ADULT-GERONTOLOGY NURSE PRACTITIONER STUDENTS' PERCEPTIONS OF PREPAREDNESS FOR PRACTICE

By

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Adult Gerontology Nurse Practitioner Students' Perceptions of Preparedness for Practice

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Abstract

Problem: The role of the nurse practitioner (NP) continues to gain clarity in terms of the skills needed to meet the increasing demands of primary care practice. The American Association of Colleges of Nursing (AACN) in collaboration with the National Organization of Nurse Practitioner Faculties (NONPF) defines competencies or the necessary fundamental skills for each NP specialty. Despite these competencies, many new NPs lack perceptions of preparedness after completion of their education, and these competencies have been difficult to quantify. A skills competency checklist based on the AACN and NONPF criteria provides a standardized measure for students to improve perceptions of preparedness for their new NP role.

Project Aim: A skills competency checklist was created for Adult-Gerontology Primary Care Nurse Practitioners (AGPCNP) to complete during their three primary care (PC) clinical courses. The aim of this pilot project was to measure student perceptions of preparedness for practice using the checklist. This tool consisted of a list of competencies the student was encouraged to achieve during their practicum courses to improve perceptions of preparedness for practice. Participation in this study and use of the checklist was optional. The study also explored the most common skills completed at primary care clinics.

Method: AGPCNP students who received the checklist and completed their clinical practicum courses were invited to complete the survey using the Research Electronic Data Capture (REDCap) system. The survey asked students to rate their preparedness to perform individual skills, student time spent to accomplish the skills, if the checklist was used as a guide when selecting a clinical site to help meet their clinical competency needs, and if the checklist influenced the way preceptors guide learning opportunities. Descriptive statistics were computed for each competency skill and survey question.

Findings: Seven of eight AGPCNP students in the class elected to participate in the optional, confidential survey. When asked if the use of a skills competency checklist improved their perceptions of preparedness, 100% of the students answered “yes.”

Conclusions: Participants using the skills checklist reported that they were generally well prepared for NP practice after completion of their three PC courses. Positive outcomes were found; however, the small sample size, and lack of control group require cautious interpretation of the findings. Future research involving the skills competency checklist is needed. Research focusing on the basic skills required for demonstration of competency as well as student perceptions of preparedness is needed.

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Table of Contents

1. Abstract…….. 1
2. Acknowledgements ……..…….. 2
3. Introduction…… 5
4. Specific Aim ……..……. 5
5. Significance of the Problem to Nursing …… 6
6. Literature Search Strategy…….. 7
7. Literature Review. ……. 9
8. Research Questions ...……... 12
9. Methodology ….……... 12
Project Design …… 12
Project Goals …….. 14
Theoretical Framework…….. 14
Sample and Setting……. 15
Approvals ...…… 15
Project Procedure…….……... 16
Data Security …….……. 16
Data Collection Instrument: Study Survey.…… 16
Data Analysis…….. 18
10. Results …… 18
Preparedness for Practice in Skills ……. 19
Time Devoted to Skills …….. 20
Overall Preparedness for Practice……... 21
Clinical Skills Checklist to Improve Competency ……. 21
Clinical Skills Checklist ……. 22
Most proficient …… 22
Least proficient ……... 22
Undocumented skills ……... 23
Additional skills …….. 23
Qualitative Data …… 23
Preparation for skills ……... 23

Clinical placement …….. 23
Preceptor's perceptions …….. 24
Perceptions of checklist …….. 24
Clinical skills checklist completion …… 24
Pilot group's recommendations …….. 25
11. Discussion …….. 25
12. Conclusion …… 27
References…… 28
Appendixes……... 33
Appendix A, Project Timeline ……... 33
Appendix B, Project Budget ...……... 34
Appendix C, Human Subjects Committee Form ……...… 35
Appendix D, Adult Gerontology Primary Care Nurse Practitioner Checklist ……... 38
Appendix E, AACN DNP Essentials paired with AACN & NONPF AGPCNP Competencies ……... 61
Appendix F, Adult Gerontology Primary Care Nurse Practitioner Student Survey……... 89
Appendix G, REDCap Survey Data ……...… 94
Appendix H, Qualitative Data from REDCap Survey and In-Class Intensives ……. 96
Appendix I, Skills Clinical Checklist Data ……... 99

Adult-Gerontology Nurse Practitioner Students' Perceptions of Preparedness for Practice

Primary Care (PC) is the core of healthcare providing many functions including initial diagnosis and evaluation, health promotion, disease prevention, and management of chronic disease (Gadbois, Miller, Tyler, & Intrator, 2015). The introduction of the Patient Protection and Affordable Care Act in the United States increased patient access health insurance coverage without addressing PC provider deficit (Gadbois et al., 2015). The Institute of Medicine, believes that advanced practice registered nurses (APRNs) could help fill this gap. The number of Medicare patients receiving care from APRNs rose fifteen-fold between 1998 and 2010 (Kuo, Loresto, Rounds, & Goodwin, 2013). Despite the growing numbers of practicing APRNs and success of the role, preparedness for PC practice is a critical issue for graduating APRNs, many whom feel frustrated and inadequate (Hart & Bowen, 2016). With over 50% of new NPs feeling "somewhat prepared," "minimally prepared," or "very unprepared" to practice after completion of their NP educational program, it is necessary to assess preparedness for practice (Hart & Bowen, 2016).

Specific Aim

Competency checklists provide a structured, congruent, standardized resource for students and faculty that help maintain a focused guideline in the necessary fundamental skills (Czabanowska et al., 2012; Hofer, Nikolaus, & Pawlina, 2011; Stanford, 2016). Checklists can also provide the structure needed to identify individual strengths and weaknesses and training needs (Czabanowska et al., 2012; Stanford, 2016). With poor NP perceptions of preparedness to practice and positive outcomes after the implementation of competency checklists, one might

wonder if the addition of checklists in clinical education would improve perceptions of preparedness to practice.

A skills competency checklist was created for an AGPCNP program to complete during three PC clinical courses (Appendix D). With the use of the checklist, the aim of the pilot project was to measure student perceptions of preparedness for practice. The tool consisted of a structured list of goals that students needed to achieve during their practicum courses and that would improve perceptions of preparedness for autonomy in practice. This project also assessed if the student devoted extra clinical hours to accomplish skills, if the checklist was used as a guide when selecting a clinical site to help meet their clinical competency needs, and if the checklist influenced the way preceptors guided learning opportunities (Appendix F). The checklists were reviewed after the three PC courses to determine what skills were commonly seen in clinic and which skills students feel proficient in (Appendix I). A literature review on relevant scholarly articles, a detailed overview of the methodology of the quality improvement project and summarized key points are discussed. Important appendixes are also included.

Significance of the Problem to Nursing

Although researchers addressed the need for competency-based education, no recent studies were found that created a competency checklist specific to NP students. Research is also lacking of student's perceptions of preparedness to practice (Hart & Bowen, 2016). Some graduate healthcare programs use a checklist or assessment tool to evaluate the student's learning. The National Organization of Nurse Practitioner Faculties (NONPF) developed the Nurse Practitioner Core Competencies Content (2014); however, an instrument was not developed for use with this content. Currently, the majority of clinical skills and hands-on teaching are provided to the NP student at the clinical site. While each student obtains the same

amount of required clinical hours at their site, the students' clinical experiences can vary at each setting even when assigned to similar types of clinics. It is impossible for faculty to predict what clinical learning will take place in every situation. Moreover, it is difficult for students to have similar educational experiences due to the variety of clinical settings (Hallas, Biesecker, Brennan, Newland, & Haber, 2011; Hawkins-Walsh et al., 2011). This learning inconsistency can create an imbalance between the student's perceptions of preparedness of various skills upon graduation. While NONPF (2014) created broad competencies that need to be accomplished prior to graduation, there is no specific checklist or assessment tool that ensures the learning of each NP student. These findings raise questions about the need for a new approach to ensure the NP student's positive perceptions of preparedness for entry-level practice upon graduation (Hart & Macnee, 2007).

The use of a competency checklist to improve student's perceptions of preparedness is a unique concept that has received limited research. A checklist measures a specific skill compared to learning a broad concept. While in the clinical setting, the focus should be on achieving competency rather than time spent. Competency frameworks allow the NP student to target training effectively and encourage self-directed learning to ensure the NPs have the right skills and knowledge for autonomous practice (Howard & Barnes, 2012; Stanford, 2016).

Literature Search Strategy

The following databases were searched: CINAHL, MEDLINE, PubMed, ProQuest Nursing Journals, and Google Scholar. Reference lists and bibliographies of identified literature were searched for additional relevant studies. Academic institutions and regulating bodies were explored for relevant data. The keywords searched were checklist OR checklists, student OR students, skill OR skills, framework, perceptions, preparedness, advanced practice nursing and

competency. Competency can be truncated to find variant endings at competen* to retrieve competence, competency and competencies. Research on preparedness of NPs was found to be inadequate. The literature searched on perceptions of preparedness only consisted of APRNs to focus on the main outcome of this paper. The development of advanced nursing competencies that recognize the complexity of clinical practice at an advanced level is poorly researched and discussed (O'Connell et al., 2014). Due to the limited research on competency checklists and APRNs, in order to find research on outcomes of advanced competency checklists, the article search was expanded. The inclusion criteria consisted of nurse practitioners, all graduate health professional students/ programs that discussed using a checklist to evaluate competence of the student. The literature search exclusion criteria limited the article to primary research. While systematic reviews and quantitative research were preferred, other levels of research and qualitative research were still searched. To avoid retrieving a large amount of articles, filters were originally set with publication date after 2012. When the results list was limited, the publication date was extended from 2002 through 2017 to include all articles pertinent to the inclusion criteria. Articles were excluded if they did not pertain to graduate health professional students or APRNs, if they did not utilize a competency-framework, if they did not offer new or unique information, and studies not published in English. CINAHL Headings were used to ensure there weren't any articles that were missed. Throughout the various studies searched, the authors used many unique terms to address the "checklist" used to achieve competency in their participants. Some of the other words used instead of "checklist" include: competency framework, competency-based model, competencies, and Geriatric Self-Competency Checklist (Czabanowska, 2012; McCrystle, et al., 2010; Niederhauser et al., 2010; O'Connell, Gardner, & Coyer, 2014; Stanford, 2016).

Literature Review

Hofer et al. (2011) examined whether the use of a checklist in a gross anatomy laboratory would improve learning outcomes of medical students. Four exams were administered to the students over the course of the semester (Hofer et al., 2011). The first two exams served as the control and the last two exams were taken after the students used a competency checklist while learning and dissecting the required material (Hofer et al., 2011). Despite the relatively small sample size of 48 students, Hofer et al. (2011) found the student's performance on both practical examinations and dissection quality were improved by the introduction and active use of checklists in the anatomy laboratory. The use of checklists made dissection in the lab more efficient, it assisted to identify pertinent structures, and a slight increase in teamwork between the first and second part of the semester (Hofer et al., 2011). Overall, Hofer et al. (2011) suggests the frequent use of checklists increases exam scores and students recommend the use of these checklists in future courses.

As with anatomy, medical students have demonstrated difficulties in geriatric care via their training. This was addressed by McCrystle et al. (2010) after designing a self-learning centered geriatrics curriculum for medical students. The model has been proven to meet the needs of varied levels of learners without increasing faculty resources and cost by creating a learner-centered, need-based curriculum (McCrystle et al., 2010). Using the national geriatric competencies, the Geriatric Self-Competency Checklist (GSCC) and a Geriatric Knowledge Test (GKT) were created and administered to the students before and after their geriatric rotation (McCrystle et al., 2010). Going into the rotation, the students knew the GSCC was used as a guideline for the knowledge, skills, and subjects they were expected to attain (McCrystle et al., 2010). This self-directed learning allowed the students to take responsibility for their learning in

the limited time available and identify their specific geriatric learning needs (McCrystle et al., 2010). The student could then be involved in addressing these needs with more time in necessary experiences and to use a variety of resources (McCrystle et al., 2010). The result of the McCrystle et al. (2010) study showed the rotation was highly rated with an improvement in knowledge, attitudes for all levels of learners and improvement in overall self-rated competence. Competence is to preparedness as knowledge is to implementation. At the heart of competence and preparation are perceptions.

Due to the limited research on preparedness for practice, Hart and Bowen (2016) assessed new NPs' perceptions of their preparation and transition into practice. This was a follow up to the Hart and Macnee (2007) study. There were 562 participants with over 50% of new NPs feeling "somewhat prepared," "minimally prepared," or "very unprepared" to practice after completion of their NP educational program (Hart & Bowen, 2016). Despite the significant changes in curriculum over the years, the perceptions of preparedness were extremely similar between the Hart and Macnee (2007) survey and Hart and Bowen (2016) survey. Hart and Bowen (2016) listed 21 skills and had the participants rate their preparedness for each skill. Hart and Bowen (2016) found respondents were most prepared for "health assessment" and least prepared for "billing and coding," "simple office procedures," "electrocardiogram and radiology interpretation," "microscopy," and "mental illness management" (p. 545). The open-ended responses from the new NPs had a common theme including the need for increased rigor and more clinically relevant experiences (Hart & Bowen, 2016). "Our results indicate that formal NP education is not preparing new NPs to feel ready for practice" (Hart & Macnee, 2007, p.35).

Stanford (2016) developed a three-phase primary research study to examine practicing NP's perceptions of a competency framework to support clinical practice in an advanced role.

Stanford used a qualitative cross-sectional design and a sample that consisted of eight experienced NPs (2016). The NPs were first sent a questionnaire asking their demographics and whether they had used a competency framework (Stanford, 2016). The second phase of the study collected written reports listing advantages and disadvantages in the use of a competency framework in practice (Stanford, 2016). While participating in a focus group in part three, the participants were asked about their perceptions and opinions around using a competency framework (Stanford, 2016). All eight participants identified three common themes, "A competency framework: Can identify strengths and weaknesses, sets clear goals and targets, and improve how practice is organised" (Stanford, 2016, p. 1119). Three of the participants (37.5%) felt a competency framework has the potential to limit practice and be confining (Stanford, 2016). There was an overall positive consensus found between participants on the use of competency framework and their self-awareness of competent care (Stanford, 2016).

O'Connell et al. (2014) argued that NPs work in environments that are dynamic and need to be prepared to practice in familiar and unfamiliar advanced clinical situations. Although many studies support the use of competency frameworks, O'Connell et al. (2014) do not believe a competency framework is the best approach to accomplishing advanced practice preparation. They see competency tools as stable and narrow in their approach, or too broad and open for interpretation (O'Connell et al., 2014). O'Connell et al. recommendations include moving beyond competency into a capability framework where the person can be adaptable, apply competencies in unfamiliar situations, and have a high degree of self-efficacy (2014). While O'Connell et al. (2014) suggest that competencies limit professional development by withholding the student to develop self-directed learning, no articles suggesting the use of competency-based education forbid the student to build upon their knowledge and reflect on

their values and self-esteem. Advanced practice curriculum does not have to sacrifice self-directed learning in order to utilize a competency-based approach. A capability framework can be intertwined with a competency-framework to best prepare the student for complex, dynamic healthcare environments.

