

Artificial Intelligence: Innovation and Midwifery Education, Practice, And Research in Arab Region; Systematic Review Based Findings

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ABSTRACT

Background: Artificial intelligence innovation is defined as highly specialized productive and generalizable practices in every field of life. In the healthcare setting artificial intelligence has certain revolutions associated with the linkage of healthcare practices to provide humankind with effective healthcare interventions. Midwifery operationalizing the artificial intelligence innovation to enhance them is knowledge competencies and skills regarding the process of restoration and after a birth period.

Aim: To evaluate the literature based on artificial intelligence innovation to midwifery education, practice, and research in the Arab region.

Method: A systematic review of rationalize the fundamental strategies of Kitchenham systematic review procedure. The data collected from the Arab region published period articles from 2019 to 2023. The process involves the identification, screening, eligibility identification, and inclusion of the studies with respect to the desired concern.

Results: As 15 articles were selected out of 1000,850. Selection of the study based on identified criteria of the selection confidence interval of 95% with a margin of error of 5%.

Conclusion: Artificial intelligence has more significant work to do with the education practice and research in the paradigm of midwifery it focuses largely on identifying potential health concerns associated with the new advanced technology. Operationalization of machine learning at deep learning is one of the basic consequences through which the higher extent of health prognosis is developed to understand the health promotional parameter.

Keywords: *Artificial Intelligence, Innovation, Midwifery Education, Midwifery Practice, Midwifery, Research, Arab Region*

INTRODUCTION

Integration of new technology in the education practice and Research focuses mainly on the Healthcare paradigm associated with new innovative strategies and execution processes (DEMIREZEN et al., 2021). Paradigmatic shift of traditional working in the health care setting

focuses primarily on the identification of variable constructs that are highly associated with the advancement in health care services (Al Ali et al., 2022; Hernon et al., 2023). Several natural phenomena along with human life exist irrespective of the circumstances, situations, and events.

Giving birth to a child is one of the basic natural phenomena that lead to the continuity of life on the planet Earth (Jasper & Kavichelvi, 2021). Catching knowledge about midwifery in the health setting greatly affected the understanding of systemic and scientific evidence that remarkably functions on the practice, education, and research to innovate new ideas in the health care setting (O'Connor et al., 2023).

Several pathological tools of artificial intelligence have introduced innovation to the learning and operationalization mechanism (Çitil & Çitil Canbay, 2022). It involved a greater extent of higher productivity and functionality to extend learning from the advanced knowledge competencies and skills based on precision and accuracy (Lazarus et al., 2022). Artificial intelligence involves machine learning and deep learning mechanism that and falls the higher extent of health proximity and precision to yield a greater extent of matching (Hernon et al., 2023).

Healthcare midwifery services focused largely on the operationalization of different concerns and healthcare practices for women in the gestation period. (Noshili et al., 2022). It is associated with providing beneficial and fruitful comfort for the women and the child during the birth and labor processes ((Shahbal et al., 2022; Meen, 2021). Artificial intelligence is functional for the greater extent of management in health care and paradigm (Wilson et al., 2023).

The systematic review is to understand the innovation of artificial intelligence to the midwife free education, practices, and research in the Arab region to elevate the knowledge paste on higher precision accuracy and comfortability (Blease et al., 2020). Moreover, it is lastly associated with the extent of monetarization and accomplishment of a greater extent of learning through the variable construct (Wylie & Lee, 2022). Artificial intelligence is a new technology of the modernized era that influences health promotion and disease prevention in midwifery practices (Tang et al., 2021).

METHOD

The expression of the method based on the identification of results based on the preferable reporting system of systematic review and meta-analysis regarding the guideline of PRISMA. It operation ice the registered protocols of the systematic review based on a predefined set of characteristics and traits.

Search strategy and selection criteria

Operationalization of the systematic search done through the Independence Research engine including “Google chrome”, “Microsoft edge”, “Torrent”, and “Maxton”. selection of the data from the database is based on server-based identification including “ Google scholar”, “ Taylor and Francis”, “ Emerald inside”, “ science direct”, “ web of science”, and “Medline”. From the session of 2019 to 2023. Search term for this present study

Systematic selection of the particular period articles for this specific study based on the operationalization of systematic and effective procedures that enable greater evidence of reliability, validity, generalizability, and data validation. The steps based on three phases including the 10th step equally distributed.

Phase 1 - Plane review

Review planning is based on the identification and jointing down all the protocols of the systematic review to execute the appropriative strategies after defining the potential databases and research engines. There are three stages of review planning (Wilson et al., 2023).

Step 1: Identification of Research Question

Appropriate understanding of the research question based on the identification of a particular interest of study that is associated with the understanding of dependent and independent variables along with any kind of confounding and extremely variable in the relationship. It provides the benchmark to the question regarding the research execution process.

