

2022

Developing A Tai Chi Education Module for Nurses

Edna Green
Walden University

Follow this and additional works at: <https://scholarworks.waldenu.edu/dissertations>



Part of the [Nursing Commons](#)

This Dissertation is brought to you for free and open access by the Walden Dissertations and Doctoral Studies Collection at ScholarWorks. It has been accepted for inclusion in Walden Dissertations and Doctoral Studies by an authorized administrator of ScholarWorks. For more information, please contact ScholarWorks@waldenu.edu.

Walden University

College of Nursing

This is to certify that the doctoral study by

Edna Green

has been found to be complete and satisfactory in all respects,
and that any and all revisions required by
the review committee have been made.

Review Committee

Dr. Deborah Lewis, Committee Chairperson, Nursing Faculty
Dr. Marisa Wilson, Committee Member, Nursing Faculty
Dr. Patti Urso, University Reviewer, Nursing Faculty

Chief Academic Officer and Provost
Sue Subocz, Ph.D.

Walden University
2022

Abstract

Developing A Tai Chi Education Module for Nurses

by

Edna Mae Green

MS, University of Phoenix, 2003

BS, University of Arkansas, Pine Bluff, 1979

Project Submitted in Partial Fulfillment

of the Requirements for the Degree of

Doctor of Nursing Practice

Walden University

May 2022

Abstract

The U.S. population is living longer, which leads to challenges with chronic conditions that attack their health and well-being. Chronic diseases also cost \$ 3.8 trillion dollars every year in the United States. According to the Centers for Disease Control, there are four behaviors that cause many of the chronic preventable diseases: lack of physical activity, excessive alcohol, smoking, and diet. Alternative strategies including physical activity like Tai Chi can improve health outcomes for older adults with chronic disease. The purpose of this Doctor of Nursing Practice project was to develop a Tai Chi education module for nurses who provide care for older adults. This project sought to understand what knowledge nurses need regarding the health benefits of Tai Chi and to develop a Tai Chi education module. The health belief model guided the development of this project. The module was developed and reviewed using an iterative formative and summative approach. The panel of three expert reviewers who represent nursing and exercise science, unanimously approved the final version of the Tai Chi education module. Dissemination of the Tai Chi education module can provide nurses and other health professionals with an on-demand, evidence-based knowledge tool to improve their own knowledge and ultimately support patient education for older adults with chronic disease. This module contributes to a positive social change through improved health outcomes for older adults with chronic disease as part of a healthy physical activity program.

Developing a Tai Chi Educational Module for Nurses

by

Edna Mae Green

MS, University of Phoenix, 2003

BS, University of Pine Bluff, 1979

Project Submitted in Partial Fulfillment
of the Requirements for the Degree of
Doctor of Nursing Practice

Walden University

May 2022

Dedication

This Doctor of Nursing Project is dedicated to my God and Savior who made all things possible. Without his guidance, I could not be at this place in my life. In memory of my parents, Willie and Lena Piggie, my son Michael Green, thank you so very much for your support.

Acknowledgments

I thank the following significant people who were here for me supporting me as I worked to meet my goal. Dr. Deborah Lewis, I appreciate your sincere efforts to assist me to meet my educational goals. Thanks to Dr Marisa Wilson, Dr Patti Urso and to all the Walden faculty for your input in this process. A special thank you to my advisor Dr Bridgette Malchow for all your help. Thank you to my preceptors, Theresa Horton, Sarah Holmes, and Carolyn Oates. I also would like to thank my former chairperson, Dr. Andrea Jennings-Sanders for her kindness, support, and assistance.

Table of Contents

List of Tables	iii
Section 1: Nature of the Project	1
Problem Statement	2
Purpose.....	2
Nature of the Doctoral Project	2
Significance.....	3
Summary	3
Section 2: Background and Context	5
Concepts, Models, and Theories	5
Relevance to Nursing Practice	7
Local Background and Context	7
Existing Scholarship	8
Tai Chi in Chronic Disease	8
Tai Chi Guidelines	8
Role of the DNP Student.....	9
Summary	10
Section 3: Collection and Analysis of Evidence	11
Practice-Focused Questions	11
Sources of Evidence.....	11
Procedure	12
Analysis and Synthesis	13

Summary	14
Section 4: Findings and Recommendations	15
Findings and Implications	15
Implications	16
Recommendations	17
Strengths and Limitations of the Project	18
Potential Strengths	18
Potential Limitations	18
Section 5: Dissemination Plan	19
Analysis of Self	20
Summary	21
References	22
Appendix: Learning Goal and Education Module Content	25

