

REVOLUTIONIZING NURSING EDUCATION: A CONCEPT-BASED APPROACH FOR ENHANCED LEARNING

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ABSTRACT

Nursing education is constantly evolving to meet the demands of an ever-changing healthcare environment. One current approach that has gained popularity is the Concept-Based Approach (CBA). This paper aims to explore the development of an innovative CBA for teaching and learning in nursing. It will further outline the CBA curriculum development process and provide examples of how this approach can be effectively incorporated into the classroom. The research significance of the study lies in its focus on exploring the potential benefits that may gain by shifting from the traditional approach of teaching and learning in nursing to the CBA. The study will demonstrate the positive impact that a CBA can have on student learning outcomes, teaching effectiveness, and overall satisfaction with the nursing education experience.

INTRODUCTION

Nursing education is constantly evolving to meet the demands of an ever-changing healthcare environment. One approach that has gained popularity in recent years is the Concept-Based Approach (CBA). This approach focuses on teaching nursing students the underlying concepts and principles that are fundamental to the practice of nursing. The aim of this paper is to explore the development of an innovative CBA to teaching and learning in nursing. We will provide an overview of the current state of nursing education and discuss the benefits of using a CBA, and in addition, outline the process of developing a CBA curriculum and provide examples of how this approach can be incorporated into the classroom. The ultimate goal is to provide a comprehensive guide for educators who are interested in incorporating a CBA into their teaching and learning strategies.

The research significance of the study lies in its focus on exploring the potential benefits that an international university in the Gulf Cooperation Council (GCC) area may gain by shifting from the traditional approach to teaching and learning in nursing to the CBA. This study aims to fill a gap in the current literature by providing specific insights into how the Concept-Based Approach

can be implemented in a practical and effective way in a nursing education setting, such as UCQ. The study will demonstrate the positive impact that a CBA can have on student learning outcomes, teaching effectiveness, and overall satisfaction with the nursing education experience. By addressing these important issues, this study aims to make a significant contribution to the field of nursing education and help UCQ to provide a better education experience for its nursing students.

The CBA, also known as concept-based curriculum, is a method of instruction that focuses on teaching broad and transferable concepts rather than isolated facts. This approach has its roots in the work of educational theorists and researchers in the 1960s and 1970s, who argued that traditional teaching methods were too focused on rote memorization and did not adequately prepare students for the complexity and ambiguity of real-world problems (Ignatavicius, 2019). During the last decade, there has been a significant movement toward the CBA in teaching and curriculum design (Repsha et al., 2020). The conceptual approach has also been a recent important innovation in nursing education (Ignatavicius, 2019). Based on CBA philosophy, The University of Calgary in Qatar (UCQ) has redesigned a concept-based curriculum to meet the demand for excessive curriculum content and to allow for information management and production of quality nursing graduates who are leaders in managing the Qatari health care system, that is increasingly complex.

The concept-based curriculum is intended to help students gain more comprehension of nursing theories and practices because it allows them to understand theories along with the right time to apply those theories in real-life settings (Ignatavicius, 2019, Repsha et al., 2020). As information service provider Wolters Kluwer (2017) argues, a concept-based learning approach focuses on giving sense and real-life application to the lesson materials delivered in the classroom. It requires students to gain a solid grasp of the concepts that underpin nursing practices so that they can make the informed decisions needed when facing unprecedented care situations as they emerge.

LITERATURE REVIEW

Several studies have discussed the topic of concept-based methods. For example, Baron (2017, p. 277) claimed that the concept-based approach helps students develop more effective thinking skills. As a result, they can make quick decisions in various nursing situations. Moreover, nursing students often find difficulties organizing and memorizing an abundant amount of information. Therefore, they need a learning method that allows them to understand the key concepts of learning materials instead of memorizing too much content. Brussow et al. (2019) supported this view by saying that the increased amount of nursing content that nursing programs must cover results in the discrepancy in pass rates. Baron (2017, p. 279) further emphasized that the CBA helps students think, not memorize.

