

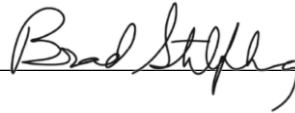
**Marian University**  
**Leighton School of Nursing**  
**Doctor of Nursing Practice**  
**Final Project Report for Students Graduating in May 2023**

Evaluating Effectiveness of Marian Mentorship Program Enhancements

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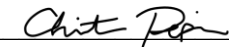
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**Abstract**

Marian University utilizes a student-led mentorship program to assist fellow graduate students of Doctorate of Nursing Practice (DNP) Nurse Anesthesia Program (NAP). Marian's NAP accreditor, The Council of Accreditation of Nurse Anesthesia Educational Programs (COA) found that there were opportunities for improvement in the student mentorship program (2022). In response to this, in May of 2022, there was a student-led implementation of a series of changes designed to improve the mentorship relationship between students such as; providing access to an informational website, weekly Webex meetings, and a 2-hour voluntary educational seminar. This paper is designed to evaluate the effectiveness of these changes to the student mentor program at improving the relationship between mentors and mentees.

*Keywords:* mentorship, informational website, educational seminar, evaluate

**Contents**

Abstract .....	2
Contents .....	3
Introduction.....	6
Background.....	7
Problem Statement.....	8
Needs Assessment & Gap Analysis:.....	8
Literature Search Methodology .....	10
Synthesis of Literature Review .....	11
Theoretical or Conceptual Framework .....	12
Aim(s) and Objectives .....	14
SWOT analysis .....	14
Project Design.....	16
Methods.....	17
Data Collection .....	17
Population .....	17
Setting .....	18
Project Evaluation.....	18
Ethical Considerations .....	19
Results/ Data Analysis .....	20

Qualitative Analysis.....	21
Outcomes .....	24
Discussion .....	24
Implications.....	26
Conclusion .....	26
References.....	28
Appendix A.....	31
Figure A1 .....	31
Figure A2 .....	32
Figure A3 .....	33
Table A1.....	34
Appendix B .....	36
Table B1 .....	36
Table B2.....	37
Table B3.....	38
Figure B1 .....	40
Figure B2 .....	41
Table B3.....	42
Appendix C .....	43
Figure C3 .....	43

Appendix D.....	47
Literature Review.....	47

## Introduction

The American Association of Colleges of Nursing (AACN) issued the statement that advanced practice nurses pursuing a Certified Registered Nurse Anesthetists (CRNAs) position should replace the previous masters' level of education requirements and all incoming CRNAs should receive a doctoral level of education (American Association of Colleges of Nursing, 2014). Programs requiring a doctoral level of education have found that mentorship is a crucial part of that program's success (Aroke et al., 2021). Mentorship is defined by Martin & Douglas (2018) as any time a more experienced senior assists, guides, and encourages the growth of a more junior individual in a relationship of mutual accountability (Martin & Douglas, 2018). Mentorship from a fellow SRNA is deemed an essential component of success as it provides a guide to assist new students through the transition process ensuring a smooth introduction to this new phase in their life (Martin & Douglas, 2018). This new phase in a student's life involves many changes that can cause stress such as new technologies, advanced curriculum, financial difficulties, academic pressure, and changes in location and living arrangements. Due to the importance of mentorship the findings published by the Council of Accreditation (COA) were evaluated and studied to find areas where the student's mentorship program could improve (Council of Accreditation, 2022). The COA provided a summary of an electronic survey completed by the 2022 graduating class. This "Summary Report of Virtual Onsite Accreditation Review" showed that on a scale of 1-5, with 1 being extremely dissatisfied and 5 being extremely satisfied, that the average satisfaction with the student's mentorship program offered by Marian University was at 2.86, with a standard deviation of 1.22.

In response, a student-led initiative began by Taylor Bonam, a member of the 2023 graduating cohort, to establish new education and resources focused on improving the

satisfaction with the student-led mentorship program and to apply them to the incoming 2025 cohort. This project is designed to observe the effectiveness of these implementations and evaluate the need for continued improvements in the utility, access, and quality of the new resources offered for the student-led mentorship program at Marian University for their Nurse Anesthesia Program (NAP).

### **Background**

According to research conducted by Martin & Douglas (2018), mentors can make a significant improvement in a mentees' development in research, clinical abilities, career management, collegial networking, and personal satisfaction. Mentors benefit from the chance to share their professional achievements, gain institutional recognition, and attain experience as future leaders (Marin, J. & Douglas, D., 2018; Henry-Noel, N. et al., 2019).

Successful mentorship programs are described by Ssemeta et al., (2017) as requiring a formal process with shared expectations and training adapted to the local context. Ssemeta et al., (2017) also found key themes that cause difficulty in a mentor program's utilization. These include: unclear role of the mentor, lack of mutual trust and respect between mentor and mentee, variations in identifying mentors (assigned vs. picked), lack of knowledge about the mentorship program, lack of formal structure, and insecurity from students about who should primarily initiate interactions/relationship (Ssemeta et al., 2017). Pallaria et al. (2019) addressed some of the confusion by providing a handbook on the individual roles and responsibilities of the mentee and mentor and found improved responses from students in the follow-up survey (Pallaria et al., 2019). Scott-Herring, M., & Singh, (2017) in the process of evaluating methods to establish a new mentor program for their newly hired CRNAs found that not only were education seminars desired by participants, but that such seminars also increased satisfaction and comfort in the

program among mentors. The mentees were also increasingly satisfied and reassured with their competence with their job after completing their orientation period. Both studies found that overall satisfaction and contentment were increased in the mentors and mentees following their increased education on the functioning of the mentorship program offered (Pallaria et al., 2019; Scott-Herring, M., & Singh, 2017).

### **Problem Statement**

The educational seminar, provided by the Marian University student Taylor Bonam, was designed with the intention to increase knowledge on roles, utilization of resources and satisfaction of students. The new educational seminar covered communication techniques, website and contact details for resources, and provides pre-scheduled easy attendance meeting times for students to interact in. By providing incoming mentees and mentors with additional information on the student-led mentorship program in a more formalized manner, the goal is to see improved interactions between cohorts and increased utilization of resources by students. Did the educational seminar, and informational website offered successfully improve the quality and frequency of interactions between mentors and mentees? This project provided a survey to all currently attending cohorts in the NAP program at Marian University to evaluate the successfulness of the educational seminar in improving interactions from the mentee perspective of the 2025 cohort.

### **Needs Assessment & Gap Analysis:**

Previously, the student-led Marian mentorship program automatically assigned a mentee to a mentor who was then encouraged to contact their mentee via email on their own time. The relationship between the mentor and mentee was non-structured and on a volunteer basis. Unfortunately, Mentees had no access to a mentor if the mentor did not initiate contact. In the



event a mentor did not initiate contact, the mentee had no formal recourse for a substitute mentor. If the relationship fell through due to personal conflict or other circumstances, the student-led mentorship program had no concept of a "no-fault opt-out" option allowing for a student to be provided an alternative mentor without consequences (Martin & Douglas, 2018).

A voluntary welcoming day was arranged at the beginning of the semester, to encourage mentors and mentees to meet in person. As the mentor role for the students was undefined, responsibilities were open to interpretation. The mentor was encouraged to be available to the mentee for any questions, concerns, or practice. The mentee was encouraged to reach out to the mentor with questions or concerns, indicating some responsibility on the mentee in maintaining the relationship. As new students in a transitioning period in their lives, initiating the relationship to reach out to mentors may have been an additional stressor for mentees resulting in less communication and utilization of mentors as described by Ssemeta et al., (2017).

The new mentor program was implemented to address these gaps in education and provide resources for students to. The educational seminar was a voluntary 2-hour session provided on May 10<sup>th</sup>, 2022 during the orientation week for the 2025 mentee cohort. There were no clinicals assigned for the 2024 mentor cohort during the orientation week, decreasing time or traveling conflicts that may have prevented attendance. According to Ssemeta et al., (2017), the qualities believed to be important between mentor and mentee are similar from both perspectives. Ssemeta et al., (2017) compared mentoring programs in medical schools and found that issues occurred when programs and practices were not aligned and lacked formalization. The seminar's goal in having mentors and mentees both attend the educational seminar was to provide set roles and communication guidelines for the mentor and mentee interaction to follow. Previous studies by Ssemeta et al., (2017) and Lyons, McQuillin, and Henderson, (2019) believed there were several

challenges faced by mentor programs including limited mentors, poor understanding of expectations, excessive workloads preventing regular or in-depth meetings, or other responsibilities or needs that undermine the sustainability of the program. The goal was to address some of these concerns by providing an orientation week to decrease the workload on students to allow for a formal and structured time to meet, as well as to provide an informational seminar educating students on: roles and responsibilities as the mentor and the mentee, communication techniques and resources provided by the program, and demonstration on how to best utilize resources to meet regularly. These interventions were evaluated for their effectiveness to see if there is a need for further improvements in the student-led mentorship program.

### **Literature Search Methodology**

A Literature search was conducted April 2022 utilizing PubMed, Medline, and Ebscohost via CINAHL databases. The search was conducted via the BOOLEAN phrase training *mentorship program*, OR *training mentors*, AND *nursing*. This resulted in a total of 5,590 articles from the databases utilized. A filter was applied to limit articles to those published within the last 5 years, in English and on human subjects resulting in a total of 727 articles.