P = Population = Nurses and Midwives.

I = intervention = Artificial intelligence innovation

C = Comparison = literature evidence

O = outcome = effectiveness in the education, practice, and research.

Research question: what is the effect of artificial intelligence innovation on midwifery education, practice and research in Arab Region?

Step 2: Inclusion and Exclusion Criteria

Selection of the particular studies regarding this specific systematic review based on the identification and establishment of certain criteria for the evaluation. Highly precise and accurate selection criteria indicating the inclusion and exclusion presented

The Criteria of Inclusion and Exclusion of Research Includes:

No	Criteria	Inclusion	Exclusion
1	Research that ranges from 2019 to 2023.	☐	
2	Research that is below 2018.		☐
3	Saudi nurse and midwifery population in Arab region	☐	
4	Artificial intelligence innovation to health, especially midwifery.	☐	
5	Research that focus on the education, practice, and research	☐	
6	English literature.	☐	
7	Other than English literature.		☐
10	Data collected from the peer-reviewed journals.	☐	
11	Quantitative Research.	☐	

Search Syntax

Operationalization of the inclusion and exclusion criteria based on the identification of syntax. The present study focused on the particular Syntax regarding the extraction of data from the already defined databases and Research engines. Syntax are formulated based on Keyword of this specific study indicate “artificial intelligence”, “innovation”, “midwifery”, “education”, “practice”, “research”, “Arab region”.

Syntax 1: “artificial intelligence” and “innovation”, “Arab region”.

Syntax 2: “artificial intelligence”, “midwifery”, “Arab region”.

Syntax 3: “artificial intelligence” and

“education”, “Arab region”.

Syntax 4: “artificial intelligence”, and “practice”, “Arab region”.

Syntax 5: “artificial intelligence” and “research”, “Arab region”.

Step 3: Literature Search

Already defined the database and the research engine for the literature search was operational lies in this step to address the total number of research articles extracted and screen for the execution of systematic review

Database Statistics

No	Database	Syntax	Year	No of Research
1	Google Scholar	Syntax 1	2019	27,600
		Syntax 2	2020	
		Syntax 3	2021	
		Syntax 4	2022	
		Syntax 5	2023	
2	Research Gate	Syntax 1	2019	23,300
		Syntax 2	2020	
		Syntax 3	2021	
		Syntax 4	2022	
		Syntax 5	2023	

3	Emerald Insight	Syntax 1	2019	17,200
		Syntax 2	2020	
		Syntax 3	2021	
		Syntax 4	2022	
		Syntax 5	2023	
4	Science Direct	Syntax 1	2019	11,750
		Syntax 2	2020	
		Syntax 3	2021	
		Syntax 4	2022	
		Syntax 5	2023	
5	PubMed	Syntax 1	2019	21,000
		Syntax 2	2020	
		Syntax 3	2021	
		Syntax 4	2022	
		Syntax 5	2023	

After scrutinizing data tally marking was necessary for every search from the database and engine. Data gathered based on the particular databases, which include the Google Scholar 27600, Research Gate 23,300, Emerald Insight 17,200, Science Direct 11,750 and PubMed 21,000.

