Mentoring Nurse Practitioner Colleagues: Implementing an Online Program

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Abstract

The mentor role can help support the experienced nurse practitioner (NP) enhance a sense of belonging and commitment to the organization; however, NPs identify barriers of time, dedication, and lack of knowledge about mentoring. Current mentoring programs in Arizona are sporadic and formal training for the mentor is even more limited. In this project, an online training intervention to develop mentorship skills was provided for experienced NPs who viewed three video sessions of 20-25 minutes each. The topics (Open Communication & Accessibility; Mutual Respect & Trust; Independence & Collaboration) focused on developing key mentoring competencies identified from the literature. Participants did not report a significant increase in their mentoring skills after the video sessions, but they identified useful individual outcomes. Participants identified the need to formalize the experience with objectives for both the mentee and mentor and recommended seeking out the novice NP to build a mentoring relationship.

The project outcomes led to several recommendations. To support ongoing mentor relationships, organizations may need to push training out to their experienced NPs on the role of the mentor. Mentors who do not self-identify for remediation or training may need organizations to provide the training and not make it optional. Community and professional organizations like the Arizona Board of Nursing, Arizona Nurses Association and others could create training modules utilizing multiple platforms to reach NPs in rural and urban parts of the state. Finally, further projects are necessary to identify the most effective modalities when delivering training.

Keywords: Nurse Practitioner, Mentor, Mentor Training, Mentee, Self-Efficacy

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Mentoring has been effective in reducing turnover, increasing organizational commitment, increasing employee investment in organizational success, improving job satisfaction, and decreasing role ambiguity. Evidence supports the improvement in professional efficacy and promotion of career growth for both mentor and mentee (Faraz, 2019; Meier, 2013; Brook et al., 2019). Recent evidence has stressed the importance of a strong mentor relationship between the novice and experienced Nurse Practitioner (NP) (Zhang et al., 2015; Faraz, 2017; Jnah & Robinson, 2015; Horner, 2017). The expressed commitment of organizations to implement mentor programs for novice nurse practitioners and nurse practitioners moving into specialty areas is increasing across the country. Still, there is growing evidence that the experienced NP is not actively engaging in supporting colleagues (Dean, 2017). Experienced NPs who are making a difference at the bedside, in the community, and the classroom report they are struggling to find the time, confidence, and support needed to mentor future nurse practitioners. NPs express concern over their ability to mentor (Jarrell, 2016; Jnah, & Robinson, 2015; Jones, 2017; Faraz, 2017).

This paper will review the current literature for reasons why the experienced NP is not engaging in mentoring activities, examples of interventions to enhance engagement, and finally, provide a description of an evidence-based initiative to implement a mentoring program utilizing asynchronous online modules.

Purpose and Rationale

As nurse practitioners are critical to the future of sustainable healthcare, many organizations are examining ways to protect their investments in their employees. Recruiting, hiring, onboarding, and training new nurse practitioners can take up to 12 months without a

return on investment if the newly hired NPs leave the organization. Organizations must look at ways to retain staff, including providing support through mentorship. The mentor is the sounding board, guide, and confidant who can help novice nurse practitioners achieve their highest potential. However, many experienced NPs report feeling uncomfortable in the mentor role and express needs for their support and guidance as mentors (Jnah and Robinson, 2015; Faraz, 2017). The purpose of this project was to evaluate the outcomes of an evidence-based education program implemented to enhance the mentoring skills of experienced nurse practitioners.

Significance of the Problem

The importance of highly qualified NPs in the workforce is growing. The United States Department of Health and Human Services (HHS) (2016) projects a shortage of 23,640 full-time physicians by 2025. HHS proposes that effective incorporation of NP services in care delivery could improve access to primary care services and mitigate disparities in underserved rural areas. According to the American Association of Nurse Practitioners (2017), NP numbers have grown from approximately 106,000 in 2004 to 234,000 as of 2017, with a speculated 36 percent increase in the need for NPs by 2025 (US Department of Health and Human Services, 2016). This significant growth in the NP workforce will require planning to attract, retain, and mentor newly hired nurse practitioners in health organizations.

In 2006, Fellows of the American Association of Nurse Practitioners (FAANP) sponsored a think tank to explore the mentoring needs of students, recent graduates, and seasoned nurse practitioners (those with 5 or more years of clinical experience). The participants identified three groups that could serve as mentors for the newly graduated nurse practitioner: faculty, NP graduates with one-two years of experience, and seasoned NPs. They further acknowledged that experienced graduates can mentor in either the formal workplace or informal settings. The think

tank participants recommended that the seasoned practitioners receive recommendations for formal training programs and tool kits to develop their mentoring competencies (FAANP, 2006). Action recommendations from the think tank included: mentoring toolboxes, formal mentoring programs through local, state, and national NP organizations, guidelines for mentoring, and enhancing programs within schools of nursing and other educational institutions (FAANP, 2006). In 2019, the American Nurses Credentialing Centered implemented a requirement for mentoring to the ANCC Magnet© application. Organizations must show evidence of positive quality outcomes related to evidence-based mentor programs for all levels of nursing practice, including the Advanced Practice Registered Nurse (ANCC, 2017).

Internal Evidence

In Arizona, the average age of nurse practitioners is 54, with many anticipated retirements over the next ten years. Arizona has a 3% increase annually in newly licensed NPs (Arizona Board of Nursing, 2019), creating a growing need to mentor these new nurse practitioners. Just as new nurse practitioners need support to learn their clinician roles, experienced NPs need assistance to take on the essential part of guiding and teaching novice NPs (Faraz, 2019). Evidence supports the development of mentoring programs to decrease staff turnover, increase the intent to stay and promote positive satisfaction is robust in higher education, business, and in nursing with emerging evidence applicable to the nurse practitioner (Taylor et al., 2017; Brook et al., 2019).

The need to train experienced nurse practitioners with mentoring skills led to the following PICOT question:

In experienced nurse practitioners (NPs) (P), how does mentorship education (I), compared to no mentorship education (C), affect their role development and satisfaction as a mentor (O), over a two-hour training program (T)?

Literature Review

Search Strategy

The search strategy included evidence-based, peer-reviewed scholarly work, including doctoral theses and dissertations within the last ten years, January 2009 – December 2019. The initial search focused on the mentor/mentee relationship and the value of a structured mentoring program for career advancement, job satisfaction, and intent to stay. Additional searches examined confidence in the mentoring process for the mentor and measurements for evaluating mentoring behaviors and attitudes.

PubMed, Cochrane, CINAHL, MEDLINE, and PsychINFO databases were searched. Several articles looked at mentoring in residencies, fellowships, and orientation programs. Nurse practitioners were referenced in a variety of ways; therefore, additional search terms used included *nurse practitioner, advanced practice provider, advanced practice registered nurse, and mid-level*. Increasing the search to encompass *academic medicine, registered nurses, nursing faculty, and healthcare leaders* increased search results.

Limited results were found focusing on the nurse practitioner, so other industries and professionals were identified that may have similar needs for mentorship. ProQuest ABI/INFORM, Advanced Technologies, and Aerospace were searched for evidence in business, management, law enforcement, military, and aerospace. Searching for *mentor, mentee,* and *mentoring,* along with *satisfaction* and *turnover,* yielded over 4,000 responses in the broader disciplinary databases. After including *confidence, mentoring framework, role development,*

training, and *retention*, the restricted search led to 104 scholarly articles. Further limits were applied to remove fellowships, residencies, children, teenagers, and undergraduate college students.

Evidence from the ProQuest ERIC database was most robust regarding mentorship in academia; multiple records were identified. After placing limits as defined above, 23 articles were designated for further review. The relationship between novice faculty and tenured faculty appeared similar to the relationship of the novice nurse practitioner to experienced nurse practitioners, thus allowing for a reasonable connection to the experience found with nurse practitioners.

Reference lists and citation manager suggestions were also used to identify possible articles for inclusion. Grey literature was reviewed to determine current trends. Two large National Institute of Health-funded programs offered web-based tools, training, white papers, and literature reviews about mentorship programs. Ten studies were retained for the critical appraisal: one systematic meta-analysis, two systematic reviews, one mixed-method, one cross-sectional survey, and five quasi-experimental with a post mentor survey (see Appendix A).

Critical Appraisal

Mentoring is about encouraging career growth and job satisfaction and reducing turnover for both the mentee and the mentor (Meier, 2013). Lafleur and White (2010) proposed that novice case managers could benefit from mentorship for guidance through Benner's stages of clinical proficiency and development. They found that case management mentors reported a positive impact on personal satisfaction, professional competency, and organizational contributions.