While this is a small cluster of research, considerable insight was gained. Whether medical students, NP students, or experienced NPs, studies found checklists improved competency outcomes. These studies focusing on frameworks revealed the significance of frameworks in developing competence. There is validity in checklists to reaffirm existing knowledge and previously unexamined techniques.

Research Questions

The research questions of this study were: 1. Does the use of a skills competency checklist improve the perception of preparedness to practice in the Adult-Gerontology Primary Care Nurse Practitioner students? 2. With the use of a checklist, would students devote extra clinical hours to accomplish skills? 3. Can a checklist be used as a guide to help meet students' competency needs in selecting a clinical site? 4. Does a checklist influence the way preceptors guide learning opportunities?

Methodology

Project Design

The project was a longitudinal, quality improvement pilot project that was implemented June 2017. The investigator-developed skills competency checklist was implemented at a large Midwestern University's AGPCNP program. The checklist was to be used during each of the three PC clinical semesters. The competency content was developed based on a review of the literature on advanced practice competencies. Categories for the checklist included general skills,

head, ears, eyes, neck and throat (HEENT) skills, chest skills, abdominal/ gastrointestinal skills, pelvic/ genitourinary skills, extremity skills, dermatology skills, psychology skills, and professional role development. There were a total of 135 skills in the checklist with room for additional skills to be added. In order to meet the standards of NP education, each competency skill provided had a corresponding American Association of Colleges of Nursing (AACN) Doctor of Nursing Practice (DNP) Essential (2006) and AACN/ NONPF AGPCNP Core Competency (2016) (Appendix E). Specific skills were added to the checklist to meet the requirements for all the AACN/ NONPF AGPCNP Core Competencies (2016). A Delphi study was conducted to gain professional feedback from the University's NP faculty. They had valuable suggestions on skills to be added and removed from the list. Their feedback was applied to the final pilot checklist.

While the use of the checklist was encouraged for the AGPCNP students, it was clearly communicated that participation in this research study was optional. The completion of the checklist was not included in the student's grade. If the student chose to utilize the checklist, the goal was that the student should become proficient in the skills listed at the end of the three PC clinical semesters. First, each skill was to be demonstrated three times by the provider, then performed five times under the auspices of the provider, then performed independently 2 times by the student. The final time, the skill was checked-off by the provider indicating that the student was qualified in the skill. The student was not required to follow this 10-step sequence if the student was able to demonstrate proficiency sooner. In order to become proficient, this might mean the student would have had to spend more than the mandatory clinical hours and needed to come in on their day off to accomplish certain skills. This increased self-directed responsibility and learning in order to gain experience from each clinical opportunity. The University's

AGPCNP students had the flexibility to arrange their own PC clinical site. Ideally, the checklist was to be used as a guide when selecting their clinical site in order to meet their clinical competency needs. For example, if the student was unable to perform pelvic exams during their first PC clinical, they were expected to coordinate their next clinical site at a location where competency in this skill could be achieved. The student was instructed to show their preceptor the competency checklist in order to give the preceptor an opportunity to identify necessary skills and training.

Project Goals

Bandura (1977) suggested that the reason individuals perform unsuccessfully is because they lack the sense of self-efficacy to use the skills effectively, not because they lack skills and knowledge (Lauder et al., 2008). With the use of the checklist, the main goal of this pilot project was to improve student perception of preparedness. By using the checklist, the student had a structured list of goals they needed to achieve. They would be able to identify their individual strengths and weaknesses, thus, increasing perceived competency towards autonomous practice (Stanford, 2016). Although it was not the main question of the project, the students were surveyed to see if they had spent more than the mandatory clinical hours to accomplish skills, if the checklist was used as a guide when aligning their clinical site in order to meet their clinical competency needs, and if the checklist influenced the way preceptors guided learning opportunities. It was anticipated that students who used the clinical skills checklist would have improved perceptions of preparedness after completion of their AGPCNP classes.

Theoretical Framework

Theoretical frameworks are used to support a theory of a research study and to connect the researcher to existing knowledge (University of Southern California, 2017). This study's

conceptual framework was based off Patricia Benner's (1984) *From Novice to Expert* nursing model. Benner emphasizes excellence in clinical care is on a continuum from novice to expert. The sequence is novice → advanced beginner → competent → proficient → expert. The nurse goes through each phase while increasing understanding of patient care and a multitude of experiences (Current Nursing, 2011). "Each step builds on the previous one as abstract principles are refined and expanded by experience and the learner gains clinical expertise" (Current Nursing, 2011).

While the students in the pilot group were not required to become experts in all the skills according to the competency checklist, they did, however, follow the sequence outlined in Benner's (1984) model. Students started the series as novice but as they continued they became proficient in each of the skills. Benner's (1984) model, used as a framework for the clinical skills checklist, ensures graduate students' learning to follow the natural progression of developing knowledge (Waldner & Olson, 2007).

Sample and Setting

The pilot group includes all AGPCNP students who started PC in June 2017 and finished PC in May 2018. The convenience sample included eight students.

Approvals

The pilot study and research proposal were submitted to the Human Subjects Committee at the University for approval to move forward (Appendix C). Once there was approval, the plan of study was submitted to the Institutional Review Board (IRB). The first IRB submission was sent in April 2017. The pilot study was approved on May 31, 2017.

Project Procedure

The clinical skills checklists were distributed to all students in the pilot group June 2017 at the start of their PC 1 class. If they chose to participate, the students were informed that they were part of a research study and that it was for the project director's DNP project. At the beginning of each PC class, the project director met with the students to remind them the checklist can be used as a guide during clinicals, answered any checklist questions, and received feedback. The student was reminded that the checklist was not required and wouldn't count towards their grade.

Once there was approval from the IRB, a survey was created on REDCap (Appendix F). The survey included competency skills directly from the clinical skills checklist and asked the student to rate how prepared they felt in each skill. The pilot group received the survey after completion of PC 3 in May 2018. There was no incentive to complete the survey.

Data Security

The survey was anonymous. The surveys were completed on a secure program through the University called REDCap. Data analysis was also secure and only study members were allowed to view the data.

Data Collection Instrument: Study Survey and Checklist

By completing the 10-minute anonymous survey (Appendix F), the student consented to participate. The participant was informed that the information was protected on the secure REDCap server, and only reported in aggregate. There were no personal risks or benefits to the participants in this study. Participation was voluntary, and they could stop taking the survey at any time. Participation or declining had no impact on them academically. The survey instrument administered to participants included demographic questions including age and years practicing

as a registered nurse. The survey asked participants their overall preparedness to practice as a NP and if they devoted extra clinical hours to skills they didn't feel prepared in. Students were asked to rate their perceptions of preparedness to practice as an AGPCNP in each of the thirty skills listed. The list of skills was directly taken from the skills competency checklist administered to the pilot group. In order to make the survey time-friendly for the participant, the number of skills evaluated on the survey were drastically less than the number of skills on the checklist. For each skill on the survey, the participant selected whether they felt "very unprepared," "minimally prepared," "somewhat prepared," "generally well prepared," "very well prepared," or "area not in my training program." There was room at the end of the survey for the participants to provide their own feedback including "Areas where you feel particularly unprepared for practice as an NP," "Areas where you feel particularly prepared for practice as an NP," and "Additional comments." The survey asked, did the use of a clinical skills checklist influence clinical site selection and/ or the way their preceptors guided learning opportunities. After both questions, there was a comment box to explain if the checklist had minimal or no influence. To get a direct answer to the research question, the survey asked, "Do you think the use of a skills competency checklist has helped during your clinical courses to improve competency in the above skills?" Answer selections included "no" and "yes."

The clinical skills checklist (Appendix D) was collected at the end of PC 3. It was used as a collection instrument to identify the clinical skills most commonly seen in practice. The checklists were all returned at the same time and there was no information on the checklist that could identify the students individually. The student completed this subjective checklist and indicated how many times the skill was seen in clinic. For each clinical skill, the 10-step sequence was listed as "observation" (1-3 times), "frequency" (4-8 times), and "proficiency" (9-

10 times). The final time checked off by the provider stating the student was qualified in the skill. The student was not required to follow this 10-step sequence if the student was able to demonstrate proficiency sooner.

Data Analysis

The project director reviewed the surveys and interpreted the results. Descriptive statistics for each survey question/ competency skill and scores as a whole were reported (Appendix G). Results were not reviewed until all pilot group surveys were completed and the checklists were returned. The project director brought the results to the University's bio statistics program where they imported REDCap's raw data to create tables. SAS 9.4, Microsoft Excel, Microsoft Word and Google Sheets were used to show descriptive statistics. Due to the small sample size, there were limited options to present the results.

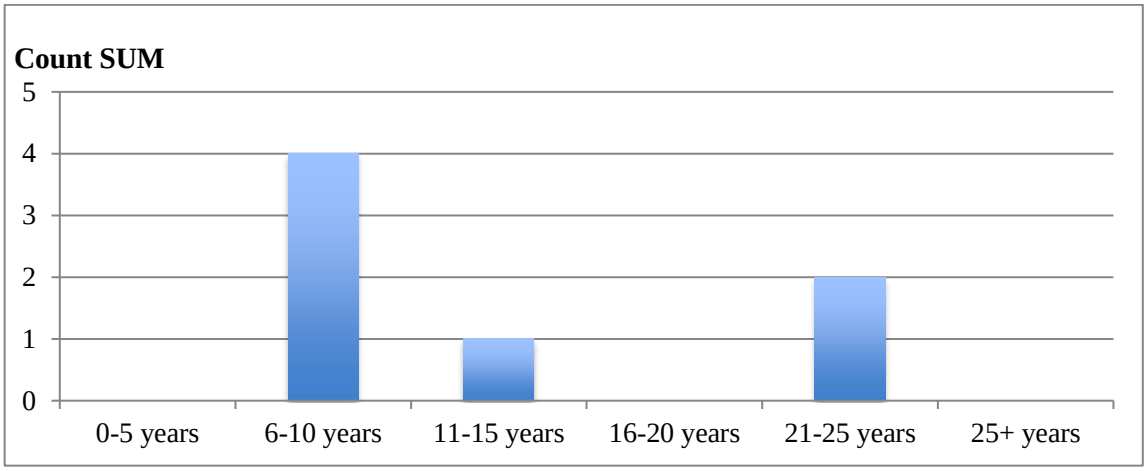
Data was collected and interpreted for the clinical skills checklist (Appendix I). On their checklist, students identified on the 10-step sequence the frequency a skill was seen in clinic (ex: 3 times/ 10). If the student marked the skill as proficient, they completed the skill and marked themselves as 10/10. Each student was given a number that directly reflected the frequency/ proficiency of the skill. The eight student's frequency for each skill was added up and averaged. The overall ranking of the skills is by the highest average to lowest average. After the lowest average, the skills that were not reported on the checklist are listed.

Results

Of the eight students who received the checklist and were able to participate in the survey, seven chose to take part in the optional survey (87.5%). It is unknown which student chose not to complete the survey and why. All eight pilot group students (7 female and 1 male) were present at the time the survey link was distributed. Two participants (28.57%) were 25-30

years old, three participants (42.86%) were 31-40 years old, and two participants (28.57%) were 41-50 years old. Over half of the participants (57.14%) practiced as a registered nurse for 6-10 years. One participant (14.29%) practiced for 11-15 years and two participants (28.57%) practiced for 21-25 years.

Table 1. How many years have you practiced as a registered nurse?



Preparedness for Practice in Skills

Participants felt "very well prepared" for "diabetic foot exam with filament and sensory testing" (n = 6, 85.71%), "adult head to toe physical exam" (n = 5, 71.43%), "complete SOAP note" (n = 5, 71.43%), and "displays sensitivity and responsiveness to be able to assess patient's culture, ethnic, spiritual, age, gender, religion and disabilities" (n = 5, 71.43%). Students felt "generally prepared" for "order and interpretation of diagnostic testing" (n = 6, 85.71%), "diagnose and manage acute and chronic conditions" (n = 6, 85.71%), and "evaluate and manage immunizations in the adult patient" (n = 6, 85.71%). They reported being "somewhat prepared" for "incision and drainage (irrigation with and without packing)" (n = 6, 85.71%), "spirometry and peak flow assessment" (n = 5, 71.43%), and "oral contraceptive pill start / management" (n = 4, 66.67%). Students described feeling "somewhat prepared" (n = 3, 42.86%) or "minimally prepared" (n = 3, 42.86%) for "suturing" with one (14.29%) student feeling "very

unprepared." Respondents felt "very unprepared" (n = 3, 42.86%) or "minimally prepared" (n = 2, 28.57%) for "steroid joint injection or trigger point injection" with one (14.29%) response "area not in my training program."

Table 2.