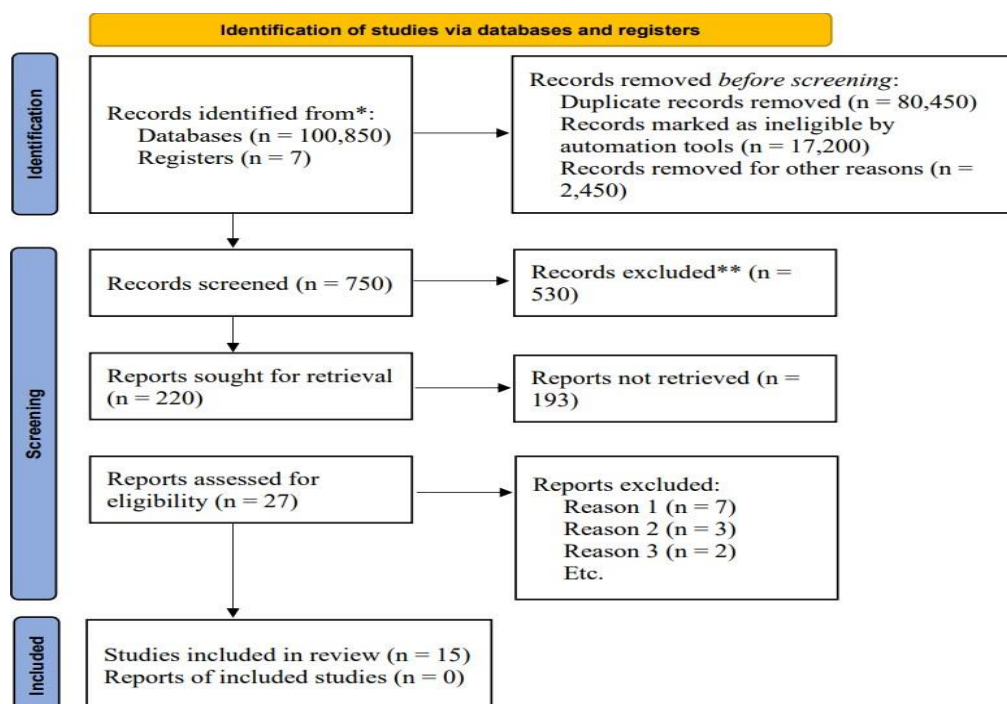
Phase 2 – Conducting the review

The second phase is associated with conducting the reviews it is associated and linked to the collection and gathering of all the data that is

associated with the mapping and rehearsal of the data collection activities.

Step 4: Selection of Studies Based Upon the Previously Defined Criteria

Scrutinizing the data based on previously defined criteria indicated the eligibility of 15 studies indicating the most effective, highly appropriate, and suitable. The total number of articles that identified from the peer-reviewed sources and databases included 100,850. Afterward applying the selection criteria it reduces only to 15 articles that are valid, reliable, and generalizable for the appropriate data resemblance.



Step 5: Data Extracted from Selected Studies

Study selection from the extracted study ranges to 15 studies out of 100,850. Extraction of the different records through the variable resources indicated the amount of 75 articles. Record after replication removal indicated the 750 studies that screened to eliminate the exclusion of 530 studies that remain 220 studies. Assessment of the full-text article for the eligibility indicated the 42 articles that were remaining 27 articles after the identification of full-text articles. Exclusion of the article indicated the seven duplicated articles, wrong complications not valid to the study complaint, two articles were wrong result design that not fitted in this particular study, and one article not related to the outcome portrayed by the study. There the total article remaining in the present systematic review was 15.

Step 6: Evaluation of Risk of Biasness in the Studies

After the process of extraction of the study from the prism diagram indicating the identification, screening, eligibility, and included study criteria. Next type is to identify the biases in the study regarding cultural diversity, cross-cultural validation issues, ethical and religious problems, and variable another prospectus. In this present context of the artificial intelligence innovation regarding the midwifery education practice and research. The standard eyes working of the health care practices do not fully relay to biases founding variables.

Step 7: Study Presentation and Basement of the Quality of Evidence

Baseline quality evaluation regarding the evidence presented related to the understanding of journals and articles that considered in this present systematic review. The quality

assessment provides the understanding of measurability, reliability, validity, generalizability, and operational is the ability of the present study to the different construct regarding the Arab region population.

Stage 8: Synthesize Data

Data synthesis usually based on the construction of formats that are based on reference identification through the meta-analysis this provides information about the instrumentation something design and the result formulation from which the systematic review was conducted.

Phase 3 – Document Review

Already define set and operationalized criteria that have a beneficial impact on the quality, complexity, and productivity of the present scientific and systematic review of the article. It is large associated with the fundamental understanding of midwifery education practice and research in the paradigm of innovation in artificial intelligence.

Stage 9: Write Review Report

Review report writing based on documentation of all the material that is associated with the particular concept of “artificial intelligence: innovation and midwifery education, practice and research in the Arab region.”

Stage 10: Validate Report

Report validation based on identified literature based on five questions indicating the reliability validity and generalizability of the present systematic review designed on the 15 identified studies indicating the proportionality in the content.

TABLE 1: Assessment of the literature quality matrix

Sr #	Author	Are the selection of studies described and appropriate	Is the literature covered all relevant studies	Does method section describe?	Were findings clearly described?	Quality rating
1	Mollura et al	YES	Yes	Yes	Yes	Good

2	Hunt et al	Yes	Yes	Yes	Yes	Good
3	Hernon et al	Yes	Yes	Yes	Yes	Good
4	Kais et al	Yes	No	Yes	Yes	Good
5	NYONI et al	Yes	Yes	Yes	Yes	Good
6	van de Venter et al	Yes	Yes	Yes	Yes	Good
7	Kemp et al	Yes	Yes	Yes	Yes	fair
8	Rainey et al	NO	Yes	Yes	Yes	Good
9	Thaher et al	Yes	Yes	Yes	Yes	Good
10	Cirillo et al	Yes	Yes	Yes	No	Fair
11	Handayani et al	YES	Yes	Yes	Yes	Good
12	Conde	Yes	Yes	Yes	Yes	Good
13	Malik et al	Yes	Yes	Yes	Yes	Good
14	Sheena et al	Yes	No	Yes	Yes	Good
15	Kiguba et al	Yes	Yes	Yes	Yes	Good

