ADVANCED PRACTICE PROVIDER EXPERIENCES PRECEPTING NURSE PRACTITIONER STUDENT

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ABSTRACT

Preceptors for nurse practitioner (NP) students are in increasingly short supply. Enrollment in NP programs has increased at 14.5% from 2008-2017 each year. The increase in NP students has created an increased demand for qualified preceptors and increased competition among other healthcare professional programs for clinical placements. Additionally, clinical preceptors, specifically advanced practice providers (APP) often report feeling unsupported in the role of a preceptor. Support and understanding for preceptors from clinical leadership is imperative as the demand for preceptors continues to grow, clinic leadership must understand preceptor experiences and how to best support APPs who serve in this role.

The purpose of this project was to explore the experience of APPs who serve as preceptors to NP students in an outpatient primary care clinic setting. Data regarding the attitudes and experiences of APP preceptors were collected via a quantitative electronic survey. Twenty-two primary care APPs completed the survey and provided valuable insight into the preceptor role. Participants expressed attitudes regarding support from clinic leadership, existing and potential preceptor resources, and incentives and barriers to precepting. The data were analyzed and summarized in a presentation to project stakeholders at the collaborating facility. The Sanford preceptors described the preceptor experience as overall positive and expressed intent to continue precepting. Preceptors reported feeling well supported by clinic administration and graduate nursing faculty and expressed confidence in their ability to interpret precepting policies and NP student clinical objectives. Preceptors ranked intrinsic factors such as enjoyment of the role as a top reason to precept and overwhelmingly ranked time constraints as the largest barrier to precepting. The presentation included research findings and recommendations from the review of literature with strategies for improving the preceptor experience.

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I would also like to acknowledge the providers who serve as preceptors to nurse practitioner students. Your dedication to the next generation of healthcare providers is the inspiration for project and your contribution to nurse practitioner education is invaluable.

DEDICATION

This dissertation is dedicated to my roommates. Couldn’t have done it without you.

TABLE OF CONTENTS

LIST OF TABLES

LIST OF FIGURES

CHAPTER ONE: INTRODUCTION

Background and Significance

According to the American Association of Nurse Practitioners (AANP) (2019), the number of nurse practitioners (NP) in the United States continues to grow. NP numbers have increased over two-fold since 2007, from 120,000 to more 270,000 licensed NPs at the end of 2018 (American Association of Nurse Practitioners [AANP], 2019). The increasing number of new graduate NPs entering practice will continue to bolster those numbers; 26,000 NPs entered practice in the 2016-2017 academic year, an increase of 2,300 new NPs from 2015-2016. The number of NPs is expected to continue to grow each year, with a projected 36% increase in new NPs from 2018 to2026.

NP Student Enrollment

As expected, increased enrollment in NP programs is directly correlated to the increase of new graduate NPs. From 2008-2017, enrollment in NP programs has increased by an average of 14.5% each year (Fitzgerald, 2018). The American Association of Colleges of Nursing (AACN) (2015) reported an increased enrollment in graduate nursing programs of 81% from 2010 to 2015. Actively enrolled NP students have significant clinical impact for providers currently in practice. NP students must complete a minimum of 500 clinical hours prior to graduation and to take the certification examination (AANP, n.d.a.). A clinical preceptor is required to supervise, educate, and evaluate NP students during their clinical hours (CCNE, 2013; National Task Force on Quality Nurse Practitioner Education, 2016; Roberts et al., 2017). As NP school enrollment continues to grow competent preceptors are in high demand.

Preceptor Shortage

The clinical preceptor plays a crucial role in developing NP students (Ferrara, 2012; Pitts et al., 2019; Todd et al., 2019; Webb et al., 2015). Recently, NP programs have found obtaining clinical preceptors increasingly challenging. NP programs compete both with one another and other professional programs such as physician assistant (PA) and medical students for clinical placement (AACN, 2015). Qualified preceptors for NP students include physicians, and advanced practice providers (APP) such as NPs and PAs. Medical and PA students receive priority placement with physician preceptors; therefore, NP students are primarily precepted by APPs (Webb et al., 2015).