The last five years have seen a dramatic increase in evidence of the power and importance of mentoring. The literature supports participation in a formal mentoring program for nurses, nurse practitioners, healthcare leaders, military officers, managers, researchers, and faculty (Gandhi & Johnson, 2016; Jarrell, 2016; Jones, 2017; Gosh & Rio, 2013; Minnick et al., 2014). Further literature states that a robust mentoring relationship supported improved job satisfaction, commitment to the organization, and professional development for both the mentor and mentee (Faraz, 2017; Gandhi & Johnson, 2016; Jarrell, 2016; Jones, 2017).

Synthesis

Many of the ten studies appraised used a quasi-experimental approach; most used a post-intervention survey of mentors or mentees (see Appendix B). The survey responses and the addition of open-ended questions in a few mixed method studies yielded robust information on the impact of job satisfaction, intent to stay, organizational commitment, competency, and self-efficacy of both the mentor and mentee.

Central themes emerged out of the evidence despite variability across industries, tools to measure competency, and research methods. Those themes included that a mentor has a positive impact on the mentee, the mentee shows evidence of improved competence and self-efficacy, and both have improved job satisfaction and career success (Brook et al. 2019; Zang et al. 2016; Gosh & Rio, 2013). As organizations work towards recruitment, retention, and job satisfaction, a mentorship program can be vital to organizational success (Gosh & Rio, 2013).

The review and critical appraisal of the literature identified the length of time a mentee needs a mentor, length of time needed to train the mentor, ideal characteristics of the mentor, and how to support a good mentor/mentee pair. The evidence also looked at what stage in the hiring process to implement a mentor program, how long mentor programs should be and what type of

training is necessary. Lau, et.al (2016) identified that a 4-hour mentoring session was able to

yield similar results to a two-day workshop. The authors utilized the Mentoring Competency

Assessment (MCA) as a pre/post survey prior to and following the workshop, and noted

participants improved their comfort level with participating in difficult conversations and

expanded their understanding of the challenges when working with a mentee.

       The Mentoring Competency Assessment (MCA) scale was developed to support

mentoring effectiveness among senior university researchers and novice university researchers.

Lau et al. (2016) along with Gandhi and Johnson (2016) both identified the scale to be valid and

reliable when measuring mentor competency in academia. They encouraged a wider application

of the tool to mentor programs across other disciplines. The Misener Nurse Practitioner Job

Satisfaction Scale (MNPJSS) was used in the Horner (2017) study looking at the satisfaction of

the NP. Horner (2017) found that mentoring impacted the satisfaction and competency level of

the experienced NP and the novice NP, the mentor and mentee. The other studies utilized

independent open-ended questions to elicit information on the competency of the mentor, the

effect mentorship had on the mentor and mentee, and satisfaction with the process.

       Gerhart (2012) and Harrington (2011) completed a literature appraisal and found that NPs

reported mentorship needs above and beyond their clinical competence. The newly graduated NP

wanted support on navigating the culture of the organization, balancing work/life, and

overcoming fear and anxiety as they transition to practice. Further evidence did not support the

use of mentorship to improve the clinical knowledge of the mentee. Clinical knowledge was

shown to be the work of a preceptor or fellowship/residency program (Brook, Aitken, Webb,

MacLaren, & Salmon, 2019; Robeano & Taylor, 2019).

Evidence-Based Practice Model

In 2018, Kotter International, Inc. modified their original change theory by identifying eight accelerators and four change principles (see Appendix C). Kotter's theory states that successful change for a person, organization, or philosophy is based on a clear vision that is communicated to the group repeatedly to reinforce the change. Kotter also identified that members of the organization need to be rewarded throughout the change process, managers need to remove obstacles, and leaders need to validate that the change outcomes are anchored into the organizational culture (Kotter, 2014). With the support of the Arizona State Board of Nursing, all 9,000 actively licensed NPs in the state received an invitation to participate in online mentoring program. The support of the Arizona State Board of Nursing allowed all NPs licensed in the state to participate in the mentor educational session, meeting objective number 2 of Kotter's theory to build a guiding coalition. Arizona NPs are known for their strong support and connection of each other. This project looked at the state of Arizona as a Meta organization that can support NPs across the state, which will in turn support their organization. As NPs participate in the program, they take their knowledge of mentoring into their workplaces, thus helping to enact a strategic vision for NPs in the state. Many NPs know each other across organizations and in the state, networking through professional organizations and supporting the work of AzNA (Arizona Nurses Association) and the Board of Nursing. Kotter also emphasis the need to enlist a volunteer army and create actions to remove barriers. Those who participated in the project can realize a personal accomplishment that in turn encourages acceleration, institutional adoption, and change.

National organizations, for example NLN (National League for Nurses) and AANP (American Academy of Nurses Practitioners), are also starting to work towards common goals by providing national-level resources for healthcare organizations. AANP is utilizing web-based

educational sessions to provide resources in in a more efficient way. These organizations have captured the "Big Opportunity" to use technology and their resources to support small and large organizations across the country. This project used that technology to meet the needs of Arizona NPs.

Guiding Theory

Self-efficacy and outcome expectations can be strengthened, and positive outcomes of career goals can be formed (Bandura, 1977). Bandura's Social Cognitive Theory (see Appendix D) serves as the conceptual framework for this project and emphasizes the social origin of behaviors in addition to the cognitive thought processes that influence human behaviors and functioning. Bandura's theory holds that behavior occurs as a result of the interplay between cognitive and environmental factors. Social Cognitive Theory combines self-efficacy and outcome expectations through self-observation, self-regulation, self-efficacy and reciprocal determinism (Bandura, 2001; Gandhi & Johnson, 2016; Jnah & Robinson, 2015). Scholars also believe that behavior is learned from the environment through the process of observational learning, self-efficacy and outcome expectations can be strengthened, and positive outcomes of career goals can be formed (Bandura, 2001; Gandhi & Johnson, 2016; Hayes, 1998; Jacobson & Sherrod, 2012; Jnah & Robinson, 2015).

The overarching goal of the project was to support and strengthen the mentor's competency and improve the self-efficacy of the senior nurse practitioner, thus increasing satisfaction and commitment to the organization. Assumptions within Bandura's theory include that students are goal driven individuals who learn and adopt new behaviors through observation (Jnah & Robinson, 2015). For NPs to participate in the study, they needed to engage their *personal factors* (Bandura, 1977), identifying a gap in their own knowledge about mentoring and

desiring to develop new behaviors. As the NP moved through the educational program, he/she d

engaged their own *behavior* (Bandura, 1977) by identifying their skill level, complexity of the

situation, and the duration of their experience within the program. After they completed the

learning module, the NPs then determined how to take the newly acquired knowledge into their

environment (Bandura, 1977) through newly developed roles and relationships.

Methods

The pilot study protocol was reviewed by the Arizona State University Institutional

Review Board and approved as exempt from full board review (see Appendix E).

Participant selection was based on existing de-identified baseline administrative data from

demographics about the Nurse Practitioner workforce in Arizona provided by the Arizona State

Board of Nursing (ASBN, 2019). This information was used to identify current actively

practicing nurse practitioners, those retired in the past five years, and those within one year of

licensure. The information provided a reference point for numbers of active NPs to include in the

project. Further inclusion criteria included nurse practitioners who had an active RN and APRN

license in Arizona, have worked as an NP for over three years, are over 18 years of age, and

speak/write English. Nurse Practitioners were contacted via email through the Arizona Board of

Nursing's licensee database. NPs who worked in their role less than three years were omitted

from the data.

Once at the website, participants reviewed the consent agreement and, if they chose to

continue, proceeded with registration and login to the Mentor site where the pre-survey

demographic/MCA was listed along with three recorded video sessions. The three video sessions

(Open Communication & Accessibility; Mutual Respect & Trust; Independence & Collaboration)

lasted 20-25 minutes each. Downloadable PDFs of the slides were available to the participant.

After completion of the three videos, the participant was invited to join a live 60-minute session to discuss what they learned, share experiences, and set a specific goal for the next 90 days. After completion of the live session, the participant took the post-MCA survey (see Appendix F, educational design flow sheet). If the participants completed the post-evaluation questionnaire, they had the opportunity to receive a CNE certificate in their email for 2.0 CEUs (see Appendix G, CNE evaluation and Appendix H, certification). The continuing nursing education activity was approved by the Continuing Nursing Education Group, an accredited approver by the American Nurses Credentialing Center's Commission on Accreditation. Participants' email addresses were collected to deliver the continuing nurse education certificate. Data was analyzed using SPSS 23.

