6-2019

Advance practice pediatric nursing council.

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ADVANCE PRACTICE PEDIATRIC NURSING COUNCIL

by

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Paper submitted in partial fulfillment of the
requirements for the degree of

Doctor of Nursing Practice

University of Louisville
School of Nursing

June 30th, 2019

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Acknowledgments

I would like to thank my Advisor Dr. Becky Christian for her support, guidance and encouragement throughout my doctoral program. I would like to thank my Division Chief / direct supervisor Dr. Vicki Montgomery for her encouragement and support. I would like to thank Dr. Mark McDonald for participating in the Advance Practice Provider (APP) Council and being a constant support of my work through the many leadership changes and growth that occurred during my DNP program. I would like to thank all my colleagues in the University of Louisville Department of Pediatrics, Division of Pediatric Critical Care for your support as well as all the APP council members who continue to support this work.

Achieving this point in my career and the ability to achieve all goals I have laid out for myself in life would not be possible without the support of my family and friends. From a very young age and throughout my life I have always been encouraged to do the right thing, be the absolute best that I can be and dream big! This foundation has given me the confidence to never doubt myself in my ability to achieve a goal that I have set. For this gift of unbound love, support and encouragement that so many children never receive in life, I thank my parents Michael B. Mountjoy and Susan P. Mountjoy.

I have been fortunate to have an abundance of successful role models in my life whom include my parents as well as my grandparents. For their love and support and dedication to community and family I thank my late Grandfather, Jessie B. Mountjoy and my Grandmother, Marcella F. Mountjoy. I also thank my late Grandfather, Robert H. Perkins and my Grandmother Leah L. Perkins. Additionally, I thank my adopted late Grandparents, Eurie Hayes and Louise Smith and my numerous Aunts and Uncles who have always cheered me on in life!

To my three siblings Bart Mountjoy, Meredith Mountjoy Lawrence and Jessica Mountjoy Schwein and my dearest friend Dr. Katheryn G. McAnulty, thank you for listening to me when I have been frustrated, picking me up when I have been down and being my support throughout life. I must also thank my Mother-In-Law Patricia Z. McRae who has helped endlessly without thinking twice to help keep my busy home running in the times I was unable to do so myself. I would also like to thank my numerous friends for helping with my children when needed.

Christopher R. McRae, you are without a doubt the one that has pulled the most weight in my absence. You have encouraged me and supported me knowing it would be much more work for you. You have shown up every day for me and our girls and made this almost seamless for our family. Your dedication to family and friends, hard work, perseverance, support and love are what set you apart from the rest. I love you and I could never thank you enough!

Dedication

For my extraordinary daughters:

Eva, Stella, Aurora and Magnolia

I have set the bar high for myself, worked hard and made numerous sacrifices to teach each of you that you too can achieve whatever you dream in life. You will always be my most important achievement in my life! I want to thank each of you for giving up your time with me, for being flexible and for cheering on your Mama! I love you all!

Abstract

Advance Practice Registered Nurses (APRNs) continue to grow in numbers in the inpatient hospital setting, as well as within children's hospitals and subspecialty groups. As the number of APRNs continues to increase, thoughtful consideration within organizations is needed to address leadership specific to this population of healthcare professionals. The goal of this quality improvement initiative was to generate quantitative data to determine if the formation of a Pediatric Advance Practice Nursing Council in a children's hospital was successful in improving APRN communication, collegiality, and networking. However, the formation of our APRN council was significantly impacted by a multitude of barriers. While the quantitative data were less available than desired the qualitative data, the process of creating formal leadership for APRNs is highly valuable providing guidance to avoid potential barriers. This manuscript outlines the current state of APRN leadership as reported in current literature with evidence supporting the importance of an APRN leadership council in a children's hospital. Additionally, this program implementation project will serve as a blueprint for healthcare professionals interested in creating formal leadership specific to APRNs within their institution. Moreover, this project contributes to the growing information in healthcare related to APRN leadership.

Keywords: Advance Practice Nursing; Nurse Practitioner; Pediatric Nurse Practitioner; Leadership; Council; Organizational Structure; Organizational Leadership.

Advance Practice Pediatric Nursing Council

Advance Practice Registered Nurses (APRNs) continue to grow in numbers in the inpatient hospital setting. APRNs have been identified as part of the solution to meet the projected healthcare work force shortage that has resulted from two primary sources. First, the manpower shortage is due to the implementation of the Accreditation Council for Graduate Medical Education (ACGME) regulations that limited resident duty hours (Kleinpell, Ely, & Grabenkort). Secondly, demand will increase as supply of physicians will be relatively unchanged, which has been projected to reflect a 22% shortage in physician providers by 2020 and a 35% shortage by 2030 according to one analysis report (Angus et al., 2000).

In some major healthcare institutions throughout the country the way in which APRNs are currently hired creates a complex practice environment for the APRN making it challenging to network and communicate effectively with other APRN colleagues. This is especially true if the institution lacks formal organizational leadership specific to APRNs. Many APRNs are hired into specialty groups or divisions to help address specific workforce needs. Even if the APRN is working in a large institution, often, they are isolated without overarching APRN leadership. Some APRN's fall under physician leadership, while others are managed by nursing leadership. APRNs are a unique provider group that do not necessarily fit into physician or nursing colleague groups (Metzger, 2014).

It is suggested that the greatest need at present is for there to be leaders throughout our healthcare systems (Marshall, 2017). There is very little published literature related to APRN leadership and APRN councils within organizations. The 2010 Institute of Medicine (IOM) Future of Nursing Report outlines multiple recommendations in the campaign for action. The first recommendation is advocating that APRN's be able to practice to the full extent of their

education and training (Hassmiller, 2015). The report also recommends that nurses be prepared and enabled to lead change to advance health. Organizational structure in the form of an APRN council can be the groundwork for incorporating APRNs into a healthcare system and empowering them to reach their full potential by providing excellent care but also by engaging in avenues to create change within the institution.

APRNs are by nature professionals who can provide the highest type of transformational leadership in a field that transcends many different healthcare professionals (Kapu, 2016). This places APRNs in a vital leadership role, which can benefit the organization at large. Studies have shown the benefits of having APRNs incorporated on teams. Successfully incorporating and retaining APRNs will be key in setting organizations apart from one another. In fact, one of the major consequences of not incorporating APRN's and supporting them in their role is poor retention rates. Hospitals that have poor retention rates related to APRNs spend roughly a mean of three and a half million more than those with higher retention rates (Dillon, 2016). Therefore, strong leadership, support and organizational structure in the form of an APRN council is extremely important especially as the number of APRNs continue to increase in the hospital setting.

Review of Literature.

Methods.

A systematic review was conducted to identify articles related to APRN leadership models and best practice related to APRN leadership. A research librarian was consulted to ensure the search results were exhausted secondary to the limited amount of research available related to this topic.

Search Methods.

A search of the literature published between 2000-2017 was conducted using the key words: “Advance Practice Nursing”, “Nurse Practitioner”, “Pediatric Nurse Practitioner”, “Leadership”, “Council”, “Organizational Structure”, “Organizational Leadership”, “Turnover”, Leadership Models”, “Shared Governance”, Evidence Based Practice”, Nursing Management” and “professional development”. Five specific databases were searched: CINAHL, Medline (OVID), Medline (PubMed), Google Scholar and the Cochrane Library. Database searches were conducted to identify any potentially relevant articles that met the inclusion criteria.

Thirty-five articles were identified in this search. Of these articles, only nineteen met the inclusion criteria. Those nineteen were included in the literature review. Articles were included if they discussed APRN leadership or discussed benefits of APRN leadership including job satisfaction, financial implications of improved APRN retention and professional development, if they discussed or demonstrated importance of APRNs in patient care, intra-professional teams or leadership teams, if they included APRN leadership models or models of leadership in other nursing disciplines. Articles were excluded if they did not include discussion of organizational structure, or if they were focused on a small population not applicable to all APRNs. Both quantitative and qualitative research articles were included in this review. The articles included are listed in (Table 1) with a brief purpose of the article and level of evidence based on the

Rating System of the Hierarchy of Evidence for Intervention/Treatment Questions (Melnyk, 2015). For the purpose of this focused article the findings related to financial implications of improved APRN leadership and APRN organizational leadership models will be discussed in the findings.

The researcher is a practicing pediatric APRN, which has the potential to create a bias in the search process, as there is an underlying knowledge of different types of APRN organizational structure and perception of support provided within some institutions.

Findings

There was very little information found in this literature review related to specific organizations outlining their APRN organizational structure model in their respective institutions. Of the articles identified, there were only four articles that mention a specific outline of an APRN organizational structure model in their respective practice and one book chapter that outlines two ideal reporting structures / models.

When reviewing other leadership models in nursing there is an abundance of literature. Two types of nursing leadership models in which inferences for APRN leadership can be drawn include shared governance models (Bretschneider, 2017), as well as evidence-based practice models (Becker, 2012). Therefore, a few examples are included in this review as the overall premise demonstrates the importance of organizational support and organizational leadership / structure for APRNs. Of the remaining articles included, several supporting themes were noted that demonstrated the need for APRN leadership such as an APRN council within organizations. These themes included: Job Satisfaction, Professional Development, and Leadership / Support. This review outlines and discusses the APRN models, shared governance models, evidence-based practice models, and the common themes identified in the remaining articles to help

support the importance of APRN councils and formal APRN leadership within an institutions organizational model.

Financial implications of improved APRN Retention.

As previously stated, there is significant cost associated with the loss of an experienced APRN by a healthcare organization. One group of researchers reviewed turnover costs in healthcare at an academic medical center by conducting a search of multiple databases (Waldman, 2004). The reported annual costs of turnover in a major medical center were broken down by discipline in healthcare as well as by phase of employment. (Table 2). The authors took the total number of employees working greater than 70% of the time and divided that by the number of new hires in the designated job categories to determine one-year turnover rates. This study showed 9% annual turnover for physicians and a 49% turnover for allied health professionals (APRNs). When associated with expense, this medical center spent greater than 190 thousand dollars in one year hiring allied health professionals and greater than 400 thousand dollars in the same year orienting allied health professionals. Yielding a total cost of turnover of more than one million on this one group of professionals. Comparing to the expenses of the entire medical center, the study reported that roughly 3-5% of the annual operating budget ($17 to 29 million on a 500 million-dollar base) was spent on turnover. The authors concluded that the huge cost of turnover could be viewed as an opportunity. Leaders can use this knowledge to improve work conditions which will lead to improved employee satisfaction and ultimately improved retention resulting in a decrease in turnover (Waldman, 2004). The authors concluded that the increasing retention of allied health professionals including APRNS is the safest, most effective, and most obvious way to reduce turnover costs.

Job Satisfaction

As previously illustrated, replacing an experienced APRN is extremely costly for an organization. Therefore, healthcare leaders must attempt to understand job satisfaction to retain highly valued providers, such as APRNs.

A large multi-institutional study was conducted among fourteen hospitals in New York with the goal to determine if there were links between nurse engagement and retention rates (Aiken, 2002). This study was a multi-site cross-sectional survey that included 10,329 staff nurses working on medical and surgical units in over 300 hospitals in the U.S., Canada, and Europe. The authors found that among all hospitals, concerns related to quality of care, burnout, and staff nurse job dissatisfaction were common. Managerial and organizational support for nursing had a direct effect on staff nurse dissatisfaction and burnout. Nurse assessed quality of care was directly influenced by nurse staffing and organizational support. Ultimately the authors reported that adequate staffing and organizational support for staff nurses were integral to improving quality of patient care as well as decreasing nurse dissatisfaction, and burnout, which the authors felt led to improved retention in the hospital setting.