List of Tables

Table 1. Expert Reviewers' Initial Review 16

Section 1: Nature of the Project

As the U.S. population is living longer, they are challenged by chronic conditions. Three of the most prevalent chronic diseases that older adults aged 65 and above struggle with are heart disease and stroke, cancer, and diabetes (Centers for Disease Control and Prevention [CDC], 2021). Based on CDC statistics, 868,000 Americans die of heart attack or stroke every year, and each year cancer kills more than 1.7 million people every year. Diabetes affects 34.2 million Americans, and 88 million adults have not been diagnosed and suffer from prediabetes. Diabetes can result in consequences such as heart attack, stroke, loss of limbs, and kidney failure. In addition to affecting health and well-being, chronic diseases cost the United States 3.8 trillion dollars every year on sick care (CDC, 2021). In 2017, the costs for diabetes was \$327 billion, and cancer care was projected to exceed \$168 billion dollars by 2020 (CDC, 2021).

According to the CDC (2021), there are four behaviors that cause many of the chronic preventable diseases: lack of physical activity, excessive alcohol, smoking, and diet. Despite these preventable factors, many Americans are struggling with these challenges. Because of the struggle to identify evidence-based solutions to meet the health needs of the American people, I developed a module for nurses who have responsibility to make positive health changes in the lives of an expanding population. In addition, the United States could contribute the economic cost of chronic conditions for other pressing needs for its population.

Problem Statement

A key role of nurses is management of chronic conditions and prevention of the complications of those diseases. Even though there are strategies to help manage chronic conditions, they have not always been effective. To meet the goals for improved patient health, nurses need tools. Alternative strategies may be an important tool that could support patients with chronic disease but evidence to support this tool is limited (Chen et al., 2016). Nurses' knowledge of best practice strategies such as Tai Chi may be a welcomed intervention to support healthy outcomes for adults with chronic health conditions.

Purpose

The purpose of this doctoral project was to develop an educational module based on the health belief model (HBM) to support nurses in making evidence-based decisions to support improved health outcomes. The practice focused questions for this project are (a) What knowledge do nurses need regarding the health benefits of Tai Chi? and (b) Will the content experts approve the module content? As stated, there is a need for strategies to improve health, and it is time to move toward a new strategy for our older adult. The Tai Chi education module (Appendix) will hopefully empower nurses with a tool needed to improve health for older adults.

Nature of the Doctoral Project

This module was developed to address the knowledge gap that exists and to inform nurses who provide evidence-based care to older adults with chronic diseases that affect their quality of life. This module provides nurses with a tool to help them make

informed decisions about the use of Tai Chi to support older adults with chronic conditions. Tai chi is a martial art that is evidence based and could provide the needed intervention that older adults need to manage their chronic conditions and prevent further health problems (Adler & Roberts, 2006; Hu, et al., 2017). The module is informed by a thorough review of the literature and current programs supported by organizations such as the Arthritis foundation. The formative and summative review guided the evaluation of the education program. The initial module was reviewed by a panel of experts. The expert reviews were incorporated into the program, and the revised program was once again reviewed by the expert panel.

Significance

The Tai Chi educational module (Appendix) will make a positive social change in the lives of older adults if nurses utilize the content to prevent and manage older adults' chronic conditions. The stakeholders for this program are nurses who work with chronically ill adults, and the patients themselves who may benefit from the future education provided. The impact on social change will be evidenced by any health improvement that may come from future Tai Chi education.

Summary

Tai chi is an evidence-based strategy that has health benefits that could help promote and prevent adverse effects in the daily lives of older adults (Chen et al., 2016). Tai Chi has been accepted as a health promotion intervention that affects the cardiovascular system, neurological system, musculoskeletal system, and the respiratory system; thus, it has been approved as a safe system for managing chronic diseases (Hu et

al., 2017). This evidence-based education module could provide an additional tool and empower nurses who make recommendations regarding older adults' health. In Section 2, I address the theoretical framework that guided this project and the project's impact on professional nursing practice.

Section 2: Background and Context

Many older adults will be challenged by chronic diseases, and nurses play critical roles in guiding care for older adults (Grady, 2011), as nurses are responsible for providing evidence-based knowledge to their patients (Fetherston & Wei, 2011). However, nurses do not have the time or resources to consult evidence-based literature and would better be supported with an on-demand education module to help them use Tai Chi for their patients (Fabius et al., 2021). Additionally, though the literature supports Tai Chi as a tool to improve health in older adults (Adler & Roberts, 2006; Hu et al., 2017), there is little current literature describing strategies for implementing Tai Chi education for this population. Therefore, I developed a Tai Chi education module that meets a gap in nursing education. This module will increase nurses' knowledge regarding the benefits of Tai Chi, and they will be able to recommend Tai Chi for various health conditions based on evidence. The focused questions for this Doctor of Nursing Practice (DNP) project are: (a) What knowledge do nurses need regarding the health benefits of Tai Chi and (b) will the content experts approve the module content?