The demographic survey consisted of eight questions which defined the project sample and ten mentor specific questions (see Appendix I). Participants completed a pre/post survey using a modified Mentor Competency Assessment Scale (MCA) (see Appendix J). The Mentor Competency Assessment Scale (MCA) was originally developed for use in research mentoring programs (Fleming, et al., 2013). The data from the 26-item scale is used to assess skill level of mentors across six competency domains (maintaining effective communication, aligning expectations, assessing understanding, fostering independence, addressing diversity and promoting professional development) (Fleming, et. al, 2013). The scale was modified for this project, with permission of the scale author, by removing items unique to research faculty.

The modified MCA was combined with eight demographic questions and ten initial mentor screening questions to create a thirty-six-question survey (see Appendix I & Appendix J). Participants received an invitation to participate via email from the Arizona State Board of Nursing NP List serve and were directed via a link to the project website. Flyers were sent to

Arizona professional nursing organizations and local health systems for distribution (see

Appendix K, flyer). No outside funding for the pilot project was received (see Appendix L,

budget).

Results

The pilot educational program was conducted with a total of seven experienced nurse

practitioners. Seventeen completed the Mentor Competency Assessment pre-survey and

demographics, but only seven completed the three online modules, post MCA and CNE

education evaluation questionnaire. Of those seven, only two participants completed the live 60-

minute webinar. Due to the small sample size, the planned 60-day follow up questionnaire on

the participants experience with using the tools learned in the online modules was not

implemented. The majority of the study population were female (71.43%), between the age of 55

and 59 years (42.86%). Years of experience as an RN ranged from 1 year to over 20 years, years

of experience as an NP also ranged from 4 years to over 20 years. The remainder of the

demographic data can be found in Appendix M.

Over half (57.14%) of the respondents reported they had received mentorship training

prior to the pilot project. Only two (28.57%) reported actively participating in a mentoring

relationship and all reported actively serving as a preceptor. Participants noted that mentor

relationships were mostly formal and within the same organization. The remainder of the

demographic and mentor data can be found in Appendix M and N.

No statistically significant relationships were found in total scores between the pre and

post survey. However, 43% of the respondents reported that their strategies to improve

communication with mentees improved from moderately skilled to extremely skilled. Two

clinically significant themes were identified from participant comments on the CNE evaluations:

mentors need to help the mentees set achievable goals and the mentors need to be engaged active listeners.

Discussion

This project was a direct result of the desire to improve the senior nurse practitioner's confidence with mentoring using an online asynchronous educational platform. Due to a limited response, additional projects are needed to evaluate the most effective method of delivery to enhance senior NPs' confidence with mentoring. Kotter's (2014) change principles support that multiple methods of learning are necessary for change, so evaluation of educational programs within organizations, continuing education programs, on demand/podcast lectures, etc. should be investigated to help support the growing nurse practitioner workforce and their mentors. Further studies are also needed on the motivation to improve mentorships skills and the benefits/incentives that encourage engagement. The awareness of self and the ability to identify gaps in knowledge will guide individuals to training and participation in educational programs, however, without this insight, individuals may not fully understand their need for training (Horner, 2017).

Limitations, Barriers, and Challenges

The project was limited to experienced nurse practitioners in Arizona. This pilot study measured educational effectiveness of an online learning platform at one-point in time and is not generalizable to other learning modalities. Although the recruitment email was sent to over 9,000 nurse practitioners in the state of Arizona, only seventeen responded to the request for participation. Timing and conflicting emails may have contributed to the low response rate. Request for participation was sent near the winter holidays and multiple other emails were sent from the Arizona Board of Nursing in the same time period, potentially creating confusion.

Direct communications with NPs through conferences, site visits and connections within organizations may improve the response rate for future initiatives.

Selection bias may have impacted the outcome. The small number of mentors in the study may have differed from those who did not participate.

Project Impact and Sustainability

The Arizona Board of Nursing has requested the three recorded modules be made available to hospitals, medical groups and schools of nursing to improve mentoring knowledge. The Arizona Board of Nursing supports advanced practices nurses in the state through committees, workgroups and advisory opinions. The educational design of this project will be made available to the Board for integration through their Advanced Practice Committees to create a statewide tool that organizations can use to mentor experienced nurse practitioners and modify for other advanced practice nurses. The long-range goal will be to modify the educational program to support all levels of nursing mentorship.

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Appendix A

Table 1

Literature Review Evaluation Table

Citation	Theory/ Conceptual framework	Design/ Method	Sample/ Setting N= n=	Major Variables & Definitions IV- DV-	Measurement/ Instrumentation	Data Analysis (stats used)	Findings/ Results	Level/Quality of Evidence; Decision for practice/ application to practice
Gandhi, M. et.al (2016). Creating more effective mentors: Mentoring the mentor. **Country:** USA **Funding:** NIMH/NIH **Bias:** Response & Sampling	Social Cognitive Career Theory (adaptation of Social Cognitive Theory)	**Design:** Quasi-Experimental Cross-Sectional Survey (pre/post); **Purpose:** Mentor training improves mentor skills, improving outcomes for mentees	N – 67, convenience sample Pre/post – no control group **Demographics:** f (73%) m (27%) Disciplines: Medicine (42%); Nursing (8%); Social Sciences (21%); other 29% **Setting:** University CA San Francisco, 2-day M workshop **Inclusion:** AR @ mid and senior level; active role M; HIV researchers	**IV1:** wkshp for M **DV1**: Effective communication **DV2:** Aligning expectations **DV3:** Assessing understanding **DV4:** Fostering independence **DV5:** Addressing diversity **DV6:** Promoting development	**Mentor Competency Assessment** (pre, post 1-2 weeks after workshop)	$*p < .05$; $**p < .01$; $***p < .001$ t tests	**DV1**: ** Mean 4.7-5.5 sig ↑↑ **DV2:** ** Mean 4.6-5.4 sig ↑↑ **DV3:** * Mean 4.5-5.1 sig ↑ **DV4:** ** Mean 4.9-5.6 sig ↑↑ **DV5:** *** Mean 4.7-5.6 sig ↑↑↑ **DV6:** ** Mean 4.6-5.4	**LOE:** VI **Strengths:** use of SCCT, validated tool MCA **Weaknesses:** data was taken over 2-year period, potential error with 1 workshop in 10/2013 and 2nd in 5/2015. Paired t test data NS, **Conclusions:** all 6 components of mentoring success were statistically significant

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			Exclusion: limited participation to keep classes small	**Time frame:** NS			sig ↑↑	**Feasibility:** feasible
Minnick, W, et. al. (2014). Onboarding Occupational Safety & Health Professionals **Country:** USA **Funding:** NS **Bias:** Sampling	Job Embeddedness	**Design:** QE MM **Purpose:** examine whether OSU professionals in a mentoring program influence learning curve and intent to stay	**N** =306, convenience sample • 91/306 Mentors • 65/91 responded to qualitative survey **Demographics:** m/f- 85%/15% Construction: 44% Manufacturing: 23% Oil/Gas: 33% **Setting:** ASSE professions from all over USA	**IV:** M Program **DV1:** LC w/o M LC is defined as the time it takes to perform job skills and tasks and is independent of being M **DV2:** LC w/M LC length associated w/ being M **DV3:** ITS w/o M **DV4**: ITS w/M	**Qualitative:** • What interactions w/your M were not value added? • What interactions w/your M were most effective/helpful? • Think back to when you first joined the company. What type of M activities	SPSS; Chi square analysis for quantitative portion; Cramer's V Qualitative: content analysis	**DV1 & DV2** = NSD .820 (p > .05) **DV4** = sig 33.8 (p < .05)↑ ES .372, medium **DV3**=77% stated negative impact on ITS w/o M Qualitative: 1. Regardless of interaction,	**LOE:** VI **Strengths:** Demographics generalizable to workers in construction / manufacturing / oil/gas; ability to replicate qualitative portion of study to any industry **Weaknesses:** study was recall based; Missing data to replicate questioner; missing data on literature review; refences were outdated

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			Inclusion: employed as OSH, member of ASSE **Exclusion:** Retired; contractor; consultant; trainer		would have been most helpful?		anything is valuable 2. 30% stated cultural navigation most important. 13% coaching/advice.12% support developing partnerships 3. Person who where not M. 46% wanted help w/cultural navigation. 14% support	**Conclusions:** any form/interaction of M valuable for retention; not helpful with LC; Cultural navigation of organization was greatest value add for being M; second was coaching / advice/ performance expectations **Feasibility:** use of large database of ASSE members and online format was +, tools used were appropriate, able to replicate

