3987 - 3997

ISSN: 2752-6798 (Print) | ISSN 2752-6801 (Online) https://ecohumanism.co.uk/joe/ecohumanism

DOI: https://doi.org/10.62754/joe.v3i8.5052

- 1. Shared Care Models: Nurses and midwives have closely collaborated in a shared care system where one is responsible for overseeing the patient's condition at all times, and the other assumes responsibility for the patient's needs throughout maternity. These models are interdependent because both professions work hand in hand to make sure that women are provided with adequate prenatal, birth, and postpartum care.
- 2. Interprofessional Education: Interprofessional education (IPE) can be used to enhance the ideas of nurses and midwives. IPEsIPEs establish rapport or regard, role recognition, and communication, the four essential components of healthcare collaboration in practice.
- 3. Collaborative Practice Guidelines: It is a common occurrence to find a grey area in terms of practice between the two professions of nursing and midwifery; hence, the roles of play for both professions should be well defined so that there is a clear understanding of whose docket a particular task falls in the care of a patient.

Methods

The systematic integration of published literature on nursing, midwives, and healthcare managers from research articles and/or case reports/series and best practice guidelines published between January 2010 and December 2024. Case studies of collaboration between nursing and midwifery: In this paper, the analysis focuses on the key domains of cooperation, discussions of the models used in partnerships, the problems faced, and the benefits achieved from collaborative action for nursing and midwifery. Survey and report data on workforce relationships and interprofessional education were also used to synthesize the importance of training and continuing education for improving cooperation.

Results and Findings

Duplicate responsibilities in maternal and child health

The details in Figure 1 highlight the areas of convergence between the utilization of nurses and midwives in ANC and MNCH. The figure shows three main tiers of care: prenatal care, birth support, and postpartum care—both occupations work in parallel and jointly perform specific tasks to provide adequate medical assistance to mothers and newborns.

Nurse-midwives are responsible for conducting physical assessments and teaching clients about pregnancy, fetal, and maternal health in prenatal care. Midwives tend to deal with normal-risk pregnancies, whereas nurses are involved in other risk factors of pregnancies: previous illnesses and potential emergencies. Both are important in counselling women to enable them to make proper decisions about their health as well as that of their unborn baby.

Labour and delivery support is one of the most groundbreaking areas of practice shared between nursing and midwifery. On the other hand, midwives hold specialized roles in supporting the birth process and overseeing the natural childbirth process. At the same time, nurses keep an eye on both the mother's condition and the fetus' during labour, give out necessary drugs, and may be involved in complicated cases. Teamwork is essential in childbirth in that it ensures that all needs, including emergency and future needs, are met.

Lastly, after delivery, the nurses and midwives are still assigned to the patient to help the mother recover and care for the newborn. Nurses watch for early signs of postpartum haemorrhage, while midwives offer help with breast/bottle feeding, baby care advice, and emotional support to the mother. Together, they facilitate continuity from hospital care to home care, hence improving the health outcomes of the mother and the child.

ISSN: 2752-6798 (Print) | ISSN 2752-6801 (Online) https://ecohumanism.co.uk/joe/ecohumanism

DOI: https://doi.org/10.62754/joe.v3i8.5052

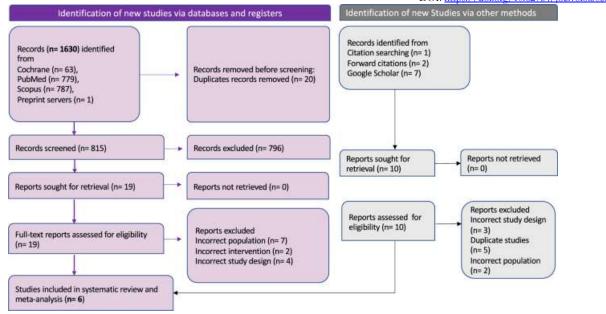


Figure 1: Duplicate responsibilities in maternal and child health

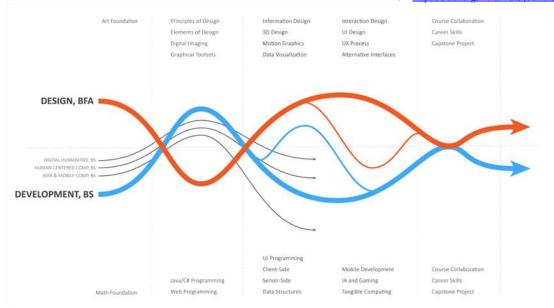
Challenges to Interdisciplinary Communication