In the past, local NP programs have enjoyed preferential placement with local clinical sites, however, the influx of online programs has challenged even well-established clinical site relationships. In 2014, the American Association of Medical Colleges (AAMC) conducted a survey of faculty from health professional programs regarding the availability of preceptors in their field. Faculty from 295 NP programs nationwide were surveyed; 94% of participants reported concern over the lack of available clinical preceptors (American Association of Medical Colleges [AAMC, 2014). Historically, strong relationships with clinical sites and preceptors are a recruitment point for graduate nurse programs as experienced preceptors contribute to better student outcomes (Doherty et al., 2019, Forsberg et al., 2015; Roberts et al., 2017; Schumacher & Risco, 2017). Additionally, the number of available preceptors directly impacts the enrollment capacity of graduate nursing programs (Carelli et al., 2019). Programs on the east coast report lack of preceptors has delayed graduation due students' inability to complete clinical hours. Delayed graduation can create financial strain for the student, increase attrition rates, and financially impact colleges and universities due to lost tuition and poor graduation rates.

APP preceptors are in short supply for reasons beyond increased demand for clinical placement. APPs face challenges in their workday including productivity-based reimbursement, high patient quotas, and a complex electronic health record (EHR) and educating a student can slow the workflow of a busy clinic day. These factors compound and can create significant role strain for APPs (Morgan et al., 2018; Roberts et al., 2017; Roberts et al., 2019).

Clinical Significance

Role strain and burn-out significantly impact recruitment and retention of preceptors and are linked to increased APP turnover (Hagan & Curtis, 2018; Morgan et al., 2018). Lack of fair compensation, professional recognition, and support from administration are common causes of APP job dissatisfaction (Faraz, 2016; Hagan & Curtis, 2018). Conversely, APPs who feel they are afforded a high level of autonomy, enjoyable professional challenges, and clear role visibility are more likely to report intentions to stay in their current position for the next five years (Faraz, 2016; Hagan & Curtis, 2018; Han et al., 2018). Researchers studying the preceptor experience found positive aspects of precepting are the same qualities that promote job satisfaction and APP retention (Forsberg et al., 2015; Han et al., 2018; Roberts et al., 2017; Todd et al., 2019). Clinical facilities could benefit from the development and support of the preceptor role to reduce APP turnover and promote healthy workplace culture.

Satisfied preceptors are also an important recruitment tool for clinical facilities (Budd et al., 2015). In a survey of over 300 NP students, an influential preceptor and a positive clinical experience were ranked among the top five factors impacting students' employment plans after graduation. By supporting APP preceptors, clinical sites also bolster APP recruitment practices and establish early, positive relationships with future employees.

Problem Statement

Advanced practice provider preceptors face role strain, significant demands on time, loss of productivity, burnout, and job turnover due to high demand for NP student preceptorship needs.

Significance of Project

Sanford Health (SH), one of the largest health systems in the United States, is not immune to the challenges presented by APP preceptor role strain. Sanford Health owns or manages 44 hospitals and 482 clinics around the world and in 2020 employed 973 APPs (Sanford Health, n.d.). APPs throughout Sanford's expansive network are frequently asked to precept NP students. Sandford Health does not have a standardized, enterprise-wide approach to recruiting or supporting the APP preceptor role. As such, Sanford APP preceptors face the same challenges echoed in the literature of APP preceptors nationwide.