Upon completion of your Primary Care I, II, and III clinicals, how prepared do you feel in each of the following areas?																							
Clinical Skills	Perception of Preparedness																						
	Very unprepared		Minimally prepared		Somewhat prepared		Generally well prepared		Very well prepared		Area not in my training program		Responses	Missing Response
Adult Head to Toe Physical Exam	-	(0)	-	(0)	-	(0)	28.57%	(2)	71.43%	(5)	-	(0)	7	0
Applying USPSTF Recommendations in Practice	-	(0)	-	(0)	-	(0)	57.14%	(4)	42.86%	(3)	-	(0)	7	0
Complete SOAP Note	-	(0)	-	(0)	-	(0)	28.57%	(2)	71.43%	(5)	-	(0)	7	0
Order and Interpretation of Diagnostic Testing	-	(0)	-	(0)	-	(0)	85.71%	(6)	14.29%	(1)	-	(0)	7	0
Radiology Interpretation Pacs/ Film	-	(0)	14.29%	(1)	57.14%	(4)	14.29%	(1)	14.29%	(1)	-	(0)	7	0
Evaluate and Manage Immunizations in the Adult Patient	-	(0)	-	(0)	14.29%	(1)	85.71%	(6)	-	(0)	-	(0)	7	0
Discussion of Lifestyle Management	-	(0)	-	(0)	-	(0)	42.86%	(3)	57.14%	(4)	-	(0)	7	0
Advanced Directive / Living Will	-	(0)	-	(0)	14.29%	(1)	57.14%	(4)	28.57%	(2)	-	(0)	7	0
Provides Guidance, Teaching, Counseling and Specific Information About the Diagnosis Including Interventions	-	(0)	-	(0)	-	(0)	57.14%	(4)	42.86%	(3)	-	(0)	7	0
Ability to Organize Differential List to Arrive at Final Diagnosis	-	(0)	-	(0)	-	(0)	71.43%	(5)	28.57%	(2)	-	(0)	7	0
Facilitate Complex Coordination and Planning for Delivery of Care	-	(0)	-	(0)	14.29%	(1)	42.86%	(3)	42.86%	(3)	-	(0)	7	0
Diagnose and Manage Acute and Chronic Conditions	-	(0)	-	(0)	-	(0)	85.71%	(6)	14.29%	(1)	-	(0)	7	0
Prescribing and Managing Medications in the Older Adult with Regards to the BEERS list	-	(0)	-	(0)	14.29%	(1)	57.14%	(4)	28.57%	(2)	-	(0)	7	0
Full Cardiac Physical Exam: Carotid, Abdominal and Femoral Bruits	-	(0)	-	(0)	28.57%	(2)	28.57%	(2)	42.86%	(3)	-	(0)	7	0
Interpretation of 12 - Lead EKG	-	(0)	14.29%	(1)	57.14%	(4)	14.29%	(1)	14.29%	(1)	-	(0)	7	0
Spirometry and Peak Flow Assessment	-	(0)	14.29%	(1)	71.43%	(5)	14.29%	(1)	-	(0)	-	(0)	7	0
Perform a Pap Test	-	(0)	28.57%	(2)	28.57%	(2)	42.86%	(3)	-	(0)	-	(0)	7	0
Bimanual Exam with Uterine Position	-	(0)	28.57%	(2)	42.86%	(3)	28.57%	(2)	-	(0)	-	(0)	7	0
Prostate Exam	-	(0)	28.57%	(2)	28.57%	(2)	42.86%	(3)	-	(0)	-	(0)	7	0
Testicular Exam to Include Prehens, Hernia	-	(0)	28.57%	(2)	28.57%	(2)	42.86%	(3)	-	(0)	-	(0)	7	0
Oral Contraceptive Pill Start / Management	-	(0)	16.67%	(1)	66.67%	(4)	16.67%	(1)	-	(0)	-	(0)	6	1
Diabetic Foot Exam with Filament and Sensory Testing	-	(0)	14.29%	(1)	-	(0)	-	(0)	85.71%	(6)	-	(0)	7	0
Incision and Drainage (Irrigation with and without Packing)	-	(0)	-	(0)	85.71%	(6)	-	(0)	14.29%	(1)	-	(0)	7	0
Punch Biopsy	-	(0)	28.57%	(2)	57.14%	(4)	14.29%	(1)	-	(0)	-	(0)	7	0
Suturing	14.29%	(1)	42.86%	(3)	42.86%	(3)	-	(0)	-	(0)	-	(0)	7	0
Steroid Joint Injection or Trigger Point Injection	42.86%	(3)	28.57%	(2)	-	(0)	14.29%	(1)	-	(0)	14.29%	(1)	7	0
Diagnose and Manage Psychosocial Health	-	(0)	-	(0)	42.86%	(3)	42.86%	(3)	14.29%	(1)	-	(0)	7	0
Displays Sensitivity and Responsiveness to be able to Assess Patient's Culture, Ethnic, Spiritual, Age, Gender, Religion and Disabilities	-	(0)	-	(0)	-	(0)	28.57%	(2)	71.43%	(5)	-	(0)	7	0
Coding and Billing Documentation	-	(0)	-	(0)	14.29%	(1)	57.14%	(4)	28.57%	(2)	-	(0)	7	0
Practices Cost-Effective Healthcare and Resources Allocation That Doesn't Compromise Quality of Care	-	(0)	-	(0)	-	(0)	57.14%	(4)	42.86%	(3)	-	(0)	7	0
Total	**1.91%**	**(4)**	**9.57%**	**(20)**	**23.44%**	**(49)**	**38.76%**	**(81)**	**25.84%**	**(54)**	**0.48%**	**(1)**	**209**	**1**

Time Devoted to Skills

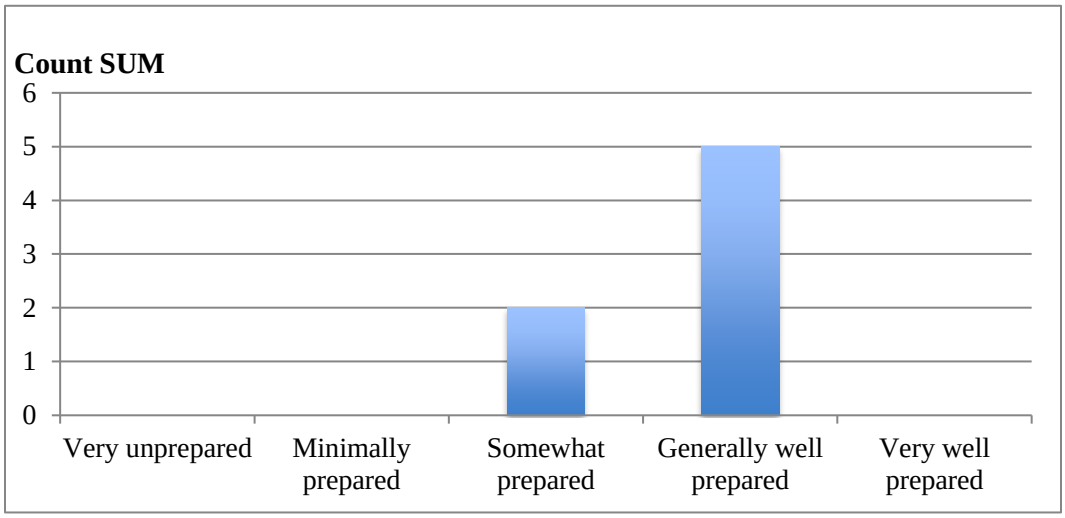
In response to the question, "Did you devote extra clinical hours to skills you didn't feel prepared in (i.e., did you come in on your day off or stay late to gain experience in a skill)?"

42.86 % (n = 3) of participants indicated they "arranged to come in a few extra days to see a complicated patient or a procedure" and 42.86% (n = 3) felt they "went to the clinic as much as possible to gain the best experience from the clinical site." One participant (14.29%) "Never devoted extra time to my clinical experience. Only came in on my originally scheduled clinical days."

Overall Preparedness for Practice

For the item "Upon completion of your Primary Care I, II, and III clinicals, how prepared do you feel to practice as an NP?" 28.57% (n = 2) of the respondents felt "somewhat prepared" and 71.43% (n = 5) felt "generally well prepared." When asked, "If very unprepared or minimally prepared, then what would have helped you?" One participant (14.29%) typed in the comments box, "Improved assistance with clinical placement and site selection."

Table 3. Upon completion of your Primary Care I, II, and III clinicals, how prepared do you feel to practice as an NP?"



Clinical Skills Checklist to Improve Competency

In response to the question, "Do you think the use of a skills competency checklist has helped during your clinical courses to improve competency in the above skills?" 100% (n = 7) responded with "yes."

Clinical Skills Checklist

When the checklists were distributed, the students were told that the completion of the checklist was optional, confidential, and wasn't counted towards their overall grade. The project director had not seen the clinical skills checklists since dispersing them. After the completion of PC 3, at the time of the REDCap survey, the students were asked to turn in their checklists. All eight students returned the checklist (100% return rate). There was nothing on the checklist that would allow the project director to identify which checklist belonged to which student. There were 135 skills on the checklist. If the student chose to utilize the optional checklist, the goal was that the student should become proficient in the skills listed at the end of the three PC clinical semesters. Each skill was to be demonstrated first three times by the provider, then performed five times under the auspiciousness of the provider, then independently 2 times. The student was not required to follow this 10-step sequence if the student was able to demonstrate proficiency sooner. The eight student's frequency for each skill was added up and averaged. The overall ranking of the skills is by the highest average to lowest average. There were 20 skills (14.81%) with an average proficiency of 7.0 or greater (Appendix I).

Most proficient. The skills that the students felt most proficient in were "discussion of lifestyle management," "provides guidance, teaching, counseling and specific information about the diagnosis including interventions," and "communicates detailed follow-up plan including relevant and cardinal symptoms for which they should seek treatment" with seven students (87.5%) checking off the skill and marking it as "Proficiency."

Least proficient. There were 37 skills (27.41%) that were observed between all eight students ten or less times (Appendix I). Skill observed three times: "IUD Placement," skills observed two times: "Finkelstein's test," skills observed once: "foreign body removal from

ear," "removes fecal impaction," "apply cast/ splint," and "nail trephination/ subungual hematoma."

Undocumented skills. There were 12 skills (8.89%) that were not documented on. These skills included "Amsler grid – for macular degeneration," "tympanometry," "foreign body removal from nose," "removal of cast / bivalve," "clavicular immobilization," "tick removal," "trichloroacetic acid / podophyllin destruction," "staple closure," "tissue avulsion repair," "self maintenance scale," "rapid estimate of adult literacy in medicine (REALM – SF)," and "sexual assault exam."

Additional skills. There was a blank space at the end of the checklist where students could document other skills that they had seen in clinic. One student (12.5%) added a skill. This skill was "gastrostomy tube removal" and the student indicated observing the skill three times.

Qualitative Data

Prior to starting PC 2 and PC 3, the pilot group was on campus. The project director went to campus and reminded the students about the checklist, the goals of the checklist, and asked for feedback. The following qualitative data was information communicated at that time and within the REDCap survey.

Preparation for skills. Students communicated that they needed more exposure and training in certain skills. They felt their education could be stronger in interpretation of a 12- lead EKG, radiology interpretation, and suturing. One participant stated, "EKGs and radiology films are things that are crucial for us to know, no matter what specialty we go into. We need more than a little unit on each one to feel competent" (Appendix H).

Clinical placement. The overwhelming agreement by all of the students was the level of difficulty in finding a preceptor/ clinical site. The students communicated this in the survey or at

the checklist discussion on campus. In the survey when students were asked if the skills competency checklist influenced site selection and what would have helped them feel more prepared, 71.42% (n = 5) expressed difficulties with finding a clinical rotation (Appendix G and Appendix H). Examples include the following: “Placement can be difficult, so you take what you can get.” “Just trying to find ANY place with a preceptor that would take me.”

Preceptors’ perceptions. While the preceptors themselves were not surveyed regarding their perceptions of the checklist, the students who used the checklists stated the preceptors enjoyed having them. The checklists were helpful when the preceptor asked the student, “What are you looking for in this clinical experience?” The pilot group said they showed their preceptor the checklist and were able to use it as a guide. An example communicated at the on campus discussion includes the following with more examples in Appendix H: “The doctors didn’t know what NP students needed to know and this was helpful to show them.”

Perceptions of checklist. The students communicated at the on campus days that the checklist was beneficial to have. When distributing the checklist in June 2017 to the AGPCNP students, students from the Family NP program asked the project director if they could have a copy of the checklist. Feedback includes: “The checklist has been very helpful to have. There is so much to learn as a nurse practitioner. It is nice to have a guide to know what I should be focusing on” (Appendix H).

Clinical skills checklist completion. After reviewing the checklists the students returned at the end of PC 3, the completion of the checklists varied drastically. One student documented on 2/135 clinical skills (1.48%). The most completed checklist documented on 112/135 clinical skills (82.96%). The average of the eight student’s documentation was 65.38/ 135 (48.43%). Qualitative data from the REDCap survey and in-class intensives can be found in Appendix H.

Pilot group's recommendations. Students would have liked to have a digital copy of the checklist provided to them earlier in their coursework so that they could become more familiar with the checklist's content. The students also felt there was a lot of content on the checklist and it could be shortened to the most pertinent skills seen in clinic. Direct suggestions from the participants can be found in Appendix H.

Discussion

The aim of the pilot project was to build a tool to improve perceptions of preparedness of the AGPCNP student. After the use of the checklist, in response to the question, "Do you think the use of a skills competency checklist has helped during your clinical courses to improve competency in the above skills?" All of the participants responded with "yes." For the item "Upon completion of your Primary Care I, II, and III clinicals, how prepared do you feel to practice as an NP?" respondents felt "Somewhat prepared" and "Generally well prepared."

Because this investigator instrument hadn't been tested, it was important to review the completed checklists to understand the clinical skills that were and weren't seen in practice. After reviewing the returned checklists, none of the skills were marked off "proficient" by all of the students. The students were repeatedly being exposed to a handful of skills. It is recommended to reduce the number of skills on the checklist. This allows the professors to utilize the class time efficiently and not teach skills that aren't routinely seen in practice. By making these changes, it creates an opportunity to spend more class time on EKG and radiology interpretation, two areas where students urged the need for more training. The physical size and accessibility of the checklist should also be changed to ensure the student is able to complete it. The size of the checklist should be reduced to fit into the pocket of a lab coat. The checklist

should be distributed early in the student's learning. This way the student can become more familiar with the skills on the checklist.

The qualitative research question, asking if students devoted extra clinical hours in order to accomplish the requisite skills, was difficult to measure. It is unknown if the students focused their learning on a competency-based model vs. time-based model. This is especially true because the clinical skills checklist was not a requirement for the student to complete. To best measure this, recommendations would be to make the survey question more direct.

The checklist was found to be beneficial to show to preceptors. Students recommended the checklist should be given to preceptors ahead of time so they were aware of the student's needs. One pilot student stated, "It was helpful to give to preceptors at the beginning of rotations when asked what I was looking for. This was especially true when I had a physician preceptor who didn't fully understand the training of the NP." An electronic form should be created and sent to the student and preceptor prior to the clinical rotation.

The number one concern that was communicated in this study was that the student had a difficult time finding a clinical location, let alone a good clinical setting that fosters learning. If there were multiple NP faculty run clinics, it would ensure that the student had a clinical site and the learning was congruent between all students. The faculty would have control over the learning at each site because they would be the ones facilitating it. The NP run clinic could welcome students from other healthcare professions including nutrition, occupational therapy, physical therapy and pharmacy. This multidisciplinary care would not only benefit the patients, but it would allow students to learn from each other's expertise to provide comprehensive healthcare.

The project team discussed having a control group but due to the small control group sample size, there would not have been strong power to test the difference between the control group and pilot (intervention) group. A larger study with a control group is recommended for future research.

Conclusion

Competency checklists provide a structured, congruent, standardized resource for students and faculty that help maintain a focused guideline in the necessary fundamental skills (Czabanowska et al., 2012; Hofer et al., 2011; Stanford, 2016). The checklists can also provide the structure needed to identify individual strengths and weaknesses and training needs (Czabanowska et al., 2012; Stanford, 2016).

While the pilot group felt the checklist helped to improve competency in selected skills, the checklist is in the beginning stages of development. With the use of the skills checklist, after completion of their three PC courses, the majority of participants felt “generally well prepared” to practice. Although these outcomes were positive, there are areas for improvement. Future recommendations may include refining the checklist, future research with a larger sample size, and clinical sites familiar with the use of skills competency checklists.

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Appendix A: Project Timeline

1. September – December 2016 – Checklist was created
2. January – March 2017 – Survey was Created
3. April 2017 – Information sent to IRB for survey and project approval
4. June 2017 – Checklist was distributed to intervention group to use during their primary care classes
5. June 2017 – Project defense proposal
6. August 2017 – Prior to intervention group's PC 2 class, checklist refresher and feedback was received
7. August 2017-April 2018 – Continued to work on DNP Project Paper
8. January 2018 – Prior to intervention group's PC 3 class, checklist refresher and feedback was received
9. May 3rd, 2018 – Surveyed intervention students who used the checklist
10. May 2018 – Interpret survey results and finish DNP Project Paper
11. May 2018 – Submit DNP Project Paper
12. July 2018 – Public Project Presentation

Appendix B, Project Budget:

There was not a budget for this project. The checklist was printed off at the University's library and given to the students. The survey link was given to the students and was available online through REDCap.