APRN leaders can derive inferences from studies in nursing to help understand satisfaction among APRNs. A job satisfaction survey can be a valuable tool to help an organization understand the current climate of satisfaction among nursing staff, as well as a tool to measure long-term outcomes related to interventions initiated within the organization.

Misner et al. (2001) conducted a study to create a reliable and valid tool to assesses job satisfaction among APRNs. This tool is pertinent to APRN leadership and large organizations seeking to recruit and retain APRNs because it is a validated, reliable tool specific to this exact population. This tool can be used as an assessment to help gain better understanding of what

APRNs would like to see within the groups or organizations where they are employed. It is important to note that APRNs are not new to the in-patient hospital teams or practices. In planning for the predicted growth in numbers projected over the next several years, this tool can be beneficial in understanding how to best support this specific group of professionals. This will allow employers to be more competitive in recruiting and improve retention of these valuable healthcare team members.

Job satisfaction was addressed by Miller (2005), who evaluated APRN job satisfaction by reviewing several different survey tools. Miller reported a lack of robust literature surrounding this topic preventing the authors from making generalizations related to all APRNs (Miller, 2005). The author utilized a different job satisfaction survey called the Advance Practice Job Satisfaction Survey (APJSS). The author concluded that there are both intrinsic and extrinsic factors that contribute to job satisfaction. This study found that highest satisfiers were those that affect personal factors, specifically quality of care and respect.

Both surveys offer a method for an institution to understand APRNs, by allowing open communication and the ability for APRNs to voice professional opinions. When an institution has an outlined organizational structure for advanced practice nursing, including an APRN council, this provides a group designed to conduct assessments and synthesize this information regularly, which may benefit the organization and future APRN practice.

Professional development

Another theme identified in this literature review was professional development. Recent evidence has shown that when hospital-based APRNs are supported to participate in activities beyond healthcare tasks that include intra-professional care and collaboration, patient-centered care is enhanced and supported (Hurlock-Chorostecki, 2016).

N. Elliot, (2017) outlined the professional practice model specific to APRNs implemented at Texas Children's Hospital. The Transformational Advance Professional Practice Model, or "TAPP Model", serves as a structure to support professional development of APRNs in this institution. The research study used a descriptive phenomenological approach where 11 APRNs were interviewed from different units at Texas Children's Hospital. The findings reported that APRNs described their professional practice and the TAPP Model as woven tightly together. The APRNs used components of the model to guide their delivery of care as well as professional activities. The three themes identified through this study were that the TAPP Model: (a) was instrumental in transforming professional practice, (b) helpful in cultivating the inner self, as well as (c) a tool for mentoring professional transitions (Elliott, 2017).

Another article outlined a different framework based on previous research to support APRN professional development. The Hospital NP Practice (HNPP) framework is explained as an intra-professional practice framework with three foci outlined and when all three are executed, the role of the APRN is optimized and full value is achieved (Hurlock-Chorostecki, 2016). The three foci of the HNPP are: (a) "focus on teamwork", (b) "evolve the role and help advance the specialty", and (c) the ability to "hold patient care together". The authors point out that the important message is that it is imperative to have APRNs engaged in all three foci to see the optimal value the APRN professional brings to the team. Clinical work is thought to improve in value and the ARPN will provide much more than "just an extra set of hands" when they have been encouraged to reach role optimization.

Both frameworks were designed to help improve APRN practice. The TAPP model was found to be most helpful in cultivating professional practice, transition to practice with mentoring, and ultimately transforming practice in the organization (Elliott, 2017). The authors

of the HNPP model felt that if APRNs could display their "optimal value" that would lead to improved clinical outcomes, especially if they were engaged in all three foci (Hurlock-Chorostecki, 2016). Both models are focused on transforming practice to create an optimal environment, by encouraging APRNs to grow professionally and push their boundaries to create positive, sustainable change.

Leadership

Advanced practice nurses (APRNs) are ideally positioned within healthcare organizations to act as clinical and professional leaders (Elliott, 2017). One article (Muller, 2010), identified that supporting leadership addresses Magnet Designation, which is a status bestowed upon hospitals, by the American Nurses Credentialing Center (ANCC) when a hospital satisfies designated criteria measuring strength and quality of nursing in the institution. One measure identified is transformational leadership. The Children's Hospital of Los Angeles (CHLA) leadership team reviewed their current practice related to Acute Care Pediatric Nurse Practitioners (AC-PNPs) functioning in Pediatric Cardiothoracic Surgery in 2011 (Okuhara, 2011). The authors concluded that the AC-PNP is a vital member of the multidisciplinary team care for this specific patient population. Additionally, the authors discussed that transformational leadership in a Magnet organization is geared toward work that focuses on moving the organization to a place that will address and meet the needs of the patients for the future (Okuhara, 2011). This organization identified that placing AC-PNPs in this highly specialized role is an example of transformational leadership in practice.

Institutions seeking Magnet Designation must also demonstrate excellence in nursing care. One example of APRNs contributing to transformational leadership and excellence in nursing was noted in an article that outlined the Clinical Nurse Specialist (CNS) role in magnet

designation in another institution (Muller, 2010). The CNS role is designated as an APRN. There are four pathways that make up the collective group labeled APRN. These four pathways are Nurse Practitioner, Clinical Nurse Specialist, Nurse Anesthetist, and Nurse Mid-Wife. Prior to seeking magnet designation, the CNS leadership supported by the hospital senior leadership established seven evidence-based practice (EBP) groups. The groups were charged with: 1) understanding the current state of EBP in the institution, 2) implementing standards of care for improving patient-centered outcomes, and 3) engaging the clinical nurses in the performance improvement at the point of care (Muller, 2010). The authors reported that the leadership role established by the CNSs in this institution led to successful outcomes because of the high level of employee engagement in the EBP groups as well as the development of strong relationships with team members. The institution attributes these impressive outcomes to the use of systematic, organizational change and the creation of a new organizational culture focused on patient care and practice. The authors concluded that the APRNs were well qualified to take on the complex task of acting as a change agent and having the knowledge, leadership and implementation skills to lead in providing patient-centered outcomes.

Organizational APRN leadership encompasses many roles. One role key to the recruitment and retention and overall success of APRNs is to have clear leaders and mentors established to support the maturing APRN. Three different articles identified in this literature review look at different elements of mentorship and support of transition into practice.

The first article was a pre-post-longitudinal intervention study to determine if a formal mentoring program would be beneficial to APRN candidates to develop competence in clinical leadership (Leggat, 2015). The study sample was small, including 18 nurse practitioner candidates and 17 senior nurses and the participants involved in coaching and action learning

over an 18-month period. The authors found in this Australian-based study that a formal structured mentoring program based on action learning was successful in assisting the APRN candidates to enhance their clinical leadership skills (Leggat, 2015). Specifically, the APRN candidates reported in their qualitative evaluation that they felt an increased sense of improvement in transformational aspects of leadership.

A descriptive, correlational-comparative design pilot study examined factors related to successful transition to practice specifically for acute care nurse practitioners (ACNPs) (Dillon, 2016). The author was interested in identifying the relationship among personal resources, community resources, successful transition, and job retention. The author wanted to compare ACNPs with 0-4 years of experience, and ACNPs with greater than 4 years of experience. A modified Casey-Fink Graduate Nurse Experience Survey tool was developed to evaluated role transition. When discussing the relationship of personal and community resources and successful transition, the authors reported that there was a statistically significant positive correlation between organizational support and comfort/confidence, patient safety, professional satisfaction, and job satisfaction. The authors noted the relationship between communication/leadership was also statistically significant. However, there was not a statistically significant correlation between communication/leadership and job retention. In considering experience, the authors found no difference between those with less than four years of experience or greater than four years of experience. In conclusion, the authors identified the importance of organizational support, communication and leadership during the transition was supported by the findings in this study.

Finally, the last article identified related to transition in to practice (Malloch, 2017), is a report on APRNs who have continued their education and completed their Doctorate of Nursing

Practice (DNP) The DNP role is a doctoral degree in nursing practice, however it is different from the research-focused PhD degree. The author discussed that the DNP professional is prepared with knowledge of healthcare systems, evidence-based practice and patient care. The DNP should be an expert in providing care services in three major areas, which include supporting and advancing the profession, facilitating knowledge, and facilitating leadership and dissemination of new knowledge. (Malloch, 2017). As more DNP-prepared professionals enter the work force, it will be important for organizations to understand that these professionals are trained to function in the capacity of patient care. However, they are also educated to be innovators and change agents. Furthermore, these professionals will be seeking jobs in organizations that are knowledgeable and supportive of the focus of the DNP professional and have structure and leadership in place to support them in their endeavors.

Transformational leadership and excellence in nursing care are outcomes desired by successful institutions. Strong leaders and support, including mentorship, support of new APRNs, and embracing the future of advance practice nursing by understanding and encouraging DNP graduates to reach their full scope of practice and potential are examples of how an institution can create structural empowerment. This will help the institution reach the ultimate goal of best practices providing excellent patient care that surpasses all.

Shared Governance

In nursing, principles of teamwork, accountability, ownership, and equity have long been reported as important as a means of empowering nurses. Shared governance models have been described in nursing as a successful way to embody these principles (Bretschneider, 2010). APRNs will have separate practice needs and challenges; however, looking at the success of

other models of organizational structure in practice provides direction for achieving best practice models.

Shared governance models in nursing have been promoted as an effective way to improve work environments by allowing nurses a way to assume responsibilities for the definition and regulation of nursing practice (Bretschneider, 2010). Additionally, the authors emphasize that with shared governance models, healthcare organizations can expect improved patient outcomes, nurse satisfaction, improved recruiting and retention, improved interdisciplinary collaboration, as well as engaged staff. The author described the development and implementation-of a shared governance model in a large academic health center. The group outlined the process of developing a model, forming a task force to review literature and to evaluate the current nursing committee structure in place. The team developed a timeline for implementation, created their model, and developed bylaws. The patient is at the center of the model design with four circles surrounding the patient circle that show the core APRN council. These four circles include: practice/ translational research, professional development, quality and stewardship (Appendix A).

The authors reported that the implementation of the model was successful and an important piece to the mission of delivering quality patient care as evidence by the increased number of clinical nurse–initiated projects, quality improvement presentations, and enthusiasm of nurses (Bretschneider, 2010).

Evidence Based Practice Models.

Evidence based practice (EBP) has been utilized in healthcare for some time. However, as it has grown in popularity EBP has become more of a standard as opposed to a goal. Evidence

based practice recognizes a partnership between current research, clinical expertise and patient needs (McKibbon, 1998).

One EBP study identified in this literature search was written by a group of authors tasked with improving outcomes for patients in a six-facility hospital network (Aizer, Barnes,K., Ruble, C., Sakowski, S.2012). The authors conducted a 3-stage evaluation of nurses, managers, and executives involved in an EBP council. The study used ethnography, semi-structured phenomenological private interviews, as well as a 10-item survey. Descriptive statistics were used to analyze data generated from the 10-question survey. The authors concluded that staff-led nursing councils can improve patient care, staff job satisfaction, as well as vision and leadership of staff, as long as executives and managers support these councils. The authors listed self-reporting as a limitation of this study in addition to the fact that this study, while at six separate centers, was still conducted in one health system. Despite the limitations, the authors suggest that the formation of such nursing councils may have the ability to empower, engage, and satisfy staff which will likely lead to a decrease in staff turnover.