According to data provided by the Sanford clinical placement facilitator, in the 2019-2020 school year the Sanford Health Fargo market network fielded 90 requests for APP student placement and accepted 76 students. Sixty-eight of the accepted students were NP students, eight PA students. The requests for clinical time ranged from 40 to 352 hours for each student, an average of 109 requested hours per student, 8,849 requested hours in total. Over half of the clinical hours requested (4,773 hours) were for placement in primary care (family practice and internal medicine). Thirty-one students requested placement in primary care with an average of a little more than 150 hours per student. Other requested specialties included neonatal intensive care, emergency department, cardiology, oncology, orthopedics, pediatrics, infectious disease, nephrology, urgent care, dermatology, and inpatient hospitalist rotations. Specialty rotation

requests averaged 90 hours per student. Student placement request spreadsheets are included in Appendix A.

Sanford Health is a worldwide healthcare enterprise and must confront the influx of NP students and demands for APP preceptors. Currently, no standardized definition of the role, specialized training, or significant compensation structure exists to support APP preceptors within SH. Advanced practice providers in the Fargo market have formed the APP Council to address issues unique to APP practice and give a voice to APPs within the organization. The APP Council seeks to explore the experience of APP preceptors to develop recommendations and strategies to enhance to the APP preceptor role at Sanford.

Purpose

The purpose of this dissertation was to enrich the APP preceptor role at SH by exploring the experiences of APP preceptors in the Internal and Family Medicine departments within an outpatient clinic setting.

Objectives

1. Explore experiences of APP preceptors by conducting a survey of 38 APPs (with a 50% response rate goal) regarding preceptor attitudes, existing and potential incentives to precept, and challenges and barriers of the preceptor role.
2. Explore experiences of APPs in the preceptor role at SH by facilitating a focus group of five APP preceptors to identify qualitative themes regarding preceptor attitudes, existing and potential incentives to precept, and challenges and barriers of the preceptor role with expanded insight of the preceptor experience.
3. Quantify the extended working hours/lost personal time related to precepting of the five APP preceptors participating in the focus group over a three-month period.

4. Disseminate the results and recommendations of the survey via PowerPoint presentation to the APP Council.

CHAPTER TWO: LITERATURE REVIEW AND THEORETICAL FRAMEWORK

Literature Review

Search Strategy

A literature review was conducted to explore the experiences of APP preceptors. Topics included the requirements of NP education, preceptor responsibilities, and incentives and barriers to the preceptor role. The review also includes statistics describing NP student enrollment, new graduate NP rates, and working NP demographics. Ample peer-reviewed literature related to the preceptor experience is published by the professional publications including *The Journal of the American Association of Nurse Practitioners* and *The Journal of Nurse Practitioners* and *The Journal of Nursing Education.* As such, archives of these publications were reviewed using a hand-search of the literature.

Additional review of the literature included the use of the Cumulative Index to Nursing and Allied Health Literature (CINAHL), PubMed, and HealthSource: Nursing/Academic Edition database regarding preceptor experience surveys, precepting models, preceptor training, organizational processes for preceptorship from the perspective of clinical facilities and graduate nursing schools. Key words for the literature search include “nurse practitioner,” “advanced practice registered nurse,” “graduate nursing school,” “graduate nursing program,” “nursing faculty,” “advanced practice provider,” “preceptor,” “preceptorship,” and “clinical rotation.” Except for seminal research, articles and data published prior to 2010 were excluded from search results. Other exclusion criteria included research conducted outside of the United States. Healthcare and higher education differ among developed nations with socialized healthcare and education and, as such, preceptor and student experiences are not comparable.

The review of literature was tailored to NP student education and the experiences of APPs preceptors. The term "student(s)" refers to NP student(s) and the term "preceptor(s)" refers to APP preceptors unless otherwise specified. "APP" refers to physician assistant or nurse practitioner unless otherwise specified.

Nurse Practitioner Education

Understanding the education requirements for NP students is an important component to appreciating the preceptor experience. Prospective NPs must first complete graduate level nursing education at either a masters or doctoral level (AANP, n.d.a.). During school, students complete both didactic and clinical education. Graduate nursing education is transitioning from "content-based" education to "competency-based education (Schumacher & Risco, 2017). A competency-based approach encourages the student to identify key concepts and manage and synthesize relevant information rather than simply memorize information. In competency-based education the student, faculty, and clinical preceptor collaborate to meet students' "self-identified learning needs and targets" (p.597). Accredited graduate nursing programs must apply nationally recognized competencies and standards to remain accredited, further influencing the competency-based learning trend.