Brussow et al. (2019, p. 15) suggests that the difference between the two approaches lies in how they require students to perform. The traditional approach, in this regard, pushes students to memorize all the content and learning materials, leading to the creation of linear thinking in nursing (Brussow et al., 2019). Meanwhile, the concept-based approach stimulates students' higher-order thinking as they attempt to understand the core concept of the materials, so they can apply the content in the right situation in future. In other words, the CBA makes the principles of nursing practice more general instead of context specific (Brussow et al., 2019). The shift is a revolution in nursing education, given that students are traditionally required to rely on their memorization and partial knowledge (Lee and Wilson, 2018, p. 1).

In the CBA, the focus is on the role of nurses in different medical settings, not on the definition of medical conditions or names of medicines (Lee and Wilson, 2018). As a result, students can understand what they must do in such situations. A learning approach allows students to apply their existing knowledge in unprecedented situations. However, shifting to the concept-based

approach is not an easy task. The faculty may lack resources or have no confidence in it. Medwell et al. (2019, p. 11) claimed that the concept-based teaching and learning approach promotes students' active engagement and improves their cognitive understanding of nursing concepts. The teaching and learning approach helps teachers and students deal with the information explosion (Medwell et al., 2019, p. 13). So, teachers must ensure their students understand what they must do as nurses, not through memorization but rather through the ability to capture new information and cluster it into their existing knowledge.

Greenwood (2021, p. 21) claimed that a significant gap exists between nursing education and practice. Many nursing program graduates found out that they were not prepared enough once they entered the professional world (Greenwood, 2021, p. 22; Miller, 2016). Such a condition suggests how crucial the adoption of the concept-based learning approach in nursing education is. The learning method centers on building students' active and reactive critical thinking skills, which allow them to organize facts and skills across different situations (Greenwood, 2021, p. 22). The concept-based teaching and learning method focuses on the meaning of nursing practices, not merely their labels or facts. Lecturers who adopt the concept-based teaching method seek to prepare their students to address various challenges in real-life nursing settings (Greenwood, 2021, p. 23). The main takeaway from the literature discussed in this section is that the concept-based teaching and learning approach allows students to build better cognition and practical knowledge of nursing practices. So, they can tell what they must do in different nursing situations. However, none of the literature discusses how UCQ could benefit from the approach's adoption. That is why this study aims to fill the gap by exploring the potential benefits that UCQ may gain by shifting from the traditional approach to the concept-based approach.

METHODOLOGY AND PROCEDURES

The study adopted an action research approach, which in the nursing teaching and learning context involves in-class inquiry and finding solutions for change and innovation through trial and error (McNiff, 2017). The recommendations made in the study are based on the researchers' experiences and insights gained from the action research process, and the implementation of different concept-based teaching strategies in classroom and clinical settings. This study also employed desktop research using primary and secondary resources (McNiff, 2017). As part of this, several secondary resources, including peer-reviewed journal articles, doctoral dissertations, and website articles. Inclusion (English language, published within five years) and exclusion criteria (omitted texts unrelated to nursing were employed). The study adopted the definition of the term concept introduced by the Merriam-Webster dictionary, which is an abstract idea that may form a group when combined (England et al., 2015, p. 3). From this definition, the concept-based approach can be defined as an attempt to convey groups or patterns of information across different meanings or contexts.

RESULTS AND DISCUSSION

In the new concept-based curriculum, Family Nursing is one of the core courses that embed many crucial concepts in nursing practice related to family health and wellness across life spans. Three nursing faculty members have worked together to innovate various teaching strategies while adopting a CBA in Family Nursing across the lifespan. While focusing on Family Nursing and families in transition, we highlighted many related concepts and allowed the students to discuss them through real-life examples to make relationships between these concepts. Parallel to the Family Nursing course, students got to apply the concepts in real clinical settings, where we adopted a concept-based approach. As a team of Nursing clinical instructors, we “switched gears” from traditional clinical education to a concept-based clinical approach. The concept-based clinical approach was necessary for productive learning and

fostering the development of clinical reasoning skills among the students (Gerdeman et al., 2013).