Appendix C: Human Subjects Committee Form

KU MEDICAL CENTER
The University of Kansas

KUMC HUMAN SUBJECTS COMMITTEE

REQUEST FOR QUALITY IMPROVEMENT/QUALITY ASSURANCE DETERMINATION

THIS FORM MUST BE TYPED

Principal Investigator: Kelly Bosak, PhD, APRN **DNP Graduate Student**: Allison Hayden	
Department: School of Nursing	
Email: ahayden@kumc.edu	**Phone**: 515-681-1331
Alternate Contact Person: Karen K. Trees, DNP, RNC, CNM, WHCNP-BC, FNP-BC	
Email: ktrees@kumc.edu	**Phone**: 913.588.1635

Project Title:

ADULT-GERONTOLOGY NURSE PRACTITIONER STUDENTS' PERCEPTIONS OF PREPAREDNESS FOR PRACTICE

Project Number, Version and/or Date:

May 1, 2016

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1. **Briefly state the purpose of the proposed project.**
   - The purpose of this project is to see if the use of a skills competency checklist, compared to no checklist, improves perceptions of preparedness in Adult Gerontology Primary Care Nurse Practitioner Students.

2. **Describe the research that has already demonstrated the effectiveness of your intervention.**
   - There is no research that has been done on perceptions of preparedness of Adult

Gerontology Primary Care Nurse Practitioner Students after the use of a skills competency checklist. However, the use of checklists has been proved to be beneficial in many studies. Hofer et al. (2011) examined whether the use of a checklist in a gross anatomy laboratory would improve learning outcomes of medical students. Despite the relatively small sample size of 48 students, Hofer et al. (2011) found the student's performance on both practical examinations and dissection quality were improved by the introduction and active use of checklists to the anatomy laboratory. The use of checklists made dissection in the lab more efficient, it assisted to identify pertinent structures, and a slight increase in teamwork between the first and second part of the semester. Overall, the students recommended the use of hard-copy checklists in future courses.

3. **For projects that involve a prospective intervention and post-intervention assessment, which is correct?**
   - ☐ All patients/ providers/ units receive the same intervention(s) at the same time
   - ☐ Patients are individually randomized to one of two or more interventions
   - ☐ Healthcare providers are randomized to one of two or more interventions
   - ☐ Units of the hospital are randomized to one of two or more interventions
   - ☒ Not applicable

4. **What types of data are needed for the project?**
   - The data collected includes the subjective statements from the participants in study using the checklist compared to the participant's perceptions of preparedness who didn't use the checklist.

5. **Do you need access to identifiable patient records to complete the project?**
   - ☒ NO
   - ☐ YES

   If yes, who holds the records? N/A
   If yes, which patient identifiers or demographics are needed for the project? N/A

6. Which description best fits your project? *Check all that apply*
   - ☐ Determine if a previously-implemented clinical practice improved the quality of patient care
   - ☐ Evaluate the local implementation of widely-accepted clinical standards that have been proven effective at other locations
   - ☐ Gather data on hospital or provider performance for clinical, practical or administrative uses
   - ☐ Implement a novel approach to clinical care that may hold compromise for improving patient outcomes (*if choosing this option, contact the HSC Office for guidance*)
   - ☒ Other
     - Implement programs to enhance professional development for providers and trainees

- Develop interventions or educational strategies that improve the utilization of recognized best practices

7. Which institutions are involved in the project?

☒ KUMC only

☐ Other institutions

_____ _____

Signature **Date**

_____

Type/ Print Name

*Any presentation or publication resulting from this project should explicitly state that it was undertaken as quality improvement

Appendix D: Clinical Skills Checklist

The Clinical Competency Checklist was created for the Adult-Gerontology Primary Care Nurse Practitioner (AGPCNP) student to complete during their Primary Care I, II, and III course. Each competency skill provided has a corresponding American Association of Colleges of Nursing (AACN) Doctor of Nursing Practice (DNP) Essentials (2006) paired with an AACN and National Organization of Nurse Practitioner Faculties (NONPF) AGPCNP Core Competency (2016).

The student is encouraged to show their preceptor this form and give the preceptor an opportunity to identify where they need to be working with the student. On top of the minimum required primary care clinical hours the student must achieve throughout their practicums, the student must become proficient in the skills listed below at the end of the three primary care clinical semesters. The skill must be demonstrated by the provider three times, then performed five times under the auspiciousness of the provider, and then independently two times. The final time checked off, initialed and dated by the provider. If the student shows proficiency prior to the 10-step sequence, the provider can sign them off on the skill. There is a blank table at the end of the checklist where the student can insert additional skills they feel are pertinent to their education.

Although there is a clinical hour requirement each semester, the student will need to go above to achieve the skills. This might mean the student will spend more than the required clinical hours and will need to come in on their day off to accomplish certain skills. The student should use the checklist as a guide when picking their next clinical to meet their educational needs.

Clinical Checklist for the Adult-Gerontology Primary Care Nurse Practitioner Student

**Skill must be demonstrated first by the provider than performed three times under the auspiciousness of the provider then Independently five times. The final time checked off by the provider. If the student shows proficiency prior to the 10-step sequence, The provider can sign them off on the skill.

General Skills	Competency	Observation			Frequency					Proficiency		Initials & Date
		1	2	3	4	5	6	7	8	9	10	
Complete History	VIII.A.i.a											
Focused Visit History	VIII.A.i.a											
Adult Head to Toe Physical Exam	VIII.A.i.a											
Pregnant Female Head to Toe Physical Exam	VIII.A.i.a											
Neuro Physical Exam	VIII.A.i.a											
Sports / School Physical Exam	VIII.A.i.a											
Applying USPSTF recommendations in practice	VII.C.i.a VII.C.i.b VII.C.ii.a VIII.A.i.b											
Complete SOAP Note	VIII.A											
Order and Interpretation of Diagnostic Testing	VIII.A.vii.b											

Orders and manages Pharmacologic and Non-pharmacologic Therapy	VIII.A.i.h VIII.A.i.j VIII.A.i.k VIII.A.v.a VIII.A.v.b											
Microscopy Wet Mount / Urine Spin	VIII.A.vii.b											
Interpret Written Reports	VIII.A.vii.b											
Radiology Interpretation Pacs/ Film	VIII.A.vii.b											
Evaluate and Manage Immunizations in the Adult Patient	VII.C.i.c											
Discussion of Lifestyle Management	VII.C.ii.a											
Weight-loss Management	VII.C.ii.a											
Smoking Cessation	VII.C.ii.a											
Informed Consent	I.B.i.a											
Advanced Directive / Living Will	I.B.i.a VI.B.i.a VIII.A.x.a											
Hospice Consultation	I.B.i.a VI.B.i.a											

	VIII.A.x.a											
Assess Patients with Disabilities	VI. B ii-iii											
Provides guidance, teaching, counseling and specific information about the diagnosis including interventions	I.B.i.b VIII.A.viii.a VIII.A.ix.a VIII.A.ix.b VIII.A.v.a VIII.A.v.b											
Communicates detailed follow-up plan including relevant and cardinal symptoms for which they should seek treatment	VII.C.ii.a VIII.A.vii.a											
Ability to organize differential list to arrive at final diagnosis	VIII.A.i.l											
Motivational Interviewing	VII.C.ii.a VIII.A.i.g											
Collaboration/ Consultation and Referral	VI.B.ii.a VI.B.iii.a VI.B.iv.a VII.B.i.a VII.B.i.b VII.B.i.c VII.B.i.d VII.B.iii.d											

Improves Patient Outcomes	III.A.ii.a IV.A.ii.a IV.A.ii.b											
Facilitate complex coordination and planning for delivery of care	II.A.ii.a VI.A.i VI.B.ii.a VI.B.iii.a VI.B.iii.c VI.B.iii.d VII.B.ii.a VII.B.iii.e VIII.A.v.a VIII.A.v.b											
Diagnose and manage acute and chronic conditions	VI.B.iii.a VIII.A.i.l VIII.A.i.m VIII.A.i.n VIII.A.i.o VIII.A.v.a VIII.A.v.b											
Prescribing and managing medications in the older adult with regards to the BEERS list	VIII.A.i.h VIII.A.i.i VIII.A.i.j VIII.A.i.k											

Clinical Checklist for the Adult-Gerontology Primary Care Nurse Practitioner Student

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HEENT Skills	Competency	Observation			Frequency					Proficiency		Initials & Date
		1	2	3	4	5	6	7	8	9	10	
Vision Screen (Snellen Eye Exam)	VIII.A.vii.a											
Color Blind Testing	VIII.A.vii.a											
Amsler Grid – For Macular Degeneration	VIII.A.vii.a											
Foreign Body Removal from Ear	VIII.A.vii.a											
Cerumenectomy with Loop Curettage	VIII.A.vii.a											
Ear Wash	VIII.A.vii.a											
Tympanometry	VIII.A.vii.a											
Foreign Body Removal from Nose	VIII.A.vii.a											
Management of Epistaxis	VIII.A.vii.a											

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Chest Skills	Competency	Observation			Frequency					Proficiency		Initials & Date
		1	2	3	4	5	6	7	8	9	10	
Full Cardiac Physical Exam Carotid, abdominal and femoral bruits	VIII.A.i.a											
Interpretation of 12 – Lead EKG	VIII.A.vii.b											
Management of HTN	V III. B											
Breast Exam	VIII.A.vii.a											
Spirometry and Peak Flow Assessment	VIII.A.vii.a											
Nebulizer Treatment	VIII.A.vii.a											

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Abdominal/ GI Skills	Competency	Observation			Frequency					Proficiency		Initials & Date
		1	2	3	4	5	6	7	8	9	10	
Management of DM	VIII B											
Digital Rectal Exam	VIII.A.vii.a											
Removes Fecal Impaction	VIII.A.vii.a											
Hemoccult Testing	VIII.A.vii.a											
Incision and Drainage of Hemorrhoid	VIII.A.vii.a											

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Pelvic/ GU Skills	Competency	Observation			Frequency					Proficiency		Initials & Date
		1	2	3	4	5	6	7	8	9	10	
Pelvic Exam	VIII.A.vii.a											
Perform a Pap Test	VIII.A.vii.a											
Bimanual Exam with Uterine Position	VIII.A.vii.a											
Prostate Exam	VIII.A.vii.a											
Testicular Exam to include Prehens, hernia	VIII.A.vii.a											
Management of Dysfunctional Bleeding	V III B											
OCP Start / Management	V III B											
IUD Placement	VIII.A.vii.a											
IUD Removal	VIII.A.vii.a											
Auscultate Fetal Heart Sounds	VIII.A.vii.a											

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Extremity Skills	Competency	Observation			Frequency					Proficiency		Initials & Date
		1	2	3	4	5	6	7	8	9	10	
Diabetic Foot Exam with filament and sensory testing	V III B											
Ottawa Test	VIII.A.vii.a											
Apply Cast/ Splint	VIII.A.vii.a											
Removal of Cast / Bivalve	VIII.A.vii.a											
Dislocation/ Simple Fracture Management	VIII.A.vii.a											
Clavicular Immobilization	VIII.A.vii.a											
Apprehension Sign – for Patellar Instability	VIII.A.vii.a											
Bulge Sign – to Test for Effusion	VIII.A.vii.a											

McMurray Test – for Meniscal Tear	VIII.A.vii.a											
Anterior Drawer/ Posterior Drawer	VIII.A.vii.a											
Valgus/ Vargus	VIII.A.vii.a											
Apley *Grind Test*	VIII.A.vii.a											
Finkelstein's Test	VIII.A.vii.a											
Allen's Test	VIII.A.vii.a											
Tinel's Sign	VIII.A.vii.a											
Phalen's Sign Test	VIII.A.vii.a											
Assess Medial and Lateral Epicondylitis	VIII.A.vii.a											
SITS Test	VIII.A.vii.a											
Get Up and Go Test in the Older Adult	VIII.A.vii.a											

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Dermatology Skills	Competency	Observation			Frequency					Proficiency		Initials & Date
		1	2	3	4	5	6	7	8	9	10	
Incision and Drainage (Irrigation with and without packing)	VIII.A.vii.a											
Punch Biopsy	VIII.A.vii.a											
Shave Biopsy	VIII.A.vii.a											
Suturing	VIII.A.vii.a											
Suture Removal	VIII.A.vii.a											
Tick Removal	VIII.A.vii.a											
Trichloroacetic Acid / Podophyllin Destruction	VIII.A.vii.a											
Cryotherapy	VIII.A.vii.a											
Nail Trephination/ Subungual Hematoma	VIII.A.vii.a											

Incision and Drainage Paronychia	VIII.A.vii.a											
Nail Removal (Partial or Complete, ingrown)	VIII.A.vii.a											
Adhesive Glue / Tape Closure	VIII.A.vii.a											
Staple Closure	VIII.A.vii.a											
Steroid Joint Injection or Trigger Point Injection	VIII.A.vii.a											
Inject Local Anesthetic	VIII.A.vii.a											
Tissue Avulsion Repair	VIII.A.vii.a											
Removal of Acrochordon (Skin Tag), Plantar Lesion, and Foot Callus	VIII.A.vii.a											
Foreign Body Removal Skin (Splinter, glass, etc.)	VIII.A.vii.a											
Debrides Minor Burns	VIII.A.vii.a											
Generalized Wound Care _____	VIII.A.vii.a											

Clinical Checklist for the Adult-Gerontology Primary Care Nurse Practitioner Student

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Psychology Skills	Competency	Observation			Frequency					Proficiency		Initials & Date
		1	2	3	4	5	6	7	8	9	10	
Diagnose and manage psychosocial health	VIII.A.i.n VIII.A.iii.a VIII.A.iv.a VIII.A.iv.b											
PHQ – 9 for Depression	VIII.A.i.p											
Geriatric Depression Scale	VIII.A.i.p											
ADD / ADHD	VII.C.ii.a											
MMSE	VIII.A.i.p											
Mini – Cog	VIII.A.i.p											
Montreal Cognitive Assessment (MoCA)	VIII.A.i.p											
Saint Louis University Mental Status (SLUMS) Exam	VIII.A.i.p											

Instrumental Activities of Daily Living Scale (IADLS)	VIII.A.i.p											
Self Maintenance Scale	VIII.A.i.p											
Rapid Estimate of Adult Literacy in Medicine (REALM – SF)	VIII.A.i.p											
Annual Medicare Update Form	VII.C.ii.a											
Perceived Stress Scale	VII.C.ii.a											
Sexual Assault Exam	VII.C.ii.a											
Assess Violence, Abuse and Neglect and Danger to Others (Duty to Warn)	VII.C.ii.a											
Suicide Risk	VII.C.ii.a											
Opioid Risk Tool: Substance use / alcohol/ illicit and C2	VII.C.ii.a											
Geriatric Michigan Alcohol Screening Test (GMAST)	VIII.A.i.p											

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Professional Role Development	Competency	Observation			Frequency					Proficiency		Initials & Date
		1	2	3	4	5	6	7	8	9	10	
Professional Dress	II A											
Interpersonal and Professional Communication Skills	VIII.A.x.a											
Patient Care Professionalism	II A											
Effective and Appropriate Application of Medical Knowledge	III.A.i.a III.A.iii.a											
Commitment to Personal Excellence and Ongoing Professional Development	II.A.iii.a II.A.iii.b II.A.iii.c											
Displays Sensitivity and Responsiveness to be able to assess Patient's Culture, Ethnic, Spiritual, Age, Gender, Religion and Disabilities	III.A.iv.a IV.A.ii.c IV.A.iii.a VIII.A.ix.a VIII.A.ix.b VIII.A.x.a											