The shift toward competency-based NP education has notable benefits. Competency-based learning keeps pace with the evolution of healthcare practice and delivery; and reduces outdated, irrelevant learning for the student. Additionally, competency-based learning highlights students' strengths, weakness, and areas for potential growth. Competency-based learning outlines clear expectations of student performance and goals for the clinical experience. The clinical preceptor is an integral component of competency-based learning and has an incredibly influential role in the student's progress though the graduate program.

National NP Certification

After graduation, certification from a national organization is required prior to entering practice in all states except California, Kansas, and New York (AANP, n.d.b.). Certifying bodies include American Nurses Credentialing Center (ANCC), Pediatric Nursing Certification Board (PNCB), National Certification Corporation (NCC), American Academy of Nurse Practitioners Certification Program (AANPCP), and American Association of Critical-Care Nurses (AACCN). A standard number of clinical hours for certification does not exist; 500 hours is the minimum but certain certifying bodies require more.

In a national survey of NP program requirements, researchers Doherty et al. (2019) found the number of required clinical hours vary greatly in NP programs throughout the US. The researchers discovered that most programs require between 500 and 700 clinical hours. Most Master of Science (MS) adult gerontology primary care (AGPC) programs require only 500 hours, while most MS specialty programs, such as women's health/gender related (WH-GR) programs; and pediatric acute care NP programs (PNP-AC), required 701-750 hours. Masters-level family nurse practitioner (FNP) programs were most likely to require 701-750 hours. Twenty-five percent of responding programs in the Doherty et al. (2019) study required greater than 850 clinical hours. The programs requiring greater than 850 hours included all specialties and both MS and DNP programs.

The disparity in mandatory clinical hours is a source of ongoing debate among accrediting bodies, graduate nursing programs, and clinical site facilities (AANP, n.d.a. Doherty et al., 2019). According to Doherty et al., (2019), NP programs across the country should strive to develop a standardized expectation for mandatory clinical hours, although researchers acknowledged this recommended change may take years to execute. As the number of NP

programs increase nationally, clinical sites must decide how to prioritize the clinical placement of students and whether to prioritize students from certain programs.

NP Clinical Education

In addition to inconsistent clinical hour requirements, NP programs also vary significantly in the way students and nursing faculty secure clinical sites and preceptors (Doherty et al., 2019). Doherty et al. (2019) found that the majority of clinical placements are arranged primarily by graduate nursing faculty, 31% with some contribution from the student and 29% with no contribution from the student. Twenty-six percent of programs require the students to arrange a preceptor with contribution from faculty and 14% of programs require the student to arrange a preceptor with no contribution from faculty. Less than 1% of graduate nursing programs that assume partial or full responsibility for student placement had a designated administrative staff or faculty member to coordinate clinical placement. Instead, programs rely on a combination of ancillary staff and faculty to coordinate clinical placement in addition to their primary administrative or teaching roles. Faculty from family nurse practitioner (FNP) programs spent the most time obtaining clinical placements for students, spending 17 hours to 40 hours per week in pursuit of clinical site placement and preceptor procurement.

While the process is often burdensome, faculty members have advantages when obtaining placement for students (Brooks & Niederhauser, 2010; Doherty et al., 2019). Doherty et al. (2019) found a positive relationship between clinical sites or preceptors and graduate nursing faculty was the strongest factor influencing clinical sites and preceptors' willingness to accept students. Faculty members also have a greater understanding and appreciation of the process and effort involved with securing clinical sites including coordinating facility orientation, EHR

training, obtaining access badges, and securing contracts with the facility and graduate nursing school (Logan et al., 2015).