TABLE 2: Research Matrix

Author, Date	Research Question	Methodology	Sample	Setting	Results
Mollura, D. J., Culp, M. P., Pollack, E., Battino, G., Scheel, J. R., Mango, V. L., ... & Dako, F. (2020).	What is the Artificial intelligence in low-and middle-income countries: innovating global health radiology	Quantitative cross sectional descriptive correlation al	Nurses and midwifery	health radiology department	Higher effect on the Artificial intelligence in low-and middle- income countries: innovating global health radiology
Hunt, X., Tomlinson, M., Sikander, S., Skeen, S., Marlow, M., du Toit, S., & Eisner, M. (2020).	What is the Artificial intelligence, big data, and health: The frontiers of the prevention of violence against children	Quantitative cross sectional Research Design	2156 midwifery	Hospital settings	Effective Artificial intelligence, big data, and health: The frontiers of the prevention of violence against children
Hernon, O., McSharry, E., MacLaren, I., & Carr, P. J. (2023).	What is the use of educational technology in teaching and assessing clinical psychomotor skills in nursing and midwifery education: A state-of-the-art	Quantitative large scale cross-sectional	12,596 midwiferies	Hospital settings	Effective use of educational technology in teaching and assessing clinical psychomotor skills in nursing and midwifery education
Kais, E. C. F., Ghafouri, A., & Al Shamsi, M. (2021).	What is the A Review of the Impact of Artificial Intelligence on the Healthcare Industry:	Research review	Articles	Databases	Effective the Impact of Artificial Intelligence on the Healthcare Industry:

NYONI, S. P., CHIHOOHO, T. A., & NYONI, T. (2021).	What is the Projecting Total Fertility Rates for Jordan Using Artificial Neural Networks	Quantitative cross sectional Research Design	403 midwifery and nurses	Hospitals and rehabilitation centers	Greater Projecting Total Fertility Rates for Jordan Using Artificial Neural Networks
van de Venter, R., Skelton, E., Matthew, J., Woznitza, N., Tarroni, G., , Hirani, S. P., ... & Malamateniou, C. (2023).	What is the Artificial intelligence education for radiographers, an evaluation of a UK postgraduate educational intervention using participatory action research	Quantitative cross sectional Research Design	375 midwifery nurses	Hospital settings	Effective Artificial intelligence education for radiographers, an evaluation of a UK postgraduate educational intervention using Participatory action research: a pilot study
Kemp, J., Maclean, G. D., Moyo, N., Kemp, J., Maclean, G. D., & Moyo, N. (2021).	What is the Professionalizing Midwifery	cross-sectional survey	midwifery = 1,510)	Nurses working in hospitals and community settings Hong Kong.	Effective Professionalizing Midwifery on the basis of artificial intelligence
Rainey, C., O'Regan, T., Matthew, J., Skelton, E., Woznitza, N., , Chu, K. Y., ... & Malamateniou, C. (2021).	What is the Beauty is in the AI of the beholder: are we ready for the clinical integration of artificial intelligence in radiography	cross-sectional research design	226 midwiferies	Emergency department	Effective Beauty is in the AI of the beholder: are we ready for the clinical integration of artificial intelligence in radiography
Thaher, N., Shibli, R., Khasawneh, M., Elhaija, W. A., & Alwahadni, A. (2022).	What is the Leveraging research and Innovation for the Post COVID-19 Era: Lessons Learned and Future Plans Towards Economic Resilience?	The cross-sectional study conducted through online survey.	7091 midwiferies	Hospitals in Vietnam	Higher Leveraging Research and Innovation for the Post COVID-19 Era: Lessons Learned and Future Plans Towards Economic Resilience
Cirillo, D., , Catuara-Solarz, S., Morey, C., Guney, E., Subirats, L., Mellino, S., ... & Mavridis, N. (2020).	What is the Sex and gender differences and biases in artificial intelligence for biomedicine and healthcare?	cross-sectional research design	485 midwifery nurses	medical hospital Turkish	Appropriate Sex and gender differences and biases in artificial intelligence for biomedicine and healthcare