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							with job shadowing	
Horner, D. (2017). Mentoring: Positively influencing job satisfaction and retention of new hire nurse practitioners **Country:** USA **Funding:** NS **Bias:** selection bias & response	Watson Caring Model (1988)	**Design:** Cross-sectional survey; QE; Convenience sample **Purpose:** Does M ↑ influence NP JS?	N=69; n=37 **Demographics:** f/100% **Setting:** regional primary care clinics and hospitals **Inclusion:** C NP; English Speaking **Exclusion:** PA, other APPs, non-English speaking	**IV1-** M Program **DV1-**JS Job satisfaction **DV2-**MIC Improved competency of mentor **Variables:** Years in practice Years as RN NP Specialty Experience One-time post survey	MNPJSS (2001); Cronbach's α 0.96; 0.79-0.94 subscales Mentorship Quality (nonstandard – not tested); Questions – *Did you find M beneficial *Did this relationship positively influence your JS?	SPSS, One-Way ANOVA; Cross Tabulation	DV1 - ↑JS 4.4 vs. 4.39, sig DV2 - MIC - 91.89% ↑, sig M valuable - 100% M themes - *constructive feedback; *shared knowledge; *available; *encouraging	**LOE:** VI **Strengths:** 2/3 of participants on job >3 years; reliable instruments; solid methodology **Weaknesses:** perception, recall based; not generalizable to PA or other APPs; small regional study **Conclusions:** Any form or length of M perceived as valuable

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								Feasibility: feasible
Eller, et al. (2014). Key Components of an effective mentoring relationship: a qualitative study **Country:** USA	Psychometric theory	**Design:** Qualitative Study **Purpose:** identify key components of effective mentoring in academia	N=694 n=451 **Demographics:** MW - midwives in Japan. f=100%; age 20-30 59.2%; clinical experience 13.4 +/- 9.0 years 23.7% current M	IV = Mentor Competency DV1 = Competency as professional DV2=competency as an educator DV3=Personal characteristics	MCCM - Researchers created questionnaire from literature-based evidence, 142 item questionnaires were used in pilot study to check validity. After analysis 43 items	SPSS descriptive statistics exploratory factor analysis	Final Cronbach's α = 0.994; DV1 = sig ↑ 0.773 DV2 = sig ↑ 0.923 DV3 = sig ↑ 0.863	**LOE** = VI **Strengths:** rigor used to develop questions for validity, large N, **Weakness:** **Conclusion:**

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Funding: NIH, GMS **Bias:** selection bias, response, diversity			**Time Frame**:2 months **Inclusion:** MW who has been mentoring more than 1 year & new MW **Exclusion:** - non-midwife		discarded, 99 remained for final MCCM questionnaire. After pilot of MCCM, analyzed 77. 19 more questions removed to improve Cronbach α leaving **41 questions to assess MCCM** (Mentoring Competency of Clinical Midwives)		9 sub-factors, all significant (0.670-0.891) Factor contribution for each concept was 39.0-42.7% 9 Sub-factors 44.0 – 81.2%	**Feasibility:** feasible, would be good to replicate using tool to determine generalizability
Replace with Faraz **Country:** USA **Funding:** None	Kram's mentor role theory & Interpersonal relationship theory	**Design: QE** **Purpose:** to determine the role of mentorship	N=472; University faculty White 85.5%; m/ 55.6%; 10.6 yos;	IV = M DV1 = JS, job satisfaction	M Quantity - 1? "#M"; M Quality - 3 item Allen & Eby's 5 item mentorship quality; M Satisfaction - 3	SPSS VIF <10 / Tolerance >.10 - initial	DV1, DV2, DV3 – NSD difference w/ # of mentors	**LOE:** VI **Strengths:** solid N; reliable instruments; solid methodology; potentially

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Bias: selection bias & response		quantity, quality and satisfaction related to job satisfaction, commitment and intent to stay.	60% reporting having a M - (Quality/Satisfaction was tested on this group n=284)	DV2 = C, commitment DV3=T, intent to stay	item scale/4? Ragines et al. satisfaction with M; JS - 2 questions; Affective Commitment - Allen & Meyer's 8 item affective commitment scale; Turnover - 3?s	Analysis - common method bias not seen; CI 95%, bootstrap bias 0	DV1, DV2, DV3 - sig ↑ with mentor's knowledge DV1 - sig ↑ w/M .24 DV2 - sig ↑ w/M .11 DV3 - sig ↑ w/M -.21;	generalizable to PA and APP **Weaknesses:** regional study **Conclusions:** Satisfaction with mentoring was more meaningful then quantity or quality of mentoring; **Feasibility:** feasible
Lau, C. et al. (2016). Developing mentoring competency: Does a one session training workshop have impact?	Not stated can be generalizable to competency-based learning; continuing education	**Design:** QE - Mixed study / Post-test **Purpose:** To determine if a 1/2-day mentoring course would	N=43 n=36 (84%); **Demographics:** M 69%/mentee 31%; MD 28%, RN 8%; Psychologist 36%; other 28%;	IV-Mentoring Competency DV1 = M competency after 1 wkshp	Mentoring Competency Assessment (MCA); Mentorship Knowledge Test (MKT); Program	SPSS; two-way ANOVA, t test; qualitative - unique identifiers; $p \leq 0.05$	DV1= mean 4.48 vs 5.02 pre/post; $F(1,31)=18.4$ ↑ DV2 = $t(27)=0.512$, $p=0.613$ ↓	**LOE:** VI **Strengths:** reliable instruments; solid methodology; potentially generalizable to PA and APP mentors.

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Country: Canada **Funding:** None **Bias:** Self-Report		result in improved measure of mentor competency.	Academic Medicine (Faculty, Staff and trainees) Neuroscience department regional hospital/clinic	DV2 = M knowledge after 1 wkshp	Evaluation - pre/post			**Weaknesses:** regional study, limited literature review, lack of control group, small sample size. **Conclusions:** Mentoring workshop for 1/2 day ↑ mentor/mentee competency post program; ↑ mentor/mentee difficult conversations and working with diversity. MCA can be used as an effective means to measure

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								competency in 1/2-day workshop. **Feasibility:** feasible, speaks to possible time for future studies and financial impact of mentorship programs
Gisbert-Trejo, N. et al. (2019). Determining effective mentor characteristics in inter-organizational mentoring for managers: An approach based on academics and	Kram's mentor role theory and functions (CF, PF, RM) (1985) & Nonaka Organizational knowledge creation (1994)	**Design:** Mixed Method (Literature analysis to determine 1° and 2° M Characteristics; Delphi analysis relevance from expert opinion; and exploratory	N=125 (17.9% rr); **Demographics:** 51 M, 62 mentee, 12 program coordinators 22 yos, m 50.4%, f 49.6% **Setting**: 12.8% work in industry,	IV1 = MC (mentor characteristics) DV1 - Mentor; DV2 - Mentee; DV3 - Program Coordinator – once MC were identified they	LR - 110 articles (11/2016-5/2017) Scopus & Web of Science; Delphi - Snowball sampling of 19 experts, from experienced M, across the region	Delphi, Brown-Forsythe w/Bonferroni post hoc; EFA (69.48% Variance); Kaiser-Meyer-Olkin	29 M characteristics identified with the EFA noting 7 factors; no significance difference between DV1,2,3 for 28 questions; difference	**LOE:** VI **Strengths:** reliable instruments; solid methodology; potentially generalizable to PA and APP mentors. **Weaknesses:** regional study, lack

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Citation	Theory/ Conceptual framework	Design/ Method	Sample/ Setting N= n=	Major Variables & Definitions IV- DV-	Measurement/ Instrumentation	Data Analysis (stats used)	Findings/ Results	Level/Quality of Evidence; Decision for practice/ application to practice
practitioners' perspective **Country**: Spain **Funding**: US 17/14 University of the Basque Country (UPV/EHU). **Bias:** no random sample of experts.		factor analysis to classify M characteristics in inter-organizational (IO) M.) **Purpose:** identify, classify, and value the main MC inter organization	12% energy, 12% IT, 12% consults, 8% RD, 43.2% other **Inclusion:** participated in IOMP **Exclusion:** no experience with M and no desire to be a mentee	were compared to Frequency seen in literature, respondent's response, and Kram's functions (CF, PF and RD).		(0.837, sample adequacy)	between mentee/PC regarding coaching; difference found between Intra/Inter organizational literature characteristics	of control group, **Conclusions:** Positive advancement on the impact of mentoring on the transfer of knowledge through mentors. Selection of M focus on experience, relationship skills and motivation.
Brook, J. et al. (2019). Characteristics of successful interventions to reduce turnover and increase retention of early career nurses: A systematic review	NS	**Design:** SR **Method:** Medline, HPR, EMBASE, PsychInfo, CINAHL, Cochran.	N= 11, 656 n=53 eligible studies **Time:** 2001-2017, repeat search 4/2018, no new yields	IV1 -Time of Mentor program IV2 -Type of Mentor (preceptor, mentor, residency)	PRISMA; JBICA - No meta-analysis, narrative summary of characteristics; two types of analysis - 1. interventions 2. components	percent improvement difference	**IV1:Time:** DV1: @ 26 wks sig ↑ 9.3% DV1 @ 27-52 wks sig ↑13.3% DV2 @ 26 weeks sig ↑6% median ↑;	**LOE:** 1 **Strengths:** Evidence of prereview correlation between reviewers for accuracy, use of PRISMA and