Care For Non-English Speaking Individuals/ How to work with interpreter / CLAS standards	VIII.A.ix.a											
Uses Effective Listening, Nonverbal, Explanatory Writing Skills to Elicit and Provide Information	VIII.A.i.g											
Communicates Effectively with Peers, Office Staff and Other Professionals	VI.B.iii.b											
Understands Regulatory Policies and Guidelines Governing APRN Practice and health care laws/ regulations	II.A.i.a V.A.i V.A.ii.a – h V.A.iii.a VIII.A.ii.a VIII.A.ii.b VIII.A.ii.c											
Ethical and Legal Responsibilities	I.B.i.c IV.A.iv.a VIII.A.x.a											
Coding and Billing Documentation	VIII.A.ii.a											

Practice Based and Improvement System Based Practice	II.B.iii.a II.B.iii.b VII.A.i											
Uses Information Technology Resources to Support Patient Care Decisions and Delivery	I.A.i.a III.B.i.a IV.A.i.a											
Practices Cost-Effective Healthcare and Resources Allocation That Doesn't Compromise Quality of Care	II.B.i.a VII.B.ii.a VIII.A.v.a VIII.A.v.b											
Awareness of Quality improvement measures and application to clinical practice	II.B.ii.a											
Advocacy for patient preference	I.B.i.d VIII.A.v.a VIII.A.v.b											
Evaluates support systems for patient and family and utilizes resources	II.B.i.a VII.B.i.a VII.B.i.b VII.B.i.d VIII.A.vi.a VIII.A.ix.a VIII.A.ix.b											

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Additional Skills	Competency	Observation			Frequency					Proficiency		Initials & Date
		1	2	3	4	5	6	7	8	9	10	

Preceptor Signature Page

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Appendix E:
AACN DNP Essentials (2006) paired with AACN/ NONPF AGPCNP Competencies (2016)

DNP Essential **I. Scientific Underpinnings for Practice**			
AACN/ NONPF NP Competency Area	**AACN/ NONPF AGPCNP Competencies**	**AACN/ NONPF Curriculum Content to Support AGPCNP Competencies**	**Skill on Clinical Checklist**
A. Scientific Foundations	i. Contributes to knowledge development and improved care of the adult-gerontology population	a. Reputable sources of national data on aging such as: • Healthy Aging Data Portfolio • CDC • The National Archive of Computerized Data on Aging • National Health and Aging Trends Study	Uses technology resources to support patient care decisions and delivery
	ii. Uses scientific knowledge and theoretical foundations to differentiate between normal and abnormal changes in physiological, psychological, and sociological development and aging	a. Theories/conceptual frameworks/principles of physiological, psychological and sociological developmental and biological theories of aging such as: • Life-course theories • Disengagement theory • Activity theory • Continuity theory programmed or damaged or error theories of aging	Primary Care Didactic Course
		b. Scientific foundations to practice, including, but not limited to normal physiological changes of aging and age-related pathophysiology and pharmacology	Primary Care Didactic Course
		c. Life stage transitions • Developmental stages of life from adolescents to frail older adult ages • Ageism in families • Dependence vs autonomy and acceptance of risk	Primary Care Didactic Course

		• Family dynamics related to illness	
		d. Application of principles of safety related to health care processes with particular attention to the older adult	Primary Care Didactic Course
		e. Methods for appraisal of research studies relevant to adolescent, adult, and older adult clinical practice	Primary Care Didactic Course
B. Ethics	i. Advocates for the patient's and family's rights regarding health care decision-making taking into account ethical and legal standards.	a. Ethical concepts and legal standards including, but not limited to: • Emancipation • Conservatorship • Guardianship • Durable power of attorney • Health care proxy • Advance directives and informed consent • End-of-life care • Organ/tissue donation in a manner that ensures informed decisions	Informed consent Advanced directive/ living will Hospice consultation
		b. Impact of genomics, genetics, and transmission of disease on care delivery and counseling	Provides guidance, teaching, counseling and specific information about the diagnosis including interventions
		c. Common ethical issues and ethical dilemmas in the adult-gerontology patient and/or family in providing safe, quality care, such as: • Right to self-determination • Utility • Beneficence • Capacity to manage self-care	Ethical and legal responsibilities
		d. Advocacy for individual and patient choices and	Advocacy for patient

		preferences, particularly for the adolescents and older adults, such as: • Direct communications with the patient • Age-related rights regarding health care decisions • Role of ombudsman	preference

DNP Essential **II. Organizational and Systems Leadership for Quality Improvement and Systems Thinking**			
AACN/ NONPF NP Competency Area	**AACN/ NONPF AGPCNP Competencies**	**AACN/ NONPF Curriculum Content to Support AGPCNP Competencies**	**Skill on Clinical Checklist**
A. Leadership	i. Describes the current and evolving adult-gerontology primary care NP role to other health care providers and the public	a. Community and professional organizations involvement to • Promote access to care for the population(s) served • Advocate on behalf of the adult-gerontology population • Promote adult-gerontology NP and advanced practice nursing roles	Understands regulatory policies and guidelines governing APRN practice and healthcare laws/ regulations
	ii. Provides leadership to facilitate the complex coordination and planning required for the delivery of care to young adults (including late adolescents), adults, and older adults.	a. Content related to: • Planning, delivery, and evaluation of care by the health care team • Teaching and coaching to improve the plan of care and health care outcomes • Promoting improved health care outcomes for young adult (including late adolescents), adult, older adults in practice, policy, and other venues	Facilitate complex coordination and planning for delivery of care
	iii. Demonstrates leadership in the practice and policy arenas to achieve optimal care outcomes for the adult-gerontology population	a. Knowledge of adult-gerontology and adolescent health care team building strategies	Commitment to personal excellence and ongoing professional development
		b. Coalition building for advocacy and improvement of care for the adult-gerontology population	
		c. Leadership role in recognizing and planning for aging population health needs	
B. Quality	i. Promotes safety and risk reduction for the adult-	a. Effectiveness of processes and interventions to ensure safety and prevent errors such as:	Practices cost-effective healthcare and

	gerontology population	• Devices to promote mobility and prevent falls • Cognitive and sensory enhancements • Restraint-free care • Urinary catheters • Medication reconciliation • Adaptive equipment	resources allocation that doesn't compromise quality of care Evaluates support systems for patient and family and utilizes resources
	ii. Evaluates the quality of care delivery models and their impact on adult population outcomes across the age and care continuum.	a. Effectiveness of care delivery models across different settings to include: • Accountable care organizations • Care transitions • Disease management • Patient-centered medical home • Medication management	Awareness of quality improvement measures and application to clinical practice
	iii. Demonstrates continuous quality improvement of one's own practice.	a. Evidence- based practice principles for each stage of aging from adolescence to frail older adult	Practice based and improvement system based practice
		b. Use of nationally accepted quality measures and benchmarks for primary care environments	

DNP Essential **III. Clinical Scholarship and Analytical Methods for Evidence Based Practice**			
AACN/ NONPF NP Competency Area	**AACN/ NONPF AGPCNP Competencies**	**AACN/ NONPF Curriculum Content to Support AGPCNP Competencies**	**Skill on Clinical Checklist**
A. Practice Inquiry	i. Provides leadership in the translation of new knowledge into practice	a. National clinical practice guidelines to evaluate clinical practice outcomes for the adult-gerontology population in primary care.	Effective and appropriate application of medical knowledge
	ii. Generates knowledge from clinical practice to improve practice and patient outcomes	a. Methods of evaluating clinical data related to individual and population such as • Decline in physical or mental function • Impaired quality of life • Social isolation • Excess disability	Improves patient outcomes
	iii. Applies clinical investigative skills to improve health outcomes.	a. Identification of emerging areas for clinical research based on new, evolving AG PCNP practice	Effective and appropriate application of medical knowledge
	iv. Disseminates evidence from inquiry to diverse audiences using multiple modalities	a. Information databases specific to the adult-gerontology population	Displays sensitivity and responsiveness to patient's culture, ethnic, spiritual, age, gender, religion and disabilities
B. Independent Practice	i. Manages geriatric syndromes and changing conditions using evidence-based guidelines.	a. Involvement with interdisciplinary adult and geriatric professional associations	Uses information technology resources to support patient care decisions and delivery

DNP Essential **IV. Information Systems/Technology and Patient Care Technology for the Improvement and Transformation of Health Care**			
AACN/ NONPF NP Competency Area	**AACN/ NONPF AGPCNP Competencies**	**AACN/ NONPF Curriculum Content to Support AGPCNP Competencies**	**Skill on Clinical Checklist**
A. Technology & Information Literacy	i. Integrates appropriate technologies into health care delivery for adult-gerontology populations in remote and face-to-face encounters	a. Emerging technologies for application in the care of the adult-gerontology population	Uses information technology resources to support patient care decisions and delivery
	ii. Uses devices and technology to improve outcomes for adult-gerontology patients, including the cognitively impaired, sensory impaired, and those with disabilities.	a. Various technological devices used to reduce the impact of clinical problems and improve quality of life, such as pacemakers, and implantable defibrillators	Improves patient outcomes
		b. Utilization of appropriate technologies to provide care for and improve health care outcomes and quality of life for cognitively impaired, sensory impaired, non-self-disclosing patients, and patients with disabilities	Improves patient outcomes
		c. Electronic resources for evaluating reading and literacy levels of materials for use with adult-gerontology patients	Displays sensitivity and responsiveness to patient's culture, ethnic, spiritual, age, gender, religion and disabilities
	iii. Uses appropriate electronic communication methods with health care professionals, patients, family members, and	a. Use of electronic communication methods, including social media, with health care professionals, patients, families, and caregivers, considering security, appropriateness, age, impairments, literacy, and other individual/setting factors	Displays sensitivity and responsiveness to patient's culture, ethnic, spiritual, age, gender, religion and

	caregivers.		disabilities
	iv. Applies ethical and legal standards regarding the use of technology in health care for the adult-gerontology population	a. Ethical and legal standards regarding use of technology in health care, including: • Policies to protect adult-gerontology patients' privacy and confidentiality communication policies, HIPAA • Electronic security access protocols and information transfer policies • Entering information in electronic health record and student logs	Ethical and legal responsibilities
	v. Analyzes the adequacy of data capture methods in clinical information systems to promote effective care for the adult-gerontology population.	a. Analysis of data capture methods, including age appropriate clinical and social indicators	Primary Care Didactic Course
		b. Methods of evaluating clinical data from the health care and home settings, including barriers to electronic communications commonly used in health care and home care settings	Primary Care Didactic Course

DNP Essential **V. Health Care Policy for Advocacy in Health Care**			
AACN/ NONPF NP Competency Area	**AACN/ NONPF AGPCNP Competencies**	**AACN/ NONPF Curriculum Content to Support AGPCNP Competencies**	**Skill on Clinical Checklist**
A. Policy	i. Advocates for implementation of the full scope of the AGPCNP role.		Understands regulatory policies and guidelines governing APRN practice and healthcare laws/ regulations
	ii. Analyzes policy relative to optimal care outcomes for the adult-gerontology population.	a. Leadership skill development to promote and advocate for policies that improve the health of the adolescent, the adult and the older adult and advanced practice nursing across the spectrum of adult-gerontology population	Understands regulatory policies and guidelines governing APRN practice and healthcare laws/ regulations
		b. Laws, regulations, and policy specific to adult-gerontology population practice, such as: • Medicare, Medicaid, and dual eligibility • Managed care plans • Reimbursement variation for skilled, long-term care, ambulatory care, and other settings including house calls and hospice • End-of-life regulations and laws • Physician-fee schedule	
		c. Development, use and evaluation of professional standards for care (institutional, national, professional)	
		d. Institutional and local policies and laws for safe and healthy practice environments	
		e. Policy design, implementation strategies, and evaluation that supports quality outcomes for adult-gerontology	Understands regulatory policies and guidelines

		population, including safe environments, and environments that accommodate the needs of persons with disabilities	governing APRN practice and healthcare laws/ regulations
		f. Importance of and strategies for engagement in professional organizations and consumer groups that advocate for changes in health policy to improve care of adolescents, adults, and older adults	
		g. Examination of health care policies and the impact on the adult-gerontology population including access to, cost, quality, and outcomes of care	
		h. Strategies used with diverse audiences to exemplify need and advocate for policy change for the adult and older adult population, including use of data and human stories op-ed pieces, newsletters, news releases, interviews, elevator speeches, fact sheets	
	iii. Develops strategies to reduce the impact of ageism, racism/ethnocentrism and sexism on health care policies and systems	a. Strategies for participation in the development and implementation of institutional, local, state and federal policy that reduces biases against: • Ageism • Gender • Race • Developmental status • Health status • Sexual orientation and identification	Understands regulatory policies and guidelines governing APRN practice and healthcare laws/ regulations

DNP Essential **VI. Interprofessional Collaboration for Improving Patient Population Health Outcomes**			
AACN/ NONPF NP Competency Area	**AACN/ NONPF AGPCNP Competencies**	**AACN/ NONPF Curriculum Content to Support AGPCNP Competencies**	**Skill on Clinical Checklist**
A. Practice Inquiry	i. Leads practice inquiry, individually or in partnership with others.		Facilitate complex coordination and planning for delivery of care
B. Independent Practice	i. Collaborates with the patient, family and others to provide palliative and end- of -life care	a. Differences between palliative and hospice care	Advanced directive/ Living will Hospice consultation
	ii. Develops a plan for long-term management of chronic health care problems with the individual, family, and health care team	a. Knowledge of physical therapy, occupational therapy, speech therapy, home health, hospice, and nutritional therapy options, and when to refer	Collaboration/ Consultation and referral Facilitate complex coordination and planning for delivery of care
	iii. Collaborates, as appropriate, with others to diagnose and manage acute complications of chronic and/or multi-system health problems.	a. Interaction of acute and chronic physical and mental health problems and when to hand -off to acute care colleagues	Collaboration/ Consultation and referral Facilitate complex coordination and planning for delivery of care Diagnose and manage

			acute and chronic conditions Diagnose and manage psychosocial health
		b. "Transition of care theory" hand- off and reporting communication and necessary forms, e.g., advance directives, and medication reconciliation	Communicates effectively with peers, office staff and other professionals
		c. Clarifying the role of the AG PCNP in relation to the health care team.	Facilitate complex coordination and planning for delivery of care
		d. Analysis of the practice laws for NPs and other health care professionals in various settings such as: • Skilled nursing facilities • Assisted living facilities • Rehabilitation facilities • Hospice • Telehealth-like systems	Facilitate complex coordination and planning for delivery of care
	iv. Provides consultation to health professionals and others regarding care of adolescents, adults, and older adults.	a. Prescription and monitoring of a variety of allied health therapies, including, but not limited to: • Physical therapy • Occupational therapy • Speech therapy • Home health care • Palliative care • Nutritional therapy	Collaboration/ Consultation and referral