Authors from another institution described an EBP council that is run by APRNs (Becker, Dee, V., Gawlinski, A., DNSc, RN, Kirkpatrick,T., Lawanson-Nichols, M., Lee, B., Marino, M., McNair, N., Melwak, M., Purdy, I, Samimi,S., Sund, G., Zanotti, J. 2012). The Clinical Nurse Specialist (CNS) group (one of the four types of APRNs) took the initiative to transform a long-standing nursing policy and procedure committee into an institution-wide EBP council known as the Clinical Practice Council (CPC) in their facility. The authors outlined the development, structure, roles, and sample documents utilized in the council. Then the work was published in a CNS journal for others to understand the importance and implications of this work. The authors reported that the purpose of the council is to improve patient care through the

development, review, and distribution of clinical policy and procedures and guidelines, assure that all documents are supported by the most up to date research and evidence, provide a forum for progressive thinking among clinicians to support integration in to practice, and serve as a panel to receive feedback. The authors presented an organizational model outlining their council (Appendix B). The belief among the group is that organizations with EBP programs will create structures and processes where nurses are engaged in the review and development of practice documents to align practice with current scientific knowledge.

Both EBP councils demonstrate how a structured environment can lead to improved collaboration and improved job satisfaction by creating a group that is invested and takes pride in their work for the institution, and how this can lead to improved patient outcomes.

With the continued growth of APRNs in practice, it will arguably become one of the most important key agenda items to determine how to not only recruit highly qualified APRNs, but how to incorporate them into the institution so that they become invested in the success of the institution. If the APRNs are invested, this will likely improve their job satisfaction and therefore give them strong cause to remain with the institution throughout their career. APRN leadership models can provide the first step in working toward this important goal.

APRN organizational leadership models

The first leadership model identified in this literature review was interesting as the authors discussed multiple leadership models at several different hospitals in the country and then identified the best model based on their professional opinion (Metzger, Rivers, Charisse. 2014). The authors identified three different predominate models. The first model has a dual reporting system in place where the APRNs are reporting to both the Chief Nursing Officer (CNO) and the Chief Medical Officer (CMO). The next model has APRNs reporting directly to

the CNO. Finally, the third model established a separate reporting line by adding a chief advance practice officer (CAPO) to the senior leadership directly parallel to both the CNO and CMO (Metzger, 2014). The authors reviewed the three models and then proposed a model including a CAPO as an APRN supervisor (Appendix C). It was concluded by the authors that the type of model outlined would improve communication by networking and providing a liaison between upper levels of administration and those in direct patient care. The model will improve supervision of APRN recruitment, credentialing, privileging, competencies, regulator matters and scope of practice. The authors report that APRNs working in an institution with an APRN organizational leadership model are more likely to have improved job satisfaction, retention and accountability while promoting high quality patient care. It is recommended by the authors that health care organizations implement policies to have APRN supervisors in place for all APRNs (Metzger, 2014).

In the second article, the authors report that structural empowerment of APRN leaders was a common theme identified by employees in one institution (A. Kapu, & Jones, P., 2016). However, the interviews were not discussed in-depth in the article. The final product consisted of an assistant director APRN in each subspecialty throughout each hospital in the health system. These assistant director APRNs report back to a hospital CNO and then report to the system wide CNO and ultimately the CEO of the company. This system was reported by the authors as a successful integration of APRNs (Appendix D). The authors stated that having knowledgeable leaders related to APRN roles, scope and outcomes, resulted in more effective utilization of APRNs throughout the organization.

The third article was created in a large nineteen state health system and describes the approach taken to incorporate APRNs in the health system (Harms,D., Ewen, J., Metsker, M.,

Swanson, J., Oas, K.,2017). The purpose behind initiating this APRN council was reported by the authors to provide high quality, team-based, inter-disciplinary care be ensuring appropriate integration of APRNs into care delivery models throughout the organization. An outline of this model (Appendix E) illustrates the model in a concise diagram. This model is different because it incorporates APRN leaders and APRN staff. Additionally, it includes human resources, operations staff and medical staff.

The fourth model discussed is a Center for Advance Practice aligned more closely to a nursing model and was formed to meet the demands of more than 350 APRNs in a large academic medical center (Ackerman, 2010). The authors outline the purpose, structure, and function of the model in this article. The Advance Practice Center has a director that is doctorally-prepared nurse who has line authority over many of the APRNs. The model (Appendix F) has two main functions which include oversight of the adult service line in the institution and maintenance of core services including: education, professional development and coaching, practice development and innovation, and regulatory / credentialing to support all APRNs and PAs. The APRNs are grouped according to established service lines and then each grouping has an identified leader. The Advance Practice Center developed an Advance Practice Nurse Advisory Group that serves as a platform for all the identified leaders to meet monthly with the director. In these meeting the leadership sets goals, expectations are outlined, and information is disseminated. This group also forms subgroups as needed to address any identified needs. The authors conclude that with the continued growth in APRNs in the hospital setting, centralized administrative guidance is imperative (Ackerman, 2010). The authors report that this center can be useful to other establishments and can serve as a blueprint for improving organized structure and leadership.

The final APRN models discussed share a previously mentioned author. This work was published in a book published by The Society of Critical Care Medicine (A. Kapu, Moote, M., Stewart, E., Thompson-Smith, C., & Hartman, L., 2012). The authors provide guidance on the formation of a center of advance practice inclusive of both APRNs and PAs. To accomplish this, the authors compiled discussions with three healthcare systems including: Vanderbilt University Medical Center, University of Michigan Health Center, and Duke University Hospital. The chapter presents key components that should be addressed when formalizing APRN leadership within an institution. There were detailed examples from the three university health systems included. The authors discuss challenges and important considerations when forming an APRN council. The authors also outline two separate reporting structure models which are variations of what was found between the three university centers. The first model is an indirect structure of reporting (Appendix G) and the second model is a direct reporting structure (Appendix H). All three university centers were similar in that they all started small and as the number of APRNs and PAs continued to increase, the leadership structures grew and became more robust. The authors recommend that organized oversight with either a combined center for advance practice or separate PA and APRN directors is the most effective way to achieve compliance and optimal utilization of APRNs and PAs (Kapu, 2012).

Each of the APRN council models has differences that make them unique and functional for the specific organizations that have implemented them. What they have in common is an organized structure to facilitate discussion, disseminate information, offer an avenue to address any identified issues or problems, and create a path for APRNs to contribute as leaders in the organization.

Discussion

The articles identified and discussed in this literature review provided six exemplar ARPN organizational structure models. Additionally, the articles support the importance of organized APRN leadership within institutions. Organizational structure can be the groundwork for incorporating APRNs into an organization and empowering them to reach their full professional practice potential by providing excellent care, but also by engaging in avenues to create change within the institution. APRNs are by nature professionals who can provide the highest type of transformational leadership in a field that transcends many different healthcare professionals (Kapu, 2016). This places APRNs in a vital role, which can benefit the organization at large. Studies have shown the benefits of having APRNs incorporated into teams. Successfully, incorporating, and retaining APRNs will be key in setting organizations apart from one another as supported by findings of this literature review. In fact, hospitals that have poor APRN retention rates spend a mean of $3.6 million more than those with higher retention rates (Dillon, 2016). Therefore, strong leadership, support and organizational structure are extremely important for APRNs to perform at the highest level of practice, especially as the number of APRNs continues to increase.

Conclusion

With the demand for healthcare reform rapidly increasing and the need for innovative leaders who can impact healthcare practice increasing, it is clear that leadership capacity is a priority (Elliot, 2017). However, a gap in the literature exists related to organizational structure and leadership with respect to APRN practice as identified by this literature review. While several institutions may have some form of leadership structure in place, there is very little published literature related to best APRN organizational structure and leadership practice. There

is also minimal literature to demonstrate the process of creating formal APRN leadership council in institutions and demonstrating the importance of such leadership to key stakeholders.

Theoretical Framework

A quality improvement project provides a systematic way of organizing activities that can then be implemented by an institution to monitor, assess, and improve quality of care. The development of this APRN council followed a widely used quality process improvement model known as the FADE model. The FADE model has four main steps which include focus, analyze, develop and execute / evaluate (Health and Human Services, 2011). In the FADE model, (Appendix I), one must define the problem to be improved (focus), collect and analyze data (analyze), develop an action plan for improvement (develop), implement the plan (execute), and monitor the success of the program (evaluate).

Setting and Organizational Assessment

Norton Children's Hospital (NCH) in Louisville, Kentucky is a 264-bed free-standing pediatric level 1 trauma center. There are multiple different specialty groups that employ APRNs within the private children's hospital. Because the children's hospital is the only free-standing children's hospital in the Commonwealth of Kentucky, it serves as a teaching hospital with a pediatric medical residency program through the University of Louisville School of Medicine. Therefore, there are University specialty groups / divisions with physician faculty and APRNs serving the pediatric population in the hospital.

As more APRN's have joined one of the two groups, it has become apparent that there was no overarching leadership or organization for APRN's within the institution. Many APRNs found themselves attempting to navigate situations related to scope of practice, hospital privileging, and simple practice needs independently without any organizational resource. This led to frustration by APRNs and their university physician-led divisions or hospital-based nurse managers who employ them. This lack of APRN organization became an obvious deficit within the institution during the implementation process of the APRN consensus model in 2014. Briefly, the consensus model was developed to provide guidance for each state to create uniformity in the regulation of APRN roles (State Boards of Nursing, 2018).

A key initial step was to determine if the hospital leadership was in support of such work. A preliminary meeting was held with the CNO of the hospital to present background information and the perceived need for improved APRN leadership. The CNO at the time was in support of this work and was instrumental in helping guide meetings early on and collaborating on the development of the mission statement.

Purpose

This perceived lack of APRN leadership within this institution made this the site ideal for the implementation of a process change, or quality improvement project that would create leadership for multiple APRNs. This leadership would begin with the implementation of an APRN council. It was hypothesized that with the formation of an APRN council that all APRNs would have an easily identified resource to help address practice needs. Additionally, the council would provide an avenue for improved intra-professional and intra-practice communication and networking. Ultimately, this intervention would create short-term outcomes of improved leadership, collegiality, and professional interaction / collaboration that would lead to long-term outcomes of improved APRN job satisfaction, improved recruiting, and improved retention of APRNs. With improved organizational leadership for APRNs and high satisfaction for APRNs, it is likely that patient outcomes would be positively impacted, as well as patient satisfaction and access to care for the pediatric patient population.