Concepts, Models, and Theories

To share insights about the health benefits of Tai Chi, it is important to provide some brief historical data. Tai Chi's origin spans back more than 3,000 years ago (Cerrato, 1999). It was developed as a self-defense method and evolved into a tool that became popular and is utilized primarily today as a method for health promotion and recreation. Tai Chi is known by other names including Taji, Taijiquan, and Tai Chi Chuan (Cerrato, 1999). Tai Chi embodies the complementary of opposites qualities of yin

(dark, cold, yielding, passivity, constructive, feminine) and yang (light, heat, action, destructive, masculine). The Taoist philosophy of Tai Chi is balanced energy, chi or life force, results in a good life. Tai Chi is a conditioning exercise form and has been practiced in China for years. It is a mind and body exercise that results in physical and psychological relaxation to the practitioner (Cerrato, 1999).

In addition to following the concepts of Tai Chi, the HBM informed this module.

The HBM reflects three tenets:

1. Perceived susceptibility refers to one's chances of getting a condition.
2. Perceived severity speaks to one's opinion of the chances of getting a condition
3. Perceived benefits have to do with one's opinions of the efficacy of the advised action to reduce the risk or seriousness. (McEwen & Wills, 2018)

The HBM is aligned to this DNP project as nurse participants were made aware of the importance of understanding their patient's perceived susceptibility and will understand more about the importance and value of exercise in improving older adults' health. This education will also add to the nurses' understanding of how to address patients' perceived severity when introducing a new exercise program. Perceived benefits and barriers were relate to an increased understanding of why Tai Chi is beneficial and how to share that information with patients. Cues to action will be addresses as a construct to facilitate readiness to act. Overall, the HBM aligned with this project because my focus was on how older adults make decisions regarding their health. The framework has similarly been used to predict healthy eating and as a frame of reference for explaining eating habits in young people (Dumitrescu & Iacob, 2021).

Relevance to Nursing Practice

Tai Chi has improved physical performance for four chronic diseases: cancer, osteoarthritis, heart failure, and chronic obstructive pulmonary disease (Chen et al., 2016). Tai Chi has been effective as a supportive tool for management of chronic diseases that involve the cardiovascular, the respiratory system, the nervous system, and the musculoskeletal system (Hu et al., 2017). The Tai Chi module that was developed for this project is client centered and may be beneficial for a variety of chronic diseases (CDC, 2021). The Tai Chi education module (Appendix) is relevant to nursing practice because it meets nurses' need for an evidence-based tool and resource that informs practice. The education module can reduce the time that nurses would need to spend searching the literature or seeking resources each time a patient needs information regarding suitable exercise for a chronic disease (Huang et al., 2021). The older population requires evidence-based care and may require self-management help for managing chronic diseases (CDC, 2021).

Local Background and Context

Chronic disease is a health care challenge., as older adults may need assistance coping with these chronic conditions. Tai Chi may an important strategy for older adults to improve their physical function and reduce disability (Fetherston & Wei, 2011; Hu et al., 2017). It is important for the health care provider to be knowledgeable about when to offer older adults' educational evidence-based support about Tai Chi and its benefits for preventing and managing chronic disease.

Existing Scholarship

Tai Chi in Chronic Disease

Tai Chi as a complementary and alternative therapy has become important because of its many health, emotional, and social benefits and how it can be implemented at a low cost with no special equipment (Chen et al., 2021; Hu et al., 2017). Tai Chi is a non-pharmacological tool that helps with some of symptoms such as inflammation, pain, stiffness, and limited flexibility (Huston & McFarlane, 2016; Hu et al., 2017). Health benefits noted also include improved balance, falls prevention, cardiac and stroke rehabilitation, inflammatory disease management, and overall quality of life (Chen et al., 2016; Huang et al., 2021; Solloway et al., 2016; Yang et al., 2021). The classical Yang style of Tai Chi is also beneficial for those who want to improve aerobic ability (Taylor-Piliae & Froelicher, 2004).

Tai Chi Guidelines

Key considerations for adults with chronic health conditions and adults with disabilities are:

- Adults with chronic conditions or disabilities, who are able, should also do muscle-strengthening activities of moderate or greater intensity and that involve all major muscle groups on 2 or more days a week, as these activities provide additional health benefits.
- When adults with chronic conditions or disabilities are not able to meet the adult key guidelines, they should engage in regular physical activity according to their abilities and should avoid inactivity.