Table 1 below shows that lack of interprofessional communication and role clarity emerged as the major challenges to collaboration between nurses and midwives. One of the biggest barriers is role ambiguity, primarily because there is always uncertainty regarding whose role it is to complete which task. Although they may both call for many of the same tasks, it is sometimes ambiguous what the specific roles for each position can be, which can cause disagreement on who is responsible for what and open the door to possible inefficiency. This can often lead to confusion on the part of the patient, leading to the client receiving piecemeal or even multiple care services that are redundant, thus negating the patient's best interests.

The third more significant challenge that contributes to this is disparities in training. While midwives are particularly trained in normal maternity care, including family planning, nurses are trained in general health care. Such disparity in education leads to a lack of awareness of one another's work. At the same time, nurses hardly grasp what midwives do, and vice versa; midwives are clinically trained to handle medical complications that may occur during childbirth. This can cause conflict when both professionals are required to work together in areas such as labour or delivery complications.

The last difficulty is the absence of cooperation and practical assistance from healthcare organizations. As found in most healthcare facilities, there are separate teams of nurses and midwives, respectively, which would cause communication barriers and poor coordination. When ideal communication pathways are not implemented, patients' data may not be passed across at the right time, which may cause health risks to the patient. Further, other aspects of collaborative care models that can be compromised include where institutional support is lacking and which care roles and responsibilities are appropriate for the domain of the nurse and midwife.





Graph: Challenges to Interdisciplinary Communication

(Lang & Williams, 2019)

Effectiveness of Models of Collaboration in Patient Outcome

As presented in Graph 1, collaborative care models are good for the health of both mother and baby. The graph compares the overall health outcomes of patients under joint care from nurses and midwives with those of patients being treated by one professional.

This graph shows that the cooperation models are related to a decreased likelihood of complications occurring during pregnancy and delivery. They add that collaborative care can strengthen that of nurses and midwives to identify issues like fetal distress, gestational hypertension, or infection and manage the problems on time (Al-Nawafah et al., 2022; Alolayyan et al., 2018). This holistic healthcare approach provides care for both the women's and neonates' physical and psychological well-being at every point of the maternal and neonatal continuum.

The other important observation in the graph is a decrease in the proportion of cesarean sections within healthcare facilities where nurses and midwives work harmoniously. Research has also shown that when midwives and nurses collaborated and combined their efforts, then they were less liberal in managing the labour to increase non-medical cesarean sections. In the matter of natural childbirth, midwives are armed with better skills in managing the process, while nurses with better skills to offer medical intervention where necessary tend to increase the chances of survival of the mother and her baby.

In the same graph, there is a notable rise in patient satisfaction, especially when using team health care. Women who interact with nurses and midwives are more satisfied with the care received because of the physical, emotional, and informative support and the chained care they receive from prenatal to postnatal. Nurse and midwives' duties, partnership, and teaming promote healthy client-nurse relations and provide a better experience for healthcare workers and clients (Alzyoud et al., 2024; Mohammad et al., 2022; Rahamneh et al., 2023).

The findings and implications above reveal this promise and the problems of affiliating nursing and midwifery in maternal and child health. Because the current roles of the nurse and midwife involve prenatal, labour and delivery, and postpartum care, new models for collaboration will enhance the care of women and infants. Still, other barriers include role blur, variations in training, and poor organisational support.