Articles were then manually screened utilizing inclusion and exclusion criteria for appropriate content and assessed for relevance. Relevance was determined to be a subject population of adults being mentored, with training occurring for the mentors or preceptors as an intervention. Inclusion criteria for manual search involved focus on key-words, training of the mentors or preceptors, and primary sources. Exclusion criteria involved secondary research, expert opinions, or no mentor training described or evaluated. After applying inclusion and exclusion criteria 13 articles were found applicable from PubMed/Medline and 8 articles were

found from the Ebscohost CINAHL database. Of the remaining articles 3 were found to be duplicated and excluded between PubMed/Medline and Ebscohost CINAHL database leaving a total of 13 from PubMed/Medline and 5 articles from Ebscohost CINAHL database.

Additionally, 2 more articles were found by mining sources for relatable content making the total 20 articles utilized in the literature review matrix.

### **Synthesis of Literature Review**

Due to the diverse situations and environments in which programs are implemented across various institution literature on successful mentorship programs-cover multiple methods and implementations-(Martin, J. & Douglas, D., 2018). The varying success and sustainability of mentor programs can partially be attributed to mentor education and preparedness before beginning the role (Palleria et al., 2018; Ssemata et al., 2017, Sheri et al., 2019). Palleria et al., (2019) increased preparedness by issuing a handbook containing details on roles and expectations resulting in improved responses on the follow-up survey on knowledge on the program, role of a mentor, as well as the role of a mentee changing their survey responses from "agree" to "strongly agree" for a statistically significant number of students ( $r_s = 0.999$ ;  $p < 0.01$ ).

Literature on successful implementation of mentor training often emphasizes the importance of role clarification (Glover et al., 2021; MecBride et al., 2017; Palleria et al., 2018; Rohatinsky et al., 2020). Other themes in the literature showed a utilization of mentor education with a focus on communication strategies, goal setting, and feedback (Kramer et al., 2018; Mikkonen et al., 2020; Rohatinsky et al., 2020; Spiva et al., 2017; Tuomikoski, 2020). A theme for improving mentorship in RN nursing on the unit included education on Evidence-Based Practice (EBP) in attempts to encourage its usage on the unit (Evans et al., 2020. Lott et al., 2020; Spiva et al.,

2017). Less common themes found in the literature review included alternative teaching methods for those suffering with Intellectual Developmental Disabilities (IDD) and education on providing accurate final assessments of mentees from Kramer et al. (2018) In addition, some articles did not go into detail on the exact nature of the education being provided to the mentors decreasing chances for replicability (Argawa et al., 2020; Kramer et al., 2018).

### **Theoretical or Conceptual Framework**

As shown in Appendix A, the Change Theory of Nursing, developed by Kurt Lewin, is a three-stage model designed to successfully implement a planned change to the culture and atmosphere by replacing prior learning with new learning and maintaining new learning and habits via the "unfreezing-change-refreeze model" (Butts & Rich, p. 727, 2018). The changes are influenced by driving forces designed to destabilize the old knowledge and push towards change in the cultural atmosphere. Restraining forces are constantly fighting against change to maintain the status quo. And equilibrium is when driving forces and restraining forces are equal resulting in no change occurring at all (see Figure 1A).

**Context.** There was a student initiative designed by Taylor Bonam to improve the current student-led Mentorship program at Marian University introduced to the 2024 and incoming 2025 cohorts. The class of 2024 was expected to provide the class of 2025 with a strong support network and mentorship. Mentors were assigned to the 2025 cohort based on the same questionnaire for compatibility via shared life experiences and goals from previous cohorts. The volunteer educational session provided to the 2024 and 2025 cohorts covered expected roles, duties, and resources available and was designed to improve satisfaction with mentorship interactions from mentees. A good mentorship experience can lead to increased access to

students, reduce stress and insecurities about roles and responsibilities, and improve the retention rate of students (Palleria et al., 2018; Nearing et al., 2020).

**Background.** There was an important goal of achieving a support network for the incoming 2025 class. If there was trouble with a mentor how did one resolve it? Was there a phone number/e-mail to call, was there a spare mentor available to pick up anyone who had issues? What were the roles for each individual? We arranged contact, but how should the relationship progress? Previously there had been no formal process of education for the student-led mentorship program. The educational seminar provided at the beginning of the semester addressed these concerns via a PowerPoint lecture on roles and responsibilities, a demonstration of the oncourse website describing the support available for the students and ended with interactive activities for the mentor and mentee to participate in that were designed to demonstrate appropriate teaching and professional communication strategies, provide examples of frequent goal setting and appropriate feedback critique. Evidence-based practice shows simulation can be an effective education tool between mentors and mentees and by providing the interactive activity at the end allowed students to put into practice their new knowledge on communication strategies and feedback (Sheri, K., et al., 2019; Song, C. E., & Jang, A., 2021).

**Design.** Provided the same voluntary Qualtrics survey evaluating the perspective of mentees on their mentor relationship and experience in their first year to all graduating cohorts 2023, 2024, and 2025 (See Appendix A Table 1). By providing the same Qualtrics survey to all current cohorts, a comparison was made to see if the additional resources and educational seminar that was provided to the 2024 (mentor) and 2025 (mentee) graduating class resulted in increased mentor and mentee interactions and improved satisfaction from the perspective of the students. By comparing the different graduating cohorts, we can also see if there has been an overarching

positive change surrounding the culture, expectations, and utilization of the student-led mentorship program offered by Marian University over time.

**Evaluate.** The Qualtrics survey utilized 4 digits of student ID numbers to ensure anonymity and confidentiality of subjects and utilize a mixed-methods approach to evaluate the success of the experience and quality of the student-led mentorship program provided. The survey was distributed via an e-mailed URL link for anonymous survey responses and included multiple choice, Likert-scale responses, and free-text answers.

### **Aim(s) and Objectives**

The objective of this Doctoral Nursing Project (DNP) is to measure and evaluate if the changes made to the student-led Marian mentorship program provide an improved relationship between the mentor and mentee students. The aim is to ensure a satisfactory, mutually respectful, and fulfilling mentor and mentee relationship was achieved from interventions made to the program. This DNP project utilized a mixed methods review anonymous survey evaluated by two faculty members for face validity and content validity to compare the 2023 cohort(senior), 2024 cohort (junior) and 2025 graduating class(freshman) experience with their mentors and evaluate if changes made to the program provided improved experiences.

### **SWOT analysis**

Appendix A includes a SWOT analysis that describes the strengths, weaknesses, opportunities, and threats inherent to this DNP project and sample population (see Figure A2). the strengths of this DNP project include; the ease of access to the sample population. By providing the Marian University cohorts with e-mail and canvas access to the survey it was possible for every student to have access to the survey and volunteer to respond. The convenience of location at Marian University provided access if any student lacked the ability to

respond at home. Marian University as a stakeholder in the success of the student-led mentorship program could provide additional hours if the seminar is shown as beneficial or needing improvement.

As this is an evaluation of a quality improvement project, a weakness of the project is that the results will be limited to the Marian University institution, the sample population will be small including volunteers from the Marian University SRNA current cohorts. As the sample population is across multiple cohorts there are location and time constraints and scheduling conflicts involved in maintaining a mentor and mentee relationship from very disparate schedules across the cohorts that may affect results. The project spanned all three cohorts, 2025, 2024, and 2023, and due to the increased time passing from the cohort's first-year experience there may be less accurate results in responses from the later 2024 and 2023 cohorts. The 2023 cohort will have the most difficulty providing accurate data due to the time between their mentorship experience (2020-2021) and the survey evaluating that experience offered.

This project provides a multitude of opportunities for improvement in the student-led Marian mentorship program and student participation. Mentors can benefit from participating in the program by reinforcing their own education by sharing their own experiences, improving professional satisfaction, and increasing experience in leadership roles (Marin, J. & Douglas, D., 2018; Henry-Noel, N. et al., 2019). Filling out feedback on the survey also provides mentors and mentees with the opportunity to suggest improvements or solutions to any difficulties still experienced in the program.

Unintended threats to this project may include unanticipated interfering factors affecting the relationship between mentor and mentee unrelated to the education seminar. Potential threats can include the new clinical sites offered to the 2024 graduating class leading to decreased

participation in mentoring and simulation due to the increased distance to travel to the campus location. Financial difficulties with increased gas prices can lead to decreased visits and interactions between mentors and mentees. Scheduling difficulties with increased class sizes and divided class times that the 2024 cohort experienced created more limited opportunities for arranged schedule times for mentorship between the 2024 and 2025 cohorts. The fear of reprisal or failure to maintain anonymity may result in non-participation from students in the survey or resources offered from the educational seminar.