- Adults with chronic conditions or symptoms should be under the care of a health care provider. People with chronic conditions can consult a health care professional or physical activity specialist about the types and amounts of activity appropriate for their abilities and chronic conditions (Buchner et al., 2019, pp. 9–10).

Though no specific guideline could be identified that directly included Tai Chi as a health modality, the *Physical Activity Guidelines for all Americans* provides recommendations for all individuals to engage in activity to improve their health (Buchner et al., 2019). The activity guidelines include a section that provides specific recommendations for older adults with chronic diseases to engage in physical activities to improve overall health. The report identified Tai Chi as a light-intensity physical activity that may be relatively moderate intensity for older adults. The report also indicated that some forms of Tai Chi may be muscle strengthening (Buchner et al., 2019, p. 70).

Role of the DNP Student

The primary role I assumed was to develop the education module using current evidence to support the development. I also evaluated the developing education module by working with the content experts. I utilized a formative approach to development and revision of the module. In addition to myself I selected three professionals to evaluate the module and provide formative feedback. I ensured that all project members were aware of protocols and content experts were aware of the project goals so they could help develop and revise the education module (Appendix). I worked with my committee and

experts to avoid any bias that might arise during the development of the education module.

Summary

The current project involved developing a Tai Chi education module for nurses to use as a tool to support care of older adults with chronic disease. This project could help make positive social change in the care of older populations' health. This Tai Chi module serves as a tool that nurses can utilize with different patient populations. There is abundant evidence that Tai Chi is a safe, economical, tool that it is a tool that could be effective for the 21-century challenge of improving health and patient outcomes.

Section 3: Collection and Analysis of Evidence

A key role of nurses is managing chronic conditions and preventing future chronic conditions that older adults are living with. Further, nurses' roles have expanded, and nurses are required to make evidence-based health decisions for their patients (Huston & McFarlane, 2016). But nurses do not have the time to go to the library each time that they must make a health decision (Fabius et al., 2021). The strategies that are being used such as the physical activity guidelines are not effectively utilized. Therefore, an evidence-based strategy was needed to close this gap regarding the lack of an effective tool.

Practice-Focused Questions

The purpose of this DNP project was to develop an evidence-based Tai Chi education module (Appendix) for nurses to utilize that could close a gap between research and nursing practice (Fabius et al., 2021). This Tai Chi module aligns with the HBM constructs. A comprehensive literature review informed the development of the module. The practice-focused- questions were:(a) What knowledge do nurses need regarding the health benefits of Tai Chi and (b) Will the content experts approve the module content?

Sources of Evidence

The sources of evidence to develop the education module (Appendix) were obtained from the most current Tai Chi scholarly evidence available in online Walden databases, which included Complementary Medicine, ProQuest, PubMed, Cochran Database of Systematic Reviews, and CINAHL. The search was specific regarding the retrieval of articles related to the inclusion criteria, English articles in the past 10 years,

seminal articles related to the search terms, and all articles were peer reviewed. The search terms included *Tai Chi*, *Tai Chi Chun*, *Tai Ji Quan*, and *Taiji*. In addition, the terms *older adult* and *elderly* were incorporated using the Boolean operator AND. In addition to the literature search, an internet search was conducted to identify Tai Chi resources to provide as a component of the educational module. The terms *Tai Chi* and *older adults* were used to identify appropriate resources for inclusion in the education module.

Three content experts also provided helpful insight regarding design and development of the module content. The experts included one exercise science professional, and two nurses—one with doctoral preparation and expertise in development of educational materials and the other a bachelors prepared nurse with expertise in chronic disease and alternative healthcare strategies.

Procedure

Design and development of educational materials is an iterative process that requires feedback to support module improvement prior to implementation (Allen, 2006). Content experts were requested to provide a formative and summative evaluation (Bloom, 1974). For the formative evaluation, I emailed the draft Tai Chi education module and learning objectives as a Word document to the experts and asked them to review the content and provide written feedback using track changes. The reviewers were asked to provide written comment on the feasibility of the module to achieve the stated objectives, appropriate nature of the content, and acceptability for the audience (nurses).

Once the initial feedback was received, the education module was revised. The final summative evaluation consisted of sending the revised education program to the expert reviewers for a second review. This type of evaluation was used to decide about the instruction and its suitability for implementation (Allen, 2006). The Tai Chi education module (Appendix) was emailed to the same content experts for additional review and recommendations. The content experts were asked to again comment on the educational modules ability to achieve the stated objectives, appropriate nature of the content, and acceptability for the audience (nurses). The content experts were given 2 weeks to complete and return the documents for both the formative and summative phase of the review.