Concept Presentation

The CBA (CBA) starts with a concept presentation. This presentation is designed to introduce the students to the key concepts and principles that are fundamental to nursing practice. The presentation includes a definition of the concept, a discussion of its scope and attributes, an identification of high-risk populations, and a presentation of related exemplars. The definition provided by the students should be deep and specific in meaning, so that it is applicable across a variety of contexts. This definition should also link to a set of related attributes, which are necessary for concept identification (Giddens et al., 2019).

During the concept presentation, various learning activities take place. These activities include group discussions about the definition of the concept, its related attributes, and the trajectory of its scope. The students also engage in visual depictions of the concept, which help to deepen their understanding. After the concept presentation, exemplars are taught to the students to enrich their conceptual understanding and provide real-life examples that can be linked to their clinical practice.

In this approach, the focus is on teaching the underlying concepts and principles of nursing, rather than just rote memorization of facts. This approach is designed to foster critical thinking, problem-solving, and a deeper understanding of the subject matter, all of which are important skills for nurses in their future careers.

Role Playing

Role-playing is a valuable teaching tool for students in nursing education. By simulating real-life scenarios, students can develop their practical skills and gain a deeper understanding of the subject matter. In this case, students can practice administering a mental status exam on one another through role-playing. This hands-on experience allows students to apply their knowledge and skills in a realistic setting, which can help them to better understand the mental health evaluation procedure (Riera et al., 2010). In addition to improving their comprehension of the procedure, role-playing can also help students to develop their empathy, observation, and communication skills. By acting out the situation, students can learn how to evaluate a person's emotional and cognitive state and experience what it is like to undergo a mental status assessment. This type of simulation can help students to develop the necessary interpersonal and diagnostic skills needed to effectively assess and treat patients in the real world. Overall, the use of role-playing in nursing education can provide students with valuable learning experience that will help to prepare them for their future careers as nurses. By incorporating this type of simulation into the CBA curriculum, educators can help students to develop their practical skills, deepen their understanding of the subject matter, and prepare them for the challenges of their future careers in healthcare.

Collaborative Learning

Collaborative learning is a valuable teaching strategy in nursing education, as it encourages students to work together to solve problems and expand their understanding of key concepts (Giddens et al., 2019). In the Concept-Based Approach curriculum, the Think-Pair-Share activity was used to help students explore the concept of "Culture." Through this activity, students were asked to reflect on their own cultural identities and share their thoughts with a partner. They were asked to consider questions such as what aspects of their culture they learned from their parents and grandparents, how their cultural identity differs from their families, and what factors may have influenced these differences. This type of discussion encourages students to think critically about the cultural aspects that shape their lives and how these may impact their future work as nurses. By collaborating with their peers, students can

broaden their perspectives, improve their communication skills, and expand their independent thinking. Additionally, this type of learning can help students to form stronger bonds with their classmates, which can create a more positive and supportive learning environment. Overall, the Think-Pair-Share activity is an effective way to incorporate collaborative learning into the CBA curriculum. By engaging students in meaningful discussions and encouraging them to work together, educators can help students to deepen their understanding of important concepts and develop the critical thinking and interpersonal skills needed to succeed in their future careers.

Silent Conversation through Exit Tickets

The use of Exit Tickets in the Family Nursing Course was a key component of the CBA curriculum. Exit Tickets provided students with an opportunity to reflect on what they had learned in class, formatively assess their understanding of the material, and increase their accountability for the concepts they were learning Medwell et al. (2019). The Exit Tickets were used at the end of each class session after students had been exposed to new concepts and ideas. Students were asked to respond to guiding questions related to the lesson material in a brief written response. These responses could be written on paper or posted electronically on a web-based platform such as Padlet. The instructors used the responses from the Exit Tickets to assess student mastery of the material and identify areas where additional attention was needed. This type of formative assessment provided valuable feedback for both students and instructors, allowing for a more personalized and effective learning experience. Overall, the use of Exit Tickets in the CBA curriculum helped to increase student engagement, promote self-reflection, and enhance learning outcomes. By requiring students to reflect on what they had learned and assess their understanding, Exit Tickets helped students to take ownership of their learning and develop the critical thinking and self-reflection skills needed to succeed in their future careers.