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Country: USA **Funding:** Burdett Trust for Nursing Grant **Bias:** Publication Bias		**Terms:** (retain*, retention, attrition, leav*, turnover, quit, loyalty) and (staff, personnel, employee, workforce) and nurs* **Purpose:** evaluate successful interventions to promote retention and reduce turnover of early career nurses	**Demographics:** 57% new grad RNs, # of RNs Median 90 **Inclusion:** all LOE, PR; English; studies contain reduce/increase attrition, data w/attrition/retention/ turnover rates **Exclusion:** articles prior to 2000	IV3 – Characteristics of Mentor (preceptor, mentor, teaching) DV1 = Turnover DV2 = Retention			DV2 @ 27-52 weeks sig ↑ 31% **IV2: Type** (Preceptorship) DV1-9.2% sig ↑ , DV2 - no effect; **IV2: Type** (Mentorship) DV1 = 13.7% ↑ DV2 = 17.1% ↑; (Residency) DV1 = 18.6% ↑ DV2 = 19.5% ↑ **IV3: Characteristics** (Preceptorship) DV1 = 9.5% ↑ , DV2 = 20.5% ↑;	Joanna Briggs criteria **Weakness:** no mention of author's competency to review studies; Many studies reviewed did not have quality data to extract, not all studies did pre/post, and multiple mixed methods without rigor. To help with Publication Bias, reviewed unpublished grey lit. **Conclusions:** Orientation/TTP program lasting 27-52 weeks with

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							(Mentorship) DV1 = 13% ↑ DV2 = 17.1% ↑; (Teaching) DV1 = 11.9% ↑ DV2 = 20% ↑	teaching, preceptor and mentor component. **Feasibility:** APPs have similar turnover/retention data for new graduate RNs, the evidence of a mentor program and its value to turnover and retention are valid. Recommendation is 27-52 weeks, this will limit feasibility due to cost of orientation/TTP, but possible with mentorship beyond orientation?

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Zhang, Y. et al. (2016). The effectiveness and implementation of mentoring program for newly graduated nurses: A systematic review. **Country:** China **Funding:** Shanghai Nursing Association & Shanghai Jiao Tong University **Bias:** Publication Bias	NS	**Design:** SR **Method:** Cochrane, Medline Ovid, Elsevier, Embase, CINAHL, CBM, CNKI & WanFang. **Terms:** newly graduated nurse, new graduate nurse, new nurse graduate, newly qualified nurse, newly registered nurse, novice nurse, new nurse, mentor,	N= 347 n=9 **Time:** no restriction **Demographics:** new grad RNs, SS 19-450 **Inclusion:** all LOE, PR; English & Chinese; studies contain details of mentoring program **Exclusion:** literature review, grey literature, nsg interventions that don't mention mentoring, interventions with preceptorship and no mentoring.	IV = Mentoring Program DV1= turnover DV2= cost effectiveness DV3= job satisfaction DV4= RN Competency DV5= Self-Efficacy/Stress Reduction	Joanna Briggs Institute (2008) 3 review authors No meta-analysis, narrative summary of characteristics	percent improvement difference	DV1 - Turnover: 44% of studies ↓; DV2 - Cost Effectiveness: 22% of studies saw cost savings >$330,000 annually; DV3 - Job Satisfaction: 44% of studies saw ↑; DV4 - RN Competence: 33% of studies saw ↑;	**LOE:** 1 **Strengths:** use of Joanna Briggs criteria for analysis **Weakness:** no mention of author's competency to review studies; Many studies reviewed did not have quality data to extract, not all studies did pre/post, and multiple mixed methods without rigor. Did not review unpublished grey lit or articles outside of USA & China. data analysis of articles was not

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		mentoring, mentorship, transition and orientation. Purpose: evaluate mentoring programs					DV5 - 66% saw improvement in stress reduction, confidence, & self-efficacy	completed, restatement of articles, rather than analysis

Conclusions: small sample size of articles, however SR showed + outcomes for mentor programs to facilitate TTP

Feasibility: APPs have similar turnover/retention data for new graduate RNs, the evidence of a mentor program generalizable to TTP for the APP. |

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Ghosh, R. et al. (2013). Career benefits associated with mentoring for mentors: A meta-analysis. **Country:** USA **Funding:** NS **Bias:**	Z's mentor role theory and functions (CF, PF, RM) (1985)	**Design:** SR with MA **Method:** PsychINFO, ABI/INFORM, ProQuest Dissertations/Theses; reference lists; conference proceedings for unpublished; and expert scholars for in-press works **Terms:** mentor, mentoring benefits, mentor's subjective career success, mentor's job	N= 18 eligible studies **Time:** 2000-2012 **Inclusion:** sample size must be reported & Pearson correlation or other type of statistic measuring the 3 mentor supports and measure of effect size **Exclusion:** composite scores for career and psychosocial functions together.	IV1=career outcome & mentors vs. non-mentors; IV2= Career Outcome & career mentoring; IV3 = Career Outcome & Psychosocial mentoring; IV4 = Career Outcome & role modeling; IV5 = Career Outcome & mentoring quality	Hunter & Schmidt's 2004 "bare-bones" meta-analysis method	correlation coefficient = effect size (*Mwr*); CI=95%; Q statistic (variability distribution of effect size); file drawer analysis (Hunter & Schmidt, 1990). Representing a value of "Fail-safe k"; absolute CV .01	IV1 - DV1 ↑ *Mwr* = .123; DV2 ↑ *Mwr* = .12; DV3 - *Mwr* = -.035 not significant CI (-.09 to .02); IV2 - DV4 ↑ *Mwr* = .269; DV5 ↑ *Mwr* = .44; DV1 *Mwr* = .149 not significant CI (.002 to .30); DV2 *Mwr* = .145 not	**LOE:** 1 **Strengths:** Evidence of prereview correlation between reviewers for accuracy. MA method is reliable and valid Extensive literature search and review with comprehensive narrative and background **Weakness:** no mention of author's competency to review studies; no mention of number of records identified at initial search

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		performance, mentor's job satisfaction, mentor's organizational commitment, and mentor's objective career success. **Purpose:** identify what might motivate individuals to engage in mentoring relationships as mentors.		DV1=Job Satisfaction; DV2=Organizational Commitment; DV3=Turnover Intent; DV4=Job Performance; DV5=Career Success			significant CI (.002 to.29); DV3 Mwr = -.02 not significant CI (.20-.16); IV3 – DV1 ↑ Mwr = .154; DV2 ↑ Mwr = .216; DV5 ↑ Mwr = .177; DV3 Mwr = -.125 not significant CI (-.07 to .32); DV4 Mwr = .133 not	**Conclusions:** Positive association between mentoring functions and career success, negative evidence for mentoring and turnover **Feasibility:** MA review supports the concept that mentors have positive career outcomes, just as mentees and literature can be used to validate further study on mentoring programs and frameworks.