Analysis and Synthesis

The formative phase helped to identify any recommendations for change noted by the content experts that supported refinement of the education module (Stetler et al., 2006). This formative phase was an initial evaluation; no additional data beyond the reviewers' remarks were used for the formative review phase (Stetler et al., 2006). Revision decisions were based on a summary of the expert's comments (Tessmer, 1997). Responses from the reviewers were compared to identify areas of agreement and disagreement. If disagreement was identified, the reviewers would be asked to respond to related follow-up questions by e-mail to support achieving consensus on recommendations for revision. Final decisions regarding revisions were also guided by the current literature. The summative phase was analyzed in the same manner as the formative phase. The experts' comments were summarized and reported.

Summary

The goal of the DNP project was to use evidence from the literature to develop a Tai Chi education module for nurses. Formative and summative evaluation was conducted with three experts—one in exercise science, one in development of educational materials, and one in the use of alternative care strategies for individuals with chronic disease. The next section covers the recommendations and findings.

Section 4: Findings and Recommendations

Even though there are strategies to help manage chronic conditions, they have not always been effective. Tai Chi may support healthy outcomes for adults with chronic health conditions (Chen et al., 2016). Tai Chi is a martial art that is evidence-based and could provide the needed intervention that older adults need to manage their chronic conditions and prevent further health problems (Adler & Roberts, 2006; Hu et al., 2017). The purpose of this doctoral project was to develop an educational module based on the HBM for nurses to use as they support improved health outcomes for older adult patients with chronic disease. The practice focused questions for this project were (a) What knowledge do nurses need regarding the health benefits of Tai Chi? and (b) Will the content experts approve the module content? The module was informed by a thorough review of the literature and current programs supported by organizations such as the Arthritis foundation. A formative and summative review guided the evaluation of the education program. Once developed, the module was reviewed and approved by a panel of expert reviewers.

Findings and Implications

The Tai Chi education module was reviewed by a panel of three experts. On initial review, one panel member gave recommendations for additional graphic elements and the addition of information resources. Two of the three panel members found the module content to be current and appropriate for a nursing audience (see Table 1). Graphics were added and additional information resources for both nurses and patients were included. The final review was met by approval from all panel members.

Table 1*Expert Reviewers' Initial Review*

Reviewer	Comment 1	Comment 2	Comment 4
Reviewer 1	Graphics would enhance the content.	The content is appropriate for nurses.	Add appropriate weblinks for patient's and resources for nurses.
Reviewer 2	The content is correct, current, and appropriate for nurses.	Nurses using this content will learn more about Tai Chi.	I think this could be used in conjunction with cardiac rehab to improve the elderly population's functional fitness (i.e., improved mobility, ROM, balance and to retain leg strength). Technically, cardiac rehab needs to elevate and sustain the HR/cardiac demand at an intensity that aerobic conditioning occurs.
Reviewer 3	To the extent of my knowledge of the subject the information would seem to be current and correct.	I do believe that this module could help nurses learn more about Tai Chi.	It has been a pleasure.

Implications

The Tai Chi education module is designed to provide nurses with an accessible guide to introduce patients to the use of Tai Chi for exercise. It is especially important for older adults with chronic disease to remain active. Tai Chi offers a low-impact way to stay active and has been shown to have health benefits for this patient population (Chen et al., 2016; Huang et al., 2021; Solloway et al., 2016; Yang et al., 2021). Nurses may not be aware of the health benefits of Tai Chi, and this education module provides an introduction as well as a list of resources they can easily access for additional information. The Tai Chi education module also provides a quick list of resources that can be shared with patients including videos that patients can use at home.

Additionally, one of the panelists, with expertise in cardiac rehabilitation, noted that the Tai Chi education module could be used in conjunction with cardiac rehab to improve the elderly population's functional fitness (i.e., improved mobility, ROM, balance and to retain leg strength). Technically, cardiac rehab needs to elevate and sustain the HR/cardiac demand at an intensity that aerobic conditioning occurs. Dissemination to nurses and exercise professionals in the wellness center and other appropriate areas of the regional medical center are planned. Once the Tai Chi education module is made available, it can support improved health outcomes for older adults with a variety of chronic diseases in the regional community. Social change will be supported through the resulting improved health outcomes and potential reduction in health care costs.