Handayani, F., Nurhayati, N., & Kamila, A. (2022).	What is the Artificial intelligence as an educational media to improve adolescent reproductive health	cross-sectional research design	medical health workers and midwifery nurses	Clinical labs	Effective Artificial intelligence as an educational media to improve adolescent reproductive health
Conde, F. E. (2022).	What is the Achieving the Promise of a First- Rate Education: The UAE's Attempt at Transforming Education Through the Lens of the Leadership for Learning Theoretical Framework	cross-sectional descriptive design	midwifery Nurses	Hospital setting	Effective Achieving the Promise of a First-Rate Education: The UAE's Attempt at Transforming Education Through the Lens of the Leadership for Learning Theoretical Framework
Malik, A., Kumar, S., Basu, S., & Bebenroth, R. (2023).	What is the Managing disruptive technologies for innovative healthcare solutions: The role of high-involvement work systemsand technologically mediated relational coordination	Qualitative cross-sectional research design	300 nurses	Hospital	Effective Managing disruptive technologies for innovative healthcare solutions: The role of high-involvement work Systems and technologically-mediated relational coordination
Sheena, B. S., Hiebert, L., Han, H., Ippolito, H., Abbasi-Kangevari, M., Abbasi-Kangevari, Z., ... & Gholizadeh, A. (2022).	What is the Global, regional, and national burden of hepatitis B, 1990–2019: a systematic analysis for the Global Burden of Disease Study 2019	Qualitative cross-sectional research design	300 midwifery Nurses	ICU hospital of Belgium	Higher Global, regional, and national burden of hepatitis B, 1990–2019: a systematic analysis for the Global Burden of Disease Study 2019
Kiguba, R., Olsson, S., & Waitt, C. (2023).	What is the Pharmacovigilance in low-and middle-income countries: A review with particular focus on Africa	Qualitative research	Search engine	Databases	Higher pharmacovigilance in low-and middle- income countries

Literature Review Findings

Findings from the present literature review provide an ample amount of information and knowledge regarding the importance of artificial intelligence innovation in the midwifery education practice and research in the Arab region (Flanagin et al., 2021). New and advanced knowledge of artificial intelligence innovate the field of midwifery through the highly specified specific and achievable content to the individual life for the sake of higher precision accuracy and health product activity. There are certain themes and sub themes that generated based on which thematic review of the article selected (Wolff et al., 2023). It is also associated with a greater understanding of higher product activity and proximity to the greater extent of knowledge, understanding, and inside has developed regarding the education practice and research (Msweli et al., 2022).

Themes

Themes generated based on which the already defined articles have selected based on defined criteria. In this particular literature, research matrix that has defined earlier themes based on education practice and research regarding midwifery artificial intelligence innovations (Mounsef et al., 2022).

Three themes for this present systematic review indicate the education, practice, and research regarding the innovative artificial intelligence innovation in midwifery. Sub themes are associated with the following paradise gathered from the extraction of the studies literature (Nugroho et al., 2022).

Theme 1: education

A first major theme that is so created with the education of midwives free related to artificial intelligence innovation (Almarwani & Elshatarat, 2022). It provides information about new and advanced technology and innovative strategies and operations in the curriculum design and learning mechanisms. Innovation enhances the new trends in learning and education to enhance the knowledge, competencies, and capabilities of midwifery health care services (Bala, 2021).

Leadership is the first theme of education that is associated with gathering particular knowledge and computer please buy the student of mid-boyfriend to elite the practices for the future

based on their own competencies and skills (Msweli et al., 2022). Educational paradise enhances the competencies and self-recognition based on which the greater amount of self-confidence personality and character-building portrait (Bani Issa et al., 2020).

Higher expectations are the second sub-theme of education that put forward the greater extent of knowledge training and advance different hardships, disasters, and devastation will managed. Education put forward ample grading of training to the nursing professionals regarding the operationalization of different curricula of interest in the made-by-free settings (Said, 2020; Alruwaili et al., 2022).

Goals and direction are the second sub-theme of education. It largely focuses on the directional and goal-related paradigm related to education enhancement, knowledge development, and competency building among midwifery students and petitioners regarding the goal-directed behavior of excellence in the health care setting (Almutairi et al., 2022; Bani Issa et al., 2020). It shows remarkable and highly exponential information through which the creator extent of competencies based on accomplishment and choice of certain directions to success (Anadol & Behery, 2020).

Secure and organized is the force of the theme of education because education provides valid reliable and authentic knowledge through enhancing their knowledge and competencies regarding the assessment and identification of right and wrong productive and productive scenarios of life. It also focused on the greater understanding of realization and understanding of variable construct to organized behavior for health productivity (Al-Kubaisi et al., 2023; Jasper & Kavichelvi, 2021). Evaluation is the basic component of education (Anadol & Behery, 2020). This sub theme is highly productive to understanding the overall process of training, advancing curriculum impact, and knowledge gathering through the appropriate receptor preceptor and education (Blease et al., 2020). Therefore, evaluation of the artificial intelligence innovation to the midwife free is one of the achievable accomplishments to adapt the higher extent of precision accuracy and productivity in the clinical practices of midwives (Çitil & Çitil Canbay, 2022).