When students assume responsibility for securing clinical placement, poor insight, and lack of experience with the process creates challenges for the student, the clinical site, and the preceptor (Forsberg et al., 2015; Logan et al., 2015). Per Logan et al. (2015) students are unaware of the need for a facility-graduate school contract. Students often pursued incorrect channels for finding a preceptor, such as contacting a provider directly rather than contacting the clinical placement coordinator. Online students often lack the support from in-person faculty for clinical placements (Doherty et al., 2019). Online students may be living and working as a registered nurse (RN) several states away from their nursing faculty and may not have any professional 'in-roads' locally. Conversely, a student expected to find placement may have moved to attend NP school and have no professional connections in their new location.

Students expected to find placement often resort to third parties to obtain clinical placement (Doherty et al., 2019; Forsberg et al., 2015). A third party does not consider the student's level of experience, knowledge, competence, or personality traits that necessitate a carefully selected preceptor (Forsberg et al., 2015). Preceptor locating services are very costly; PreceptorLink (2015) and Clinical Match Me (n.d.), two well-known entities in third party clinical placement, charge students $12.50 and $15.00 per clinical hour, respectively.

Peer reviewed literature describing the student role obtaining clinical placement was not readily available. Sources on this topic in the grey literature include university-affiliated blog posts and YouTube channels produced by NP students and practicing NPs. A post on the Chamberlain University Blog offers advice to students in search of preceptors (Mattison, 2017). Interestingly the advice provided in this post exacerbates the problems described by preceptors

and clinical sites above. Students interviewed for the blog post recommended directly contacting providers the student currently works with without mention of contacting a student experience coordinator at their facility. Bloggers suggested telling "anyone and everyone" you are seeking clinical placement and heavily stressed networking and accessing personal connections rather than more formal avenues. In the absence of personal connections, one student recommended frequent cold calls with multiple follow up calls, emails, and voicemails. One student blogger described showing up at an office that had not returned her multiple cold calls with a tray of baked goods and requested to speak to someone in the moment.

While the bloggers' suggestions likely served individual students well, circumventing correct channels for clinical placement creates undue burden to the clinical site. There is an obvious gap in the literature regarding students' attitudes and experiences with student-lead clinical placement securement. Exploring preceptor procurement would benefit students, preceptors, and nursing faculty, and result in a streamlined process where students follow correct procedure.

The Preceptor Defined

Once clinical placement is secured, the role of the preceptor begins. A preceptor simply defined Merriam-Webster dictionary (2020) as, "a teacher or instructor.". The CCNE *Standards for Accreditation of Baccalaureate and Graduate Nursing Programs* (2013) describes a preceptor as an individual who is, "academically and experientially qualified for their role in assisting in the achievement of the mission, goals, and expected student outcomes" (p.11). The CCNE further describes a preceptor as a healthcare professional who facilitates student learning and experiences in their area of clinical expertise. The 2016 report, "Criteria for Evaluation of Nurse Practitioner Programs" by the National Task Force on Quality Nurse Practitioner

Education defines the qualifications of a preceptor as an individual who, "must have education and preparation or extensive clinical experience in the clinical area in which he/she is teaching or providing clinical supervision" (p.16). Per this criterion, a preceptor must have at least one year of relevant clinical experience to be considered qualified to provide clinical supervision to the student learner. Preceptors are required to demonstrate compliance with this criterion by providing their credentials, evidence of licensure, education and degree(s), title, number of years in the role, and number of students precepted to the graduate nursing school.

Preceptor Responsibilities

Preceptors observe and evaluate student performance as students function in the clinical setting. Preceptors observe and evaluate students' history taking and physical assessment; provide opportunities to practice clinical skills; and empower the student to exercise clinical decision-making abilities. Preceptors must also deliver fair, timely, and objective feedback to the learner (Schumacher & Risco, 2017). A less formal, but equally important, role of the preceptor is to "socialize trainees to their role in the clinical setting" (Chen et al., 2016). The responsibility may seem daunting to preceptors navigating the requirements of different NP programs and students with varying levels of clinical experience.