Recommendations

Further study, including a workshop on Tai Chi with pre- and post-testing should be considered to identify knowledge gaps that will be useful for future development and modification to the Tai Chi education module. It will also be useful to evaluate the impact on patient care outcomes after the education has been implemented in practice. It is also recommended to make this module more widely available through dissemination in professional publications and through social media distribution. One potential publication opportunity is the *Journal for Nurse Practitioners* clinical feature, which focuses on sharing evidence-based information related to clinical management ([https://www.npjjournal.org/article/S1555-4155\(09\)00671-0/fulltext](https://www.npjjournal.org/article/S1555-4155(09)00671-0/fulltext)).

Strengths and Limitations of the Project

The primary goal of this product was to produce an education module that would provide information to nurses could use to improve the care of older adults with chronic disease. This was accomplished through the successful development of the Tai Chi education module.

Potential Strengths

The successful development of the Tai Chi education module is the primary strength or outcome of this project. Unanimous approval by a panel of expert reviewers lends credibility to the education module. Education modules, like the Tai Chi education module, can provide easy to use information that nurses can incorporate in their daily work with patients. Ultimately the information shared through this easy-to-use resource can influence health for older adults with chronic disease.

Potential Limitations

The Tai Chi education module may not be applicable in every clinical setting; it is focused primarily for nurses working with older adults with chronic disease. Education teams at different practice sites may not have the time or resources to implement this education. Each practice setting may need to subjectively appraise the Tai Chi education module before implementing.

Section 5: Dissemination Plan

I developed a Tai Chi education module for nurses who manage older adults who are at risk for chronic conditions or who need help with preventing and managing chronic conditions. This module will be shared with nurses in a south-central metropolitan health care organization and related physical therapy practice for nurses to utilize when making evidence-based recommendations regarding older adults' health care needs. The ultimate impact on social change will be evidenced by any health improvement that may come from the future use of the Tai Chi education module by older adult patients in the south-central metropolitan region.

To disseminate this education module to a more regional audience I will seek opportunities to present this completed module to a local nursing meeting. I will also share the completed education module with additional physical therapy and rehabilitation practices in the regional area. In addition, a clinical feature article is being prepared for submission to the *Journal for Nurse Practitioners*.

Two members of the expert panel are key stakeholders in the regional medical center and were supportive regarding the potential benefits and dissemination of the Tai Chi Education Module. Support from the healthcare organization will aid in future dissemination. Foreseeable barriers to implementation of this project are costs, and the impact of the Coronavirus pandemic nurse staffing. It is possible that with limits on staffing there will be limited time to incorporate additional patient teaching.

Analysis of Self

My professional career in nursing began at age 22 after graduating from a Bachelor of Science in nursing program and completing my state board examination. I worked as a staff nurse in a cardiac care unit for several years followed by a position as a cardiac rehabilitation educator. Afterward, I worked in surgical intensive care, followed by 13 years in a cardiovascular intensive care unit. While working at the cardiovascular intensive care unit, I completed my Master of Science in nursing degree and was hired as adjunct faculty at a university. My position at the university was coordinator of advanced medical-surgical nursing care while also serving as adjunct faculty in the clinical educator role. I also earned my critical care registered nurse and advanced cardiovascular life support certification while working at a regional medical center. Because of my competency in these units, I decided to return to school to obtain my DNP through Walden University. Walden University stressed the scholar practitioner as a part of DNP nurses. I found that the scholar nurse practitioner bases their nursing on theory, research, and experience. In addition, the scholar practitioner is a problem-solver who engages in this activity and learns leadership and management.

The DNP curriculum helped me to understand my future role as a nurse scholar practitioner. In completing the project, I had to utilize my skills as a nurse manager and my new knowledge to implement my DNP project. My new knowledge supported my role in developing the education content and analyzing it to develop a final product that was accepted by the expert review panel. My prior knowledge as a nurse manager and what I gained through the curriculum helped me as I worked with stakeholders and expert

panel members in the role of project coordinator. I have always wanted to become a certified nurse educator; my DNP degree has given me the support I need to achieve success and will support me as I move forward with new career opportunities. In my new role I will work to bring positive social change to my community and to the state of Arkansas.

Summary

Development of the Tai Chi education module will provide a new tool for nurses who provide prevention education for older adults with chronic disease. Increased activity that can come from Tai Chi can be important in supporting the care and health of patients. It is important for nurses to be educated about effective patient education strategies that were developed using an evidence-based, expert review approach, which this module provides.