Theme 2: Practice

In the healthcare, setting practice is the basic thing that requires higher competency skills and

capabilities for the healthcare services of the patient with respect to the identified role of the midwife and healthcare providers (Bani Issa et al., 2020). The second team of practice based on the identification of artificial intelligence innovation to the nurse's practice that yields a greater extent of higher precision accuracy and authenticity in the care with respect to a patient's health condition (Wilson et al., 2023). Practice usually focuses on the proactive behavior of the nurses to accomplish the goal of the health setting through a decrease in health complications (Çitil & Çitil Canbay, 2022). There are seven sub-teams of practice indicating the details (Anadol & Behery, 2020).

Kindness is the first theme of practice that is effectively congruent to the courteous, helpful, benevolence, decency, feedback of treating, gentleness, and affection associated with the warm and kind-hearted practices associated with the patient (Jasper & Kavichelvi, 2021). Artificial intelligence in this paradigm understands the health complications of the woman who is giving birth to the child (Çitil & Çitil Canbay, 2022). Moreover, it provides a sense of understanding regarding the care practices and operationalization of different advanced technology to reduce pain and hardship (Msweli et al., 2022).

Caring is the second sub theme of the practice. Caring is associated with the compassion, confidence, commitment, treatment in a better way, protection, promotion, and health product activity in response to the greater extent of understanding the patient's need and requirements at the appropriate time with respect to the condition (Bani Issa et al., 2020).

Trustworthiness is the third sub-theme of practice it linked to understanding and identifying one's responsibility toward others. Midwives usually provide healthcare interventions to the patient upon which they are working progressively and remarkably, Anadol & Behery, 2020. Largely associated with the identification of civility and devotion toward the patient with respect to their health condition (Jasper & Kavichelvi, 2021).

Emotional ability is the fourth theme of practice that provides the understanding of the midwife's emotional intelligence and emotional reciprocity

regarding health care practices (Jasper & Kavichelvi, 2021). Moreover, it also linked with the providing emotional skills and competencies through which the greater extent of knowledge and competency enhance through the identification of other feelings and desires that complement the ones on health complications (Msweli et al., 2022).

Empathy is the fifth sub theme of practice it is associated with putting oneself into the other shoe by identifying complications, hurdles, hardships, problematic situations, health complications, and the negative effect of environmental, psychological, social, cognitive spiritual, and effective understanding of patient health concerns (Bani Issa et al., 2020). Moreover, empathy is synonyms sympathy describing the compassion and healthy understanding of others, especially in the clinical domain (Çitil & Çitil Canbay, 2022).

Compassion is the sixth sub-theme of the practice that is associated with the protection of well-being, distress of tolerance, care, practice, and the higher proximity in potential health understanding of the patient (Çitil & Çitil Canbay, 2022). It is benefited the understanding of the fallow feeling of care and the identification of the patient with respect to the artificial intelligence innovation in their health care setting (Jasper & Kavichelvi, 2021). Moreover, it provides and signifies the greater impact on health care practices and nursing intervention through the greater extent of largely associated with the patient help respectively (O'Connor et al., 2021).

Theme 3: Research

Research defined as the systematic and highly precise knowledge and extrinsic abilities of understanding (O'Connor et al., 2021). Research in the paradigm of artificial intelligence focuses largely on the greater extent of understanding and monetarization of different curriculum management and design assessment (Çitil & Çitil Canbay, 2022). Research is highly beneficial and important to understand the greater extent of the artificial intelligence (Msweli et al., 2022).

Knowledge is the first sub-theme of research that is associated with gathering a greater amount of evidence from the past based on systematic and procedural strategies of acquiring the knowledge (O'Connor et al., 2021). Artificial intelligence innovations greater impact on the understanding of greater knowledge regarding the operationalization of

new and advanced technology to the health care services especially related to the midwife free (Bani Issa et al., 2020).

Validity is the second sub-theme of the research that identifies the particular construct and concept measurement and evaluation based on which decision can be made (Çitil & Çitil Canbay, 2022). Moreover, the validity regarding the artificial intelligence innovation in the midwifery helps to identify the extent of utilization and the usage of artificial intelligence to the health care practices in the gynecological subjective (Jaspher & Kavichelvi, 2021).

Generalizability as ability is the third perspective in the research that is associated with the identification of construct related to the artificial intelligence innovation operational in the clinical setting (Msweli et al., 2022). Moreover, it also focuses on the identification and measurement of the different construct that has a greater impact on the learning and identification of similar circumstances to the variables (Çitil & Çitil Canbay, 2022).

Validity is one of the basic sub-themes in the research that identifies the psychometric validation of the particular concept and constructs to the health care practices (Blease et al., 2020). It involves the greater extent of identifying monitoring and measurement of the exact operation of the construct to the health care setting and scenario (Jaspher & Kavichelvi, 2021). Moreover, it also provides a beneficial understanding of higher productivity and effectivity in the health care setting (Msweli et al., 2022).