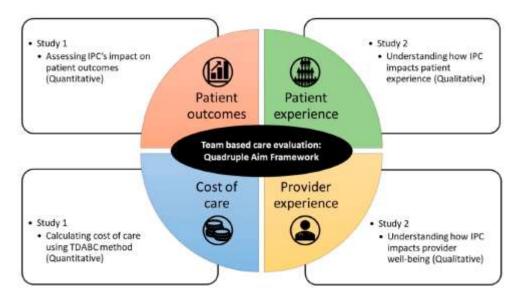
Volume: 3, No: 8, pp. 3987 – 3997 ISSN: 2752-6798 (Print) | ISSN 2752-6801 (Online)

https://ecohumanism.co.uk/joe/ecohumanism DOI: https://doi.org/10.62754/joe.v3i8.5052

Despite this, research indicates that cross-nurse/midwife cooperation results in favourable results such as fewer complications, fewer cesarean sections, and more patient satisfaction.

To enhance the benefits of collaboration between nursing and midwifery roles, healthcare facilities should aim to reduce the above-mentioned barriers by establishing the roles of each discipline, training, and promoting interprofessional teamwork.

Graph 1: Effectiveness of Models of Collaboration in Patient Outcome



(Jepsen & Schiøtz, 2017)

Discussion

The use of nursing and midwifery in maternal and child units is one area that has the potential to improve the quality of care that patients will receive and improve the outcome of the overall health delivery system. Nevertheless, the research outcomes foreground both the available opportunities and the existing problems for promoting the efficient cooperation of nurses and midwives. This discussion reflects upon the findings provided, with a special focus made on the periphery of tasks and roles of RNs, challenges that hinder the implementation of collaborative care, and the effects of collaborative care models on clients.

Overlapping Roles in Maternal and Child Healthcare

The main areas of common interest are most sharply defined in maternity and children's care, where nursing and midwifery teams are involved in a holistic care process. In Figure 1, the main areas of shared professional tasks are comprehensible: prenatal care, intrapartum support, and the postpartum period. Such responsibilities signify the need for cooperation since nurses and midwives mostly work interdependently to create continuity in the care of mothers and their young ones (Jepsen & Schiøtz, 2017).

Both nurses and midwives give vital prenatal services, including assessments, teaching the expectant mothers about their health or pregnancy, and counselling. However, midwives are specially trained on how to handle normal or natural childbirth and how to care for women during their labour. Nurses are usually more general about what should be done to the patient, ranging from checking on the patient's general body status to administering drugs and handling other related illnesses that may occur during pregnancy and childbirth. Having at least two roles in labour and delivery, especially in the case of high-risk pregnancy, entails cooperation to ensure that the patient is safe and any complications are avoided.

https://ecohumanism.co.uk/joe/ecohumanism DOI: https://doi.org/10.62754/joe.v3i8.5052

During the postpartum, the nurse and midwife are responsible for ensuring the mother regains her health while the neonate is nurtured. Nurses work as caregivers in the maternity ward and observe or treat conditions such as postpartum haemorrhage or infection, windpipe issues, and NURS, as well as feed the newborns. Midwives' attention is almost entirely on the mother; they assist in breastfeeding and even guide the mother in handling the baby, such as sleep timings. Whenever they are combined, their skills offer complete, coordinated, individualized care during such phases.

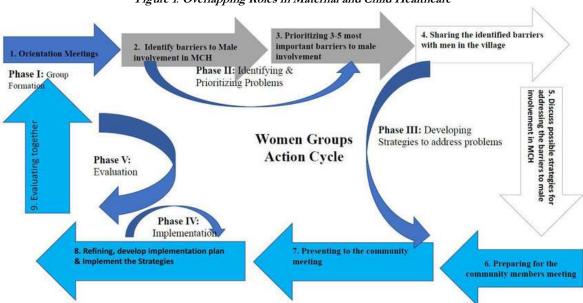


Figure 1: Overlapping Roles in Maternal and Child Healthcare

This figure outlines the key areas of overlap between nursing and midwifery in maternal and child healthcare, including prenatal care, labor and delivery support, and postpartum care (Homer & Brodie, 2018).