DNP Essential **VII. Clinical Prevention and Population Health for Improving the Nation's Health**			
AACN/ NONPF NP Competency Area	**AACN/ NONPF AGPCNP Competencies**	**AACN/ NONPF Curriculum Content to Support AGPCNP Competencies**	**Skill on Clinical Checklist**
A. Practice Inquiry	i. Analyzes clinical guidelines for individualized application into practice		Practice based and improvement system based practice
B. Health Delivery System	i. Manages safe transitions across settings and levels of care	a. Individual's acuity, stability, personal resources, and need for assistance	Collaboration/ consultation and referral Evaluates support systems for patient and family and utilizes resources
		b. Resources eligible for and services provided by type and level of care across health care settings	Collaboration/ consultation and referral Evaluates support systems for patient and family and utilizes resources
		c. Principles and practices in effective, safe transitions of care with special focus on rehabilitation, skilled nursing facility, assisted living, and other care settings	Collaboration/ consultation and referral

		d. Needs of individuals, their families, and caregivers to navigate transitions and negotiate care across health care delivery system(s)	Collaboration/ consultation and referral Evaluates support systems for patient and family and utilizes resources
	ii. Applies knowledge of regulatory processes and payer systems to the planning and delivery of health care services for adults across the age and level of care spectrums	a. Specific needs of adult patients, particularly the adolescent and the frail older adult; how their needs are affected by the organization, system, and payment policies	Facilitate complex coordination and planning for delivery of care Practices cost-effective healthcare and resources allocation that doesn't compromise quality of care
	iii. Facilitates the development of health promotion programs within a health system or community	a. Differences in health systems particularly how they impact adult patients, those at risk, and individuals with mental/physical disabilities	Primary Care Didactic Course
		b. Strategies for system change based upon evidence arising from health delivery systems, which provide care for the adult-gerontology patients	Primary Care Didactic Course
		c. Barriers to access to care for adult and older adult patients within health delivery systems	Primary Care Didactic Course
		d. Strategies for interprofessional consultation and collaboration across and within systems to optimize care for adult and older adult patients	Collaboration/ consultation and referral
		e. Use of feedback from a variety of sources, e.g., patients,	Facilitate complex

		families, providers and staff, to revise systems, delivery models, and care practices	coordination and planning for delivery of care
C. Independent Practice	i. Provides age appropriate wellness promotion and disease prevention services weighing the costs, risks, and benefits to individuals.	a. Age-appropriate health screening and health promotion programs	Applying USPSTF recommendations in practice
		b. Recognition of variations among health screening guidelines	Applying USPSTF recommendations in practice
		c. Health maintenance and disease prevention interventions that are age, gender, and health status appropriate	Evaluate and manage immunizations in the adult patient
	ii. Uses interventions to prevent or reduce risk factors for diverse and vulnerable adult populations, particularly adolescents and frail older adults.	a. Diagnostic screening tools and prevention teaching, such as: • Smoking cessation • Substance use abuse and screening tools • Dental care for older adults • TB and HIV screening for older adults	Applying USPSTF recommendations in practice Discussion of lifestyle management Weight-loss management Smoking cessation Motivational interviewing Communicates detailed follow-up plan including relevant and cardinal symptoms for which they should seek

			treatment ADD / ADHD Annual Medicare Update Form Perceived Stress Scale Sexual Assault Exam Assess Violence, Abuse and Neglect and Danger to Others (Duty to Warn) Suicide Risk Opioid Risk Tool: Substance use / alcohol/ illicit and C2
		b. The impact of family, community, and environment, including economic, work, institutional, school, and living environments on an individual's health status	Primary Care Didactic Course

DNP Essential **VIII. Advanced Nursing Practice**			
AACN/ NONPF NP Competency Area	**AACN/ NONPF AGPCNP Competencies**	**AACN/ NONPF Curriculum Content to Support AGPCNP Competencies**	**Skill on Clinical Checklist**
A. Independent Practice	i. Independently manages common complex, acute and chronically ill patients across the spectrum of adolescence to the older adult, including the frail older adult	a. Relevant health history taking and physical examination skills, which may be focused or comprehensive	Complete history Focused visit history Adult head to toe physical exam Pregnant female head to toe physical exam Neuro physical exam Sports/ school physical exam Full cardiac physical exam carotid, abdominal and femoral bruits
		b. Understanding of genetic risks and health risk behaviors	Applying USPSTF recommendations
		c. Understanding of atypical presentations of common conditions in older adults	Primary Care Didactic Course
		d. Understanding variations in presentations and treatment options of common conditions across the different age groups within the spectrum of the adult- gerontology	Primary Care Didactic Course

		population	
		e. Evaluation of signs and symptoms that distinguish differences in presentation progression and response to treatment	Primary Care Didactic Course
		f. Knowledge about developmental age related, and gender specific variations	Primary Care Didactic Course
		g. Communication techniques geared to adolescents and older adults such as motivational interviewing	Motivational interviewing Uses effective listening, nonverbal, explanatory writing skills to elicit and provide information
		h. Principles of pharmacodynamics and pharmacokinetics in adults and older adults including, but not limited to: • Understanding of polypharmacy • Drug interactions and other adverse events • Over-the-counter medications • Complementary alternatives • Ability to obtain, purchase, self-administer, and store medications safely and correctly	Prescribing and managing medications in the older adult with regards to the BEERS list Orders and manages pharmacologic and non-pharmacologic therapy
		i. Beers Criteria for safer use of medications for older adults	Prescribing and managing medications in the older adult with regards to the BEERS list
		j. Adverse drug outcomes and polypharmacy in vulnerable populations, including women of childbearing age, adults with comorbidities, and older adults.	Orders and manages pharmacologic and non-pharmacologic therapy

			Prescribing and managing medications in the older adult with regards to the BEERS list
.		k. Monitoring and evaluation of the safety and effectiveness of pharmacological, behavioral, and other therapeutic interventions.	Orders and manages pharmacologic and non-pharmacologic therapy Prescribing and managing medications in the older adult with regards to the BEERS list
		l. Diagnosis of acute and chronic physical and mental illnesses, disease progression, and patient or family's decision-making capacity.	Ability to organize differential list to arrive at final diagnosis Diagnose and manage acute and chronic conditions
		m. Geriatric syndromes, including, but not limited to: • Falls • Loss of functional abilities • Dehydration • Delirium • Depression • Dementia • Malnutrition • Incontinence • Failure to thrive • Frailty	Diagnose and manage acute and chronic conditions

		• Constipation	
		n. Multiple morbidities, psychosocial issues, and financial issues impact health and illness	Diagnose and manage acute and chronic conditions Diagnose and manage psychosocial health
		o. Presence of multiple morbidities, their impact on presenting health problems, and the risk for iatrogenesis	Diagnose and manage acute and chronic conditions
		p. Age-specific assessment tools such as: • MoCA • SLUMS • Mini Cog • GDS • PHQ-9 • GMAST	PHQ – 9 for depression Geriatric depression scale MMSE Mini – Cog Self maintenance scale Instrumental activities of daily living scale (IADLS) Rapid estimate of adult literacy in medicine (REALM – SF) Montreal Cognitive Assessment (MoCA) Saint Louis University

			Mental Status (SLUMS) Exam Geriatric Michigan Alcohol Screening Test (GMAST)
		q. Community based activities that highlight the AG PCNP role	Primary Care Didactic Course
		r. Cultural, spiritual, ethnic, gender, and age cohort differences in presentation, progression, and treatment response of common acute and chronic health problems	Primary Care Didactic Course
	ii. Uses correct diagnostic evaluation and management billing codes for care of the adult and older adult populations across settings	a. Centers for Medicare and Medicaid Services (CMS) rules and regulations for NP billing and coding; use of current codes, such as ICD-10, E&M codes, and site specific codes for billable services	Coding and billing documentation Understands regulatory policies and guidelines governing APRN practice and healthcare laws/ regulations
		b. Knowledge of state laws regarding the long term care industry, residential care facilities, and patient rights.	Understands regulatory policies and guidelines governing APRN practice and healthcare laws/ regulations
		c. Analysis of current health care laws and regulations and the effect on the health of older adults.	Understands regulatory policies and guidelines governing APRN practice and healthcare laws/ regulations
	iii. Assesses the	a. Components of aging versus disease process including,	Primary Care Didactic

	individual's and family's ability to cope with and manage developmental (life stage) transitions.	but not limited to: • Functional status • Independence • Physical and mental status • Social roles and relationships • Sexual function and well-being • Economic or financial status • Life stage transitions and coping mechanisms Anticipatory guidance and counseling for individuals and their families based on identified health promotion needs, social support, and health status	Course
		b. Anticipatory guidance and counseling for individuals and their families based on identified health promotion needs, social support, and health status	Primary Care Didactic Course
		c. Sexual and reproductive health and functioning across the adult age spectrum	Primary Care Didactic Course
	iv. Manages common cognitive behavioral and mental health conditions in adolescents, adults, and older adults	a. Recognition of risk-taking behaviors, self-injury, stress, anxiety, incontinence, falls, delirium, or depression	Diagnose and manage psychosocial health
		b. Therapeutic interventions to restore or maintain optimal level of physical and psychosocial health	Diagnose and manage psychosocial health
	v. Provides interventions adapted to meet the complex needs of individuals and families considering cost benefit and patient preference	a. Anticipated and unanticipated risks and adverse treatment outcomes, non-recognition of treatable illness, and under/ overtreatment.	Provides guidance, teaching, counseling and specific information about the diagnosis including interventions Facilitate complex coordination and planning for delivery of

			care Diagnose and manage acute and chronic conditions Orders and manages pharmacologic and non-pharmacologic therapy Practices cost-effective healthcare and resources allocation that doesn't compromise quality of care Advocacy for patient preference
		b. Specific interventions, which involve family, and/or caregivers for acute and chronic clinical problems of the adult and geriatric patient.	Provides guidance, teaching, counseling and specific information about the diagnosis including interventions Facilitate complex coordination and planning for delivery of care Diagnose and manage acute and chronic conditions Orders and manages pharmacologic and non-

			pharmacologic therapy Practices cost-effective healthcare and resources allocation that doesn't compromise quality of care Advocacy for patient preference
	vi. Evaluates individual's and/or caregiver's support systems	a. Local resources for families and adults for adult/gerontology day care facilities to assist with the frail, physically or mentally challenged, or chronically ill adults	Evaluates support systems for patient and family and utilizes resources
	vii. Safely performs procedures common to adult and geriatric primary care clinical practice	a. Primary care practice skills which includes, but is not limited to: • Wound debridement • Suturing • Microscopy • Biopsies • Pap smears • Joint aspiration and injection	HEENT Skills Chest Skills Abdominal/ GI Skills Pelvic/ GU Skills Extremity Skills Dermatology Skills
		b. Ordering, performing, and supervising laboratory diagnostic testing, and clinical procedures, and interpreting results in relation to the individual's age, gender, and health status	Order and interpretation of diagnostic testing Microscopy wet mount/ urine spin Interpret written reports Radiology interpretation

			pacs/ film Interpretation of 12 – lead EKG
	viii. Provides education based on appropriate teaching learning theory to individuals, families, caregivers, and groups regarding adolescent, adult, and gerontological issues	a. Appropriate patient education materials for adult and geriatric patients and their families	Provides guidance, teaching, counseling and specific information about the diagnosis including interventions Communicates detailed follow-up plan including relevant and cardinal symptoms for which they should seek treatment
	ix. Adapts teaching approaches based on learner's physiological and psychological changes, developmental stage, readiness to learn, literacy, the environment, and resources	a. Health education and appropriate teaching/learning methods for: • Sensory impaired • Cognitively impaired • Non-self-disclosing patients • Ethical/legal standards of care • Use of interpreters	Displays sensitivity and responsiveness to patient's culture, ethnic, spiritual, age, gender, religion and disabilities Care For Non-English Speaking Individuals/ How to work with interpreter / CLAS standards Provides guidance, teaching, counseling and specific information about the diagnosis including interventions

			Evaluates support systems for patient and family and utilizes resources
		b. Culturally diverse communication skills adapted to the individual's cognitive, developmental, physical, mental and behavioral health status	Displays sensitivity and responsiveness to patient's culture, ethnic, spiritual, age, gender, religion and disabilities Provides guidance, teaching, counseling and specific information about the diagnosis including interventions Evaluates support systems for patient and family and utilizes resources
	x. Educates individuals, families, caregivers, and groups regarding strategies to manage the interaction among normal development, aging, and mental and physical disorders	a. Strategies for discussions of sensitive issues with the individual, family and other caregivers, e.g.: • Suicide prevention, self injury • Sexually-related issues • Substance use and abuse • Risk-taking behavior • Acceptance of risk • Driving safety • Independence • Finances • Violence, abuse, mistreatment, and neglect • Death and dying • Prognosis	Interpersonal and professional communication skills Ethical and legal responsibilities Displays sensitivity and responsiveness to patient's culture, ethnic, spiritual, age, gender, religion and disabilities Advanced directive/

			living will Hospice consultation Psychology Skills Category

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Appendix F: Adult Gerontology Primary Care Nurse Practitioner Student Survey

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AG Perceptions

Please select a response to the multiple choice questions and provide a short answer for the final questions, as indicated.

We greatly appreciate your time and your contribution to improving clinical education at the University of Kansas School of Nursing.

Allison Hayden, DNP Student, AGPCNP-BC

(Faculty Dr. Karen Trees and Dr. Kelly Bosak)

This is an anonymous survey that takes about 10 minutes to complete. This information will be protected on the secure REDCap server, and only reported in aggregate.

There are no personal risks or benefits to the participants in this study. Participation is voluntary, and you may stop taking the survey at any time. Participation or declining will have no impact on you academically.

By completing the survey, you are providing consent.

1) How old are you?
- ◯ 25 - 30 years old
- ◯ 31 - 40 years old
- ◯ 41 - 50 years old
- ◯ 51 - 60 years old
- ◯ 60 + years old

2) How many years have you practiced as a registered nurse?
- ◯ 0 - 5 years
- ◯ 6 - 10 years
- ◯ 11 - 15 years
- ◯ 16 - 20 years
- ◯ 21 - 25 years
- ◯ 25 + years

3) Upon completion of your Primary Care I, II, and III clinicals, how prepared do you feel to practice as an NP?
- ◯ Very unprepared
- ◯ Minimally prepared
- ◯ Somewhat prepared
- ◯ Generally well prepared
- ◯ Very well prepared

4) If very unprepared or minimally prepared, then what would have helped you?
_____

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5) Did you devote extra clinical hours to skills you didn't feel prepared in (i.e., did you come in on your day off or stay late to gain experience in a skill)?

- ◯ Never devoted extra time to my clinical experience. Only came in on my originally scheduled clinical days
- ◯ Arranged to come in a few extra days to see a complicated patient or a procedure
- ◯ Went to the clinic as much as possible to gain the best experience from the clinical site

Upon completion of your Primary Care I, II, and III clinicals, how prepared do you feel in each of the following areas?