### **Project Design**

This was a quality improvement project evaluating the effectiveness and veracity of the educational seminar implemented to improve the student-led mentorship program at Marian University. This is a multi-cohort convenience sample of the incoming 2025 cohort of mentees, the 2024 cohort of mentors and the control sample of 2023 cohort completely unexposed to the voluntary educational seminar. The education provided is a 2-hour multi-modal approach to create an interactive education offering; visual demonstrations of mentoring, a PowerPoint presentation on communication techniques, goal setting and formal roles and responsibilities, a simulation experience utilizing different teaching techniques in multiple learning styles, and how to use and access the technological resources available after leaving the seminar. The Curricular content utilized in the Mentor education was curated on a review of current literature within the last 5 years on effective mentor education. The participation in the education was voluntary. In an attempt to increase interactions between mentors and mentees the education seminar included a section dedicated to encouraging weekly check-ins, self-evaluations and goal settings. Of the resources provided and discussed during the education, one was a voluntary pre-arranged Web-



Ex based meeting to increase ease of access for mentors and mentees to discuss current goals and difficulties.

## **Methods**

Evaluating the quality improvement on the student-led mentorship program via the educational seminar was conducted via an anonymized Qualtrics survey that utilizes the last 4 student ID numbers to ensure anonymity and confidentiality of subjects while still allowing for an accurate correlation of responses. The Qualtrics survey, Mentee Perception of Mentor Relationship (MPMR), utilizes a mixed-methods approach that evaluates the demographics of participants (cohort, age, gender, previous experience mentor education), the frequency of contact between mentor and mentee, Likert-style questions on satisfaction with the mentor, and commentary on those experiences or suggestions for improvement (See Table A1).

## **Data Collection**

The Qualtrics Survey was be offered on the Oncourse website as well as provided via an email URL link for anonymous survey response with multiple choice, Likert-scale responses, and free-text answers to the cohort.

## **Population**

Participants selected came from a convenience sample population from the Marian University SRNA students in the 2023 cohort, 2024 cohort and the incoming 2025 cohort. The 2023 and 2024 cohorts are considered the control samples, due to their mentors remaining unexposed to the educational seminar offered while they experienced their first year in the program as a mentee. In total there were 41 completed responses used in the study with a majority of responses completed by the 2025 cohort demonstrated in the bar graph in Appendix A (see Figure A3). Demographic data of participants is listed in Appendix B in Table B1. Responses were evaluated with SPSS IBM software to analyze frequency of demographic data

via descriptive statistics for covariates and outcomes (Table B1). Descriptive statistics listed in Appendix B found that approximately students 48.8% (n=20) were in the 2025 cohort, 24.4% (n=10) were in the 2024 cohort, and 26.8% (n=11) were in the 2023 cohort (see Table B1). Demographics of the survey conducted showed a majority of female respondents at 63.4% and with the remaining respondents listing as male at 36.6% (see table B1). Participants were asked to describe themselves and the majority responded as 68.3% (n=28) as white or Caucasian with the following responding as either 7.6 % as African American, 12.2% Asian, or 12.2% Latino, Hispanic, Spanish or Other (see Table B1).

### **Setting**

This project is set at Marian University academic center in Indiana in the mid-western region of the United States. Due to the nature of this quality improvement project results will have limited applicability to any outside institutions beside Marian University.

### **Project Evaluation**

The MPMR survey was previously unused and has no reliability data. The survey has been evaluated by two faculty members for face validity and content validity. The responses from the MPMR survey were collated and coded into a statistical computing program with the last four digits of student ID's utilized to maintain anonymity of participants. The mixed-method survey review had responses categorized according to type: ordinal, nominal, continuous, discrete, or qualitative text-box responses and compared via ANOVA testing for analysis of variances between cohorts. The free-text responses shall be evaluated by an additional two faculty members to ensure investigator triangulation in coding of themes for content and validity.

Independent variables depend on attendance in the simulation education and participation in offered Web-Ex meetings between mentors and mentees. Other independent variables that

may affect results include, previous education or experience mentoring, time between experience as a first-year mentee, age of participants, or gender. The dependent variables assessed include the Multiple choice and Likert style questions on the frequency of interactions between mentor and mentee, and degree of satisfaction with those interactions. Once data was organized and recorded, a descriptive statistical analysis was conducted utilizing an ANOVA test to determine if there was a relationship between receiving additional education on the student-led mentorship program and the mentee perception of their mentor relationship. The ANOVA test comparing two means and correlation of data will be able to demonstrate if there is a statistically significant difference between the independent variables and education intervention and the resultant mean evaluation scores of the perceived mentors' effectiveness via the Mentee Perception of Mentor Relationship.

The Qualitative responses on the Mentee Perception of Mentor Relationship (MPMR) will be evaluated and coded using thematic analysis and scanned for themes and sub-themes via two independent faculty members (Braun & Clarke, 2006). Any discrepancies can then be discussed between the coders after separately reviewing results to prevent bias from forming when sharing individual findings on the responses.

### **Ethical Considerations**

This Quality Improvement project was designed to maintain anonymity of participants by utilizing the last 4-digits of the student ID to track correlation of data and prevent any bias or fear of reprisal from students. The results of the survey shall remain in the hands of the principal investigator and two faculty members assisting with validity via investigator triangulation in finding common themes in free text answers. The faculty and principal investigator student will

review and find common themes separately to prevent bias. Results of the study will not be released until after the study is complete to prevent any alterations of results.

### **Results/ Data Analysis**

Descriptive statistics were obtained via SPSS statistics IBM to describe the demographics of the sample population and are listed in Appendix B, Table 1. The cohorts were comprised of 48.8% (n=20) were in the 2025 cohort, 24.4% (n=10) were in the 2024 cohort, and 26.8% (n = 11) were in the 2023 cohort (see Table B1). Next multiple Pearson correlation coefficient analyses were conducted to examine the strength and direction of relationship between cohorts and various variables. Assessing the relationship between cohorts and how satisfactory a mentee considered the usefulness of their mentor's services revealed no statistically significant results ( $p = .16$ ). Appendix B contains 2 graphs: Figure 1 demonstrates a visual representation via a bar graph of the individual cohorts and the frequency of mentees initiating contact, Figure B2 contains a bar graph depicting a visual representation of the cohorts and the frequency of mentors initiating contact (see Figure B1, B2). Assessing the relationship between cohorts and frequency of contact initiated by the mentor found a statistically significant relationship between variables. A moderate negative correlation was found to be significant ( $p < .05$ ) indicating a linear ( $r(39) = -.341, p = 0.029$ ) relationship between variables. A second Pearson correlation coefficient was calculated for assessing the relationship between cohorts and contact initiated by the mentee. A stronger moderate correlation was found ( $r(39) = -.537, p < .001$ ) to be significant indicating a linear relationship between variables. The 2025 cohort was found to be initiating more interactions compared to the later cohorts. Regression results are available in Appendix B Table 2.

A one-way ANOVA analysis utilizing Tuskey's HSD was conducted to compare the 2025, 2024 and 2023 cohorts and their average frequency of mentor-initiated interactions. A significant difference ( $p=.028$ ) was found between groups of cohorts ( $F(2,37) = 3.956, p < .05$ ). The Tuskey's HSD demonstrated the 2025 ( $M = 3.10, sd = 1.07$ ) scored a higher average of mentor-initiated interactions than the 2024 cohort ( $M = 2.11, sd = 1.05$ ) and the 2023 cohort ( $M = 2.18, sd = 1.07$ ). Comparing individual cohorts revealed a non-significant relationship between the individual groups (see Table B3).

A second one-way ANOVA analysis utilizing Tuskey's HSD was conducted comparing the different cohorts and their average frequency of mentee-initiated interactions (see Table B3). A significant difference ( $p < .001$ ) was found between groups of cohorts ( $F(2,37) = 12.390, p < .05$ ). The Tuskey's HSD demonstrated the 2025 ( $M = 2.9, sd = .718$ ) scored a higher average of mentor-initiated interactions than the 2024 cohort ( $M = 1.6, sd = .843$ ) and the 2023 cohort ( $M = 1.8, sd = .789$ ). Comparing individual cohorts revealed a non-significant relationship between the 2023 and 2024 groups ( $p = .830$ ).

### **Qualitative Analysis**

The survey provided in Appendix A Table 1 asked participants to respond to three open ended qualitative questions which were then separately examined to triangulate themes and codes by two faculty members and the author. The full list of themes and codes can be found in Appendix B Table 3. Four themes were found from the free-text responses; 1. Responsiveness of mentor 2. Study assistance 3. Practice of Skills and 4. Preferences/desire.

The first qualitative free-text response asked participants to describe a typical experience with their mentors and was found to have three codes. These codes included: minimum to no contact with their mentor past the introduction, discussion of tips and tricks, and lastly check-ins

from mentors on well-being. Unfortunately, there was a trend for respondents to the survey to say that their own mentor was unavailable with 12 mentioning their typical interaction as unresponsive. A typical comment demonstrating their mentors unresponsiveness included statements such as, "I think she was kicked out and never responded to me," or "She hasn't reached out since first semester unless she needed a contact info from me for her ACLS renewal." In some of those cases a respondent took initiative to find a new "adopted" mentor by reaching out and is exemplified in statements like, "My assigned mentor never replied after the initial introduction. So I adopted a mentor and she has been fantastic" or "Not much help. I have spent most of the time going through another students mentor." Respondents who had their mentor respond mentioned typical interactions including tips and tricks for class or clinical a total of 10 times. A typical example of a response we received about a mentor providing assistance in studying includes, "I have contacted them about suggestions for apex, study tips that worked well for them and got a quick response. I haven't needed anything else." Lastly, we found that there was a trend for mentors to check-in on their mentee to evaluate their in general well-being. This was exemplified in responses such as, "My mentor and I check in once a month or so just to see how things are going. It's informal, but always nice to chat and they've always been a source for encouragement."