To clarify the preceptor's role, the National Organization of Nurse Practitioner Faculties (NONPF) and the AANP partnered to create a preceptor checklist (Pitts et al., 2019). The checklist encompasses six preceptor responsibilities; each responsibility has specific tasks to fulfill. The responsibilities are as follows: establish the clinical rotation with the student and NP faculty, orient the student to the clinical site, provide the student with learning experiences, communicate with the student and NP faculty, evaluate the student at appropriate intervals, and complete the clinical rotation with the submission of all necessary documentation.

Authors describe additional preceptor responsibilities in a brief included with the checklist. The preceptor must provide a schedule to the student and NP faculty. Prior to a new rotation, the preceptor must review all NP program documents including course objectives, course requirements and syllabus, student credentials, and previous clinical experiences. NONPF and AANP strongly recommend a verbal exchange between the preceptor and NP faculty to discuss expectations for the clinical experience, schedule faculty site visits, and review opportunities for student growth (Pitts et al., 2019).

Student Orientation

The orientation process involves participation from NP faculty, the student, and the preceptor. Preceptors orient the students, including a clinical site tour, EHR training, and review of the student's goals, growth needs, and overall expectations for the clinical experience (Pitts et al., 2019). The preceptor-student conversation is a crucial but often overlooked step in the orientation process (Pearson & Hensley, 2019; Pitts et al., 2019). Ferrara (2012), a nursing education researcher, describes the orientation process as "framing the clinical experience" (p.50).

To frame the clinical experience preceptors must create an environment that allows the student to learn safely and successfully. Ferrara (2012) also highlights goal setting as integral to the framing process. While time consuming, setting objective, measurable, and realistic goals with the student provides structure and focus to the clinical experience. Goal setting also creates a standard by which to measure and evaluate the student's progress. Additionally, working toward shared goals deepens the relationship between preceptor and student and creates a greater sense of investment on behalf of the preceptor (Chen et al., 2016).

Chen et al. (2016) notes that a critical but underprioritized component of a clinical orientation is self-introduction. Preceptors interviewed about interprofessional healthcare education noted that there is often a perceived lack of time for "niceties." As such, preceptors often do not get to know students beyond their area of study and college or university affiliation. Typically, the student was not introduced in interprofessional meetings or to colleagues on a more casual basis during the clinical rotation. Poor rapport between the preceptor and student can result in a lack of engagement and feelings of uncertainty in the learning environment. Introduction is a crucial component of the clinical orientation process; personal conversation humanizes the preceptor and eases student discomfort (Chen et al., 2016; Pearson & Hensley, 2019). Trust and rapport enhance the learning experience, allow the preceptor to provide direct feedback, and ease potentially awkward or uncomfortable conversations (Chen et al., 2016).

Assessment of Student Experience

Another vital component of the framing process is determining the student's knowledge and competence, and preferred learning style(s) (Pearson & Hensley, 2019: Pitts et al., 2019 Roberts et al., 2019). Knowledge and skills acquired throughout school NP school compound over time, creating students with varying levels of experience and competence. There is no standardized curriculum schedule for NP programs (Pearson & Hensley, 2019). As such, students in the same year of school enrolled in different NP programs may have different levels of knowledge and competence. Preceptors must review the course objectives to individualize student learning and prioritizing content appropriate to the student's unique needs (Pearson & Hensley, 2019: Pitts et al., 2019).