Concept Mapping

A concept map is a visual illustration of key concepts related to a clinical situation and shows key relationships between these concepts. It allows students to identify the health conditions and related factors affecting patient care, and it further facilitates the integration of multiple concepts into cognitive understanding which in turn promotes critical thinking and clinical reasoning (Giddens et al., 2019). The CBA allowed us as clinical instructors to foster student learning by utilizing clinical time toward multiple competencies while focusing on strategies that enhance clinical reasoning and fostering the development of critical thinking skills. Multiple concept mapping strategies that engage students in an active learning process were employed in the classroom and the clinical setting. In the classroom, interrelated concept maps and case studies were adopted from (Riera et al., 2010). Using interrelated concept maps, we encouraged students to build important associations among relevant concepts.

Case Studies

Case studies in nursing education provide students with the opportunity to apply their knowledge and skills in a simulated real-life setting. This approach helps students to develop their critical thinking, problem-solving and decision-making abilities, as well as their communication and collaboration skills (Giddens et al., 2019). The case study approach also enables students to integrate the concepts they have learned and apply them to real-life situations. This enhances the students' understanding of the concepts and makes them more relevant and meaningful to their future practice. Overall, the use of case studies in nursing education provides students with an engaging and effective learning experience that helps them to develop their knowledge, skills, and confidence in their future practice as nurses.

Family Portfolio

In the Family Nursing course, the Calgary Family Assessment Model (CFAM) was a key component of the curriculum, which emphasized the importance of understanding family relationships, systems, and interactions (Shajani & Snell, 2019). The visual map of the CFAM allows the student to process a lot of concepts related to family structure and transfer these concepts into family maps. While the genogram is a drawing of the family constellation, the ecomap is a diagram of the family's contact with others outside the immediate family. The use of the genogram and ecomap helped students understand the complexities of family systems and allowed them to apply these concepts in real-life scenarios (Shajani & Snell, 2019). The students were required to create their own genogram and ecomap as a part of their family assessment portfolio, which demonstrated their understanding and ability to apply these theoretical concepts to their own families. By integrating the CFAM into the lessons, students gained a deeper understanding of how to work with families and resolve health-related and psychosocial issues.

Nursing Care Plan

Approaches used in clinical education include concept mapping and nursing care plan mapping (Giddens et al., 2019). In clinical, students were asked to map their patient care and create a visual map of their patient nursing care plans. Clinical care mapping can be seen as an innovative way to organize and plan patient care. The approach includes using a systematic way of problem-solving that rely on ordered steps: assessment of patient data; identification of the problems labelled as nursing diagnosis; planning for the care; interventions to address the diagnosis; and evaluation of the implemented interventions. Clinical care mapping promotes the active engagement of students in the patient care process, encouraging them to take an active role in the patient's treatment and to be more proactive in their approach to patient care. By using clinical care mapping, students were able to develop a more comprehensive understanding of patient care and identify areas for improvement (Schuster, 2020). Additionally, clinical care mapping can provide students with a visual representation of their patient's health situation, enabling them to think critically and creatively about how to approach patient care.¹⁹ Clinical care mapping provides a flexible framework that can be adapted to suit the needs of different patients and helps students to maintain their focus on patient-centered care. This approach can help students to think more clearly, be more organized, and to be more effective in their patient care.

Interactive Review Questions

High-level, interactive review questions are used as a tool to engage students and reinforce their understanding of the previously learned concepts, and help students fill the gaps in their knowledge. By encouraging students to actively discuss and share their answers, they are better able to retain information and improve their critical thinking skills and therefore improve their learning outcomes (Tan et al., 2018). This type of instruction allows students to practice applying what they have learned and receive immediate feedback from the teacher and their peers.