The second free-text response question asked for students to describe the top three things their mentor did for them or wished a mentor had done for them. Most students listed 2 themes consistently as their best mentor experience: 1. study tips for our didactic courses or 2. assistance in simulation (sim) lab. Study tips to prepare for class was mentioned the most with a total of 16 statements focusing on studying as either extremely beneficial or desired from their mentor. One respondent stated, "I wish my mentor was available for sim time more 2) study tips for different

classes and professors would be good 3) I would have liked to have a chance to maybe shadow my mentor in the OR once before starting clinical myself". Assistance in the simulation lab on skills was mentioned a total of 9 times in comments. Respondents made frequent statements mentioning simulation lab in their top three list such as "Simulation & skills experience/knowledge, answering questions (mostly about the program, less knowledge type things), reassurance" or "I wish I had more opportunities with my mentor in lab. Answering my questions about upcoming courses and information about clinicals would be helpful also." There was a resulting overlap in themes due to some of these responses falling under the fourth theme of wishing and preference as well as under the theme individual themes of studying or skills. Due to the increased variety from respondent on a third mentor experience, there was also a limited the ability to find a single common thread from respondents. Some repeated responses from participants included focus on mentors providing information on future clinical sites, increasing social interactions outside school, or others focused a preference on assistance with time management or handling stress.

The final third free-text response question on the survey asked students if respondents had any suggestions for improving the student-led mentor program. This question found two codes within the theme of desire and preference: 1. Improved experiences with mentors and 2. Improving the matching process between mentors and mentees. The first theme of respondents focused on encouraging or enforcing positive experiences between mentors and mentees. This was stated in comments such as, "Mentor mixer at the beginning of your first year and then again half way through?" and "Some type of mandated contact and tracking could be useful to ensure that mentors are actually engaging with their mentees."

Multiple respondents noted that there was a lack of transparency in the matching process and desired to improve or know what was involved in the process. The focus on the matching process varied in positive and negative views and are exhibited in statements like, "I feel the pairings for the class of 2024 to the class of 2025 were done without consideration. The incoming students list their interests and family/support situations on the survey. Consideration should be taken to put people from similar backgrounds together. Such as someone with children should be paired with someone else who has children if possible, not with a single person in their mid 20's who does not understand where the other person is coming from." While another commented praising the success of their matching also desired more transparency in the decision process "I think there should be a more outlined matching process. I really like my mentor and although our communication may be less it is still often enough to fulfill my needs without being overbearing. I know that I want a mentee that is similar and will provide a similar relationship." While both views desired transparency the comments described the success of the current matching process very differently.

### **Outcomes**

This DNP project is evaluating the efficacy of changes made to the student-led mentorship program at Marian University by providing a needed in-depth look at the mentee perspective of the program. Mentorship programs are essential in providing students with support through the rapid changes that come with becoming a full-time student (Martin & Douglas, 2018). As the mentorship program is a student-led initiative it is important to take the time to continually evaluate its effectiveness as students continue to move on and the program evolves.

### **Discussion**



This project had a total of 41 respondents from all three cohorts. Our results showed that after the introduction of the education seminar in the orientation process there was a following successful increase in interactions initiated by mentors as well as interactions initiated by mentees between the 2024 and 2025 cohort. This successful increase in interactions, however, did not show a statistically significant result of mentees finding their interactions to provide more utility compared to the previous cohorts.

Overall, we found that there was a desire for improvements to the student-led program as many participants stated they found interactions and matches with their mentors to be capable of improvement. There was a consistent trend in respondents to desire increased opportunities to interact with their mentor while in the school setting and out in social settings.

One of the major limitations of this project was the massive change in students accepted in the program from cohort to cohort. The 2023 cohort had 20 students while they were responsible for mentoring the 2024 cohort of 32 students. Some students had to share their mentor with another mentee and this limited interactions. This could have affected results in determining a correlation between the educational seminar and following increase in the 2025 cohorts' interactions with their mentors as there were enough mentors to provide mentees with individual attention.

Strengths of this project included a readily available sample population and an increased response rate from students receiving the survey at >30% from all three cohorts. By including a mixed-methods approach we were able to compare perception of interactions between mentors and mentees such as open-ended questions on interactions as well as more objective data based on frequency of interactions. There was no collusion between faculty members or author preceding the individual evaluations of participants responses to prevent any bias and maintain content and validity when triangulating for themes and coding (Braun & Clarke, 2006).

The goal of this DNP project was aimed at assessing the current student-led mentorship program and evaluate if the educational seminar implemented for the 2025 cohort demonstrated any improvements from the mentee perspective compared to the other 2024 and 2023 cohorts. Despite finding no statistically significant results indicating an improved utility or perspective on interactions the project did find an objectively increased number of interactions in the 2025 cohort. Upon evaluation of the free-text response portion of the project there is a distinct improvement there was found suggestions for further improvements that could be made in the student-led program.

### **Implications**

The qualitative portion of this survey provided many useful suggestions and ideas from the respondents on ways to improve the current student-led initiative. For example, there were multiple suggestions from respondents on ways to encourage the relationship between mentors and mentees. Multiple suggestions involved increasing formal arranged get togethers between the mentors and mentees. Another suggestion involved arranging an earlier introduction so mentors could assist mentees in preparing for classes before arriving to campus. An easily implementable suggestion was to arrange a set list of material for mentors to cover to increase likelihood of mentors responding and having a pre-set list of topics to cover. Another suggestion involved mandated contact and tracking that would be much more difficult to enforce with a student-led initiative.

### **Conclusion**

In conclusion this DNP project was developed to evaluate whether the new implementation of an educational seminar provided any improvements to the student-led mentorship program. Results were found that showed that the educational seminar demonstrated statistically significant improved frequency of interactions. The qualitative portion of the project provided a

unique perspective on ideas that can be used for improving the student-led mentorship program at Marian University in the future as well.

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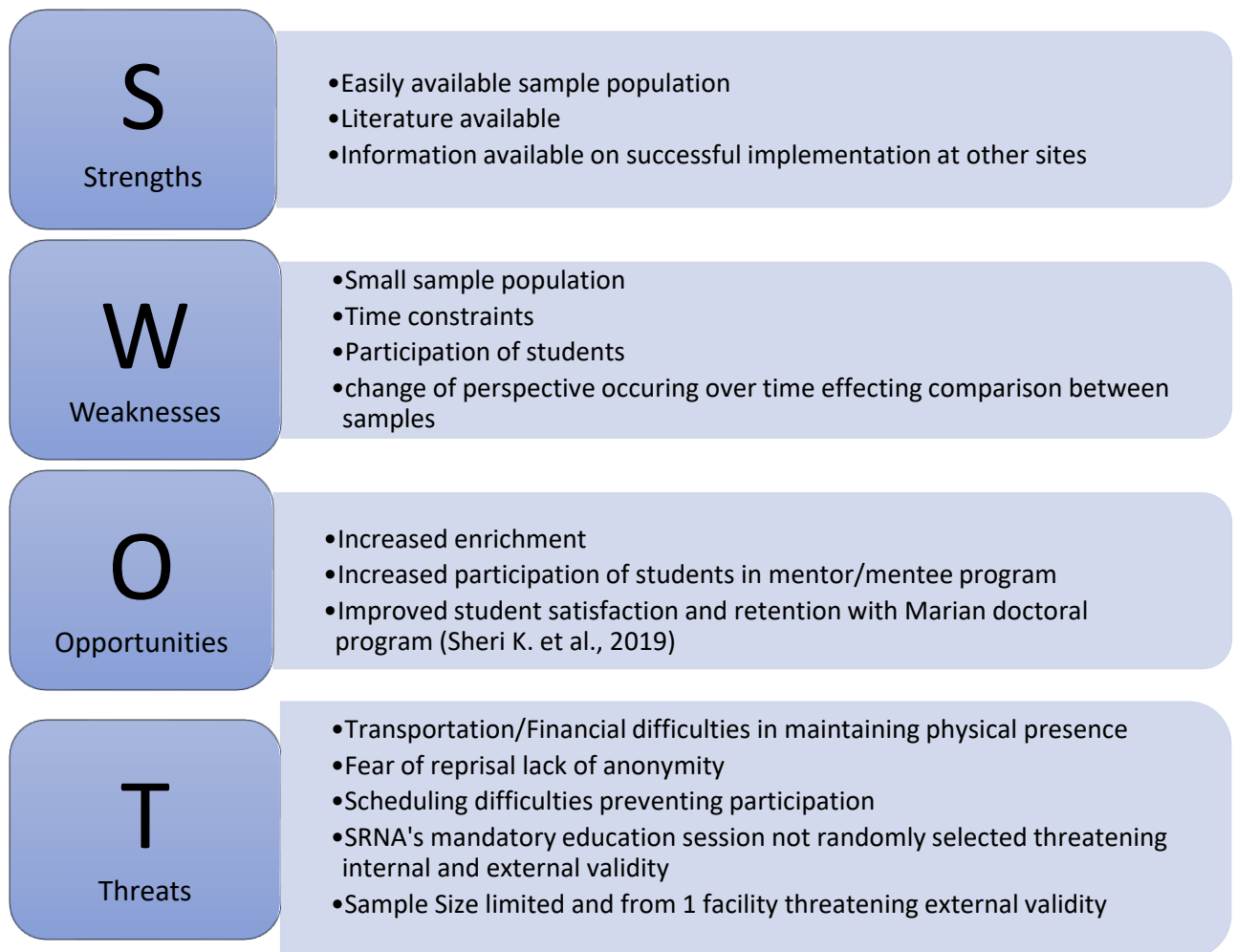
## Appendix A