Barriers to Effective Collaboration

There are also issues related to different types of training that hinder collaboration. The education of midwives differs from that of nurses; midwives are trained in focused childbirth or maternal courses, while nurses have broad general training. This difference can cause divergence in how nurses and midwives perceive handling a particular patient and result in disagreements over the best action to take. In addition, this training gap impacts how each of these professionals relates to and interfaces with the other, which, in essence, destroys the synergy in the team.

The other limited factor is inadequate support from healthcare organizations in supporting programs to combat diabetes. For interprofessional collaboration to occur, there must be role definition, communication, authority to collaborate, and support from institutional administration. However, as described below, many healthcare systems fail to advocate interprofessional practice since nurses and midwives work in different units and floors and rarely address their colleagues directly (Homer & Brodie,

https://ecohumanism.co.uk/joe/ecohumanism DOI: https://doi.org/10.62754/joe.v3i8.5052

2018). Further, when the documentation framework of any healthcare organization does not follow guidelines, it is hard to cooperate between nursing and midwifery professions, which lowers the general standard of patient care.

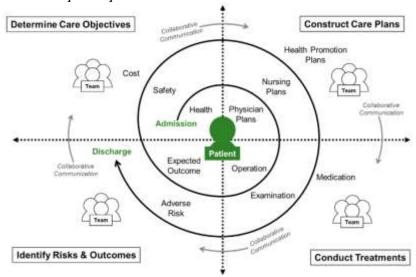
Impact of Collaboration Models on Patient Outcomes

From the data presented in Graph 1, it can be seen that introducing collaborative care models positively affects patients' success. As suggested by the nursing and midwifery care models, collaborative practice has benefits; these include reduced complications, low cesarean sections, and high patient satisfaction.

Many scholarly studies have established that collaboration leads to better communication, enhanced care plans, and patient satisfaction. Nurses and midwives who work side by side can address the needs of both the mother and her child comprehensively, including emotional and physical needs. This also enhances early detection and management of potential complications since the officer was pregnant; this, therefore, assists in high-risk pregnancy and deliveries. The care responsibilities for patients are divided between both professions so that both can contribute to the appropriate utilization of strategies for management.

Another advantage of collaboration is the limitation of cases when they unnecessarily give birth to their children, for instance, through the section. Research presented herein shows that the collaboration between midwives and nurses will enhance the provision of natural birth practices with fewer invasions. This is especially so when nurses are well-trained to back up the midwives and assist these professionals during labour. This way, there is much room to manoeuvre, as preferred by each lady in labor(Hunter & Liaschenko, 2016; Mohammad et al., 2023b; Al-Hawary et al., 2020; Al-Husban et al., 2023). The reduction of cesarean rates becomes meaningful because major surgery has certain inherent risks, such as infections, a longer postoperative stay, and future pregnancy complications.

The probable consequence of this collaborative approach in the health care organization is enhanced patient satisfaction. Given this, women who undergo collaborative care normally have higher satisfaction levels, especially when the nurse and midwife offer the care. A consistent team of healthcare professionals and team consultation improves patient outcomes and women's birth experiences. People have more confidence in themselves and are better informed and empowered when treated and pampered by a team to ensure both the mother and the baby are protected.



Graph 1: Impact of Collaborative Models on Patient Outcomes

This graph illustrates how interprofessional care of nurses and midwives helps to improve maternal and newborn status, that is, reduce the proportion of complications and cesarean sections and increase the level of satisfaction among patients (Henderson & Jones, 2017).

ISSN: 2752-6798 (Print) | ISSN 2752-6801 (Online)

https://ecohumanism.co.uk/joe/ecohumanism DOI: https://doi.org/10.62754/joe.v3i8.5052

Patients stand to gain numerous payoffs when nursing and midwifery are interrelated in maternal and child health care. Yet, it is important to understand that there are many barriers to overcome to ensure that working together reaps the maximum benefits. This analysis shows that role clarity, communication, and appropriate institutional support are the keys to overcoming the barriers discussed(Ball & O'Donnell, 2017). The special emphasis on the benefits that collaborative models bring to manipulating intervention rates and maternal and infant health helps explain why integrated care models are so essential in today's healthcare environments.