In the Family Nursing course, interactive review questions helped to reinforce the concepts learned in class and improve student engagement. These questions took various forms, including group discussions, quizzes, games, and class revisions, and aimed to enhance critical thinking skills and improve learning outcomes. Students were able to practice applying what they had learned and receive immediate feedback from the teacher and their peers, helping them better retain information and increase their understanding of the material. The use of interactive review questions was effective in promoting student engagement and improving learning outcomes in the Family Nursing course.

Gamification

Different games were introduced to make the review more fun. For example, Kahoot activities; puzzles; quizzes; crosswords; and games activity e.g., Kahoot, puzzles, Quizzes, crossword, and mystery box games. Kahoot is a digital game-based quizzing system that allows educators and learners to interact through competitive games using existing infrastructure. It is a socially oriented activity that can enhance motivation and facilitate learning at all levels and ages (Gómez-Carrasco et al., 2020). Gamification in education includes the use of game elements out of the game context, such as classrooms and online learning platforms, to make learning more engaging and motivate students (Reed, 2020). With the growing recognition of games as legitimate educational tools, it's crucial for educators to understand the best ways to use them to capture students' attention in the classroom (Waddell Jr. & Quinn, 2011, Vacek & Liesveld, 2019). It involves turning educational content and activities into games, challenges, or competitions to increase student motivation and enhance their learning experience (Waddell Jr. & Quinn, 2011, Vacek & Liesveld, 2019). The use of gamification in higher education is effective, as the students are more motivated to participate and therefore more involved in teaching and learning processes.

Additionally, gamification can also help to create a more relaxed and less stressful learning environment. The games were designed to be interactive, engaging, and fun, which encouraged students to participate actively, interact with their classmates, and reflect on their learning process. Furthermore, games can help to break down complex concepts into smaller and more manageable chunks of information, making it easier for students to retain the information. Overall, the use of gamification in Family Nursing education was an effective tool to increase student engagement, motivation, and retention of information, leading to better learning outcomes and overall satisfaction with the course. Upon course evaluation, students' feedback showed satisfaction with content delivery through gamification; it made them feel more entertained while they were learning new knowledge or reviewing learned concepts.

Venn Diagrams

The Venn diagram is a standard tool used as a graphic organizer to illustrate the symbolic reasoning of intersection and union (Vacek & Liesveld, 2019). It consists of three intersecting circles; the intersection of the circles on the Venn diagram is an essential feature to show areas of connection and overlapping among exemplars or interrelated concepts. It has significant visual appeal in relation to learning and can be used to clarify relationships between the concept and exemplars (Giddens, 2020).

In the Family Nursing course, Venn diagrams were used as a visual tool to help students compare and contrast concepts and to identify relationships between concepts. For example, students could use a Venn diagram to compare and contrast different theories of family functioning, or to identify common themes among different approaches to family assessment. The use of Venn diagrams encouraged students to analyze and synthesize information and helped them to better understand complex relationships between concepts in family nursing. For example, in discussing family dynamics, three domains of functioning were identified: cognitive, affective, and behavioural and a Venn diagram was utilized to identify these three domains. In class, while applying the Venn diagram to their own families, students were asked to identify the three domains of their family functioning and explain how these domains intersect to form a healthy family dynamic. After students analyzed the three domains of functioning using a Venn diagram, students were able to identify their family dynamics and were able to provide exemplars under each domain of the function and explain areas of intersection. The use of the Venn diagram in the Family Nursing course was a useful tool in helping students understand the concept of family dynamics. By visualizing the three domains of functioning, students were able to better understand the relationships between them and how

they contribute to the overall health and well-being of the family. This interactive learning approach helped students to retain the information and make connections to their own families, preparing them for real-life clinical applications in their future nursing practice.