Figure A1

*Theoretical Framework*

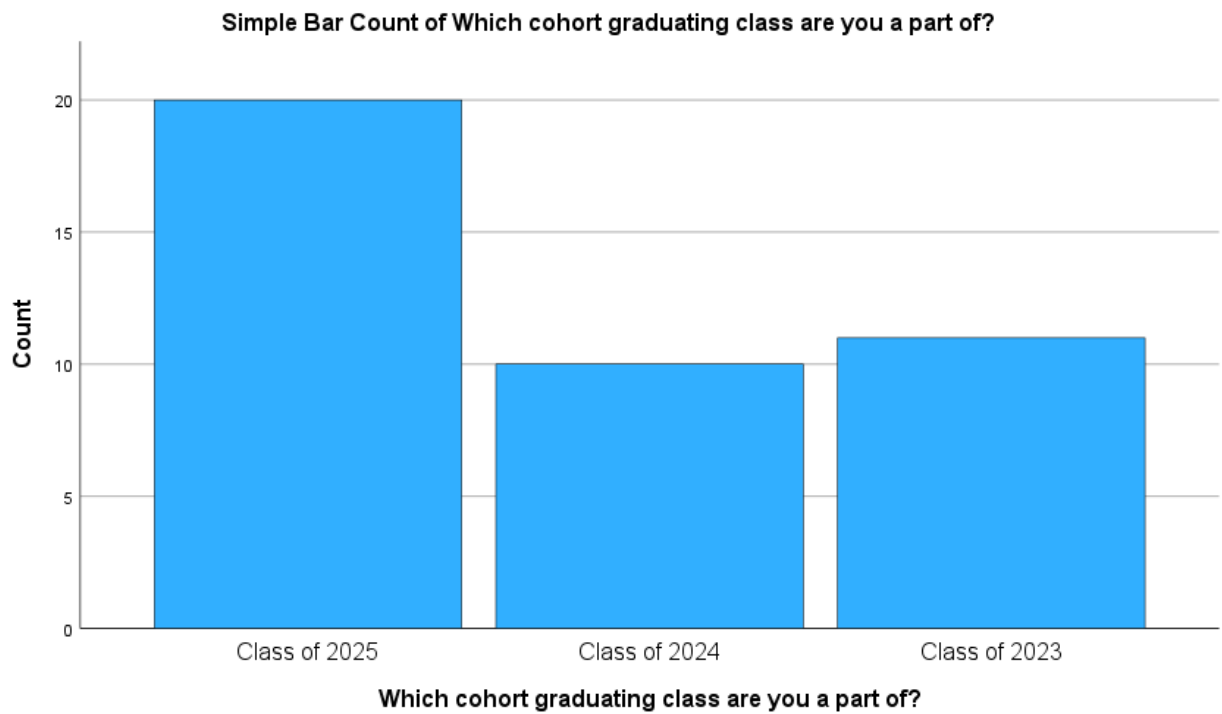
*Note:* Change Theory of Nursing by Kurt Lewin 2023, image created by Taylor Bonam

**Figure A2**  
*Swot Analysis*



*Note:* SWOT analysis created 2022 by Taylor Bonam



**Figure A3*****Cohort Participation Bar Graph***

*Note:* Bar Graph created by Taylor Bonam demonstrating the disparity of responses from the different cohorts.

**Table A1*****Survey: Mentee Perspective of Mentor Relationship - Your 1st year***

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Questions
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By participating in this voluntary survey, you agree to participate in this DNP project
What is the last four digits of your student ID number?
(this shall remain anonymous and is only used to correlate responses)
Which cohort graduating class are you a part of?
What is your gender?
What is your age?
Did you move states to participate in this program?
How would you describe yourself? Please select all that apply.
Outside of the Marian program have you ever participated as a mentee in an official mentorship program (not a preceptor program as a RN)?
Have you had any experience or training on being a mentor before the Marian Mentorship program?
Did your mentor initially contact you?
How often does your mentor contact you?
How often do you contact your mentor?

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Do you contact your mentor when you have issues?

If you answered 'No I do not contact my mentor if I have issues' can you explain why:

How useful do you find the services provided by your mentor?

What service did you find most useful from your mentor?

If you have a problem with your mentor do you know your options?

Write about a typical experience you had with your mentor? (This includes if your typical experience was no contact)

What are the top three things your mentor did for you?

Or if your mentor did not assist you, can you list three things you wish your mentor had done for you?

Any additional ideas or comments to improve the student-led mentor program?

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*Note:* Frequency Table showing the three cohorts participating in this DNP project.

**Appendix B****Table B1*****Descriptive Statistics: Populations***

Cohort	Frequency	Percent
2025 (value of 1)	20	48.8%
2024 (value of 2)	10	24.4%
2023 (value of 3)	11	26.8%
White	28	68.3%
Black/African American	3	7.3%
Asian	5	12.2%
Hispanic, Latino, Spanish & Other	5	12.2%
Male	15	36.6%
Female	26	63.4%
20-29 years old	11	26.8%
30-40 years old	23	56.1%
>41 years old	7	17.1%

*Note:* Frequency Table showing the three cohorts participating in this DNP project.

**Table B2***Regression Analysis*

Group	Variables (Value)	Beta		Mean
		Coefficient	Sig. (1-tailed)	
Cohorts	2025 Cohort (1)		MIC 1 = <.001	1.78
	2024 Cohort (2)		MIC 2 = .015	
	2023 Cohort (3)			
Mentee Initiating	None (1)	-.537		2.3
Contact (MIC 1)	Once a Semester (2)			
	Once a Month (3)			
	Once a Week (4)			
Mentor Initiating	None (1)	-.341		2.68
Contact (MIC 2)	Initial Contact (2)			
	Once a Month (3)			
	Once a Week (4)			

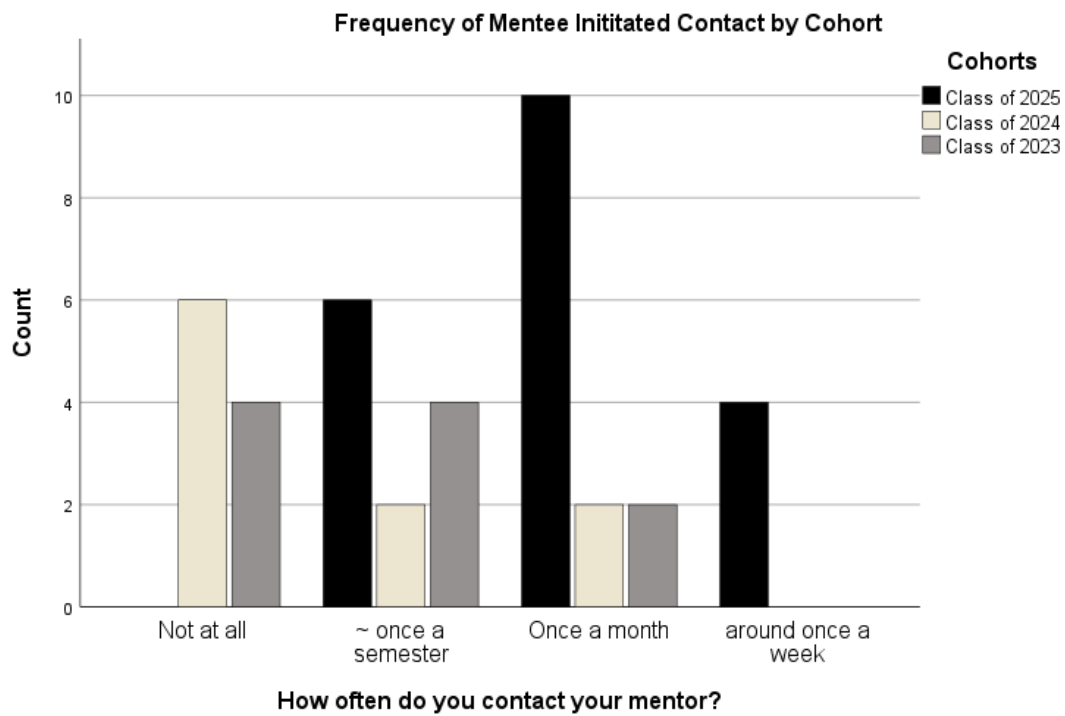
*Note:* Frequency Table showing regression analysis demonstrating strength of relationship between cohort and frequency of initiating interactions of the participants in this study. \*\*Other option responses removed from calculation.