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							significant CI (-.02 to .22); IV4 - DV1 ↑ *Mwr* = .085; DV2 ↑ *Mwr* = .249; IV5 – DV1 ↑ *Mwr* = .167; DV5 ↑ *Mwr* = .233; fail-safe k - low of 4 to high of 65, effect size sufficient. Q statistic >5.991 significant	

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Appendix B

Table 2
Synthesis Table

	Studies	Gandhi, M. et al.	Minnick, W. et al.	Horner, D.	Hishinuma, Y. et al.	Xu, X. et al.	Lau, C. et al.	Gisbert-Trejo, N. et al.	Brook, J. et al.	Zang, Y. et al.	Gosh, R. et al.
Basics	Year	2016	2014	2017	2015	2014	2016	2019	2019	2016	2013
	Location	USA	USA	USA	Japan	USA	Canada	Spain	USA	China	USA
	Design	QE	QE	CSS	QE	QE	QE	MM	SR	SR	MA
	LOE	VI	VI	VI	VI	VI	VI	VI	I	I	I
Industry	Healthcare			37	451		36		53	9	
	Business							125			
	Educational	67				472					18
	Commercial		306								
Demographics	% Female	73%	15%	100%	100%	43%	NS	50%	NS	NS	NS
	Occupation	100% Faculty	44% Construction 23% Manufacturing	100% NP	100% Midwife	100% Faculty	36% Psychologist 28% MD 8% RN	12% Energy 12% IT 8% RD	100% RN	100% RN	NS
	% Mentor	66%	30%	0%	24%	60%	69%	41%	NS	NS	NS
Intervention	Mentor			✓		✓					
	Mentor program	✓	✓				✓				
	Mentor character				✓			✓	✓	✓	✓
Outcomes	Job Satisfaction			↑		↑				↑	↑
	Intent to Stay		≠			↑			↑	↑	≠
	Organizational Commitment					↑					↑
	Job Performance										≠
	Career Success										↑
	Cost Savings									↑	
	Competency		↑	↑	↑		↑			↑	
	Self-Efficacy/Stress Reduction	↑			↑					↑	
	Knowledge						≠	↑			
	Retention								↑		

Appendix C

Figure 1
Kotter's 8-Step Process for Leading Change

CREATE
a sense of urgency

INSTITUTE
change

BUILD
a guiding coalition

the big opportunity

SUSTAIN
acceleration

FORM
a strategic vision
and initiatives

GENERATE
short-term wins

ENLIST
a volunteer army

ENABLE
action by
removing barriers

Image Source: used with permission Kotter International

Appendix D

Figure 2
Bandura Social Cognitive Theory

- Complexity of the situation
- skill level
- duration of experience

- Situation
- Roles
- Relationship

Behavior

Environmental
Factors

Key
Assumptions

Personal
Factors

- Mentor/Mentee goal driven
- Adoption of behaviors
  through observation
- Reinforcement or criticism
  can positively or negatively
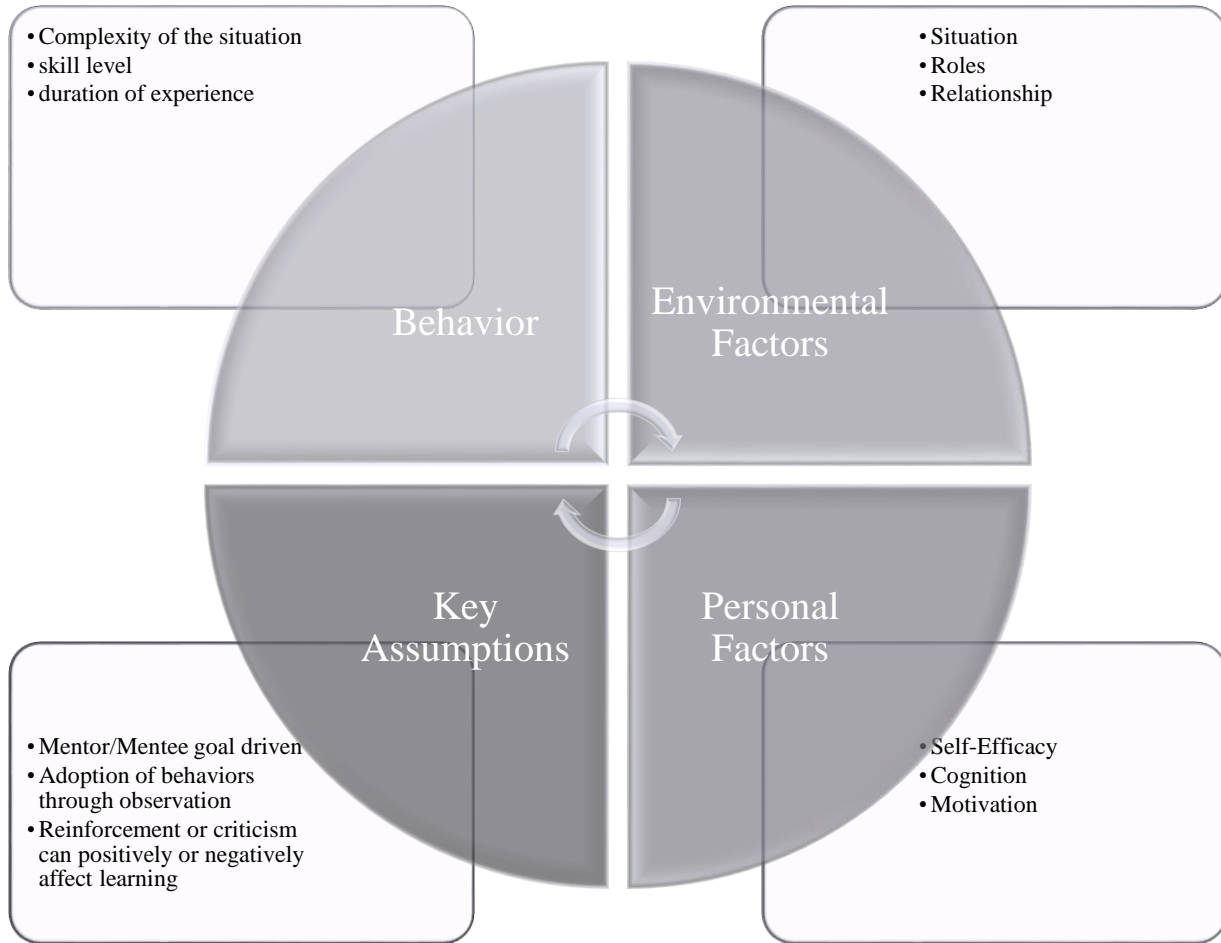 affect learning

- Self-Efficacy
- Cognition
- Motivation

Image Source: adapted from Jnah & Broadus 2015, with permission

Appendix E

Figure 3

Arizona State University, Institutional Review Board

ASU Knowledge Enterprise Development

EXEMPTION GRANTED

Debra Hagler
EDSON: Academic Innovation
602/496-0802
DEBRA.HAGLER@asu.edu

Dear Debra Hagler:

On 10/23/2019 the ASU IRB reviewed the following protocol:

Type of Review:	Initial Study
Title:	Mentoring Nurse Practitioner Colleagues: A Statewide Initiative
Investigator:	Debra Hagler
IRB ID:	STUDY00010899
Funding:	None
Grant Title:	None
Grant ID:	None
Documents Reviewed:	• MCA_Pre Final.pdf, Category: Measures (Survey questions/Interview questions /interview guides/focus group questions); • Healy IRB Protocol v2, Category: IRB Protocol; • 60-Day Post-Implementation Qualitative Survey Questions_V2.pdf, Category: Measures (Survey questions/Interview questions /interview guides/focus group questions); • Mentor Email Communication v4.pdf, Category: Recruitment Materials; • Learning Module Outline.pdf, Category: Technical materials/diagrams; • Mentor Project References.pdf, Category: Resource list; • Mentor Certificate of Completion Final.pdf, Category: Other (to reflect anything not captured above); • Mentor Project Consent V8.pdf, Category: Consent Form;
	• Mentor Demographics Final.pdf, Category: Measures (Survey questions/Interview questions /interview guides/focus group questions); • Mentor CNE Evaluation Form Final.pdf, Category: Measures (Survey questions/Interview questions /interview guides/focus group questions); • AzBON Letter of Support .pdf, Category: Off-site authorizations (school permission, other IRB approvals, Tribal permission etc); • Mentor Participation Flyer Final.pdf, Category: Recruitment Materials; • MCA_Post Final.pdf, Category: Measures (Survey questions/Interview questions /interview guides/focus group questions); • Educational Design flow sheet.pdf, Category: Technical materials/diagrams;

The IRB determined that the protocol is considered exempt pursuant to Federal Regulations 45CFR46 (1) Educational settings, (2) Tests, surveys, interviews, or observation on 10/23/2019.