Discussion and Recommendation

Concepts are heavily influenced by the context and the factors relevant to a patient's situation. Situational learning was helpful in applying learned concepts into nursing practice through exemplars applied to different populations in clinical settings. For optimal learning experience, conceptual teaching strategies require the application of concepts in a "real world" context (Giddens, 2020, Romanowski et al., 2019). Upon evaluation of the traditional methods of clinical education, we realized that too much time was focused on performing repetitive tasks and too little time was focused on developing critical thinking skills. Although students spend a large amount of time in the clinical setting, many of those clinical hours fail to result in productive learning.

Lesson 1 – Elicit nursing students' pre-existing understanding of core concepts.

Wolters-Kouwer (2017) suggested that the CBA allows students to be more active in their learning activities. The approach helps minimize content redundancies because it focuses on the core principles of nursing practice instead of repetitive content (Wolters-Kouwer, 2017). Moreover, the system also challenges students to draw lines between the patterns among concepts, so they can be better prepared to deal with different situations. In addition, the content-based approach enables lecturers and academic administrators to focus more on the quality of content rather than its quantity. It helps them prepare their students to be more critical and have adequate reasoning to resolve different nursing situations.

The transition from the traditional method to the concept-based should involve a re-conceptualization of the nursing program. The traditional approach of the nursing program is to have students memorize facts (Lee & Willson, 2018). What the re-conceptualization of the program means is to move from such a traditional approach to the CBA which requires students to have a more cognitive understanding of nursing practices. The transition represents the main principle of the CBA, which is to focus more on the concept of learning materials instead of their content. Moreover, it also embodies another principle of the approach, which is encouraging students to be more critical and active in their learning activities. In this regard, the task of lecturers is not only to convey the learning materials to students but also to teach them how to think like a nurse using their critical thinking skills (Romanowski et al., 2019). The main objective of concept-based teaching is to prepare students for practice. The researcher found in her action research that there was a need to encourage nursing students to share their pre-existing understandings (what Piaget would have called 'schemes' or 'schemata') on different concepts to identify the gaps in knowledge as well as the diversity in views. In other words, concept-based nursing can be similar to adult learning principles and constructivism in that learners should share their understandings and learn from others. Not only can this help with content knowledge such as anatomy and physiology, but it is also vital to help students develop soft skills of communication and interpersonal skills.

Lesson 2 – Use students' real-life past experiences and case studies to allow opportunities for students to grapple with core nursing concepts.

Moreover, the shift from the traditional approach to the CBA in a nursing program should be reflected in the assessment structure of the school. Nurses should be able to use their problem-solving skills in assessments when diagnosing the condition of patients and considering the most appropriate nursing interventions for solving the patient's health issues (Romanowski et al., 2019). The researcher found in her action research that students reported spending more time on assessment items that involved grappling with a range of concepts as opposed to

closed-item assessments. To be best ready for practice, students need to make quick decisions using their critical thinking and capability to organize information. Such a requirement is contained in most goals of nursing school learning plans such as those that aim to equip students with safe and competent nursing practices across different contexts. Similarly, like adult learning principles (andragogy) learning and assessments should be based on, or draw from, the students' real-life experiences.

Lesson 3 – Encourage meaningful role play to emphasize the real-life position of core nursing concepts. Make it dramatic!

Similarly, there is a need to streamline learning plans. To ensure that nursing schools can optimize the benefits of the concept-based teaching and learning approach, the nursing department administrators should focus on minimizing the amount of redundant knowledge and learning materials to be delivered to students. The main objective of conceptual learning is to equip students with an understanding of the core components of nursing practices. Thus, program administrators should build a curriculum that allows students to find patterns in the learning materials (Romanowski et al., 2019). For example, instead of telling students to memorize the name of different pains, lecturers should make them understand the concept of pain so that they can apply the concept across different conditions. While nurses must keep abreast of emerging technologies that assist care, some overarching concepts of the vocation can be identified and engaged critically. In class observations, the researcher found that role-play served as a great way to provide concept-based learning opportunities.