**Table B3*****One-Way Anova Results***

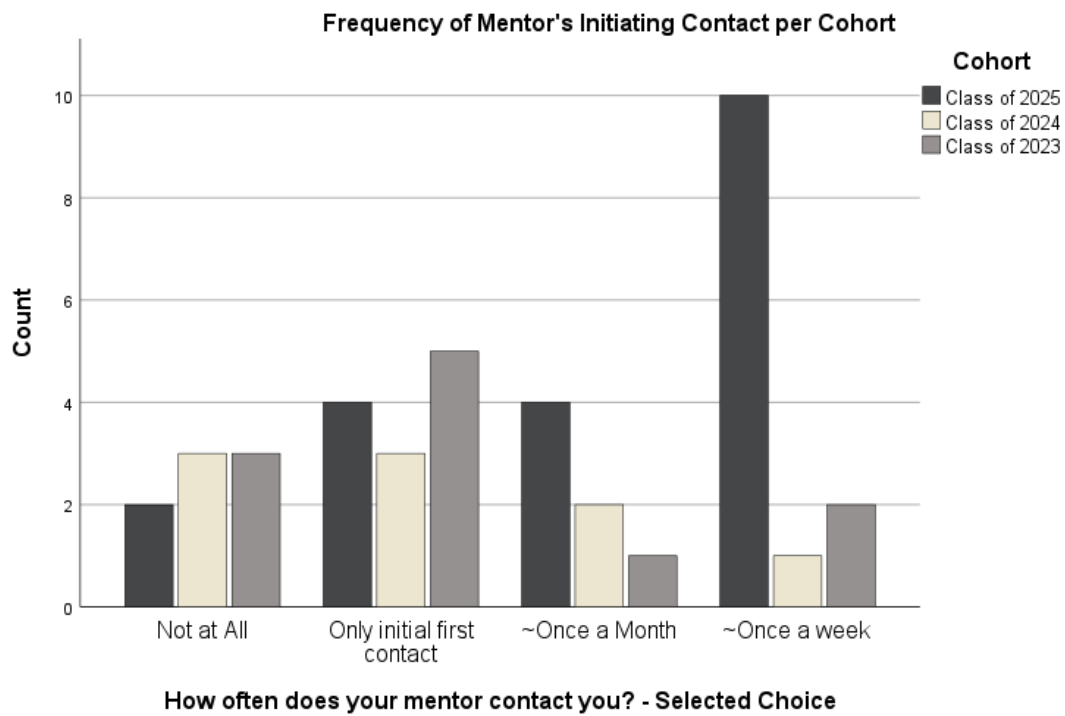
Group	Variables (Value)	N	Comparison	Sig	Mean	SD
Cohort Totals	2025 Cohort (1)	20			3.10	.240
	2024 Cohort (2)	10			2.11	.351
	2023 Cohort (3)	11			2.18	.325
Mentee Initiating			Btw Groups	<.001		
Contact (MIC 1)	2025 Cohort (1)	20	vs.		2.9	.718
			Cohort 2024	<.001		
			Cohort 2023	<.002		
	2024 Cohort (2)	10	vs.		1.6	.843
			Cohort 2025	<.001		
			Cohort 2023	.830		
	2023 Cohort (3)	10	vs.		1.8	.789
			Cohort 2025	<.002		
			Cohort 2024	.830		
Mentor Initiating			Btw Groups	.028		
Contact (MIC 2)	2025 Cohort (1)	20	vs.		3.10	.240

			Cohort 2024	.068		
			Cohort 2023	.070		
2024 Cohort (2)	9	vs.			2.11	.351
			Cohort 2025	.068		
			Cohort 2023	.988		
2023 Cohort (3)	11	vs.			2.18	.325
			Cohort 2025	.070		
			Cohort 2024	.988		

*Note:* One-way Anova Table showing regression analysis demonstrating different frequencies of initiating interactions by cohort. \*\*Other option responses removed from calculation

**Figure B1*****Frequency of Mentee-Initiated Contact***



**Figure B2*****Frequency of Mentor-initiated Contact***

**Table B3*****Qualitative Themes and Codes***

Themes	Codes
Responsiveness	No contact/minimal
	Frequent contact/Check-ins
Study Assistance	Prepare for class
Practice of Skills	Simulation Lab time
	Prepare for Clinicals
Preferred/Desire	Mentorship Experience
	Improvements to program

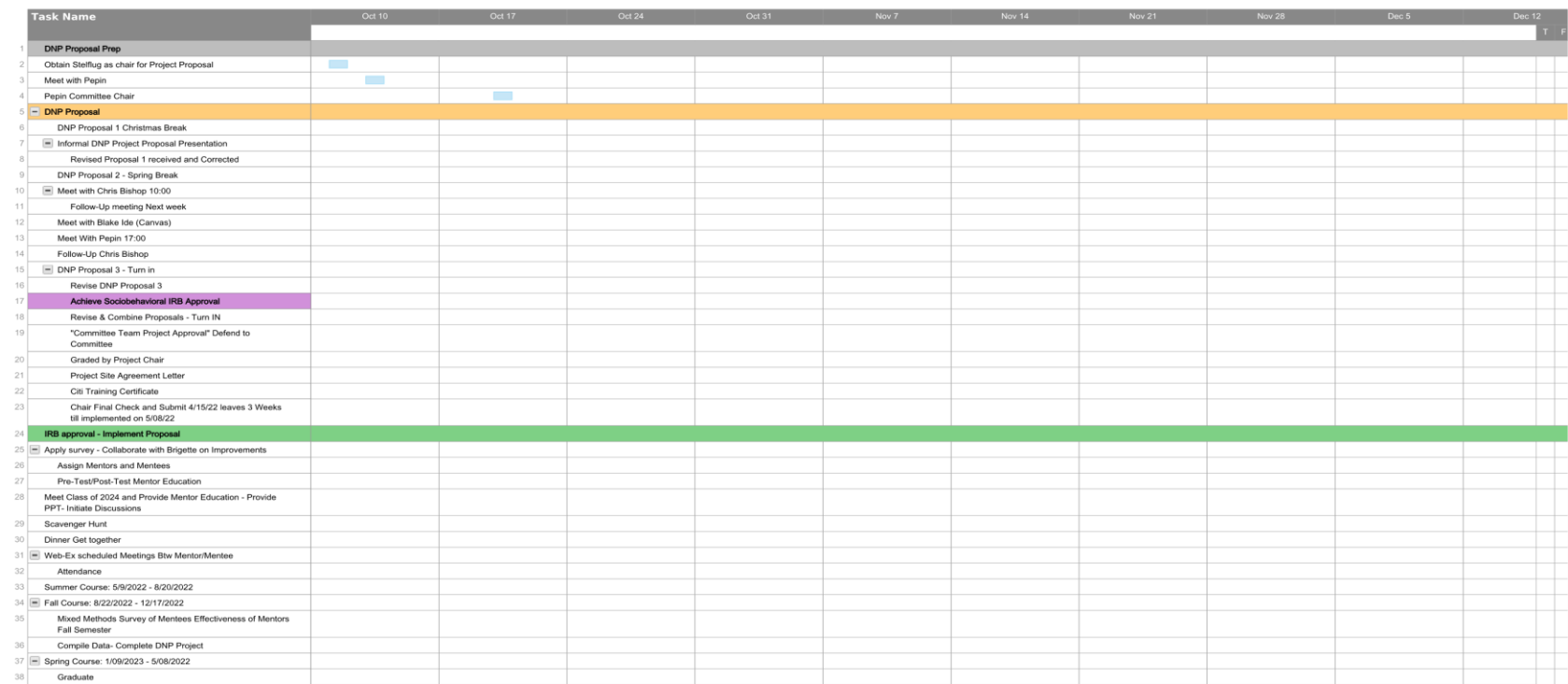
*Note:* Table describing Qualitative Themes and Codes found in responses to MPMR survey