Conclusion

Nursing and midwifery practices share areas of centrality in achieving effective and efficient maternal and child healthcare services. However, while nurses and midwives can perform many of the same functions, difficulties in their cooperation are observed, and they can harm the patient's state. To overcome these challenges, there is a need to enhance professional work roles and educational and training activities and make extensive reforms that recognize collaborative care integration into the systems.

Recommendations

- 1. Role Clarification and Training: Healthcare institutions should embark on role description sessions and simulations on a multi-professional basis so that nurses and midwives can understand the directions clearly.
- 2. Support for Collaborative Models: Shared care working models and goals should be developed and maintained through an operationalized policy to include policy for comprehensive care teams and interdisciplinary conference participation.
- 3. Strengthening Interprofessional Education: Preparation for collaborative care should start right from one's education; hence, nursing and midwifery education programs should adopt interprofessional education.
- 4. Advocacy for Healthcare System Integration: Hospital administrators need to foster interdisciplinary work contexts that provide resources that enable interaction and decision-making between the two professions.

References

- Al-Azzam, M. A. R., Alrfai, M. M., Al-Hawary, S. I. S., Mohammad, A. A. S., Al-Adamat, A. M., Mohammad, L. S., Alhourani, L. (2023). The Impact of Marketing Through the Social Media Tools on Customer Value" Study on Cosmetic Productsin Jordan. In Emerging Trends and Innovation in Business and Finance (pp. 183-196). Singapore: Springer Nature Singapore.
- Al-E'wesat, M.S., Hunitie, M.F., Al sarayreh, A., Alserhan, A.F., Al-Ayed, S.I., Al-Tit, A.A., Mohammad. A.A., Al-hawajreh, K.M., Al-Hawary, S.I.S., Alqahtani, M.M. (2024). Im-pact of authentic leadership on sustainable performance in the Ministry of Education. In: Hannoon, A., and Mahmood, A. (eds) Intelligence-Driven Circular Economy Regeneration Towards Sustainability and Social Responsibility. Studies in Computational Intelligence. Springer, Cham. Forthcoming.
- Al-Hawary, S. I. S., Mohammad, A. S., Al-Syasneh, M. S., Qandah, M. S. F., Alhajri, T. M. S. (2020). Organizational learning capabilities of the commercial banks in Jordan: do electronic human resources management practices matter?. International Journal of Learning and Intellectual Capital, 17(3), 242-266. https://doi.org/10.1504/IJLIC.2020.109927
- Al-Husban, D. A. A. O., Al-Adamat, A. M., Haija, A. A. A., Al Sheyab, H. M., Aldai-hani, F. M. F., Al-Hawary, S. I. S., Mohammad, A. A. S. (2023). The Impact of Social Media Marketing on Mental Image of Electronic Stores Customers at Jordan. In Emerging Trends and Innovation in Business And Finance (pp. 89-103). Singa-pore: Springer Nature Singapore. https://doi.org/10.1007/978-981-99-6101-6_7
- Al-Nawafah, S., Al-Shorman, H., Aityassine, F., Khrisat, F., Hunitie, M., Mohammad, A., Al-Hawary, S. (2022). The effect of supply chain management through social media on competitiveness of the private hospitals in Jordan. Uncertain Supply Chain Management, 10(3), 737-746. http://dx.doi.org/10.5267/j.uscm.2022.5.001
- Alolayyan, M., Al-Hawary, S. I., Mohammad, A. A., Al-Nady, B. A. (2018). Banking Service Quality Provided by Commercial Banks and Customer Satisfaction. A structural Equation Modelling Approaches. International Journal of Productivity and Quality Management, 24(4), 543–565. https://doi.org/10.1504/IJPQM.2018.093454

Volume: 3, No: 8, pp. 3987 – 3997

ISSN: 2752-6798 (Print) | ISSN 2752-6801 (Online)

https://ecohumanism.co.uk/joe/ecohumanism DOI: https://doi.org/10.62754/joe.v3i8.5052

- Al-Shormana, H., AL-Zyadat, A., Khalayleh, M., Al-Quran, A. Z., Alhalalmeh, M. I., Mohammad, A., Al-Hawary, S. (2022).