References

- Adler, P. A., & Roberts, B. L. (2006). The use of Tai Chi to improve health in older adults. *Orthopedic Nursing*, 25(2), 122–126. <https://doi.org/10.1097/00006416-200603000-00009>
- Allen, W. C. (2006). Overview and evolution of the ADDIE training system. *Advances in Developing Human Resources*, 8(4), 430.
- Bloom, S. B. (1974). *Handbook on formative and summative evaluation of student learning*. McGraw-Hill Book Company.
- Buchner, D. M., Campbell, W., DiPietro, L., Erickson, K. I., Hillman, C. H., Jakicic, J.M., Janz, K. F., Katzmarzyk, P. T., King, A. C., Kraus, W.E., Macko, R.F., Marquez, D. X., McTiernan, A., Pate, R. R., Pescatello, L. S., Powell, K. E., & Whitt-Glover, M. C. (2019). *Physical activity guidelines for Americans*. https://health.gov/sites/default/files/2019-09/Physical_Activity_Guidelines_2nd_edition.pdf
- Centers for Disease Control and Prevention. (2021, January 12). *Chronic diseases in America*. <https://www.cdc.gov/chronicdisease/resources/infographic/chronic-diseases.htm>
- Cerrato P. L. (1999). Tai Chi: A martial art turns therapeutic. *RN*, 62(2), 59–60.
- Chen, Y. W. Hunt, M. A., Campbell, K. L., Peille, K., & Reid, W. D. (2016). The effect of Tai Chi on four chronic conditions- cancer, osteoarthritis, heart failure and chronic obstructive pulmonary disease: A systematic review and meta- analysis. *British Journal of Sports Medicine*, 50, 397–407. <https://doi.org/10.1136/bjsports->

2014-094388

- Dumitrescu, C., & Iacob, C. L. (2021). Predicting healthy eating: Conscientiousness versus the health belief model. *Romanian Journal of Applied Psychology* 23(1) 18–24. <https://doi.org/10.24913/rjap23.1.03>
- Fabius, R. J., Nash, D. B., Oglesby, W. H., & Skoufalos, A. (2021). *Population health: Creating a culture of wellness*. (3rd ed.). Jones & Bartlett Learning
- Fetherston, C. M., & Wei, B. L. (2011). The benefits of Tai Chi as a self-management strategy to improve health with chronic diseases. *Journal of Nursing and Health Care of Chronic Illness*. <https://doi.org/10.1111/j.1752-9824.2011.01089.x>
- Grady, P. (2011) Advancing the health of our aging population: A lead role for nursing science. *Nursing Outlook* 59(4), 207–209. <https://doi.org/10.1016/outlook>
- Huang , J., Wang, D., & Wang, J. (2021) Clinical evidence of Tai Chi exercise prescriptions: A systematic review. *Evidence-Based Complementary Medicine*, 2021(3), 1–14. <https://doi.org/10.1155/2021/5558805>
- Hu, Y., Zhang, H. R., & Wu, X. Z. (2017) Tai Chi: The new star for the administration of chronic diseases? *Tradition Medicine Research* 2(3), 118–124. <https://doi.org/10.12032/TMR 201707047>
- Huston, P., & McFarlane, B. (2016). Health benefits of Tai Chi: What is the evidence? *Canadian Family Physician Medecin de famille canadien*, 62(11), 881–890.
- McEwen, M., & Wills, E. M. (2018). *Theoretical basis for nursing* (5th ed.). Lippincott Williams & Wilkins.

Solloway, M. R., Taylor, S. L., Shekelle, P. G., Miake-Lye, I. M., Beroes, M. S.,

Shanman, R. M., & Hempel, S. (2016). An evidence map of the effect of Tai Chi on health outcomes. *Syst Rev*, 5(126). <https://doi.org/10.1186/s13643-016-0300-y>

Stetler, C. B., Legro, M. W., Wallace, C. M., Bowman, C., Guihan, M., Hagedorn, H.,

Kimmel, B., Sharp, N. D., & Smith, J. L. (2006). The role of formative evaluation in implementation research and the QUERI experience. *Journal of General Internal Medicine*, 21, S1–S8.

Taylor-Piliae, R. E., & Froelicher, E. S. (2004). Effectiveness of Tai Chi exercise in

improving aerobic capacity: A meta-analysis. *The Journal of cardiovascular nursing*, 19(1), 48–57. <https://doi.org/10.1097/00005082-200401000-00009>

Tessmer, M. (1997). *Planning and conducting formative evaluations*. Kogan Page.

Yang, F.-C., Desai, A. B., Esfahani, P., Sokolovskaya, T. V., & Bartlett, D. J. (2021).