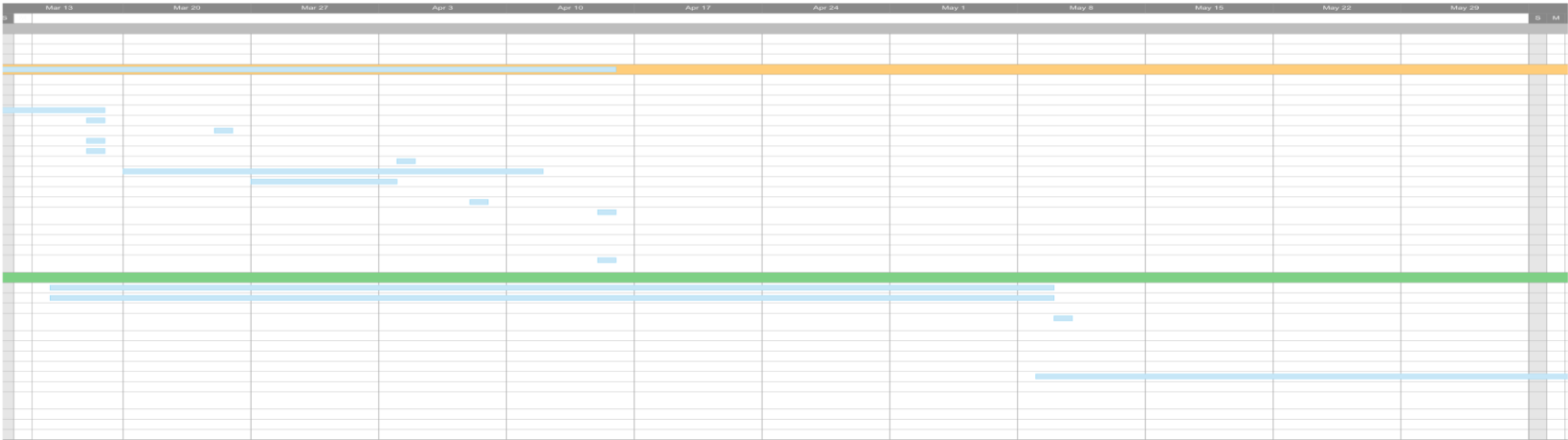
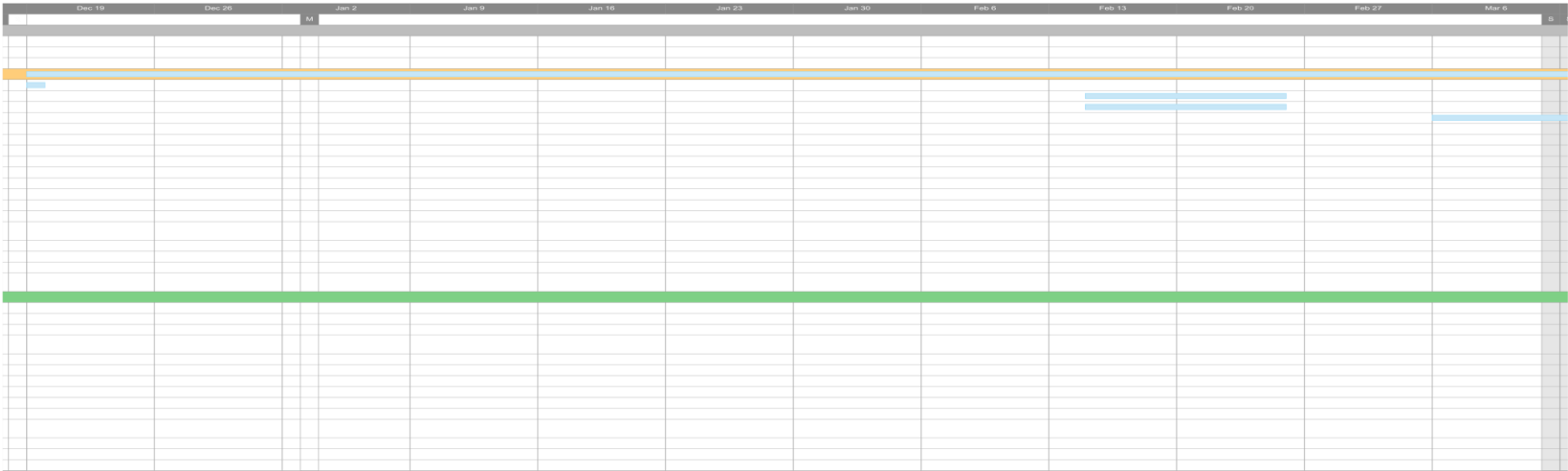
Appendix C

Figure C3

Gantt Chart

DNP Gantt Chart





The Gantt chart displays the following schedule:

Project	Start Date	End Date
Project A (Orange)	June 5	July 10
Project B (Green)	June 5	August 25
Project C (Blue)	June 5	August 14

[illegible]

The Gantt chart displays a project schedule from February 10 to May 7. The timeline is marked with dates: Feb 10, Feb 20, Mar 5, Mar 12, Mar 19, Mar 26, Apr 2, Apr 9, Apr 16, Apr 23, Apr 30, and May 7. The chart is divided into four horizontal bars: a top orange bar, a middle green bar, a bottom blue bar, and a thin grey bar at the very bottom. The orange bar spans from Feb 10 to Apr 16. The green bar spans from Feb 10 to May 7. The blue bar spans from Feb 10 to Apr 30.

## Appendix D

## Literature Review

<b>Citation First Author, Year.  Title.</b>	<b>Research Design &amp;  Level of Evidence</b>		<b>Population / Sample size n=x</b>	<b>Major Variables Independent Dependent</b>	<b>Instrument / Data collection</b>	<b>Results</b>
Agarwal et al., 2021  Mentoring Students with Intellectual and Developmental Disabilities: Evaluation of Role-Specific Workshops for Mentors and Mentees.  Improvement in role specific knowledge and skills in those mentoring students with Intellectual Developmental Disabilities (IDD)  CINAHL	Mixed Methods  Level 4		Mentors (n = 31)  Mentees (n= 35)	Communicati on Workshop Education on Disabilities Awareness workshop	Web-Based survey utilizing RedCap	Mentors had statistically significant improvement in communication post education (M = 0.667, Post-M = 0.789, p = 0.021)  There was also an increase in Disabilities Awareness Disability Awareness workshop (M = 0.633, Post-M = 0.750, t(17) = - 4.507, p = 0.000). There was no significant change with program basics workshop and the essential skills mentor workshop.
Evans, 2020.  Developing Nurses Through Mentoring: It Starts in Nursing Education.	Cohort Study  Level 5		Mentors; N= 66,  RNs; N=367	Training  Confidence Skills Organizational search of EBP research	Convenience sample utilizing flyers	Utilizing a Pre & Post-test on mentors provided with education on; didactic instruction, resource locations, and EBP culture. Evans found that post the training there were

Show effectiveness of mentor training on mentor confidence, skills, and organizational search of EBP research						improved results for confidence $t = -6.36$ , $p < .001$ , perception of knowledge, $t = -5.65$ , $p < .001$ , skills $t = -6.73$ , $p < .001$ , and ability to utilize EBP and research by $t = -8.25$ , $p < .001$ .
Fornari et al., 2018.  A Mixed-Methods Approach to Humanistic Interprofessional Faculty Development.	Mixed Method systematic review  Level 4		Mentors: N= 169  Faculty: N= 61	10-months of small group work to improve humanistic mentoring skills  Self-perceived humanistic teaching and mentoring skills	Mentors and Facilitators were chosen through track records and nomination and asked to participate in the survey	The health care professional mentors found statistically significant improvement in their self-perceived teaching and mentoring over two OSTE sessions. Cohort one found improvement on being outstanding role models at relationship building with Mean (M)= 4, 4.3 Standard Deviation (SD) = 0.8, 0.7 and $p = <.001$ . Cohort two also found had improvement on being outstanding role models at relationship building with Mean (M)= 4.1, 4.3 Standard Deviation (SD) = 0.8, 0.6 and $p = <.001$ .
Friday V. E. (2020).  Reciprocal Mentoring: An Innovative Clinical Exercise for Nursing Education.	Descriptive Correlational		Mentors: N= 10 Mentee N= 10	Reflective Journals from reciprocal	Reflective Journals were read and coded	3 mentees stated they had increased desires to work with older adults, 8 students reported an improved



	Level 6			mentoring; increased knowledge, new skills, change in perception of older adults	manually to find themes.	appreciation for older adults and increased empathy
Glover et al., 2021.  Nurturing Novice Faculty: Successful Mentorship of Nurse Practitioners.	Descriptive Study  Level 6		NA	Formal training; peer-to-peer interactions; weekly mentoring activities; Mentor feedback form; Creating a supportive environment for mentees	Mentor feedback form	The cohort concluded that all learning objectives were successfully achieved and unforeseen objectives were even met (impromptu writing workshop).
Hancock, 2022.  Implementation and Evaluation of a Cloud-Based, Evidence-Based Nurse Mentor Training Program.	Mixed Method; Level 4		Nurses: (n=28)	Mentor e- training course; knowledge, skills, confidence, beliefs, values	Recruitment flyer distributed via e-mail and pre/post test via REDCap a secure web- based collection of participant replies	78% of participants would recommend the course and statistically significant improvements were seen in post test scores for knowledge (M= 0.8, p = .001) skills (M= 0.29, p=<.001), beliefs (M= 0.27, p=<.001) and confidence (M=0.27, p=<.001), but not in values (M=0.06, p= .352).

CINAHL						
<p>Helminen, K., Johnson, M., Isoaho, H., Turunen, H., &amp; Tossavainen, K. (2017).</p> <p>Final assessment of nursing students in clinical practice: Perspectives of nursing teachers, students and mentors.</p>	<p>Descriptive Correlational Study</p> <p>Level 5</p>		<p>Teachers (n= 108);</p> <p>Nursing Students (n= 278)</p> <p>Mentors (n= 225)</p>	<p>Evaluation of perspectives of Teachers, students and mentors of final assessment given by mentors to the nursing students</p>	<p>Questionnaire supplied by Head nurses to select mentoring staff, teachers supplied questionnaire at personnel meetings, students provided questionnaire, Students filled out the questionnaire in a classroom setting</p>	<p>Mentors are trained to conduct the final assessment and meet sign-off requirements (Helminen et al., 2017).</p> <p>Of teachers (M=2.54) and students (M = 2.14) the students found the mentor assessment to be statistically significantly fairer and more consistent than teachers. Mentors (M = 1.83) and teachers (M = 1.59) both had statistically significant beliefs that there were more considerations made for multi-professional views than students (M= 1.45). Students considered the teachers to a statistically significant degree (M= 2.73) less physically present at the final assessment than Mentors (M =2.85) and teachers (M= 2.90).</p>
Kramer, et al., 2018.	Qualitative Study		NA	Mentors received up	Journal statements	Through the journal statements it was found that