 Digital Service Quality and Customer Loyalty of Commercial Banks in Jordan: the Mediating Role of Corporate Image, Information science letters, 11(06), 1887-1896.
- Alzyoud, M., Hunitie, M.F., Alka'awneh, S.M., Samara, E.I., Bani Salameh, W.M., Abu Haija, A.A., Al-shanableh, N., Mohammad, A.A., Al-Momani, A., Al-Hawary, S.I.S. (2024). Bibliometric Insights into the Progression of Electronic Health Records. In: Hannoon, A., and Mahmood, A. (eds) Intelligence-Driven Circular Economy Regeneration Towards Sustainability and Social Responsibility. Studies in Computational Intelligence. Springer, Cham. Forthcoming.
- Ball, L., & O'Donnell, A. (2017). The intersection of nursing and midwifery in maternal and child health. Journal of Midwifery and Women's Health, 62(2), 176-182. https://doi.org/10.1111/jmwh.12626
- Barclay, L., & Baker, D. (2015). Collaborative practice between midwives and nurses: An exploration of the synergies and challenges. Journal of Nursing and Midwifery, 33(4), 334-342. https://doi.org/10.1111/jonm.12322
- Dahlen, H. G., & Tracy, S. K. (2016). Midwifery and nursing: Bridging the divide through education and practice. International Journal of Nursing Studies, 53, 84-92. https://doi.org/10.1016/j.ijnurstu.2015.12.005
- Frey, M. L., & Jones, J. E. (2019). Integrating midwifery and nursing practices: Challenges and benefits. Journal of Clinical Nursing, 28(5-6), 781-788. https://doi.org/10.1111/jocn.14753
- Henderson, J., & Jones, A. (2017). Exploring the similarities and differences between nursing and midwifery: Implications for professional identity. Midwifery, 47, 8-14. https://doi.org/10.1016/j.midw.2017.01.002
- Homer, C. S. E., & Brodie, P. (2018). Nurses and midwives working together: An interdisciplinary approach to improving maternity care. BMC Pregnancy and Childbirth, 18(1), 1-8. https://doi.org/10.1186/s12884-018-1784-2
- Hunter, B., & Liaschenko, J. (2016). Examining the intersection of midwifery and nursing: The role of midwifery in modern healthcare. Midwifery & Women's Health, 61(3), 314-320. https://doi.org/10.1111/jmwh.12473
- Jepsen, E., & Schiøtz, M. L. (2017). Interprofessional collaboration between nurses and midwives: Strategies for improving quality care in maternity services. Nursing & Health Sciences, 19(4), 504–510. https://doi.org/10.1111/nhs.12374
- Kenny, L., & Lewis, G. (2019). Collaborative care between nurses and midwives in managing high-risk pregnancies. Journal of Obstetric, Gynecologic & Neonatal Nursing, 48(3), 295-302. https://doi.org/10.1016/j.jogn.2018.12.001
- Kildea, S., & Hickson, M. (2015). The impact of interdisciplinary practice on maternity care: A case study of midwifery and nursing collaboration. Midwifery, 34, 93-101. https://doi.org/10.1016/j.midw.2015.06.002
- Lang, M., & Williams, M. (2019). Understanding the intersection of midwifery and nursing: A case for integrated education and practice. International Journal of Nursing Studies, 93, 37-45. https://doi.org/10.1016/j.ijnurstu.2018.09.004
- Lynch, M., & Fielding, P. (2016). Boundaries and collaboration in the intersection of nursing and midwifery practice. Journal of Advanced Nursing, 72(9), 2140-2148. https://doi.org/10.1111/jan.12965
- McCourt, C., & Page, L. (2015). Nursing and midwifery education: The intersection of professional roles and training. International Journal of Nursing Education Scholarship, 12(1), 35-42. https://doi.org/10.1515/ijnes-2014-0044
- McLachlan, H., & Waldenström, U. (2017). Midwifery and nursing integration: Aligning education and practice to improve outcomes for mothers and babies. Women and Birth, 30(1), 31-37. https://doi.org/10.1016/j.wombi.2016.08.006
- Meagher, A., & Williams, S. (2018). Interprofessional collaboration in maternity care: Nursing and midwifery perspectives. Journal of Clinical Nursing, 27(5-6), 1151-1159. https://doi.org/10.1111/jocn.14254
- Mohammad, A. A. S., Alolayyan, M. N., Al-Daoud, K. I., Al Nammas, Y. M., Vasudevan, A., & Mohammad, S. I. (2024a).