Intervention

Steps Involved in the Formation of an APRN Council

When considering implementation of an APRN Council, following the FADE model, a logic model was developed to help illustrate a broad overview of steps involved (Appendix J). First, the problem was identified (Focus), leading to the perceived need for an APRN council including lack of APRN leadership, lack of organization, and poor communication that led to APRN frustration. To determine the need for this council, multiple conversations occurred with practicing APRNs, nursing administration, the hospital medical director, and department chiefs. Step one: based on the collection of data (Analysis) from these conversations, the need for formal APRN leadership was identified by stakeholders as a common theme and the council formed. In the beginning phases, early identified leaders and the hospital CNO began to meet. The goals and mission statement were developed. Step two: began the action plan (Develop) whereby the APRN council continued to recruit leaders with the goal of having representation from all units/divisions, dissemination of information became a priority to improve communication, monthly meetings continued, APRN council members were encouraged to discuss any committee work on other hospital committees throughout the health system and practice issues were identified / discussed. The CNO advocated for the APRN council chair to also sit on the private organizations system-wide Advance Practice Provider (APP) council which created a line of communication to the healthcare system at large. Two committee members were elected to sit on the credentialing committee creating improved understanding of this process. Additionally, the mission statement was edited, and additional goals were established. The APRN council outlined a strategic plan for the upcoming year. Step 2 also incorporated the implementation phase (Execute). The APRN council voted to host an

educational session for APRNs (providing continuing nursing education hours) in partnership with the Kentucky Board of Nursing. This event was planned to attract APRNs' interest and to have a forum to introduce the APRN council. Throughout this step the leaders continued to discuss the APRN council mission statement and goals. Additionally, all APRNs attending APRN council meetings as leaders became responsible for dissemination of information back to their specific divisions or units to ensure that all practicing APRNs are knowledgeable of the APRN council and its mission statement and goal outcomes. The current structure to meetings developed based on incorporation of strategic goals for both entities. Currently the APRN council agenda includes all the following subjects: Business, Education, Policy / Governance, Committee Updates and Open Discussion. Finally, step three incorporates the final phase of the FADE model (Evaluate). The initial evaluation of the APRN council was conducted using a pre- and post-survey design surrounding the APRN Leadership Seminar as outlined below in the Evaluation of the APRN Council. The evaluation will be an ongoing phase that will promote future growth. At minimum the APRN council will continue to host a luncheon annually during APRN appreciation week to offer an additional venue for APRNs to meet and network, be recognized for their accomplishments and to voice their needs. As the APRN council continues to grow, annual initiatives and goals will be set in addition to the fundamental month to month discussion. For example, the goal voted on by the council for the next calendar year includes working with hospital leadership to improve APRN representation on all pertinent Councils and Committees throughout the hospital and health system including the Medical Executive committee, Inpatient services, Neonatal services, CV committee and the Professional Practice committees of the Children's Hospital and maintaining a seat on the Credentialing committee, APP committee and adding representation on the system DNP committee. Future initiatives

discussed include improving simulation opportunities for all APRNs in the form of a skills day for advance practice.

Participants

The target population for this intervention was to include all practicing APRN's at NCH, including APRNs employed by both Norton Healthcare and APRNs employed by The University of Louisville. Combined, this is a group of roughly ninety APRNs. While there are two separate employers, all APRN's working at NCH have a common goal of providing excellent care to the pediatric population that Norton Children's Hospital serves. Therefore, it is imperative to be inclusive of both groups. Although IRB approval was obtained from the University of Louisville IRB, the private Norton Healthcare group had continued concerns related to data exposure and did not approve the quality improvement (QI) project. Therefore, the surveys were only distributed to the University of Louisville employed APRNs. However, this reduction in access to APRNs employed by Norton Healthcare significantly impacted the evaluation of this APRN council in a negative fashion resulting in a small sample size for the QI project even though APRNs from both groups participated in the educational conference.

Data Collection

All data were collected by the DNP student (author). To maintain proper data stewardship, all data were stored on encrypted zip drive and password-protected laptop. All HIPAA procedures were followed. Confidentiality and anonymity were maintained by ensuring all survey information was de-identified and collected via the anonymous Survey Monkey online platform.

Measurement

Measuring the success of a QI program is a core evaluation function and a high-stakes task for any program (Rossi, 2004). A program cannot be deemed successful unless it creates

beneficial change for the target population. There are several levels of measurement associated with the formation of the APRN council.

Evaluation of the APRN Council

As previously mentioned, Misener (2001) planned and developed a study to create a reliable tool that was validated in assessing job satisfaction among nurse practitioners (APRNs). This tool is called the Misener Nurse Practitioner Job Satisfaction Scale (MNPJSS). The tool is a 44-item survey tool with a 6-point Likert-type scale with a total possible score of 264 points. This tool (Appendix K) has 6 main factors including: 1) Intra-practice partnership / collegiality, 2) Challenge / Autonomy, 3) Professional, Social, and community interaction, 4) Professional Growth, 5) Time, and 6) Benefits (Misner, 2001). The MNPJSS is pertinent to APRN leadership and large healthcare organizations seeking to recruit and retain APRNs because it is a validated, reliable tool specific to this population and was appropriate for this program evaluation. Permission to use the MNPJSS and convert the survey to an online platform known as Survey Monkey was obtained from the authors (Appendix L). However, the use of this tool became a major issue with the IRB of the private institution, likely due to the nature of some of the questions asking about salary. Therefore, a decision was made to use only a portion of the tool. For the purpose of forming this APRN council only two sections from the survey were pertinent to understanding the impact the formation of this leadership had in the children's hospital. The two sections include: 1) Intra-practice partnership / collegiality and 2) Professional, social, and community interaction.

In considering how to assess APRN knowledge of the APRN council and how to reach as many APRNs as possible, as well as considering the success of a previous educational event, the idea of an "APRN Leadership Seminar" was born. This seminar was developed to attract all

APRNs associated with either of the two organizations. Registration for the event was required to determine place of employment. Due to additional barriers related to the private healthcare organization, only University of Louisville employees were eligible to be assessed. All University employees registered for the event received a study preamble outlining the purpose of this evaluation (Appendix M). Next, eligible participants received a pre/post modified MNPJSS. The post-survey also included demographic data to better understand the population. The participants were invited to attend the "APRN Leadership Seminar" This event spotlighted an expert guest speaker who addressed the current landscape of APRN leadership. Lunch was provided for all registered participants, as well as continuing nursing education credit hours upon completion of their evaluation. During the event, the APRN Council Chair (DNP student and author) discussed the development of the APRN council. The background, mission statement and goals. Re-enforcement of teaching occurred with the postings of APRN news in the hospital staff elevator newsletters and all participants from both healthcare organizations received educational materials in the form of an educational pamphlet (Appendix N).

Short-term outcomes were assessed in the form of the modified survey. It is imperative to disseminate information to all APRNs because this is a core initiative of the APRN council. To measure this, the modified survey was sent to eligible APRN participants post-leadership seminar to assess their knowledge of the APRN council and the council's mission statement. The second short-term outcome was to determine if APRNs identify that there is improved networking / communication among practicing APRNs.

Long-term outcomes are also important and imperative to the ultimate success of this APRN council. However, with the significant number of barriers encountered within the private

Norton healthcare organization with respect to the APRN satisfaction survey, information on long-term outcomes was not available at this time.

To analyze the questions in a meaningful way all questions in the pre-survey and post-survey were entered on an excel spreadsheet. The question responses were numbered (one thru six) based on the original survey tools Likert-scale with one being “very dissatisfied” up the scale with six representing “very satisfied”. Once numbers were assigned to each response the author (DNP student) was able to use the ordinal data to calculate and mean, standard deviation and a *p*-value for each question individually. Using a significance level of $p < 0.05$ the author was able to identify if there were any questions that resulted with statistical significance between pre and post comparison. All qualitative data was written down following conversation in person or via email communication to then include in the final assessment of the APRN council.

Results

Due to barriers related to project approval on the basis of surveying APRN employees about any human resource topic, only a small portion of the overall APRN group employed by University of Louisville was available to be surveyed. Thus, participants employed by the private institution were excluded from the study. This left only six original participants who were eligible to participate in the initial survey. Of the six participants, only three participants completed both the pre- and post-educational seminar surveys resulting in a 50% response rate. All participants were female and each of the participants had practiced for a different amount of time. One APRN has practiced between one – five years, the second had practiced between 11-15 years and the third APRN had practiced 16 plus years. Two APRNs were prepared at the MSN level and one at the DNP level. Participants ranged in age from 35 – 54 years old. Participants fell in to two categories of APRNs including certified pediatric nurse practitioners trained in acute care (CPNP-AC) or family nurse practitioners trained in primary care (FNP-PC) Due to the small available sample secondary to significant access barriers, the major findings from this project are focused on the process of developing an APRN council to provide a guide for other institutions to begin the important work of creating APRN leadership within their respective institutions. The limited quantitative and qualitative results are included as this may help guide future studies.

Quantitative

The evaluation involved descriptive statistics including the calculation of a mean and standard deviation for responses to each question. Statistical comparison of pre- and post-survey results was performed via Mann-Whitney test for each survey question individually.

The six responses available in the MNPJSS were assigned numbers as previously stated. The ordinal data related to survey responses pre- and post-leadership program were entered into an Excel sheet to calculate the mean and standard deviation. GraphPad Prism, version 6.0 was the statistical software used to run the Mann-Whitney test. The results are reported in two tables with questions categorized by their original subheadings from the MNPJSS. 1) Intra-practice partnership / collegiality (Table 3) and 2) Professional, social, and community interaction (Table 4). The statistical significance level was $p < 0.05$. Only one question had a *p*-value of less than 0.05 indicating a statistically significant difference between pre and post leadership seminar responses. This question was number seventeen: "Opportunity to receive compensation for services performed outside of your normal duties". While statistical significance was identified it is difficult to determine the true significance of this data due the small sample size.

Qualitative

Discussion in person and via email following the APRN leadership seminar provided positive feedback in the form or qualitative data. Using thematic analysis, the discussions were grouped into three main categories outlined below. The first category encompassed positive feedback. In discussion directly before the APRN Leadership Seminar one APRN asked "How can I become more involved?" she continued "This council seems that it has been successful, and I want to contribute". Two APRNs speaking directly after the leadership seminar mentioned that they would "love to see more events like this". Finally, one participant stated: "this has been absolutely wonderful, and I am thrilled that we are creating a voice for our profession".

The second category of responses can be summarized by enthusiasm. Directly after the Leadership Seminar one APRN stated "I am so encouraged and so hopeful for our future"; she continued by stating "This has gotten me so excited and re-energized in my career".

Additionally, two participants commented on how the expert speaker “motivated” them to improve communication and leadership within their respective groups. Improvement (suggestions for) defined the third category. Following the Leadership Seminar an APRN suggested “perhaps you can continue this work and continue to host further educational events to keep this interaction among nurse practitioners growing”. Another APRN suggested that “maybe more than one representative from each group could attend or alternate in attendance”. A leader from the private health organization suggested “can this work be continued after you complete your DNP program since this is very important work”.

Discussion

Interpretation

While there were significant barriers that prevented this project from being implemented as planned and reaching its full potential, the APRN Council has demonstrated to be a meaningful process change. The most important result from the QI project is that the landscape for communication among APRNs in the Children's Hospital has improved. The quantitative data from the small sample does not reflect the fact that QI project has demonstrated success as evidenced by the following outcomes: first, the APRN council has continued with forward momentum, next, senior nursing leaders have attended APRN Council meetings, and have supported the initiative to include the APRN voice throughout the organization. Finally, due to the dedication of identified leaders and commitment to improve the culture for APRNs, this APRN council has continued to function and change APRN practice within the organization gaining recognition from the private healthcare system at large.