In conducting this protocol you are required to follow the requirements listed in the INVESTIGATOR MANUAL (HRP-103).
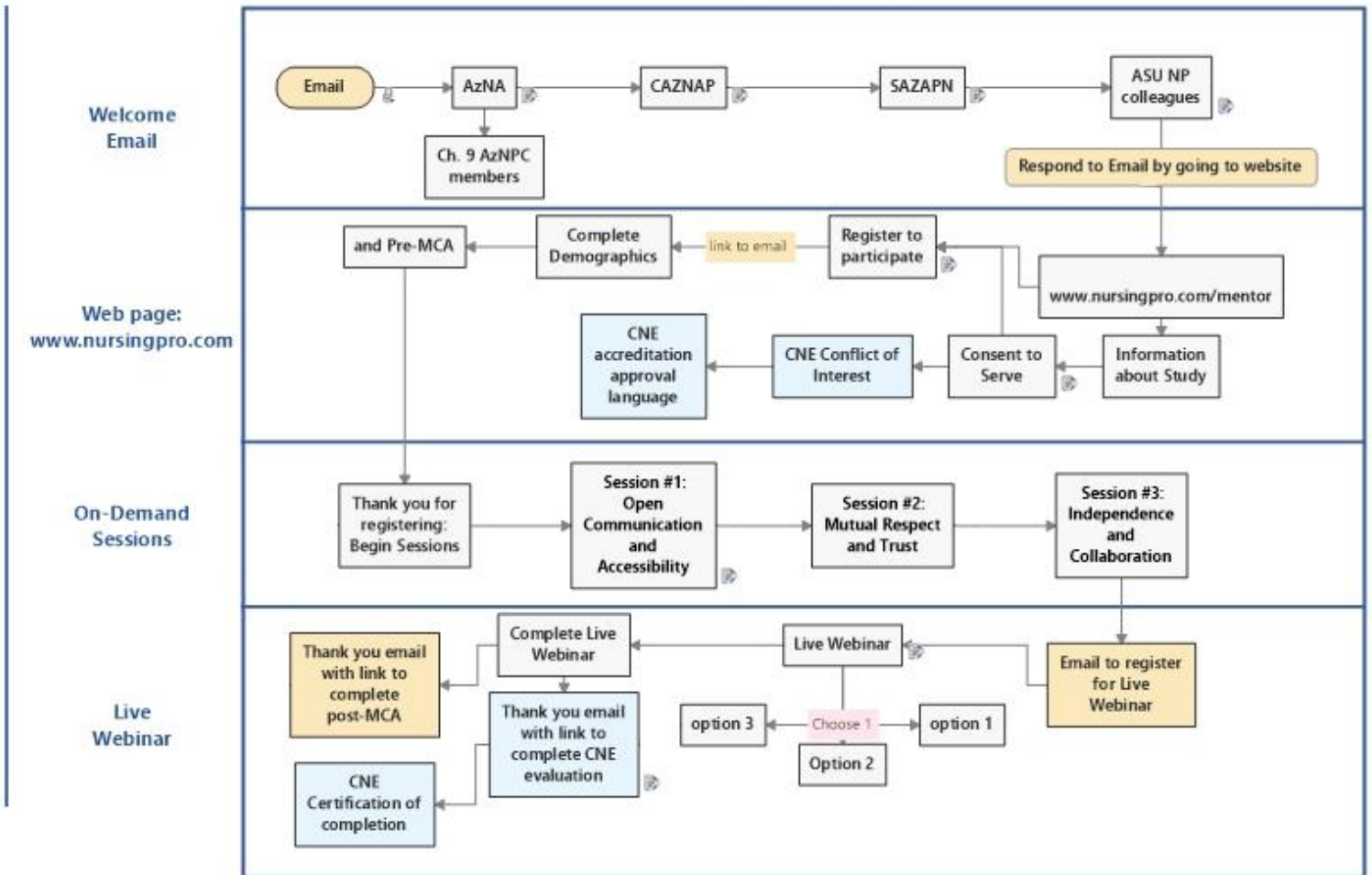
Sincerely,

IRB Administrator

cc:
        Heather Healy

Appendix F

Figure 4
Educational Design Flow Sheet

Mentoring Nurse Practitioner Colleagues: A Statewide Initiative

Appendix G

Table 3

CNE Evaluation

How to be the MENTOR you wish you had
Arizona State University DNP Project
November – December 2019

1. The **learning outcome(s) for this activity was met:** Because of this activity, the learner acquired knowledge about how to improve their mentoring relationships with novice nurse practitioners.

Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree

2. I found this activity worthwhile for my professional practice. (If you select "Disagree" or "Strongly Disagree," please provide a comment below.)

Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
Comments:				

3. This activity will enhance my knowledge and skill as a nurse practitioner. (If you select "Disagree" or "Strongly Disagree," please provide a comment below.)

Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
Comments:				

4. SPEAKER EVALUATION

Speaker Name: Heather Healy	Speaker Topic: Open Communication & Accessibility
The speaker was knowledgeable about the topic: Strongly Agree Agree Neutral Disagree Strongly Disagree	
The speaker provided the information in an interesting manner that facilitated my learning: Strongly Agree Agree Neutral Disagree Strongly Disagree	
Additional comments for this presenter:	
Speaker Name: Heather Healy	**Speaker Topic: Mutual Respect & Trust**
The speaker was knowledgeable about the topic: Strongly Agree Agree Neutral Disagree Strongly Disagree	
The speaker provided the information in an interesting manner that facilitated my learning:	

Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
Additional comments for this presenter:				
Speaker Name: Heather Healy		**Speaker Topic: Independence & Collaboration**		
The speaker was knowledgeable about the topic:				
Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
The speaker provided the information in an interesting manner that facilitated my learning:				
Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
Additional comments for this presenter:				
Speaker Name: Heather Healy		**Speaker Topic: Live Discussion Case Study Review**		
The speaker was knowledgeable about the topic:				
Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
The speaker provided the information in an interesting manner that facilitated my learning:				
Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
Additional comments for this presenter:				

5. As a result of this activity, please share <u>at least one action</u> you will take to change your professional practice/performance.

6. Comments:

Appendix H

Figure 5
CNE Certification of Completion

NursingPro Executive Consulting
www.nursingpro.com/mentor

Certifies that:

_____

has received 2.0 contact hours for successfully completing

How to be the MENTOR you wish you had!

Date: January 2020   Location: www.nursingpro.com/mentor
CNEG Approval #: 118-19

This continuing nursing education activity was approved by the Continuing Nursing Education Group, an accredited approver by the American Nurses Credentialing Center's Commission on Accreditation.

Appendix I

Table 4
Demographic and Mentor Questions

DEMOGRAPHICS

1. What is your age group?
☐ < 30 years
☐ 30-34 years
☐ 35-39 years
☐ 40-44 years
☐ 45-49 years
☐ 50-54 years
☐ 55-59 years
☐ 60-64 years
☐ 65+ years

2. What is your gender?
☐ Female
☐ Male
☐ Other _____

3. What is the highest degree you have earned?
☐ Nursing Master's
☐ Non-Nursing Masters
☐ DNP
☐ Nursing PhD
☐ Other Nursing Doctorate
☐ Non-nursing Doctorate

4. What is your Certification Area (if you hold more than one, select all applicable choices)?
☐ Acute Care – Adult
☐ Acute Care - Pediatrics
☐ Adult
☐ Adult - Gerontological
☐ Family
☐ Hospice Palliative Care
☐ Neonatal
☐ Oncology
☐ Pediatric
☐ Psych/Mental Health

▢ Urgent Care
▢ Women's Health
▢ Other _____

5. How many years did you practice as a RN before working as a NP?
▢ No employment experience as RN prior to becoming an NP
▢ 1 -3 years
▢ 4 - 8 years
▢ 8 - 12 years
▢ 13 - 17 years
▢ 17 - 20 years
▢ More than 20 years

6. How long have you worked as a NP?
▢ Less than 1 year
▢ 1 -3 years
▢ 4 - 8 years
▢ 8 - 12 years
▢ 13 - 17 years
▢ 17 - 20 years
▢ More than 20 years

7. Select Your Primary Clinical Focus Area
▢ Primary Care
▢ Internal Medicine
▢ Urgent Care
▢ Cardiology
▢ Psychiatric
▢ OB/GYN
▢ Surgical
▢ Health Promotion
▢ Emergency
▢ Oncology
▢ Other _____

8. Select Your Primary Work Setting
▢ Hospital Outpatient
▢ Hospital Inpatient
▢ Private Group Practice
▢ Private Physician Practice
▢ Community Health Center
▢ Urgent Care

☐ Private NP Practice
☐ Rural Health Clinic
☐ Federally Qualified Health Center
☐ Emergency Room
☐ Other _____

MENTOR QUESTIONS

DEFINITION - For the purposes of this study - a **mentor** is a more experienced person who helps a newer professional with professional identity, role integration, systems navigation, and organizational socialization.

A **preceptor** is typically a fellow employee tasked with showing a new employee policy and procedures and providing some introductions. Preceptors may have an evaluation role. While a preceptor relationship can develop into a mentoring relationship, not all precepting is mentoring.

When responding to the following items, please consider only the professional relationships that did/do NOT have an evaluation or supervisory aspect.