Developing a Culture of Caring and Support Through a Peer Mentorship Program.	Level 6			to 2 hr training sessions on teaching and management of sessions, journal log, mentees signed contract to attend sessions		mentees felt improved success in courses and test-taking skills. Journal statements from mentors showed in creased confidence in their own skills and preparation for NCLEX.
Lott et al., 2020  The implementation of an evidence-based practice mentoring program.	Mixed Methods  Level 4		NA	Mentors participated in a 2-hour education session on EBP, EBP booklet provided via internet; measured mentor confidence levels, and measurement of EBP projects presented to clinical excellence council.	The Evidence-Based Nursing Practice Self-Efficacy Scale, Investigator Needs Assessment	The Average EBP selfefficacy score was evaluated three times, pre-education (72.7%), after education (87.1%) and 3 months later (90.8%) with a $p < .01$ indicating all values were statistically significant. There was a 300% increase in EBP/ quality improvement projects conducted by staff presented to the council within the first 6 months of the mentor education and program (6 new)

McBride, et al., 2017.  Building a mentoring network. Nursing outlook	Descriptive Correlational  Level 5		Mentee responses (n= 112)	Mentor specific education on role/resource, Effectiveness rated by mentee	The Mentorship Effectiveness Scale, Mentorship Profile Questionnaire and the Mentorship Effectiveness Scale through email and in person meetings	The primary nursing mentor was rated consistently over five years very high after training using the Mentor effectiveness scale (on a 0-60 point scale) mentors were rate at 55 (25 respondents out of 30), 54 (29 respondents out of 30), 55 (19 respondents out of 24), 56 (20 respondents out of 24) and lastly 58 (19 respondents out of 24).
Michel-Schuldt et al., 2018  Continuous professional development of Liberia's midwifery workforce-A coordinated multi-stakeholder approach.	Descriptive Study  Level 6		Mid-wives (n= 24)	Certified training and mentoring (mentors received training on national, central and health facility individual basis and conducted regular visits with mid-wives.); Engagement	Continuous Professional development (CPD) model Logbook of training, assessment every three years	The CPD program is monitored and controlled by the Liberian Board for Nursing and Midwifery. A baseline was observed in 2026 before study implemented in 2017. Results are still being correlated however his paper is designed to highlight the positives obtained by coordination between regulatory bodies and health authorities.

<p>Mikkonen et al., 2020.</p> <p>Development and Testing of an Evidence-Based Model of Mentoring Nursing Students in Clinical Practice.</p>	<p>Cross Sectional Survey</p> <p>Level 5</p>		<p>Mentors: N=1360</p>	<p>Mentor characteristic s, reflection</p> <p>Mentors motivation, goal orientation and feedback</p>	<p>Mentors Competency Instrument (MCI) tested by Confirmatory Factory Analysis (CFA). A survey was delivered electronically in Spain and Finland with a cookie check system to prevent repeat entries and in paper format with an anonymous envelope to return the questionnaire in Lithuania, Slovenia and Italy</p>	<p>They found a positive motivation and desire to mentor heavily predicted positive mentoring practices high levels of mentor's characteristics (0.71) leading to improved mentoring practices (0.61). Reflection was a major positive influence on constructive feedback at 0.79 and goal-orientation at 0.65. reflection during mentoring enhances constructive feedback between mentor and student (0.79) and this competence improves goal-orientation (0.65). The effective goal-orientation improves mentor's competence of student-centered evaluation (0.79).</p>
<p>Nearing et al., 2020.</p> <p>Training Mentor-Mentee Pairs to Build a Robust Culture for Mentorship and a Pipeline of Clinical and Translational</p>	<p>Aggregate d results of 3 cohort studies</p>		<p>N = 79 mentors</p> <p>N = 79 Mentees</p>	<p>4-day long mentor education sessions throughout the year</p>	<p>Email of Qualtrics survey to participants</p>	<p>Nearing et al, 2020 found that there was a need for training as evidenced by a wait-list and repeat attendees after the year had past. After the training there was a self-</p>

Researchers: The Colorado Mentoring Training Program	Level 5			Discussion and surveys  Improve confidence, networks and skill		reported improvement in confidence (+0.08, $p < .001$ ), expansion of peer networks (+0.23 $p < .001$ ), and improved technical and mentoring skills.
Nelson et al., 2018.  Faculty and Student Perspectives on Mentorship in a Nursing Honors Program.	Descriptive Analysis  Level 5		Students; N=142 (23%)  Faculty; N=24 (38%)	Faculty Perspective on mentorship and mentees  Student Perspective on mentorship and mentees	E-mail distribution of unpublished pre-existing open-ended survey	Nelson et al., 2018 found that there was a common theme that mentorship relies heavily on facilitation and engagement and needs to become less of a one-way role, but change to a collaboration style to improve mentees potentials. Nelson et al., 2018 found that mentees have a theme of engagement and accountability in the partnership with mentors.
Nguyen, V., Forbes, H., Mohebbi, M., & Duke, M. (2018).  The effect of preparation strategies, qualification and professional background on clinical nurse educator confidence.	Descriptive Survey  Level 5		Clinical Nurse Educators (CLiNEs) (n= 334)	8 institutional specific preparation methods identified with individuals receiving 3-4 different ones on average,	343 paper and 13 web based surveys utilizing the Clinical Nurse Educator Skill Acquisition Assessment tool (CNESAA),	Comparing different Clinical Nurse Educators found that workshops offered by the institution increased confidence more ( $M=3.22$ ) than an increase in a year of experience increased it by ( $M= 0.30$ ). CLiNEs with informal mentorship had a ( $M = 3.25$ ) decrease in perceived confidence compared to counterparts.

				CLiNE confidence in skills		Pedagogical courses showed an almost double increase in in perceived confidence.
<p>Rohatinsky, N., Cave, J., &amp; Krauter, C. (2020).</p> <p>Establishing a mentorship program in rural workplaces: connection, communication, and support required.</p>	<p>Qualitative Study</p> <p>Level 6</p>		<p>Mentors (n=43)</p> <p>Mentees (n=15)</p>	<p>Education provided via handbook, PowerPoint, and orientation session,</p> <p>Qualitative analysis themes on connection, benefits, support</p>	<p>Telephone interviews transcribed verbatim and thematically analyzed</p>	<p>All the respondents found the orientation beneficial in preparation to mentor.</p> <p>Connection and community were found to be a key theme in the interviews and found those with increased feelings of connection and community were more willing to star in rural positions.</p> <p>Support was another key theme and was found to indicate positive relations with staff and mentors. Most participants preferred face-to-face interactions when possible.</p> <p>Regular communication with encouragement, constructive, open and respectful tones was found to be critical to foster successful mentorships.</p>

Scott-Herring, M., & Singh, S. (2017).  Development, Implementation, and Evaluation of a Certified Registered Nurse Anesthetist Preceptorship-Mentorship Program.	Quality Improvement project  Level 6		Preceptors (n=12)  CRNA orientees (n=3-5)	3-education sessions  Satisfaction and comfort in preceptor experience	Anonymous paper Pre and Follow-Up Preceptor Education Surveys, New Hire CRNA Survey	The mean scores improved from pre-test (23.08) to posttest (26.5) in confidence on preceptor ability however it was not statistically significant.  The two CRNAs filled out the New Hire CRNA survey both stated either mostly or very much satisfied with their orientation.
Spiva et al., 2017.  Effectiveness of an Evidence-Based Practice Nurse Mentor Training Program.	Quasi-experimental  Level 3		Con N= 66 mentors, 367 RNs	Training provided to all didactic instruction, resources,  Knowledge Clinical skills and research utilization evaluated	Flyers were distributed at five hospitals with link to internet survey	Utilizes a Pre & Post-test on training EBP mentors provided with education on; didactic instruction, resource locations, and EBP culture. Showed online training module and nurse mentor improved results perception of knowledge of mentees $t = -5.65, p < .001$ , clinical skills, $t = -6.73, p < .001$ . and research utilization $t = -8.25, p < .001$ (Spiva et al., 2017).
Tuomikoski, et al., 2020.  How mentoring education affects nurse mentors' competence in mentoring students during clinical practice -	QuasiExperimental  Level 3		Nurses (n=120)	Education 2 a year for three months; Knowledge of mentoring,	MCI: Mentor Competency Instrument	There was a statistically significant improvement in mentoring (Pre education: $M=2.9-3.8$ Post Education: $M= 3.2-3.8, p<.05$ ).



				evaluation of students, identifying student needs, constructive feedback, goal orientation and supporting the student learning process		<p>Competence in supporting students learning process, constructive feedback and goal orientation had a statistically significant increase (<math>p &lt; .05</math>).</p> <p>Competence in reflection and mentor motivation did not see a statistically significant increase.</p>
<p>van Dongen, et al., 2021</p> <p>Developing leadership in postdoctoral nurses: A longitudinal mixed-methods study.</p>	<p>Mixed Method Study</p> <p>Level 4</p>		<p>Nurse (n=12)</p>	<p>2 year programme with semi-structured interviews and education</p> <p>Leadership and professional development improvement and research productivity</p>	<p>Semi-structured interviews and Online surveys</p>	<p>Participants found successful transfer of new knowledge of leadership skills were successfully integrated into their regular daily practice resulting in good career choices and implementation of their own research.</p>