		Very unprepared	Minimally prepared	Somewhat prepared	Generally well prepared	Very well prepared	Area not in my training program
6)	Adult Head to Toe Physical Exam	○	○	○	○	○	○
7)	Applying USPSTF Recommendations in Practice	○	○	○	○	○	○
8)	Complete SOAP Note	○	○	○	○	○	○
9)	Order and Interpretation of Diagnostic Testing	○	○	○	○	○	○
10)	Radiology Interpretation Pacs/ Film	○	○	○	○	○	○
11)	Evaluate and Manage Immunizations in the Adult Patient	○	○	○	○	○	○
12)	Discussion of Lifestyle Management	○	○	○	○	○	○
13)	Advanced Directive / Living Will	○	○	○	○	○	○
14)	Provides Guidance, Teaching, Counseling and Specific Information About the Diagnosis Including Interventions	○	○	○	○	○	○
15)	Ability to Organize Differential List to Arrive at Final Diagnosis	○	○	○	○	○	○
16)	Facilitate Complex Coordination and Planning for Delivery of Care	○	○	○	○	○	○
17)	Diagnose and Manage Acute and Chronic Conditions	○	○	○	○	○	○
18)	Prescribing and Managing Medications in the Older Adult with Regards to the BEERS list	○	○	○	○	○	○
19)	Full Cardiac Physical Exam: Carotid, Abdominal and Femoral Bruits	○	○	○	○	○	○
20)	Interpretation of 12 - Lead EKG	○	○	○	○	○	○
21)	Spirometry and Peak Flow Assessment	○	○	○	○	○	○
22)	Perform a Pap Test	○	○	○	○	○	○
23)	Bimanual Exam with Uterine Position	○	○	○	○	○	○
24)							

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	Prostate Exam	◯	◯	◯	◯	◯	◯
25)	Testicular Exam to Include Prehens, Hernia	◯	◯	◯	◯	◯	◯
26)	Oral Contraceptive Pill Start / Management	◯	◯	◯	◯	◯	◯
27)	Diabetic Foot Exam with Filament and Sensory Testing	◯	◯	◯	◯	◯	◯
28)	Incision and Drainage (Irrigation with and without Packing)	◯	◯	◯	◯	◯	◯
29)	Punch Biopsy	◯	◯	◯	◯	◯	◯
30)	Suturing	◯	◯	◯	◯	◯	◯
31)	Steroid Joint Injection or Trigger Point Injection	◯	◯	◯	◯	◯	◯
32)	Diagnose and Manage Psychosocial Health	◯	◯	◯	◯	◯	◯
33)	Displays Sensitivity and Responsiveness to be able to Assess Patient's Culture, Ethnic, Spiritual, Age, Gender, Religion and Disabilities	◯	◯	◯	◯	◯	◯
34)	Coding and Billing Documentation	◯	◯	◯	◯	◯	◯
35)	Practices Cost-Effective Healthcare and Resources Allocation That Doesn't Compromise Quality of Care	◯	◯	◯	◯	◯	◯

36) In order to meet your goals, did the use of the clinical checklist have an influence on your clinical site selection?

- ◯ No influence of selection
- ◯ Minimal influence of selection
- ◯ Some influence of selection
- ◯ Complete influence of selection
- ◯ Non-Applicable

37) If no influence or minimal influence, why? _____

38) Do you believe use of the clinical checklist influenced the way your clinical preceptor guided learning opportunities

- ◯ No influence of selection
- ◯ Minimal influence of selection
- ◯ Some influence of selection
- ◯ Complete influence of selection
- ◯ Non-Applicable

39) If no influence or minimal influence, why? _____

40) Do you think the use of a skills competency checklist has helped during your clinical courses to improve competency in the above skills?

- ◯ No
- ◯ Yes

41) If no, why? _____

42) Areas where you feel particularly unprepared to practice as a NP: _____

43) Areas where you feel particularly prepared for practice as a NP: _____

44) Additional comments: _____

Appendix G: REDCap Survey Data

REDCap Survey Data							
Question	Participant						
	1	2	3	4	5	6	7
How old are you?	31 - 40 years old (B)	31 - 40 years old (B)	41 - 50 years old (C)	31 - 40 years old (B)	25 - 30 years old (A)	41 - 50 years old (C)	25 - 30 years old (A)
How many years have you practiced as a registered nurse?	11 - 15 years (C)	6 - 10 years (B)	21 - 25 years (E)	6 - 10 years (B)	6 - 10 years (B)	21 - 25 years (E)	6 - 10 years (B)
Upon completion of your Primary Care I, II, and III clinicals, how prepared do you feel to practice as an NP?	Generally well prepared (D)	Generally well prepared (D)	Generally well prepared (D)	Somewhat prepared (C)	Somewhat prepared (C)	Generally well prepared (D)	Generally well prepared (D)
If very unprepared or minimally prepared, then what would have helped you?						Improved assistance with clinical placement and site selection	
Did you devote extra clinical hours to skills you didn't feel prepared in (i.e., did you come in on your day off or stay late to gain experience in a skill)?	Went to the clinic as much as possible to gain the best experience from the clinical site (C)	Arranged to come in a few extra days to see a complicated patient or a procedure (B)	Arranged to come in a few extra days to see a complicated patient or a procedure (B)	Never devoted extra time to my clinical experience. Only came in on my originally scheduled clinical days (A)	Went to the clinic as much as possible to gain the best experience from the clinical site (C)	Went to the clinic as much as possible to gain the best experience from the clinical site (C)	Arranged to come in a few extra days to see a complicated patient or a procedure (B)
Adult Head to Toe Physical Exam	Very well prepared (E)	Very well prepared (E)	Very well prepared (E)	Very well prepared (E)	Very well prepared (E)	Generally well prepared (D)	Generally well prepared (D)
Applying USPSTF Recommendations in Practice	Generally well prepared (D)	Generally well prepared (D)	Generally well prepared (D)	Very well prepared (E)	Very well prepared (E)	Very well prepared (E)	Generally well prepared (D)
Complete SOAP Note	Very well prepared (E)	Generally well prepared (D)	Generally well prepared (D)	Very well prepared (E)	Very well prepared (E)	Very well prepared (E)	Very well prepared (E)
Order and Interpretation of Diagnostic Testing	Generally well prepared (D)	Generally well prepared (D)	Generally well prepared (D)	Generally well prepared (D)	Generally well prepared (D)	Very well prepared (E)	Generally well prepared (D)
Radiology Interpretation Pacs/ Film	Somewhat prepared (C)	Minimally prepared (B)	Somewhat prepared (C)	Generally well prepared (D)	Somewhat prepared (C)	Very well prepared (E)	Somewhat prepared (C)
Evaluate and Manage Immunizations in the Adult Patient	Generally well prepared (D)	Somewhat prepared (C)	Generally well prepared (D)	Generally well prepared (D)	Generally well prepared (D)	Generally well prepared (D)	Generally well prepared (D)
Discussion of Lifestyle Management	Very well prepared (E)	Generally well prepared (D)	Very well prepared (E)	Generally well prepared (D)	Very well prepared (E)	Very well prepared (E)	Generally well prepared (D)
Advanced Directive / Living Will	Generally well prepared (D)	Generally well prepared (D)	Very well prepared (E)	Somewhat prepared (C)	Generally well prepared (D)	Very well prepared (E)	Generally well prepared (D)
Provides Guidance, Teaching, Counseling and Specific Information About the Diagnosis Including Interventions	Very well prepared (E)	Generally well prepared (D)	Generally well prepared (D)	Generally well prepared (D)	Very well prepared (E)	Very well prepared (E)	Generally well prepared (D)
Ability to Organize Differential List to Arrive at Final Diagnosis	Generally well prepared (D)	Generally well prepared (D)	Generally well prepared (D)	Generally well prepared (D)	Generally well prepared (D)	Very well prepared (E)	Very well prepared (E)
Facilitate Complex Coordination and Planning for Delivery of Care	Very well prepared (E)	Somewhat prepared (C)	Very well prepared (E)	Generally well prepared (D)	Generally well prepared (D)	Very well prepared (E)	Generally well prepared (D)
Diagnose and Manage Acute and Chronic Conditions	Generally well prepared (D)	Generally well prepared (D)	Generally well prepared (D)	Generally well prepared (D)	Generally well prepared (D)	Very well prepared (E)	Generally well prepared (D)
Prescribing and Managing Medications in the Older Adult with Regards to the BEERS list	Generally well prepared (D)	Somewhat prepared (C)	Generally well prepared (D)	Very well prepared (E)	Generally well prepared (D)	Very well prepared (E)	Generally well prepared (D)
Full Cardiac Physical Exam: Carotid, Abdominal and Femoral Bruits	Very well prepared (E)	Generally well prepared (D)	Somewhat prepared (C)	Generally well prepared (D)	Very well prepared (E)	Very well prepared (E)	Somewhat prepared (C)
Interpretation of 12 - Lead EKG	Generally well prepared (D)	Minimally prepared (B)	Somewhat prepared (C)	Somewhat prepared (C)	Somewhat prepared (C)	Very well prepared (E)	Somewhat prepared (C)
Spirometry and Peak Flow Assessment	Somewhat prepared (C)	Minimally prepared (B)	Somewhat prepared (C)	Somewhat prepared (C)	Somewhat prepared (C)	Generally well prepared (D)	Somewhat prepared (C)
Perform a Pap Test	Somewhat prepared (C)	Generally well prepared (D)	Minimally prepared (B)	Minimally prepared (B)	Generally well prepared (D)	Somewhat prepared (C)	Generally well prepared (D)
Bimanual Exam with Uterine Position	Somewhat prepared (C)	Somewhat prepared (C)	Minimally prepared (B)	Minimally prepared (B)	Generally well prepared (D)	Somewhat prepared (C)	Generally well prepared (D)
Prostate Exam	Somewhat prepared (C)	Somewhat prepared (C)	Generally well prepared (D)	Minimally prepared (B)	Generally well prepared (D)	Minimally prepared (B)	Generally well prepared (D)
Testicular Exam to Include Prehens, Hernia	Somewhat prepared (C)	Somewhat prepared (C)	Generally well prepared (D)	Minimally prepared (B)	Generally well prepared (D)	Minimally prepared (B)	Generally well prepared (D)
Oral Contraceptive Pill Start / Management	Somewhat prepared (C)	Somewhat prepared (C)		Minimally prepared (B)	Generally well prepared (D)	Somewhat prepared (C)	Somewhat prepared (C)
Diabetic Foot Exam with Filament and Sensory Testing	Very well prepared (E)	Very well prepared (E)	Minimally prepared (B)	Very well prepared (E)	Very well prepared (E)	Very well prepared (E)	Very well prepared (E)

Incision and Drainage (Irrigation with and without Packing)	Somewhat prepared (C)	Somewhat prepared (C)	Somewhat prepared (C)	Somewhat prepared (C)	Somewhat prepared (C)	Somewhat prepared (C)	Very well prepared (E)
Punch Biopsy	Somewhat prepared (C)	Somewhat prepared (C)	Minimally prepared (B)	Somewhat prepared (C)	Generally well prepared (D)	Minimally prepared (B)	Somewhat prepared (C)
Suturing	Minimally prepared (B)	Somewhat prepared (C)	Minimally prepared (B)	Minimally prepared (B)	Somewhat prepared (C)	Very unprepared (A)	Somewhat prepared (C)
Steroid Joint Injection or Trigger Point Injection	Very unprepared (A)	Minimally prepared (B)	Minimally prepared (B)	Very unprepared (A)	Area not in my training program (F)	Very unprepared (A)	Generally well prepared (D)
Diagnose and Manage Psychosocial Health	Somewhat prepared (C)	Somewhat prepared (C)	Generally well prepared (D)	Somewhat prepared (C)	Generally well prepared (D)	Generally well prepared (D)	Very well prepared (E)
Displays Sensitivity and Responsiveness to be able to Assess Patient's Culture, Ethnic, Spiritual, Age, Gender, Religion and Disabilities	Generally well prepared (D)	Very well prepared (E)	Generally well prepared (D)	Very well prepared (E)	Very well prepared (E)	Very well prepared (E)	Very well prepared (E)
Coding and Billing Documentation	Generally well prepared (D)	Very well prepared (E)	Somewhat prepared (C)	Generally well prepared (D)	Generally well prepared (D)	Very well prepared (E)	Generally well prepared (D)
Practices Cost-Effective Healthcare and Resources Allocation That Doesn't Compromise Quality of Care	Very well prepared (E)	Very well prepared (E)	Generally well prepared (D)	Generally well prepared (D)	Generally well prepared (D)	Very well prepared (E)	Generally well prepared (D)
In order to meet your goals, did the use of the clinical checklist have an influence on your clinical site selection?	No influence of selection (A)	No influence of selection (A)	No influence of selection (A)	Minimal influence of selection (B)	Some influence of selection (C)	Minimal influence of selection (B)	Some influence of selection (C)
If no influence or minimal influence, why?	Placement can be difficult, so you take what you can get	Sites were difficult to find	Just trying to find ANY place with a preceptor that would take me.	Just tried to get 3 differnt types of clinical sites. Skilled/long term care, outpatient, & inpatient			
Do you believe use of the clinical checklist influenced the way your preceptor guided learning opportunities?	Some influence of selection (C)	Minimal influence of selection (B)	Some influence of selection (C)	Some influence of selection (C)	Some influence of selection (C)	Minimal influence of selection (B)	Minimal influence of selection (B)
If no influence or minimal influence, why?							I did not regularly bring to clinic, as I felt it was an extra burden for the preceptor to review with me. It was used to guide my choices of clinic settings.
Do you think the use of a skills competency checklist has helped during your clinical courses to improve competency in the above skills?	Yes (B)	Yes (B)	Yes (B)	Yes (B)	Yes (B)	Yes (B)	Yes (B)
If no, why?							
Areas where you feel particularly unprepared to practice as a NP:	procedural things, suturing, paps, and birth control	uncomfortable with women's health	women's health	Womens health	Orthopedics	No	Those aspects that are not as common - IE suturing, which often does not happen as much in the primary care clinic. I will be doing a surgical assist program in the fall, so I'll get plenty of exposure to that.
Areas where you feel particularly prepared for practice as a NP:	chronic conditions, prevention, geriatric medicine, LTC	assessment, diabetes management, blood pressure management, physicals	chronic disease management	Internal medicine	Management of chronic diseases		Psych. Diabetes. Ortho.
Additional comments:	This is a valuable resource, I would recommend sharing this with the preceptors as a part of the contracting process						

Appendix H: Qualitative Data from REDCap Survey and In-Class Intensives

The following quotes were provided in the in-class discussion or in the comments section of the REDCap Survey. They are categorized by topic. All feedback is provided.

Areas of unpreparedness

"Procedural things, suturing, paps, and birth control."

"Uncomfortable with women's health."

"Women's health."

"Womens health."

"Orthopedics."

"Those aspects that are not as common - IE suturing, which often does not happen as much in the primary care clinic. I will be doing a surgical assist program in the fall, so I'll get plenty of exposure to that."

"EKGs and radiology films are things that are crucial for us to know, no matter what specialty we go into. We need more than a little unit on each one to feel competent."

"I haven't seen lab draws or sutures in clinic. I think the ER would be helpful for some skills-like suturing and CT scan where you can complete the tests and see everything ordered that day. A lot of times I don't see the patient during follow up or the lab results so it is difficult to complete the care process."

"Billing and coding are super important. The NP I was with had to do all of her own billing and coding. So that is something I would like to learn more about."

Areas of preparedness

"Chronic conditions, prevention, geriatric medicine, LTC."

"Assessment, diabetes management, blood pressure management, physicals."

"Chronic disease management."

"Internal medicine."

"Management of chronic diseases."

"Psych. Diabetes. Ortho."

Clinical placement

"Placement can be difficult, so you take what you can get."

"Just trying to find ANY place with a preceptor that would take me."

"Improved assistance with clinical placement and site selection." (When asked what would have helped you?)