9. In your RN or NP career, have you ever had a mentor (see definition above)?
☐ Yes
☐ No

10. In your RN or NP career, have you had previous mentorship training?
☐ Yes
☐ No

11. In your RN or NP career, have you been a mentor (see definition above)?
☐ Yes
☐ No

12. What type of mentorship relationship(s) have you experienced?
Please select ALL that apply.
☐ Formal, arranged by someone else

☐ Informal, established by mentor and/or mentee

☐ Within the same organization (mentor & mentee in same organization)
Unique Identifier: (this will be done via survey monkey, to include their email address)
☐ External to employer or school (mentor & mentee in different

☐ organizations)
☐ I have not had any mentoring relationships

13. Are you currently in a mentoring relationship with a novice NP?
☐ Yes
☐ No

14. Do you serve as a clinical preceptor for NP students?
☐ Yes
☐ No

15. If Yes, how many students per academic year?
☐ 1 - 2
☐ 3 - 4
☐ 5 – 6
☐ More than 6

16. Do you have teaching experience?
☐ Yes (please describe below)
☐ No
☐ (text box field)

17. Do you have teaching certifications?
☐ Yes (please describe below)
☐ No
☐ (text box field)

18. Please share a brief description of any prior mentoring experiences that impacted your career development (please describe below)
☐ (text box field)

Appendix J

Table 5
Mentor Competency Assessment, modified from Fleming, et al., 2013
Pre/Post Questionnaire

Items	Not at all skilled 1	2	3	Moderately skilled 4	5	6	Extremely skilled 7	N/A
Active listening	○	○	○	○	○	○	○	○
Providing constructive feedback	○	○	○	○	○	○	○	○
Establishing a relationship based on trust	○	○	○	○	○	○	○	○
Identifying and accommodating different communication styles	○	○	○	○	○	○	○	○
Employing strategies to improve communication with mentees	○	○	○	○	○	○	○	○
Working with mentees to set clear expectations of the mentoring relationship	○	○	○	○	○	○	○	○
Aligning your expectations with your mentees'	○	○	○	○	○	○	○	○
Considering how personal and professional differences may impact expectations	○	○	○	○	○	○	○	○
Helping mentees develop strategies to meet professional goals	○	○	○	○	○	○	○	○
Motivating your mentees	○	○	○	○	○	○	○	○
Building mentees' confidence	○	○	○	○	○	○	○	○
Building mentees' confidence	○	○	○	○	○	○	○	○
Acknowledging your mentees' professional contributions	○	○	○	○	○	○	○	○
Negotiating a path to professional independence with your mentees	○	○	○	○	○	○	○	○
Working effectively with mentees whose personal background is different from your own (age, race, gender, class, region, culture, religion, family composition etc.)	○	○	○	○	○	○	○	○
Helping your mentees network effectively	○	○	○	○	○	○	○	○
Helping your mentees set career goals	○	○	○	○	○	○	○	○

Appendix K

Figure 6
Project Flyer

Appendix L

Table 6
Budget

Expense Description	Amount	Notes
Website development	$0.00	Used free development application
Website maintenance/hosting	$119.88	Monthly $9.99
Survey Monkey	$384.00	Annual
CNE Application	$250.00	2.0 CNEs
Participation Email List	$0.00	In collaboration with AzBON
Total	$753.88	

Appendix M

Table 7

Demographics of Sample

Demographics		
Characteristics	**Frequency %**	**Count**
Age		
< 30 years	0.00%	0
30-34 years	0.00%	0
35-39 years	28.57%	2
40-44 years	28.57%	2
45-49 years	0.00%	0
50-54 years	0.00%	0
55-59 years	42.86%	3
60-64 years	0.00%	0
65+ years	0.00%	0
Gender		
Female	71.43%	5
Male	28.57%	2
Highest Level of Education		
Nursing Master's	42.86%	3
Non-Nursing Masters	0.00%	0
DNP	42.86%	3
Nursing PhD	0.00%	0
Other Nursing Doctorate	0.00%	0
Non-nursing Doctorate	14.29%	1
NP Specialty		
Acute Care – Adult	28.57%	2
Acute Care - Pediatrics	0.00%	0
Adult	0.00%	0
Adult - Gerontological	0.00%	0
Family	57.14%	4
Hospice Palliative Care	0.00%	0
Neonatal	0.00%	0
Oncology	0.00%	0
Pediatric	14.29%	1
Psych/Mental Health	0.00%	0
Urgent Care	0.00%	0
Women's Health	0.00%	0
Years of Practice as RN		
1 -3 years	28.57%	2

4 - 8 years	14.29%	1
8 - 12 years	28.57%	2
13 - 17 years	14.29%	1
17 - 20 years	0.00%	0
More than 20 years	28.57%	2
Years of Practice as NP		
1 -3 years	0.00%	0
4 - 8 years	28.57%	2
8 - 12 years	28.57%	2
13 - 17 years	14.29%	1
17 - 20 years	0.00%	0
More than 20 years	28.57%	2
Primary Clinical Focus Area		
Primary Care	57.14%	4
Internal Medicine	0.00%	0
Urgent Care	14.29%	1
Cardiology	0.00%	0
Psychiatric	0.00%	0
OB/GYN	0.00%	0
Surgical	0.00%	0
Health Promotion	0.00%	0
Emergency	0.00%	0
Oncology	14.29%	1
Other _____	0.00%	0
Other (please specify)	14.29%	1
Primary Work Setting		
Hospital Outpatient	14.29%	1
Hospital Inpatient	14.29%	1
Private Group Practice	14.29%	1
Private Physician Practice	0.00%	0
Community Health Center	0.00%	0
Urgent Care	14.29%	1
Private NP Practice	0.00%	0
Rural Health Clinic	14.29%	1
Federally Qualified Health Center	0.00%	0
Emergency Room	0.00%	0
Other _____	0.00%	0
Other (please specify)	28.57%	2

Appendix N

Table 8
Mentor Specific Questions

Mentor Questions		
Characteristics	Frequency %	Count
In your RN or NP career, have you ever had a mentor (see definition above)?		
Yes	100.00%	7
No	0.00%	0
In your RN or NP career, have you had previous mentorship training?		
Yes	57.14%	4
No	42.86%	3
In your RN or NP career, have you been a mentor (see definition above)?		
Yes	100.00%	7
No	0.00%	0
What type of mentorship relationship(s) have you experienced? (ALL that apply).		
Formal, arranged by someone else	71.43%	5
Informal, established by mentor and/or mentee	42.86%	3
Within the same organization (mentor & mentee in same organization)	85.71%	6
External to employer or school (mentor & mentee in different organizations)	57.14%	4
I have not had any mentoring relationships	0.00%	0
Are you currently in a mentoring relationship with a novice NP?		
Yes	28.57%	2
No	71.43%	5
Do you serve as a clinical preceptor for NP students?		
Yes	100.00%	7
No	0.00%	0
If Yes, how many students per academic year?		
1 - 2	85.71%	6
3 - 4	14.29%	1
5 – 6	0.00%	0
More than 6	0.00%	0
Do you have teaching experience?		
Yes	71.43%	5
No	28.57%	2
Do you have teaching certifications?		
Yes	14.29%	1
No	85.71%	6

Appendix O

Table 9
CNE Evaluation Results

Nursing CNE Evaluation						
Learner acquired knowledge about how to improve their mentoring relationships with novice nurse practitioners.						
Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree	Total	Weighted Average
5	1	0	0	0	6	4.83
Found this activity worthwhile for my professional practice.						
Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree	Total	Weighted Average
4	2	0	0	0	6	4.67
This activity will enhance my knowledge and skill as a nurse practitioner.						
Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree	Total	Weighted Average
3	3	0	0	0	6	4.5
Heather Healy was knowledgeable about the topic: Mutual Respect & Trust						
Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree	Total	Weighted Average
5	1	0	0	0	6	4.83
Heather Healy was knowledgeable about the topic: Open Communication & Accessibility						
Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree	Total	Weighted Average
5	1	0	0	0	6	4.83
Heather Healy was knowledgeable about the topic: Independence & Collaboration						
Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree	Total	Weighted Average
5	1	0	0	0	6	4.83
Heather Healy was knowledgeable about the topic: Live Discussion Case Study Review						
Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree	Total	Weighted Average
5	1	0	0	0	6	4.83
Heather Healy provided the information in an interesting manner that facilitated my learning						
Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree	Total	Weighted Average
4	2	0	0	0	6	4.67
As a result of this activity, please share at least one action you will take to change your professional practice/performance.						
Increase in patience and listening when mentoring others.						
Setting more achievable and motivational goals for a mentee						
More goal-oriented, formalized mentor/mentee relationship planning in future.						
Perhaps look for a mentor for myself asking objectively where do I need to grow. Leadership						
I will strive to be a more active listener.						
mentoring patients and co workers as well as students						
Great tips and I love the resources provided.						