CONCLUSION AND SUGGESTION

As found in the researcher's studies, the adoption of the concept-based teaching and learning approach in the Nursing Department at UCQ is aimed at helping lecturers equip their students with practical skills and cognition of nursing practices. The practicability of nursing concepts is what differentiates between the CBA and the traditional approach. The shift between the two approaches has brought several changes to the nursing program's curriculum. The department's administrators, therefore, should look to optimize the benefits of the CBA by minimizing the amount of redundant information and learning materials.

The adoption of a variety of approaches to concept-based teaching in Family Nursing at our institution has had a significant impact on learning outcomes. Among the most important is organizing the excessive curriculum content through shifting focus from the delivery of a large amount of information to a student-centered and concept-led learning process. Using various conceptual approaches, students were successful in transferring knowledge and experiences from the classroom to the clinical setting. Students demonstrated a high level of engagement and confidence in critical thinking and clinical judgment as they answered the high-level set of critical thinking-based questions and critically analyzed case studies with different exemplars. Construct concept maps analyzed and deconstructed the interrelated concepts in maps and created visual portfolios for families such as genograms and ecomaps. These results are consistent with an ample amount of evidence on conceptual teaching, and its effectiveness in the nursing curriculum. (Giddens et al., 2019, Giddens, 2020, Vacek & Liesveld, 2019).

Students were able to transfer their knowledge and experiences from the classroom to the clinical setting and demonstrated a high level of engagement and confidence in critical thinking and clinical judgment. They were successful in answering high-level critical thinking-based questions, analyzing case studies, constructing concept maps, and creating visual portfolios for families such as genograms and ecomaps. The CBA also fosters an interactive learning environment, promoting student engagement and interaction with the material and their peers. It also helps students integrate theoretical learning into practical application in clinical practice, improving their critical thinking skills and ability to make informed decisions in real-life situations. However, implementing the CBA effectively requires nursing educators to have the

necessary skills, training, and support. With these resources, nursing educators can successfully apply for the CBA in the classroom and clinical setting, leading to numerous positive outcomes for nursing education.

In conclusion, the adoption of the CBA in the Family Nursing course has had a positive impact on student learning outcomes. It offers effective strategies to enhance nursing education, helps to foster students' critical thinking skills, and improves the integration of theoretical learning into clinical practice.

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REFERENCES

- Baron, K. A. (2017). Changing to concept-based curricula: The process for nurse educators. *The open nursing journal*, 11, 277. <http://dx.doi.org/10.2174/1874434601711010277>.
- Brussow, J. A., Roberts, K., Scaruto, M., Sommer, S., & Mills, C. (2019). Concept-based curricula: A national study of critical concepts. *Nurse educator*, 44(1), 15. <http://dx.doi.org/10.1097/NNE.0000000000000515>.
- England, S., Lockhart, L. & Sanders, E. (2015). *A Case for Concept-Based Nursing Education*. ALD. <https://www.nursingald.com/articles/13791-a-case-for-concept-based-nursing-education>.
- Gerdeman, J. L., Lux, K., & Jacko, J. (2013). Using concept mapping to build clinical judgment skills. *Nurse Education in Practice*, 13(1), 11–17. <https://doi.org/10.1016/j.nepr.2012.05.009>
- Giddens, J. (2020). Demystifying concept-based and competency-based approaches. *The Journal of Nursing Education*, 59(3), 123–124. <https://doi.org/10.3928/01484834-20200220-01>
- Giddens, J. F., Caputi, L., & Rodgers, B. L. (2019). *Mastering concept-based teaching: A guide for nurse educators*. Elsevier Health Sciences.
- Gómez-Carrasco, C. J., Monteagudo-Fernández, J., Moreno-Vera, J. R., & Sainz-Gómez, M. (2020). Evaluation of a gamification and flipped-classroom program used in teacher