"Sites were difficult to find."

"Just tried to get 3 differnt types of clinical sites. Skilled/long term care, outpatient, & inpatient."

Preceptor's perceptions

"My preceptor really liked using the checklist to know what to educate me on."

"The doctors didn't know what NP students needed to know and this was helpful to show them."

"My preceptor said it was the first time their clinic had a student hand them something. Her schedule is filled through the future months on days that I will be there with things from the checklist that would be helpful for me to see."

Perceptions of checklist

"I think the checklist has been very helpful."

"The checklist has been very helpful to have. There is so much to learn as a nurse practitioner. It is nice to have a guide to know what I should be focusing on."

"It was helpful to give to preceptors at the beginning of rotations when asked what I was looking for. This was especially true when I had a physician preceptor who didn't fully understand the training of the NP."

Clinical skills checklist completion.

"If I am being completely honest with you, I am not actively filling it out. I've been using it as a guide to know what to do. I've been using it more like what should I be looking for, what do I feel comfortable with, what have I already completed? It is very helpful, I just haven't had time to complete it."

"I didn't have the time to sit down with preceptor and sign it off. I didn't complete it but I used it as a guide to make a mental note."

"I did not regularly bring to clinic, as I felt it was an extra burden for the preceptor to review with me. It was used to guide my choices of clinic settings."

"I haven't been able to fill out the checklist everyday, but I review it with my preceptor throughout the semester. I feel like the checklist displays an accurate portrayal of what I have seen in clinic and the skills I feel competent in."

"Since it wasn't required, I haven't done a great job filling it out. But I have used it as a guide."

"For the type of clinical setting, the checklist will be most helpful this semester (PC 3). The clinics I have been at so far are more specialized and the checklist wasn't as applicable."

Pilot group's recommendations.

"I would suggest having this checklist in Health Assessment. Introduce it early on. This way you feel more comfortable with the list and it's easier to remember."

"Send as an electric form to the preceptor ahead of time. They could have their own copy."

"It's hard to remember everything that is in there. If you could tie it into assessment it could be easier. There are also a lot of skills on the checklist that I haven't seen in clinic. It could just be the sites I am going to, but I don't know if all the skills actually occur in clinic."

"The book was too big to bring around. If I could have it electronically it would make it a lot easier."

"This is a valuable resource. I would recommend sharing this with the preceptors as a part of the contracting process."

Appendix I: Clinical Skills Checklist Data

Clinical Skills Checklist Data										
Clinical Skill	Student								Total	Average
	1	2	3	4	5	6	7	8		
Discussion of Lifestyle Management	0	10	10	10	10	10	10	10	70	8.75
Provides guidance, teaching, counseling and specific information about the diagnosis including interventions	0	10	10	10	10	10	10	10	70	8.75
Communicates detailed follow-up plan including relevant and cardinal symptoms for which they should seek treatment	0	10	10	10	10	10	10	10	70	8.75
Focused Visit History	0	10	10	10	9	10	10	10	69	8.63
Complete SOAP Note	0	10	10	10	9	10	10	10	69	8.63
Professional Dress	10	10	10	10	9	0	10	10	69	8.63
Collaboration/ Consultation and Referral	0	8	10	10	10	10	10	10	68	8.50
Diagnose and manage acute and chronic conditions	0	8	10	10	10	10	10	10	68	8.50
Complete History	0	8	10	10	9	10	10	10	67	8.38
Adult Head to Toe Physical Exam	0	8	10	10	9	10	10	10	67	8.38
Orders and manages Pharmacologic and Non-pharmacologic Therapy	0	10	10	10	7	10	10	10	67	8.38
Smoking Cessation	0	9	10	10	5	9	10	10	63	7.88
Management of HTN	0	10	10	10	9	0	10	10	59	7.38
Interpersonal and Professional Communication Skills	0	10	10	10	9	0	10	10	59	7.38
Patient Care Professionalism	0	10	10	10	9	0	10	10	59	7.38
Order and Interpretation of Diagnostic Testing	0	10	10	10	7	10	10	0	57	7.13
Management of DM	0	8	10	10	9	0	10	10	57	7.13
Uses Information Technology Resources to Support Patient Care Decisions and Delivery	0	10	8	10	9	0	10	10	57	7.13
Practices Cost-Effective Healthcare and Resources Allocation That Doesn't Compromise Quality of Care	0	10	8	10	9	0	10	10	57	7.13
Sports / School Physical Exam	0	0	10	10	7	9	10	10	56	7.00
Ability to organize differential list to arrive at final diagnosis	0	9	10	10	6	10	10	0	55	6.88
Improves Patient Outcomes	0	5	0	10	10	10	10	10	55	6.88
Facilitate complex coordination and planning for delivery of care	0	6	0	10	9	10	10	10	55	6.88
Prescribing and managing medications in the older adult with regards to the BEERS list	0	10	0	10	7	6	10	10	53	6.63
Diabetic Foot Exam with filament and sensory testing	0	3	10	10	9	0	10	10	52	6.50
Weight-loss Management	0	9	10	8	1	10	10	3	51	6.38
Communicates Effectively with Peers, Office Staff and Other Professionals	0	0	10	10	10	0	10	10	50	6.25
Advocacy for patient preference	0	0	10	10	9	0	10	10	49	6.13
Evaluate and Manage Immunizations in the Adult Patient	0	6	5	10	0	7	10	10	48	6.00
Effective and Appropriate Application of Medical Knowledge	0	0	9	10	9	0	10	10	48	6.00
Commitment to Personal Excellence and Ongoing Professional Development	0	0	9	10	9	0	10	10	48	6.00
Displays Sensitivity and Responsiveness to be able to assess Patient's Culture, Ethnic, Spiritual, Age, Gender, Religion and Disabilities	0	0	9	10	9	0	10	10	48	6.00
Evaluates support systems for patient and family and utilizes resources	0	0	9	10	9	0	10	10	48	6.00
PHQ – 9 for Depression	0	6	4	10	7	0	10	10	47	5.88
Awareness of Quality improvement measures and application to clinical practice	0	0	8	10	9	0	10	10	47	5.88
Interpret Written Reports	0	6	10	10	10	0	10	0	46	5.75
Uses Effective Listening, Nonverbal, Explanatory Writing Skills to Elicit and Provide Information	0	0	10	10	6	0	10	10	46	5.75
Neuro Physical Exam	0	4	7	10	5	9	10	0	45	5.63
Applying USPSTF recommendations in practice	0	6	0	10	9	10	10	0	45	5.63
Motivational Interviewing	0	0	5	10	0	10	10	10	45	5.63
Understands Regulatory Policies and Guidelines Governing APRN Practice and health care laws/ regulations	0	0	9	10	10	0	6	10	45	5.63
Ethical and Legal Responsibilities	0	0	9	10	10	0	6	10	45	5.63
Breast Exam	0	1	10	10	7	0	10	6	44	5.50
Generalized Wound Care	0	10	8	10	5	0	1	10	44	5.50
Vision Screen (Snellen Eye Exam)	0	0	0	10	6	5	10	10	41	5.13
Informed Consent	0	6	0	6	0	10	10	6	38	4.75
Hemoccult Testing	0	0	0	10	6	0	10	10	36	4.50
Pelvic Exam	0	3	6	10	6	0	5	6	36	4.50
Coding and Billing Documentation	0	7	1	10	3	0	5	10	36	4.50
Saint Louis University Mental Status (SLUMS) Exam	0	4	0	10	0	0	10	10	34	4.25
Practice Based and Improvement System Based Practice	0	0	0	10	8	0	6	10	34	4.25
Radiology Interpretation Pacs/ Film	3	8	3	3	3	10	0	3	33	4.13
Hospice Consultation	0	2	10	4	0	7	10	0	33	4.13

Clinical Skills Checklist Data										
Clinical Skill	Student								Total	Average
	1	2	3	4	5	6	7	8		
Full Cardiac Physical Exam Carotid, abdominal and femoral bruits	0	3	0	10	0	0	10	10	33	4.13
Perform a Pap Test	0	0	6	10	6	0	5	6	33	4.13
Assess Patients with Disabilities	0	2	10	10	0	0	10	0	32	4.00
Interpretation of 12 – Lead EKG	0	5	0	7	3	0	6	10	31	3.88
Geriatric Depression Scale	0	6	0	10	0	0	5	10	31	3.88
Care For Non-English Speaking Individuals/How to work with interpreter / CLAS standards	0	5	0	6	6	0	4	10	31	3.88
Digital Rectal Exam	0	1	5	10	4	0	10	0	30	3.75
Anterior Drawer/ Posterior Drawer	0	0	10	6	5	0	6	2	29	3.63
Annual Medicare Update Form	0	0	10	4	0	0	5	10	29	3.63
Pregnant Female Head to Toe Physical Exam	0	2	5	0	0	0	10	10	27	3.38
Advanced Directive / Living Will	0	2	0	8	0	7	10	0	27	3.38
Bimanual Exam with Uterine Position	0	0	6	10	0	0	5	6	27	3.38
Get Up and Go Test in the Older Adult	0	2	0	0	5	0	10	10	27	3.38
Diagnose and manage psychosocial health	0	5	0	10	6	0	6	0	27	3.38
Testicular Exam to include Prehens, hernia	0	0	5	7	1	0	10	3	26	3.25
Suture Removal	0	2	0	4	0	0	10	10	26	3.25
Prostate Exam	0	0	5	7	0	0	10	2	24	3.00
Mini – Cog	0	4	0	0	0	0	10	10	24	3.00
Montreal Cognitive Assessment (MoCA)	0	0	0	10	0	0	4	10	24	3.00
Cerumenectomy with Loop Curettage	0	3	0	0	4	0	10	6	23	2.88
Nebulizer Treatment	0	0	0	5	2	0	10	6	23	2.88
Cryotherapy	0	0	3	7	0	0	2	10	22	2.75
Ear Wash	0	0	2	3	4	0	10	2	21	2.63
Inject Local Anesthetic	0	2	4	7	0	0	5	3	21	2.63
Color Blind Testing	0	0	0	10	0	0	10	0	20	2.50
Spirometry and Peak Flow Assessment	0	0	0	5	5	0	5	5	20	2.50
Tinel's Sign	0	0	4	5	4	0	6	1	20	2.50
Suicide Risk	0	0	0	6	3	0	10	0	19	2.38
Auscultate Fetal Heart Sounds	0	2	10	2	0	0	4	0	18	2.25
OCP Start / Management	0	0	0	8	2	0	5	2	17	2.13
Removal of Acrochordon (Skin Tag), Plantar Lesion, and Foot Callus	0	0	2	0	0	0	5	10	17	2.13
Microscopy Wet Mount / Urine Spin	0	0	0	2	0	3	0	10	15	1.88
Management of Dysfunctional Bleeding	0	1	0	8	1	0	5	0	15	1.88
Phalen's Sign Test	0	0	4	5	4	0	1	1	15	1.88
ADD / ADHD	0	0	0	10	0	0	5	0	15	1.88
Instrumental Activities of Daily Living Scale (IADLS)	0	0	0	0	0	0	5	10	15	1.88
Opioid Risk Tool:Substance use / alcohol/ illicit and C2	0	0	0	0	0	0	5	10	15	1.88
Valgus/ Vargus	0	0	0	6	0	0	6	2	14	1.75
Allen's Test	0	0	0	6	0	0	6	2	14	1.75
SITS Test	0	0	0	2	0	0	10	2	14	1.75
Adhesive Glue / Tape Closure	0	0	0	4	4	0	5	0	13	1.63
Ottawa Test	0	0	0	0	0	0	7	5	12	1.50
Bulge Sign – to Test for Effusion	0	0	0	0	0	0	7	5	12	1.50
McMurray Test – for Meniscal Tear	0	0	0	0	0	0	6	5	11	1.38
Incision and Drainage (Irrigation with and without packing)	0	0	4	5	1	0	1	0	11	1.38
Punch Biopsy	0	0	0	5	0	0	1	4	10	1.25
Shave Biopsy	0	0	1	4	0	0	1	4	10	1.25
Suturing	0	0	0	6	0	0	4	0	10	1.25
Nail Removal (Partial or Complete, ingrown)	0	0	1	4	1	0	1	3	10	1.25
Debrides Minor Burns	0	10	0	0	0	0	0	0	10	1.25
MMSE	0	4	0	0	0	0	6	0	10	1.25
Apprehension Sign – for Patellar Instability	0	0	0	4	0	0	0	5	9	1.13
Apley Grind Test	0	0	0	0	0	0	7	1	8	1.00
Assess Medial and Lateral Epicondylitis	0	0	0	0	0	0	6	2	8	1.00
Management of Epistaxis	0	0	0	1	0	1	5	0	7	0.88
IUD Removal	0	0	0	5	1	0	0	0	6	0.75

Clinical Skills Checklist Data										
Clinical Skill	Student								Total	Average
	1	2	3	4	5	6	7	8		
Incision and Drainage - Paronychia	0	0	0	5	0	0	0	0	5	0.63
Foreign Body Removal Skin (Splinter, glass, etc.)	0	0	0	0	0	0	5	0	5	0.63
Incision and Drainage of Hemorrhoid	0	0	0	4	0	0	0	0	4	0.50
Dislocation/ Simple Fracture Management	0	4	0	0	0	0	0	0	4	0.50
Steroid Joint Injection or Trigger Point Injection	0	0	1	0	1	0	2	0	4	0.50
Perceived Stress Scale	0	0	0	0	0	0	4	0	4	0.50
Assess Violence, Abuse and Neglect and Danger to Others (Duty to Warn)	0	0	0	0	0	0	4	0	4	0.50
Geriatric Michigan Alcohol Screening Test (GMAST)	0	0	0	0	0	0	4	0	4	0.50
IUD Placement	0	0	2	0	1	0	0	0	3	0.38
Finkelstein's Test	0	0	0	0	0	0	1	1	2	0.25
Foreign Body Removal from Ear	0	0	1	0	0	0	0	0	1	0.13
Removes Fecal Impaction	0	0	1	0	0	0	0	0	1	0.13
Apply Cast/ Splint	0	0	0	0	0	0	1	0	1	0.13
Nail Trephination/ Subungual Hematoma	0	0	0	0	0	0	1	0	1	0.13
Amsler Grid – For Macular Degeneration	0	0	0	0	0	0	0	0	0	0.00
Tympanometry	0	0	0	0	0	0	0	0	0	0.00
Foreign Body Removal from Nose	0	0	0	0	0	0	0	0	0	0.00
Removal of Cast / Bivalve	0	0	0	0	0	0	0	0	0	0.00
Clavicular Immobilization	0	0	0	0	0	0	0	0	0	0.00
Tick Removal	0	0	0	0	0	0	0	0	0	0.00
Trichloroacetic Acid / Podophyllin Destruction	0	0	0	0	0	0	0	0	0	0.00
Staple Closure	0	0	0	0	0	0	0	0	0	0.00
Tissue Avulsion Repair	0	0	0	0	0	0	0	0	0	0.00
Self Maintenance Scale	0	0	0	0	0	0	0	0	0	0.00
Rapid Estimate of Adult Literacy in Medicine (REALM – SF)	0	0	0	0	0	0	0	0	0	0.00
Sexual Assault Exam	0	0	0	0	0	0	0	0	0	0.00