Barriers

Significant barriers were encountered throughout this QI project. These barriers ranged from personnel to organizational system issues. While the magnitude of barriers was not anticipated, it is conceivable that other institutions may encounter such significant challenges. Therefore, it is important to outline what challenges may arise to avoid these pitfalls that may impede the progress of creating formal APRN leadership council. When considering personnel challenges, it was challenging almost immediately to have all leaders present every month for APRN Council meetings due to conflicting clinical schedules. Few APRNs have reserved time for meetings / leadership activities. Therefore, APRN Council meetings have been held while APRNs took their lunch break to attempt to have as many members present as possible.

Unfortunately, a competing council with a different focus was formed by the University group. This additional council created confusion and undermined the goal of improving communication among APRNs by creating conflicting messages. Many APRNs would come to the council chair and lead APRNs to ask what was going on because they perceived that there was no clear leadership and it was not clear who should be in which group. Equally as challenging was the fact that the Children's hospital had three different CNO's over a period of two years. This change made it challenging to stay connected to senior leadership in the hospital. It was the Chief Medical Officer (CMO) whom graciously agreed to sit on the APRN council during all of the transitions to provide support from administration. Finally, during the DNP project the private health system made the decision to invest in creating leadership for APRNs starting with their adult hospitals. The organization out-sourced this work to a consulting firm whom identified a lead APRN and ultimately have recommended the company set up a leadership model similar to the model outlined in Appendix C. While this was frustrating at first, in the end it will likely propel the Children's APRN council to a guaranteed level of sustainability because the organization has now invested in the success of the APRN council and the future of APRNs in the healthcare system.

Organizational system issues encountered included a complex healthcare system with more than one employer making it challenging to align all goals across systems initially. The large private healthcare system had several tiers of leaders, but minimal communication between hospitals making the Children's hospital relatively isolated from other APRNs in the healthcare system. Maintaining accurate employee rosters proved to be far more difficult than ever imagined, requiring coordination between two separate human resources departments. For the evaluation of the APRN council, the inability to survey the majority of members of the APRN

council due to employment by the private employer who denied separate IRB approval due to survey content / HR related questions created a significant negative impact on the overall results. Finally, the QI project was impacted negatively due to the new pending merger of two major healthcare systems with a letter of intent recently signed.

Lessons Learned.

Understanding these barriers, anticipating barriers, and planning for similar situations will help other APRN leaders avoid potential setbacks when implementing practice change. While not all barriers can be anticipated, it is recommended to seek input from as many stakeholders has possible, and secure financial support and identification from the organization prior to the formation of an APRN leadership council as this will provide support and security in the mission of the council.

Collectively, if the planning prior to the formation of the APRN council is thorough, including all the aforementioned measures the APRN council will be identified by senior leaders in the healthcare organization as an important body of work. This will allow the council to be added to the overall strategic plan of the healthcare organization. With this level of recognition several barriers will be easily avoided such as competing councils and segmented leadership which can be detrimental. Additionally, with this level of recognition it will be much more reasonable to expect that time for participating APRNs can be secured to allow for consistency in attendance which is imperative to forward the mission of the council. Without dedicated time forward progress becomes an uphill battle. Finally, if supported by senior leader's, discussion related to measuring the APRN council impact will occur early on. If a measurement tool / survey is chosen and then identified by any member of leadership as a tool that would not be supported by the organization then revisions to the measurement process can be made early on.

To pass through the IRB process for two organizations, in this situation, it is recommended that the measurement tool / survey be agreed upon prior to beginning the IRB process and that both organizations are clear on the intent of the tool /survey. This will potentially prevent multiple IRB revisions.

Conclusion

Over the course of this DNP project, associated project presentations and conversations with APRNs throughout the country at national conferences, a few key points have been identified. First, some healthcare organizations have more resources allocated toward advance practice leadership (and there is a large variation). Second, some healthcare organizations are significantly more progressive with embracing APRNs as compared to others. Finally, there are a few variations of leadership models specific to advance practice nursing. Typically, these leadership models are tailored to fit the needs of the specific organization.

The local APRN council has proven to be a sustainable model; however, it has taken dedicated leaders that can see the larger vision of growth to be committed to making this APRN council successful. These leaders have contributed time above and beyond their professional clinical roles to ensure the success of the APRN council. As more healthcare organizations understand the importance of APRNs in the inpatient settings, it will be imperative that those organizations invest in supporting the role of these APRNs from the beginning. To function at full scope of practice and impact healthcare, APRNs need time, organizational and financial support, and the development of leaders to contribute.

In conclusion, to address the lack of identified APRN leadership at the children's hospital, this QI project focused on the formation of an APRN council. The goal of this APRN council was to create visible leadership that improves APRN collegiality, professional

communication and interaction that will likely lead to improved APRN job satisfaction, improved patient outcomes, and improved patient access to care by retaining these highly valuable healthcare providers. Organizations need to embrace APRNs and allow their voice to be present at all levels throughout the healthcare organization as supported by the current literature. Moreover, APRNs will be crucial in leading and advancing healthcare in the future.

Future implications

The formation and initiation of the APRN council have been discussed. Implications for future research should revolve around building APRN organizational structure and leadership and developing methods to evaluate and quantify the success of improved APRN leadership. Future investigations should focus on APRN job satisfaction over several years, APRN retention rates, and monitoring of APRN recruiting. Developing successful support of APRNs will enable them to practice to their full potential including their clinical and leadership roles. APRNs can be an asset in creating sustainable change within the organization. However, APRNs need to have the ability to gain personal and professional growth through support from their institutions. APRNs also need to have organizational structures that empower them to function at their highest potential. Finally, APRN job satisfaction will likely remain high leading to retention of these valuable healthcare team members if they are encouraged to practice according to their scope of practice in the unique way that sets this group of professionals apart from others in healthcare.

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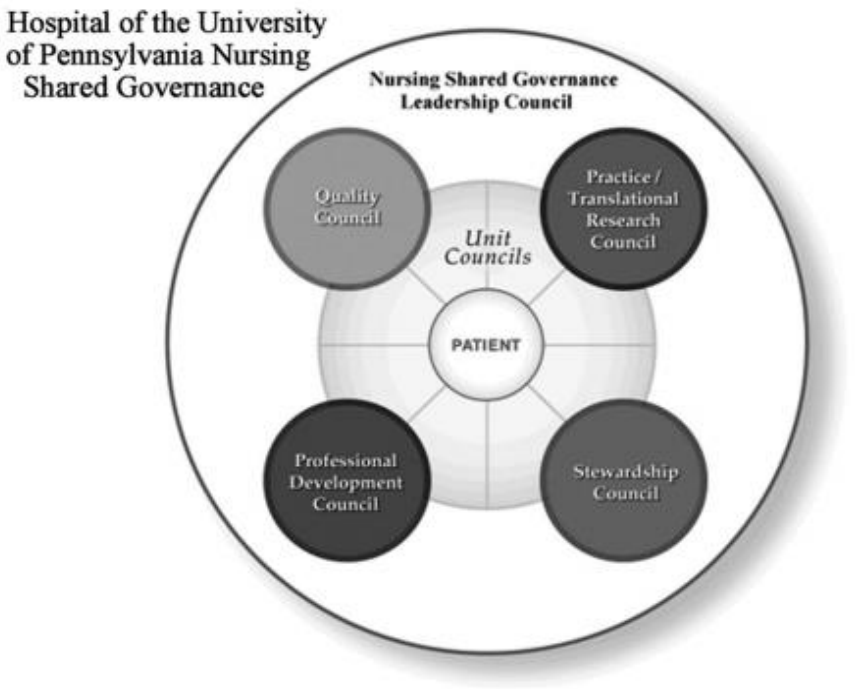
Appendix A

Shared Governance Model



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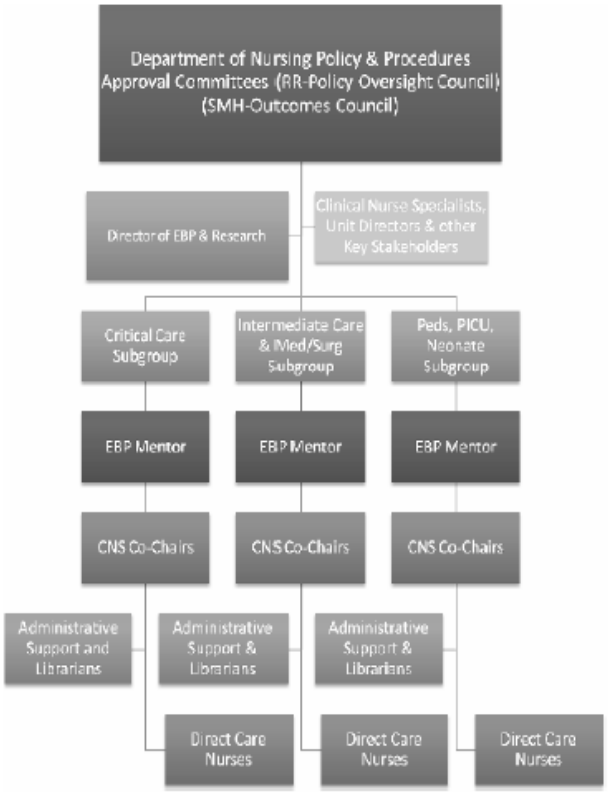
Appendix B

Evidence Based Practice Model.



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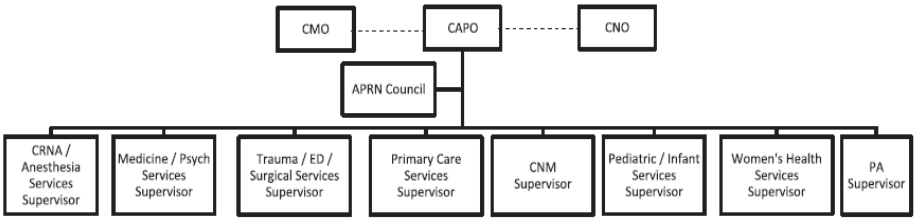
Appendix C

APRN Organizational Leadership Model 1



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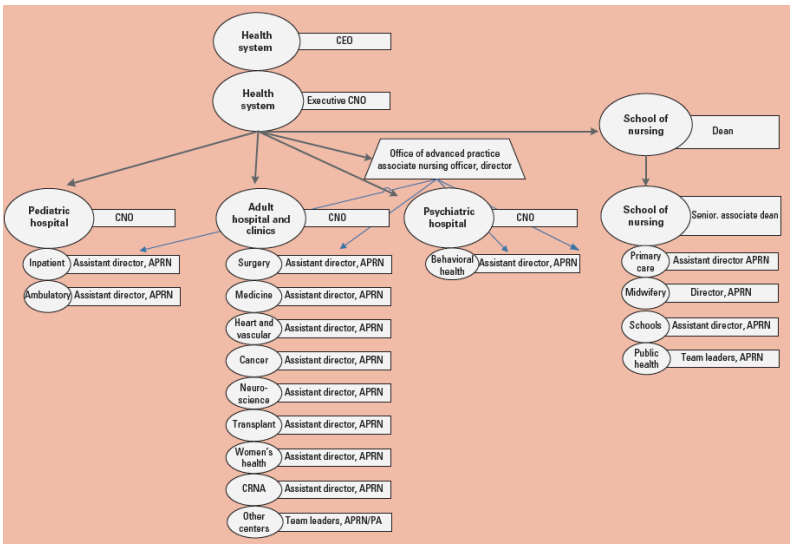
Appendix D