Effectiveness of Tai Chi for health promotion of older adults: A scoping review of meta-analyses. *American Journal of Lifestyle Medicine*. <https://doi.org/10.1177/15598276211001291>

Appendix: Learning Goal and Education Module Content

Tai Chi Education Module

Learning Goal: After completing this Tai Chi Education Module for nurses, the participants will have increased knowledge about Tai Chi and its health benefits. Specifically, the participant will be familiar with the following information and be able to score 100% on the quiz at the end of the education module:

1. What is Tai Chi?
2. Why is Tai Chi beneficial for older adults?
3. Ways to share Tai Chi information
4. Resources for Tai Chi information



What is Tai Chi?

Tai Chi is defined as a Chinese martial art that was originally designed for self-defense, but now its focus is health benefit outcomes for older adults challenged with chronic diseases. Tai Chi has been approved for chronic diseases involving body systems including the cardiovascular system respiratory system, musculoskeletal system, and neurological systems. The exercise intensity associated with Tai Chi is moderate to low, it has effective benefits for older adults such as preventing falls, increased flexibility, increased muscular strength, and sleep benefits. It also can be used for cardiac rehabilitation and reducing risk factors for cardiac disease.

Why is Tai Chi beneficial for older adults?

Tai chi is beneficial for older adults because of its characteristics. Tai Chi movements are smooth and circular. This type of movement has multiple effects on psychological health and physical health, and it is not stressful for patient's joints. This exercise is a safe physical activity for many older patients with chronic conditions. Tai Chi is popular and has been described in the literature as being beneficial for a number of health problems found in older adults. The Tai Chi poses, or forms are selected based on the individual's health needs. If Tai Chi is regularly practiced the following benefits are expected: reduced pain, improved bone-density, decreased risk factors, fibromyalgia, and improved arthritis.

Ways to share Tai Chi information

Tai Chi programs have been developed to help older adults.

Here are three websites that you can share with your patients, they include information and videos that patients can use to exercise at home. Always review the links provided before distributing to your patients, web addresses may change.

[The Health Benefits of Tai Chi and How to Get Started](#)

[Tai Chi for Better Balance](#)

[How Does Tai Chi Work](#)

Resources for Tai Chi information

These additional websites include patient appropriate information that you can share.

These sites do not include videos. Always review the links provided before distributing to your patients, web addresses may change.

Tai Chi: The No-Sweat way to Boost your Immunity

The Health Benefits of Tai Chi

Tai Chi for Arthritis

Health Benefits of Tai Chi for Seniors

References for Health Professionals

The following scholarly references were used to develop this educational module.

Chen, Y.W. Hunt, MA., Campbell, K. L., Peille, K., & Reid, W.D. (2016). The effect of Tai Chi on four chronic conditions- cancer, osteoarthritis, heart failure and chronic obstructive pulmonary disease: A systematic review and meta- analysis. *British Journal of Sports Medicine*, 50, 397-407. Doi:10.1136/bjsports-2014-094388

Huang, J., Wang, D., & Wang, J. (2021) Clinical evidence of Tai Chi exercise prescriptions: A systematic review. *Evidence-Based Complementary Medicine*, 2021(3), 1-14. <https://doi.org/10.1155/2021/5558805>

Hu, Y., Zhang, H.R., & Wu, X.Z. (2017) Tai Chi: The new star for the administration of

chronic diseases? *Tradition Medicine Research* 2(3). 118-124. DOI: 10.

12032/TMR 201 707047

Huston, P., & McFarlane, B. (2016). Health benefits of Tai Chi: What is the evidence? *Canadian Family Physician Medecin de famille canadien*, 62(11), 881–890.

Yang, F.-C., Desai, A. B., Esfahani, P., Sokolovskaya, T. V., & Bartlett, D. J. (2021). Effectiveness of Tai Chi for health promotion of older adults: A scoping review of meta-analyses. *American Journal of Lifestyle Medicine*. <https://doi.org/10.1177/15598276211001291>

Participant Questions

The following questions will be provided before and after the module is completed. To evaluate knowledge gained by the participants.

(1) Which chronic conditions may be improved by Tai Chi exercise?

1. Chronic Pain
2. Arthritis
3. Fibromyalgia
4. All the above

(2) Tai Chi may be helpful as an adjunct for patients in Cardiac Rehabilitation programs.

1. True
2. False

(3) Tai Chi can be a useful exercise to help prevent falls in older adults.

1. True
2. False

(4) After reviewing the provided resources, which video do you think will be most helpful for your patients and why?



“Tai chi in the garden” by Yooperann is licensed under CC BY 2.0

<https://www.flickr.com/photos/99923398@N00/24712187721>