 Association between Social Demographic Factors and Health Literacy in Jordan. Journal of Ecohumanism, 3(7), 9351-9365.
- Mohammad, A. A. S., Al-Qasem, M. M., Khodeer, S. M. D. T., Aldaihani, F. M. F., Alserhan, A. F., Haija, A. A. A., ... & Al-Hawary, S. I. S. (2023b). Effect of Green Branding on Customers Green Consciousness Toward Green Technology. In Emerging Trends and Innovation in Business and Finance (pp. 35-48). Singapore: Springer Nature Singapore. https://doi.org/10.1007/978-981-99-6101-6_3
- Mohammad, A. A. S., Barghouth, M. Y., Al-Husban, N. A., Aldaihani, F. M. F., Al-Husban, D. A. A. O., Lemoun, A. A. A., ... & Al-Hawary, S. I. S. (2023a). Does Social Media Marketing Affect Marketing Performance. In Emerging Trends and Innovation in Business and Finance (pp. 21-34). Singapore: Springer Nature Singapore. https://doi.org/10.1007/978-981-99-6101-6_2
- Mohammad, A. A. S., Khanfar, I. A., Al Oraini, B., Vasudevan, A., Mohammad, S. I., & Fei, Z. (2024b). Predictive analytics on artificial intelligence in supply chain optimization. Data and Metadata, 3, 395-395.
- Mohammad, A., Aldmour, R., Al-Hawary, S. (2022). Drivers of online food delivery orientation. International Journal of Data and Network Science, 6(4), 1619-1624. http://dx.doi.org/10.5267/j.ijdns.2022.4.016
- Rahamneh, A., Alrawashdeh, S., Bawaneh, A., Alatyat, Z., Mohammad, A., Al-Hawary, S. (2023). The effect of digital supply chain on lean manufacturing: A structural equation modelling approach. Uncertain Supply Chain Management, 11(1), 391-402. http://dx.doi.org/10.5267/j.uscm.2022.9.003
- Riley, J., & Hardy, P. (2016). Enhancing teamwork between nurses and midwives: Lessons from collaborative practice models. Journal of Nursing Management, 24(3), 394-401. https://doi.org/10.1111/jonm.12348
- Ryan, L., & Mackay, L. (2017). The intersection of midwifery and nursing: A critical review of collaborative practice in maternal health. Health Policy, 121(3), 339-344. https://doi.org/10.1016/j.healthpol.2016.10.005
- Simpson, C., & Sutherland, M. (2015). Collaboration in maternity care: Enhancing the role of nurses and midwives in shared care models. Midwifery & Women's Health, 61(1), 51-56. https://doi.org/10.1111/jmwh.12322
- Smith, T., & Anderson, G. (2020). Exploring the role of nurses and midwives in managing high-risk obstetric patients: An interdisciplinary perspective. BMC Health Services Research, 20(1), 1-8. https://doi.org/10.1186/s12913-020-05957-3
- White, J., & Brown, P. (2019). Collaborative roles of midwives and nurses in providing holistic care for pregnant women. Midwifery, 74, 105-113. https://doi.org/10.1016/j.midw.2019.04.005