APRN Organizational Leadership Model 2



Modified figure: Kapu, A., Jones, P. (2016). APRN Transformational Leadership. Nursing Management, 47(2), 19-22. doi:10.1097/01.NUMA.0000479443.75643.2b

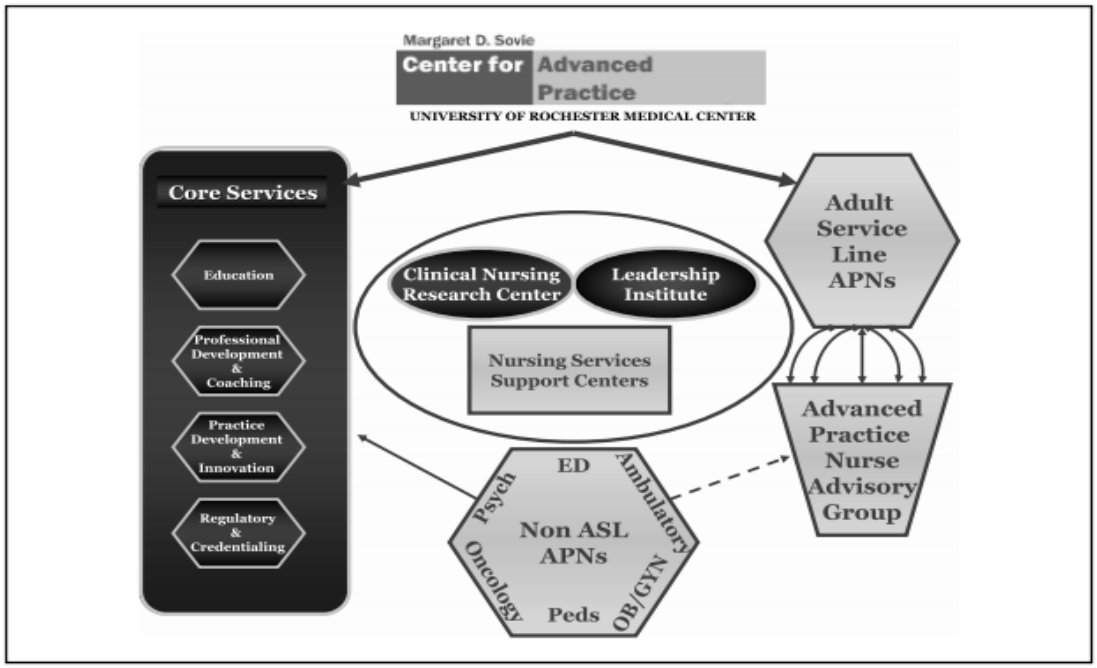
Appendix E

APRN Organizational Leadership Model 3

Modified figure: Harms, D., Ewen, J., Metsker, M., Swanson, J., Oas, K. (2017). Pioneering a National Advanced Practice Leadership Council to Enhance Care Delivery in a Large 19-State Health System. Nursing Administration Quarterly, 41(1), 77-85.

Appendix F

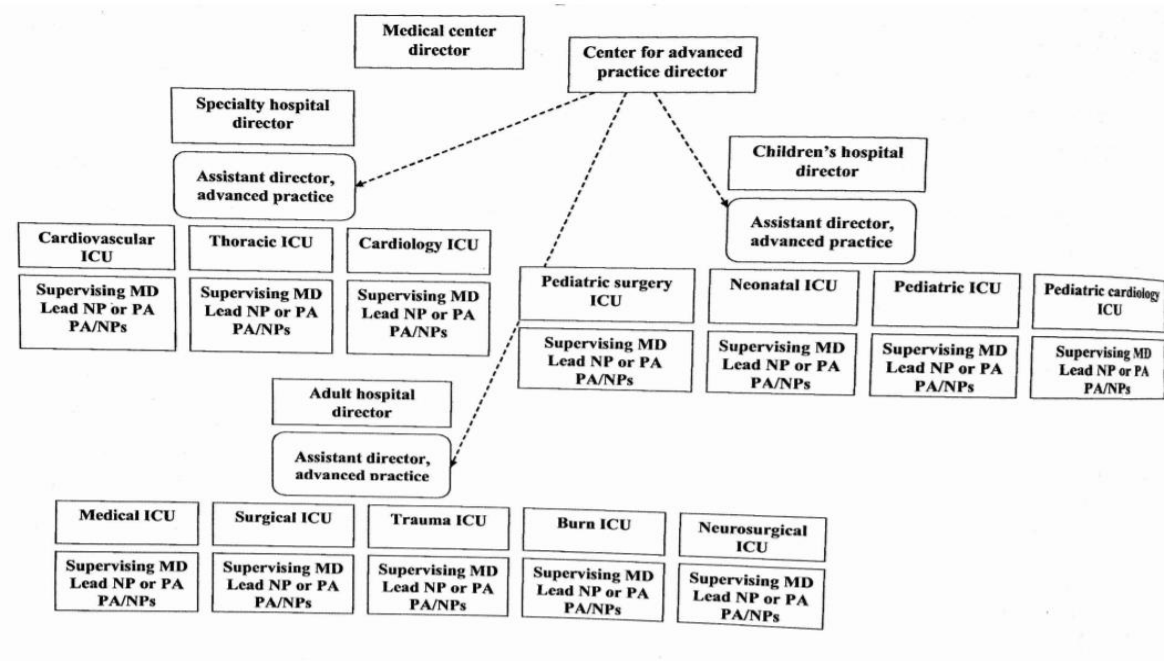
APRN Organizational Leadership Model 4



Modified Figure: Ackerman, M.H., Mick, D., Witzel, P. (2010). Creating an Organizational Model to Support Advance Practice. Journal of Nursing Administration. 40 (2), 63-68.

Appendix G

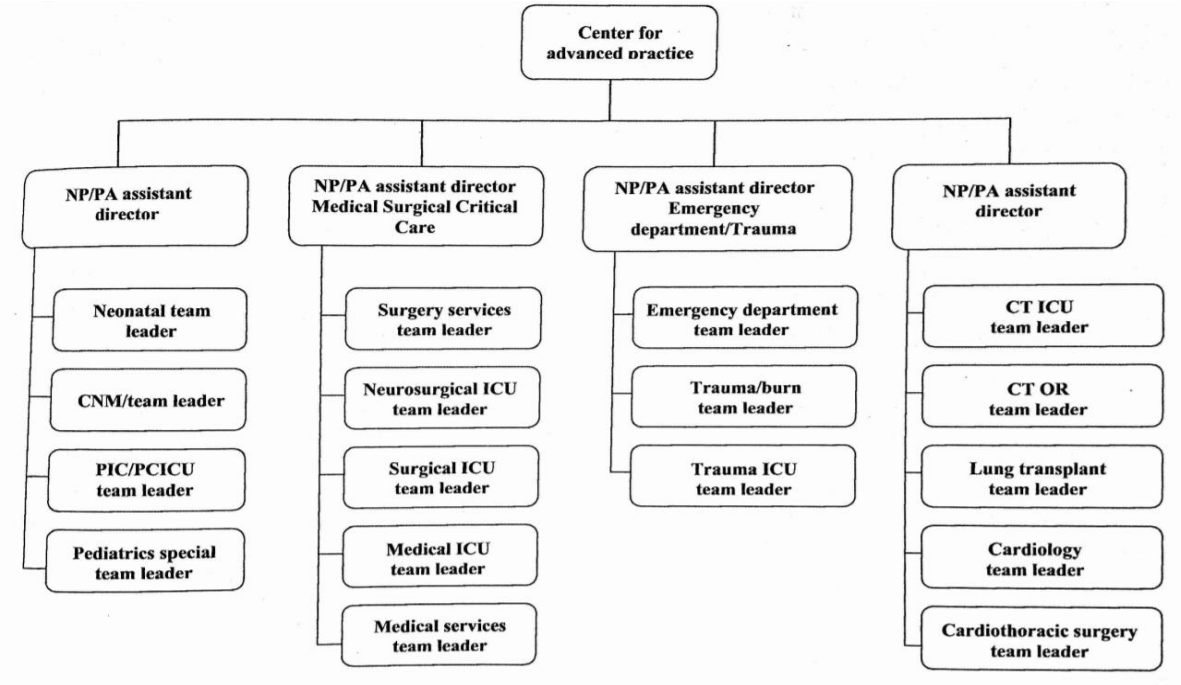
APRN Organizational Leadership Model 5



Modified Figure: Kapu, A., Moote, M., Stewart, E., Thompson-Smith, J., Hartman, L. (2012). Forming centers for advance practice. In K. Brobst (Ed.), Integrating nurse practitioners and physician assistants into the ICU: strategies for optimizing contributions to care. (pp. 100-114). Mount Prospect, IL: Society of Critical Care Medicine.

Appendix H

APRN Organizational Leadership Model 6



Modified Figure: Kapu, A., Moote, M., Stewart, E., Thompson-Smith, J., Hartman, L. (2012). Forming centers for advance practice. In K. Brobst (Ed.), Integrating nurse practitioners and physician assistants into the ICU: strategies for optimizing contributions to care. (pp. 100-114). Mount Prospect, IL: Society of Critical Care Medicine.

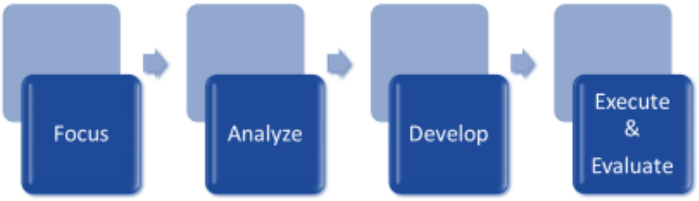
Appendix I

FADE Model for Quality Improvement

FADE Model

FADE Model for Quality Improvement:

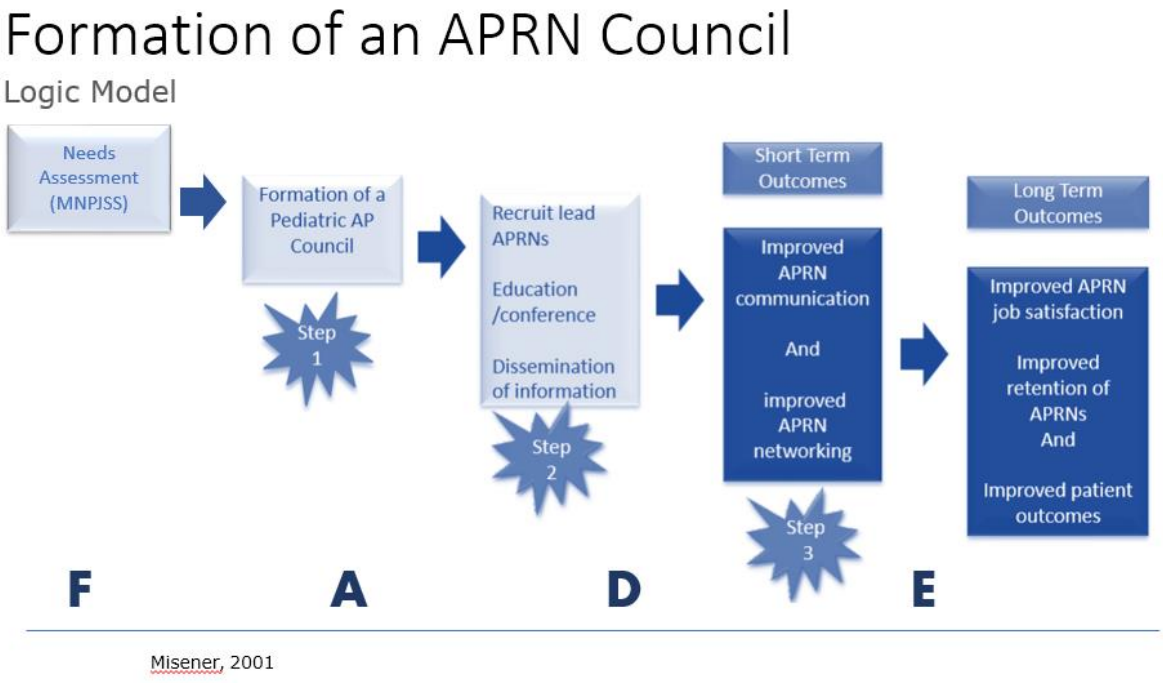
Four Steps:



Department of health and human services, (2011). Quality improvement. Health resources and services administration. Retrieved from: https://www.hrsa.gov/sites/default/files/quality/toolbox/pdfs/qualityimprovement.pdf

Appendix J

Logic Model: APRN Council Formation



Appendix K

Meisner Nurse Practitioner Job Satisfaction Survey: Survey Monkey after permission granted by Dr. Cox

Misener Nurse Practitioner Job Satisfaction Scale ©

Instructions:

The following is a list of items known to have varying levels of satisfaction among NPs. There may be items that do not pertain to you, however please answer it if you are able to assess your satisfaction with the item based on the employer's policy, i.e., if you needed it would it be there?

HOW SATISFIED ARE YOU IN **YOUR CURRENT JOB AS A NURSE PRACTITIONER** WITH RESPECT TO THE FOLLOWING FACTORS?

V.S. = Very Satisfied
S. = Satisfied
M.S. = Minimally Satisfied
M.D. = Minimally Dissatisfied
D. = Dissatisfied
V.D. = Very Dissatisfied

		V.S.	S.	MS.	M.D.	D.	V.D.
1.	Vacation/Leave policy	6	5	4	3	2	1
2.	Benefit package	6	5	4	3	2	1
3.	Retirement plan	6	5	4	3	2	1
4.	Time allotted for answering messages	6	5	4	3	2	1
5.	Time allotted for review of lab and other test results	6	5	4	3	2	1
6.	Your immediate supervisor	6	5	4	3	2	1
7.	Percentage of time spent in direct patient care	6	5	4	3	2	1
8.	Time allocation for seeing patient(s)	6	5	4	3	2	1
9.	Amount of administrative support	6	5	4	3	2	1
10.	Quality of assistive personnel	6	5	4	3	2	1
11.	Patient scheduling policies and practices	6	5	4	3	2	1
12.	Patient mix	6	5	4	3	2	1
13.	Sense of accomplishment	6	5	4	3	2	1
14.	Social contact at work	6	5	4	3	2	1
15.	Status in the community	6	5	4	3	2	1
16.	Social contact with your colleagues after work	6	5	4	3	2	1
17.	Professional interaction with other disciplines	6	5	4	3	2	1

HOW SATISFIED ARE YOU IN YOUR CURRENT JOB AS A NURSE PRACTITIONER WITH:

V.S. = Very Satisfied
S. = Satisfied
M.S. = Minimally Satisfied
M.D. = Minimally Dissatisfied
D. = Dissatisfied
V.D. = Very Dissatisfied

		V.S.	S.	M.S.	M.D.	D.	V.D.
18.	Support for continuing education (time and $$)	6	5	4	3	2	1
19.	Opportunity for professional growth	6	5	4	3	2	1
20.	Time off to serve on professional committees	6	5	4	3	2	1
21.	Amount of involvement in research	6	5	4	3	2	1
22.	Opportunity to expand your scope of practice	6	5	4	3	2	1
23.	Interaction with other NPs including faculty	6	5	4	3	2	1
24.	Consideration given to your opinion and suggestions for change in the work setting or office practice	6	5	4	3	2	1
25.	Input into organizational policy	6	5	4	3	2	1
26.	Freedom to question decisions and practices	6	5	4	3	2	1
27.	Expanding skill level/procedures within your scope of practice	6	5	4	3	2	1
28.	Ability to deliver quality care	6	5	4	3	2	1
29.	Opportunities to expand your scope of practice and time to seek advanced education.	6	5	4	3	2	1
30.	Recognition for your work from superiors	6	5	4	3	2	1
31.	Recognition of your work from peers	6	5	4	3	2	1
32.	Level of autonomy	6	5	4	3	2	1
33.	Evaluation process and policy	6	5	4	3	2	1
34.	Reward distribution	6	5	4	3	2	1
35.	Sense of value for what you do	6	5	4	3	2	1
36.	Challenge in work	6	5	4	3	2	1
37.	Opportunity to develop and implement ideas.	6	5	4	3	2	1
38.	Process used in conflict resolution	6	5	4	3	2	1
39.	Amount of consideration given to your personal needs	6	5	4	3	2	1
40.	Flexibility in practice protocols.	6	5	4	3	2	1
41.	Monetary bonuses that are available in addition to your salary	6	5	4	3	2	1
42.	Opportunity to receive compensation for services performed outside of your normal duties.	6	5	4	3	2	1
43.	Respect for your opinion	6	5	4	3	2	1
44.	Acceptance and attitudes of physicians outside of your practice (such as specialist you refer patients to)	6	5	4	3	2	1

Appendix L

Permission Granted for MNPJSS

Tue 1/17/2017, 3:47 PM

Emily,

I grant you permission to use the instrument in your DNP project. If you have any questions, please let me know. De Anna

De Anna Cox, MN, APRN, FNP-BC

Family Nurse Practitioner

Clinical Associate Professor

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CON Fax: (803) 777-0550

Beeper: (803) 690-1601

E-mail: dlcox@mailbox.sc.edu

Appendix M

IRB Preamble

Advance Practice Pediatric Nursing Council

Date: 1/6/2019

Dear APRN Colleague:

You are being invited to participate in a research study by answering questions in the pre and post surveys that will be administered before and after The Norton Children's Hospital APP Council Leadership Seminar. This seminar is an educational event where participants will receive information about the APP council at Norton Children's Hospital. Additionally, participants will receive education related to APRN leadership provided by a guest speaker Dr Kim Tharp-Barrie, DNP. Continuing nursing education credits will be provided to all participants. Participants do not have to complete pre and post surveys to attend the Leadership Seminar . This study is conducted by Dr. Becky Christian PhD, RN, FNAP along with by Dr. Barbara Polivka PhD, RN, FAAN and Emily McRae, APRN of the University of Louisville, School of Nursing. There are no known risks for your participation in this research study. The information collected may not benefit you directly. The information learned in this study may be helpful to others. The information you provide will help to determine the importance of an APRN council. Your completed survey will be stored at on an encrypted zip drive. The survey will take approximately 5 minutes to complete.

Individuals from the Department of Nursing, the Institutional Review Board (IRB), the Human Subjects Protection Program Office (HSPPO), and other regulatory agencies may inspect these records. In all other respects, however, the data will be held in confidence to the extent permitted by law. Should the data be published, your identity will not be disclosed.

Taking part in this study is voluntary. By answering pre-survey questions, you agree to take part in this research study. You do not have to answer any questions that make you uncomfortable. You may choose not to take part at all. If you decide to be in this study you may stop taking part at any time. If you decide not to be in this study or if you stop taking part at any time, you will not lose any benefits for which you may qualify.

If you have any questions, concerns, or complaints about the research study, please contact:
Emily McRae: 502-852-8626.

If you have any questions about your rights as a research subject, you may call the Human Subjects Protection Program Office at (502) 852-5188. You can discuss any questions about your rights as a research subject, in private, with a member of the Institutional Review Board (IRB). You may also call this number if you have other questions about the research, and you cannot reach the research staff, or want to talk to someone else. The IRB is an independent committee made up of people from the University community, staff of the institutions, as well as people from the community not connected with these institutions. The IRB has reviewed this research study.

If you have concerns or complaints about the research or research staff and you do not wish to give your name, you may call 1-877-852-1167. This is a 24 hour hot line answered by people who do not work at the University of Louisville.

Sincerely,

Becky Christian,PhD,RN,FNAP

Emily M. McRae, APRN, CPNP-AC/PC

Version Date: 01/06/2019

Appendix N

Educational Materials

About Norton Children's Hospital

Norton Children's Hospital is today widely recognized as a leading pediatric hospital in Kentucky and the Midwest. The 267-bed Norton Children's Hospital is the region's only full-service, free-standing pediatric hospital, with Louisville's only Level I Pediatric Trauma Center.

As the primary pediatric teaching facility for the University of Louisville School of Medicine, Norton Children's Hospital enjoys a strong partnership with the medical academic community.

Norton Children's Hospital and its regional facilities serve over 170,000 patients each year, with more than 86,000 pediatric emergency care visits and over 12,000 pediatric surgeries. The hospital includes such distinguished units as the Addison Jo Blair Cancer Care Center, which cares for more than 650 children annually and has one of the nation's largest sickle cell anemia treatment programs. It includes the Norton Children's Heart Institute, which performs more than 450 heart surgeries and over 12,000 noninvasive diagnostic studies each year. It also is home to the Wendy Novak Diabetes Care Center, the region's only dedicated center for children with Type 1 and Type 2 diabetes.

Here you will find the highly skilled, compassionate and advanced medical care that is "Just for Kids."

Retrieved from:
https://nortonchildrens.com/locations/childrens-hospital/

The Norton Children's Hospital APP council formed in July of 2016 with a vision of creating improving leadership for all Advance Practice Registered Nurses (APRNs) and Physician Assistants (PAs) that provide care for pediatric patients in the in-patient hospital setting and the

Norton Children's Hospital
Advance Practice Provider Council

Physician Assistants (PAs):

PAs are medical professionals who diagnose illness, develop and manage treatment plans, prescribe medications, and often serve as a patient's principal healthcare provider. With thousands of hours of medical training, PAs are versatile and collaborative.

PAs practice in every state and in every medical setting and specialty, improving healthcare access and quality.

Retrieved from:
https://www.aapa.org/what-is-a-pa/

Mission Statement

Positively impact pediatric patient outcomes through safe quality care, consistent with the advance practice nursing model, medical model and in alignment with the philosophies of Norton Healthcare. Additionally, promote APRN/PA issues related to legislation, education and communication with the practice areas to support the advancement of the APRN and PA role

Goal Outcomes

· Improved knowledge of the APP council

· Improved intra-practice communication

· Improved APP networking

Advance Practice Providers (APPs):

Advance Practice Registered Nurses (APRNs)

&

Physician Assistants (PAs)

Nurse Practitioners (APRNs):

Nurse Practitioners are advanced practice registered nurses (APRNs) who obtain graduate education, post-master's certificates and doctoral degrees. Educational preparation provides NPs with specialized knowledge and clinical competency, which enable them to practice in various health care settings, make differential diagnoses, manage and initiate treatment plans and prescribe medications and treatment. National NP education program accreditation requirements and competency-based standards ensure that NPs are equipped to provide safe, high-quality patient care from the point of graduation. Clinical competency and professional development are hallmarks of NP education.