A factor unique to NP students is the student's education and experience as a RN (Faraz, 2016; Forsberg et al., 2015). Though PA students complete a masters-level program, a previous

healthcare professional licensure is not always required to practice as a PA (National Commission on Certification of Physician Assistants, n.d.). As such, PA students may enter their education with no past healthcare experience to consider. Conversely, NP students must first complete bachelor's degree in nursing and become licensed as a registered nurse prior to beginning NP school (AANP, n.d.a.). Though prior RN experience is not required for all NP programs, researchers suggest the average NP student has 7-10 years of nursing experience before applying to NP school (AANP, n.d.a.; Barnes, 2015; Faraz, 2016). Preceptors must evaluate not only the student's level of knowledge relative to their progress in the graduate nursing program, but the relevance and value of the student's previous RN experience (Pearson & Hensley, 2019). Nurse practitioner students may be uncomfortable transitioning from a high level of competence as a RN to a low level of competence as a student, preceptors must consider student discomfort.

Learning style of the student is often related to level of experience (Pearson & Hensley, 2019). Novice students require more directed learning experiences, such as observing the preceptor with the patient while the preceptor talks through their clinical process. As students transition toward higher levels of competency the preceptor must adapt their teaching approach (Ferrara, 2012; Pearson & Hensley, 2019). Experienced students prefer to learn through student-lead approaches such as completing a patient interview and assessment independently then presenting to the preceptor (Pearson & Hensley, 2019). The preceptor must allow the advanced student to pursue a greater level of independence and may need to work with more reticent students to build confidence and transition to a higher level of clinical proficiency. The preceptor- student relationship is crucial to this stage of learning as preceptors may challenge the student's diagnoses or treatment plan, and rapport and trust allow for a questioning attitude and

constructive criticism without intimidation or embarrassment on behalf of the student (Pearson & Hensley, 2019). Open, respectful communication is the foundation for a successful clinical orientation and framing process.

Student Clinical Education

Once the clinical rotation is set up, the immersive clinical learning experience can begin. Each clinical day the preceptor should set aside time throughout the day and at the end of the shift for student questions and reflection (Ferrara, 2012). Frequent touchpoints throughout the shift allow the preceptor to initiate "informal learning." Informal learning is a process by which the preceptor directs the student toward new information and resources "in the moment." Instead of providing answers to the student as questions arise, the preceptor should encourage the student to utilize clinical resources to answer their own questions. While encouraging student research may be time consuming, the instruction method fosters dialogue between the student and preceptor, includes the student as a member of the treatment team, and empowers the student to become a self-sufficient decision maker. The preceptor also benefits from this type of instruction as students share recent literature and practice updates. Competent students who seek answers to clinical problems will not only grow in their own self-efficacy but elevate the preceptor's evidenced based practices as well (Todd et al., 2019).

Feedback and Evaluation

In addition to providing learning opportunities, the preceptor should provide feedback and evaluation throughout the experience (Chen et al., 2016; Ferrara 2012; Pitts et al., 2019). Feedback is influential information that addresses specific student actions and behaviors with the goal of growth and improvement (University of Virginia, n.d.). Feedback includes a description of the performance of a certain task and guides the future performance of that task. High quality

feedback is constructive, relevant, and prompt (Chen et al., 2016). Importantly, feedback is an on-going process that occurs both in real-time and during downtime to allow for conversation and reflection. The preceptor and student should discuss early in their clinical relationship how they like to give and receive feedback (Allen & Molloy, 2017). Allen and Molloy (2017) found that students often expect the preceptor to provide feedback when necessary, while preceptors believe students should request feedback and may not offer it freely. Establishing how and when the student will request feedback and/or the preceptor will provide feedback facilitates open communication and ensures both parties' expectations are met.

Goals identified early in the clinical experience guide the preceptor's ability to provide relevant feedback. Goals based on student's proficiency and competence also provide opportunity for evaluation. Evaluation is the process of assigning a value-based judgment to the outcome of specific activities or tasks, for example, describing how proficiently a student completed a specific task (Baker, n.d.) Goals such as, "student will accurately collect patient history" or "student will complete physical exam with focus on chief complaint" clearly describe a desired outcome. Well-defined outcomes afford the preceptor clear benchmarks to evaluate student performance (Schumacher & Risco, 2017).