- training: Perception of learning and outcome. *PLOS ONE*, 15(7), e0236083. <https://doi.org/10.1371/journal.pone.0236083>
- Greenwood, V. A. (2021). *Concept-Based Curriculum in Nursing Education: Hype or Hope?* (Doctoral dissertation, Sage Graduate School).
- Ignatavicius, D. D. (2019). *Teaching and learning in a concept-based nursing curriculum: A how-to best practice approach*. Jones & Bartlett Learning.
- Lee, S. K., & Willson, P. (2018). Concept-based curriculum development, implementation, and evaluation: A systematic review. *Int J Nurs Clin Pract*, 5(271), 2. <https://doi.org/10.15344/2394-4978/2018/271>.
- McNiff, J. (2017). *Action research: All you need to know*. Sage Publications.
- Medwell, J., Wray, D., Bailey, L., Biddulph, M., Hagger-Vaughan, L., Mills, M. G., & Wake, G. (2019). Concept-based teaching and learning: Integration and alignment across IB programmes. *A report to the International Baccalaureate Organisation*.
- Medwell, J., Wray, D., Bailey, L., Biddulph, M., Hagger-Vaughan, L., Mills, M. G., & Wake, G. (2019). Concept-based teaching and learning: Integration and alignment across IB programmes. *A report to the International Baccalaureate Organisation*.
- Melnik, B. M., & Fineout-Overholt, E. (2022). *Evidence-based practice in nursing & healthcare: A guide to best practice*. Lippincott Williams & Wilkins.
- Miller, S. E. (2016, January 4). *Concept-Based Nursing Curriculum*. Elite Learning. <https://www.elitelearning.com/resource-center/nursing/concept-based-nursing-curriculum/>.
- Reed. (2020). Gaming in nursing education: Recent trends and future paths. *The Journal of Nursing Education*, 59(7), 375–381. <https://doi.org/10.3928/01484834-20200617-04>
- Repsha, C. L., Quinn, B. L., & Peters, A. B. (2020). Implementing a concept-based nursing curriculum: A review of the literature. *Teaching and Learning in Nursing*, 15(1), 66-71.
- Riera, J. R. M., Cibanal, J. L., & Mora, M. J. P. (2010). Using role playing in the integration of knowledge in the teaching-learning process in nursing: Assessment of students. *Texto & Contexto - Enfermagem*, 19(4), 618–626. <https://doi.org/10.1590/s0104-07072010000400003>
- Romanowski, A., Allen, P., & Martin, A. (2021). Educational Revolution: Integrating Concept-Based Curriculum and Active Learning for Mental Health Nursing Students. *Journal of the American Psychiatric Nurses Association*, 27(1), 83-87. <https://doi.org/10.1177%2F1078390319890031>.
- Schuster, P. M. (2020). *Concept mapping : A critical thinking approach to care planning* (Fifth edition). F.A. Davis Company.
- Shajani, Z. & Snell, D. (2019). *Wright and Leahey's Nurses and Families: A guide to family assessment and intervention* (7th ed). F. A. Davis.
- Tan Ai Lin, D., Ganapathy, M., & Kaur, M. (2018). Kahoot! It: Gamification in higher education. *Pertanika Journal of Social Sciences & Humanities*, 26(1).
- Vacek, & Liesveld, J. (2020). Teaching Concepts to Nursing Students Using Model Case Studies, the Venn Diagram, and Questioning Strategies. *Nursing Education Perspectives*, 41(6), 373–375.
- Waddell G. Jr., Quinn R. J. (2011). Two applications of Venn diagrams. *Teaching Statistics*, 33(2), 46–48 <https://doi.org/10.1111/j.1467-9639.2010.00428.x>

- Wassermann. (2017). *The art of interactive teaching: listening, responding, questioning*. Routledge. <https://doi.org/10.4324/9781315174624>
- Wolters Kluwer (2017, January 29). *Benefits of a concept-based curriculum in nursing*. <https://www.wolterskluwer.com/en/expert-insights/benefits-of-a-conceptbased-curriculum-in-nursing>.