Authenticity is the theme of the research that provides information about the legality, effectiveness, confidentiality, and approximation of truth in the practices regarding the already defined logical evidence and research waste consequences (DEMİREZEN et al., 2021). It also focuses on the variable extent through which the greater knowledge and higher impact of understanding the construct creation (Jaspher & Kavichelvi, 2021).

Originally is the last and the most important that is generated on the basis of identifying all the studies that have a greater extent of application of the valid and reliable sources of knowledge to the

health care practices and premises (Anadol & Behery, 2020). Moreover, it also provides a beneficial understanding regarding health productivity and monetization of different concerns related to the variable conjugation in the health care setting (Bani Issa et al., 2020).

DISCUSSION

Technology in the modernized era is one of the integral components of individual professional and personal life (O'Connor et al., 2021). It connects to the individual large distances, and helps to navigate, communicate, find out, inquire, understand, monitored, and subjective knowledge evaluation with respect to greater and more effective applications in human life (Msweli et al., 2022).

Highly effective identification and implementation of advanced curriculum to the knowledge implementation evolves the higher extent of productivity proximity and knowledge among the educational practices and research of midwifery (Jaspher & Kavichelvi, 2021).

Artificial intelligence is one of the largest strategies operational every content of life, especially in the health care setting and midwifery practices (DEMİREZEN et al., 2021).

Understanding and the practice of the knowledge in the clinical practices of midwifery (Anadol & Behery, 2020). Innovations of artificial intelligence have evolved the hole and the standing of the health construct with greater and more remarkable complications to health-related problems (Bani Issa et al., 2020). These entire respective not only identify the proportional parameters and higher extent of learning through which nursing care and midwifery care are important (Jaspher & Kavichelvi, 2021).

In the healthcare setting higher projection is required that are associated with a greater extent of knowledge gathering and reduction of complication to women's life (Anadol & Behery, 2020). Outcome related to the innovation of artificial intelligence in the midwife free enhances the greater extent of decrease in fundamental knowledge and competencies of the patient with respect to threatening and risk factors (Wilson et al., 2023).

Present system review focuses largely on the identification of variable training knowledge and handsome and skill development through the greater extent of practice and research paradise accompanied with the educational parameters (Oladapo et al., 2021).

Artificial intelligence: innovation and midwifery education in Arab Region

Artificial intelligence innovation in the new era yields highly productive and comfortable healthcare practices not only for the patient but also for the healthcare providers (Obaideen et al., 2022). This is because it elevates the knowledge competency and skill of the practitioners, especially in the midwifery situation. The greater extent of providing comfort to the patient and nurse based upon the operationalization of machine learning mechanism in hands the greater extent of competencies and skill environment (Golden et al., 2022).

Identification of the potential subjective in learning not only focuses on the educational paradise but also helps to elevate the greater extent of knowledge and precision (Oladapo et al., 2021). Justifying the variable training associated with the ethical rules and abundance of goal achievement directions, higher innovation to the new experience, of secure and organized life along with the comfortable and evaluates your strategies prior to the existence (El-Saharty & Liu, 2021).

Elevate the higher competencies and leadership along with the greater accomplishment of nursing care and midwifery objective (Anadol & Behery, 2020). A scientific review of the present topic of artificial intelligence innovation to midwifery education provides the inside into the future of higher precision accuracy and generalizability based on defined criteria (Oshida, 2021). Much understanding of the prospectus along with the greater extent of having higher competencies and skills elevated the functionality and greater proximity in care (Golden et al., 2022).

Subsets of artificial intelligence identify the operationalization of algorithmic training of machines to perform the variable task that is required for human intelligence (El-Saharty & Liu, 2021). It is associated with the improvement of pregnancy and the afterward period associated with diagnose, communication, care, treatment, services, largest, rehabilitation, network, and appropriate care concern (Obaideen et al., 2022). Moreover, machine learning is one of the subsets related to artificial intelligence that perform the indirect operation of the machine to perform a greater extent of that execution (Kumar et al.,

2022). It facility the deep learning methodology by making connections between the complex variables and connection of brain network along with the environmental consequences (Anadol & Behery, 2020).

Artificial intelligence identification of midwifery educational enhancement involvement has a greater impact on the operationalization and productivity in health care settings (AlOmari, 2022). Moreover identifying the depiction of several associated with the improvement of pregnancy, childbirth, and afterward period of women's life. Treatment highly precise and activate treatment (Koranic et al., 2022).