Retrieved from: https://www.aanp.org/about/all-about-nps

Table 1

Article Summary

		Financial Implications of Improved Retention	
Article	Design	Purpose	Level of Evidence
(Waldman, 2004)	Retrospective review, accounting records	To determine cost of turnover over the course of 1 year in a large academic medical center.	Level IV
		Job Satisfaction Articles	
Article	Design	Purpose	Level of Evidence
(Aiken, 2002)	Multi-site cross sectional survey	Examine effects of nurse staffing and organizational support for nurses on nurse dissatisfaction, burnout and nurse reports of quality of care.	Level IV
(Miller, 2005)	Quantitative, descriptive design with frequency analysis	Respondents were generally satisfied with their work environment; NPs should ask questions in interviewing about work environment. (Highest satisfiers were found to be related personal factors: quality of care and respect. Least satisfaction focused around extrinsic factors (time off to participate in professional committees, rewards for work above and beyond what is required, monetary bonuses. -This is where employers could focus to improve work environment.	Level IV

(Misener, 2001)	Quantitative, cross-sectional design and survey methodology	First Reliable, Valid tool created to assess NP job satisfaction. Can be used by employers for hiring and retaining as well as for research.	Level IV
		Professional Growth Articles	
Article	Design	Purpose	Level of Evidence
(E. Elliot, Walden, M., Young, A., Symes, L., Fredland, N. , 2017)	Qualitative, descriptive phenomenological analysis, interviews	NPs describe professional practice and the TAPP model elements as interwoven, NPs used components of the model actively to guide care delivery and professional activities. The 3 major themes: -Transforming professional practice - cultivating inner self -mentoring professional transitions. The NPs felt the model gave them a sense of self, helped them recognize the importance of passing through phases, and recognizing importance of mentoring. Helped identify why NPs practice the way they do. The inner drive can lead to a passion for career and commitment.	Level VI
(Hurlock-Chorostecki, 2016)	Expert opinion	The NP must embody all 3 foci to encompass full value of the NP role. Patient care in addition to building trust and evolving the practice will allow the NP to reach full optimization. NP will be viewed more than an extra set of hands	Level VII
		Leadership /Support Articles	
Article	Design	Purpose	Level of Evidence
(Dillon, 2016)	Quantitative, descriptive correlational-comparative design	- Most had orientation of 8 weeks or less (29% had none) -52% stayed in their first position after graduation < 2 yr. -46% reported stress (job performance and personal finances top 2 stressors) -Statistically significant + correlation between Organizational support and comfort/confidence P < .01, patient safety p< .05, prof. satisfaction p<.05, job satisfaction. P<.01, comm.	Level IV

		Communication and Leadership also stat. significant with same above categories. * No difference in NPs with 0-4 yr. experience, and nurses with < 4 years exp.	
(Elliott, 2017)	Literature Review	Long-term strategic approach is needed to build leadership. Organization support should include: -defined lead -director level (accountability) -lead mentoring -Members of strategic commit. -Networking -University Links -Admin, tech support	Level VII
(A. Kapu, Kleinpell, & Pilon, 2014)	Quantitative, retrospective secondary analysis or return on investment	Examination of the financial impact of adding NPs to inpatient teams: discovered the addition of NPs contributed in increase in revenue, reduction in patient length of stay and improved standardization of quality care	Level IV
(Leggat, 2015)	Quantitative, Pre-Post Longitudinal Intervention Study	Concluded that a formal mentor program based on action learning was successful in enhancing clinical leadership skills in advance practice nurses as well as preparing them for success in their advance practice role	Level IV
(Muller, 2010)	Expert Opinion / Report	CNS role supports the EBP care that should be delivered by practitioners, Empiric outcomes improved with CNS leadership, collaboration, implementation, and consulting.	Level VII
(Okuhara, 2011)	Expert Opinion	The role of the transformational leadership team in a magnet organization is to help create movement toward a place that helps best meet the needs of patients in the future. Creating the service line with structure and process for implementation has helped create this change in this practice setting. AC-PNP vital member of team, promotes continuity, patient safety and can optimize patient throughput.	Level VII
		Shared Governance Model	

Article	Design	Purpose	Level of Evidence
(Bretschneider, 2010)	Descriptive	Present design of a nursing shared governance model and implementation of the model in a large academic health center	Level VI
		Evidence Based Practice Model	
Article	Design	Purpose	Level of Evidence
(Becker, 2012)	Descriptive	Overview of a CNS led clinical practice council (EBP council)	Level VI
(Aizer, 2012)	Qualitative, Quantitative analysis	Understand the effect of staff led EBP council on staff job satisfaction and professional development.	Level IV
		Organizational Leadership Models:	
Article	Design	Purpose	Level of Evidence
(Harms, 2017)	Expert opinion	Integration of Advance practice nurses in all markets will lead to high quality, cost-effective care that can help revolutionize healthcare for all patients.	Level VII
(A. Kapu, Jones, P., 2016)	Qualitative, interview design	Through this development program, it was observed that skilled APRNs who are supported / empowered structurally can be very successful in leadership roles	Level VI
(Kapu, 2012)	Expert Opinion	Outline of key components required for the formation of a center for advance practice based on discussion with three different medical centers.	Level VII
(Metzger, 2014)	Expert opinion	NP organizational leadership model will provide a service line and community sense for NPs in a large healthcare system.	Level VII

		-Improve communication -support advocacy for NPs -provide quantification of productivity -supervision or recruitment, credentialing, privileges. Regulations and scope of practice -More likely to have satisfaction, retention, accountability Need APRN supervisors	
(Ackerman, 2010)	Exert opinion	Outline an organizational model that supports Advance Practice Nursing at a large medical center.	Level VII

Table 1: article summary, level of evidence as outlined by: Rating system for the Hierarchy of evidence for intervention/ treatment questions (Melnyk, 2015)

Table 2

Annual cost of turnover in a major medical center

TABLE 1

Annual Costs of Turnover in a Major Medical Center

(A) Primary Cost Data on Health Care Turnover

	Average Active		New Hires			Cost per Person by Phase of Employment ($)			
								CoRP	
Work Group	SOM	UH	Total	*n*	Percent Work Group	To Hire	To Train	Pareto LC	Linear LC
Physicians	624	0	624	56	9	36,743	89,800	27,790	58,711
Nurses	24	885	909	261	29	1,635	15,825	6,027	14,026
Allied health personnel	186	360	546	265	49	720	1,587	4,061	10,709
Technical staff	325	484	809	310	38	347	1,587	3,728	9,638
Support	820	720	1,540	474	31	286	2,247	629	5,245
Administrators or managers	362	328	690	246	36	276	3,650	6,105	16,102
Totals	2,341	2,777	5,118	1,612	N/A	2,986,173	7,095,628	7,161,108	19,221,489

(B) Actual Costs Calculated from Primary Data (Above)

	Best Case: Using Pareto LC ($)				Worst Case: Using Linear LC ($)			
Work Group	To Hire	To Train	CoRP	Totals	To Hire	To Train	CoRP	Totals
Physicians	2,057,608	89,800	1,556,240	3,703,648	2,057,608	89,900	3,287,816	5,435,324
Nurses	426,735	4,130,325	1,573,047	6,130,107	426,735	4,130,325	3,660,786	8,217,846
Allied health personnel	190,800	420,555	1,076,165	1,687,520	190,800	420,555	2,837,885	3,449,240
Technical staff	107,570	491,970	1,155,680	1,755,220	107,570	491,970	2,987,780	3,587,320
Support	135,564	1,065,078	298,146	1,498,788	135,564	1,065,078	2,486,130	3,686,772
Administrators or managers	67,896	897,900	1,501,830	2,467,626	67,896	897,900	3,961,092	4,926,888
Totals	2,986,173	7,095,628	7,161,108	17,242,909	2,986,173	7,095,728	19,221,489	29,303,390

Cost to train new physicians is a fixed cost. CoRP considers only the first year of employment and is shown using both linear and Pareto LCs where *f*(0) = 0.5. All calculations in B are derived from A, multiplying individual costs by number of new hires. In B, costs to hire and costs to train are unaffected by choice of Learning Curve (LC) for calculation of CoRP. "Best case" total turnover cost in B was calculated using a Pareto LC and "worst case" used a Linear LC.

Modified Figure: Waldman, J. D., Kelly, F., Arora, S., Smith, H.L. (2004). The shocking cost of turnover in health care. Health Care Management Review, 29(1), 2-7.

Table 3

Statistical Data: Intrapractice Communication & Collegiality

Variables	Mean ± SD	*p*-value
Amount of Administrative Support **Pre** **Post**	 4 ± 1.870829 3.666667 ± 1.527525232	P = 0.785
Consideration given to your opinion and suggestions for change in the work setting or office practice **Pre** **Post**	 4 ± 1.673320053 5 ± 1	P = 0.56
Input into organizational policy **Pre** **Post**	 5.166666667 ± 0.98319208 4.666666667 ± 1.154700538	P = 0.081
Freedom to question decisions and practices **Pre** **Post**	 5 ± 1.264911064 5 ± 1	P = 0.999
Recognition for your work from superiors **Pre** **Post**	 5.2 ± 0.447213595 5 ± 1	P = 0.999
Evaluation process and policy **Pre** **Post**	 4.666666667 ± 1.366260102 5 ± 1	P = 0.881
Opportunity to develop and implement ideas **Pre** **Post**	 5.166666667 ± 0.752772653 5.666666667 ± 0.577350269	P = 0.452
Process used in conflict resolution **Pre** **Post**	 3.166666667 ± 2.228601953 4.666666667 ± 2.309401077	P = 0.452
Opportunity to receive compensation for services performed outside of your normal duties **Pre** **Post**	 3.333333333 ± 1.966384161 4 ± 2	P = 0.726
Respect for your opinion **Pre** **Post**	 3.4 ± 2.073644135 4.666666667 ± 2.309401077	P = 0.482

Table 4

Statistical Data: Professional, Social & Community Interaction

Variables	Mean ± SD	*p*-value
Quality of Assistive personnel **Pre** **Post**	 3 ± 1.549193338 4.666666667 ± 2.309401077	P = 0.238
Social Contact at Work **Pre** **Post**	 4.666666667 ± 0.516397779 5.666666667 ± 0.577350269	P = 0.119
Status in the Community **Pre** **Post**	 3.666666667 ± 1.366260102 4.666666667 ± 1.154700538	P = 0.5
Social Contact with your Colleagues After Work **Pre** **Post**	 3.833333333 ± 1.940790217 5.666666667 ± 0.577350269	P = 0.202
Professional Interaction with other Disciplines **Pre** **Post**	 4.333333333 ± 1.211060142 4.333333333 ± 2.886751346	P = 0.476
Interaction with other NPs Including Faculty **Pre** **Post**	 3.666666667 ± 1.211060142 4.333333333 ± 2.886751346	P = 0.524
Recognition of your work from peers **Pre** **Post**	 2.333333333 ± 1.366260102 5 ± 1	**P = 0.036**
Amount of consideration given to your personal needs **Pre** **Post**	 4.166666667 ± 0.98319208 5.666666667 ± 0.577350269	P = 0.06
Acceptance and attitudes of physicians outside of your practice **Pre** **Post**	 4 ± 1.095445115 5 ± 1	P = 0.31