Artificial intelligence: innovation and midwifery practice in Arab Region

Artificial intelligence in the region of Arabic countries influences the greater extent of operationalization and management of different competencies and skills among their professionals (Salem et al., 2022). Therefore, the practices are highly specified to the standard eyes value of international rules and regulations (Al- Marzooqi et al., 2021).

Artificial intelligence related to the practice obligates the trustworthiness, fruitfulness, caring, compassion, empathy, peace prosperity, and value to the well-being (AbuAyed & Wainwright, 2022). In Arab countries, variable constructs associated with artificial intelligence are highly modified with the different cultural, religious, and economical factors associated with the higher intention to lead the greater understanding of women's lives in the gastrulation period tell the birth time (Al- Marzooqi et al., 2022).

Monetarization of different extent of artificial intelligence not only focus on the higher proximity to the understanding of the health care industry in the region (Alvarez et al., 2022). These region base industries note only identify the greater actual and peaceful admiration of professionalism in the midwife free (Oladapo et al., 2021).

Getting more information about innovation in health usually practices the greater extent of economic and cultural values associated with the practice (Sendra-Balcells et al., 2023). Moreover, gender discrimination and differences in the artificial intelligence innovation in midwifery identify the greater extent of putting a more functional framework to the health care services and health-related negative

In the practice of artificial intelligence, innovation to the midwife free learning higher impact of greater studies has device and manipulated through the subject activity in healthcare settings and fundamental understanding of the desired a patient with respect to the operation of healthcare services (Frenk et al., 2022). Moreover, identifying the problem and having a constructive view of health is the higher extent of learning and response management (Msweli et al., 2022).

Artificial intelligence: innovation and midwifery research in Arab Region

Exploring the relationship of research to artificial intelligence innovation in the practice and clinical intervention focuses on the assessment and identification of variable construct associated with the innovation (Kiguba et al., 2023). Artificial intelligence innovation effect largely the patient health related to midwifery practices (Sheena et al., 2022). It also involves a greater extent of higher proportionality and management with respect to higher impact in clinical practices (Malik et al., 2023).

Implementation of variable research regarding artificial intelligence innovation not only affects the higher extent of learning, awareness, and productivity in the health care setting but also provides a beneficial way of concerning and creating a health promotional paradigm (Higgins et al., 2023). Evaluation of the different perspectives associated with the learning and caring mechanism involves the greater extent of higher proximity and proportionality in the new and advanced knowledge enhancement (Damar, 2022). Research does not only provide the psychometric properties of certain constructs in the health care setting (Wilson et al., 2023). They also provide the authenticity and the functionality of the particular construct for a healthy and effective human life (Mollura et al., 2021).

The present study of artificial intelligence provokes new and advanced technology operations in the health care setting with respect to the greater expectations of understanding the requirement and need for new strategies involvement and non-maleficence humankind's life productivity (O'Connor et al., 2021). Overall

research paradigm not only influences the greater extent of higher generalizability of artificial intelligence to the healthcare setting in a sense of midwifery (Wilson et al., 2023). The present construct of midwifery not only influences the higher perspective of examination and understanding of greater expectations related to the operationalization in healthcare premises (Blease et al., 2020). Moreover, in the Arabic region, artificial intelligence considered as completely safe and productive for the operationalization of different extents of knowledge from the variable region (Wilson et al., 2023).

There are several limitations to this scientific paper of systematic review identifying the artificial intelligence innovation on midwifery regarding the education research and practices in the Arab region. First, it is associated with the operationalization of the systematic process through which the collection of data is meaningful and highly effective. Later on, it is associated with the remarkable identification of the subjective identification of data with objectivity. Largely associated with the subject by sis regarding the scrutiny and screening process, and lastly the limitation are associated with the evaluation of Arab countries in compliance with the digitalization and modernization with respect to the west. (Rajhi et al., 2022).

The recommendation put forward the beneficence of artificial intelligence innovation to midwifery with respect to reducing the complication in women's life. Getting higher information knowledge and competency with respect to the environment in the practice evolves the greater extent of comfort to life. Moreover, new research needed to be operational and conducted for the sake of validity reliability generalizability, and authenticity of artificial intelligence in the healthcare setting.

CONCLUSION

Innovation of artificial intelligence is associated with computerized learning and implementation programs, neural sciences identification, biological identifications, bioinformatics, social informatics, and philosophical and psychological identifications regarding the operationalization of variable constructs to human life (Msweli et al., 2022). Innovation of artificial intelligence not only a walk the greater extent of learning through education enhancement, practice through the effective health care settings, and research is through the greater

knowledge and competency for the skill development. Features of artificial intelligence on the administration of automatic task cloud computing and chat book identifications of the complication associated with the human life. In the Arab region of learning. It is one of the greatest impacts on nursing practices to deal with the complication and monetarization of the evaluation strategies to learn effective healthcare strategies.

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