Final evaluation

Once the clinical rotation is complete preceptors complete required paperwork, including a formal student evaluation and validation of student's clinical hours (Ferrara, 2012; Pitts et al. 2019). Ideally, the preceptor will complete the formal evaluation documents and a face-to-face debriefing with the student (Pitts et al., 2019). The evaluation documents are unique to each graduate nursing program, but common evaluation topics are the student's critical thinking ability, foundation of knowledge, history taking and assessment skills, and clinical reasoning.

The evaluation should also reflect progress the student has made toward the target competencies identified in the course objectives (Schumacher & Risco, 2017). A face-to-face meeting between the preceptor and student allows reflection on the clinical experience and identification of targeted growth areas (Chen et al., 2016). It may be necessary to include nursing faculty to facilitate these conversations, especially if remediation is needed (Pitts et al., 2019).

Preceptor Incentives

The preceptor role is clearly time-consuming; as such, determining the factors that incentivize and motivate APPs to precept provide insight clinical site administrators and nursing faculty trying to recruit, develop, and support the preceptor role. Researchers have created an abundance of literature about the student experience in the clinical setting, however, recently focus has shifted to the preceptor experience and the incentives to precept. (Forsberg et al., 2015; Roberts et al., 2019; Webb et al., 2015). Despite the demands and time required, authors Webb et al. (2015) found in a national survey that most preceptors enjoy the role. Researchers consistently identify giving back to the profession and fostering the next generation of providers as top incentives to precepting. (Amirehsani et al., 2019; Roberts et al., 2017; Todd et al., 2019; Webb et al., 2015).

Incentives from NP Program

Beyond a sense of altruism, other incentives also motivate APPs to precept. National trends in preceptor incentives have been identified in the literature (Roberts et al., 2017). While no standard preceptor package exists, most programs offer similar incentives to their preceptors. Common incentives include access to university resources such as use of the library and active log-in credentials to online subscription databases, complimentary textbooks, adjunct faculty status, or professional affiliation with the college or university, free or discounted continuing

education (CE) programming, reduced tuition, and discounts at the school bookstore (Amirehsani et al., 2019; Roberts et al., 2017; Todd et al., 2019; Webb et al., 2015). In a nationwide survey of NP preceptors, Roberts et al., (2017) found that access to CE and online databases were the most appealing incentives offered to preceptors by graduate nursing programs. The top incentive identified in Amirehsani et al., (2019) study of 29 NP, PA, and MD preceptors was access to free CE programs, the third most appealing incentive was access to online clinical databases. Findings in a national study of 453 NP preceptors also noted that, "learning opportunities as a preceptor" was the highest ranked incentive to precept, specifically access to online clinical guidelines, journals, and databases through the graduate nursing school (Webb et al., 2015).

Amirehsani et al. (2019) identified a relationship with the NP program and the opportunity to serve as adjunct faculty are highly ranked incentives to precept, a sentiment that was not consistent with research by Roberts et al. (2017). In Roberts et al. (2017) survey, preceptors rated adjunct faculty status, guest lecturing, on-campus library privileges, and bookstore rewards as the least valued incentives out of eleven incentives. Other low-ranked incentives identified by Todd et al. (2019) include certificates of recognition, a commemorative item like a coffee cup or sweatshirt with the university logo, or a gift certificate to the school bookstore. Preceptors ranked these options as "not at all important." (Todd et al., 2019).

Recertification Credits

Another incentive to precept is credit earned toward recertification (Roberts et al., 2017; Webb et al., 2015). The ANCC allows NPs to use 120 hours of precepting toward recertification in each five-year certification period (ANCC, 2016). Notably, 120 clinical hours is equivalent to one academic term. NPs may spend hundreds of hours precepting over the five-year

recertification period, however they receive credit for only one academic term worth of precepting. AANP, the other major certifying organization for NPs, grants 25 non-pharmacology CE credits for 120 hours of precepting toward the 100 total CE credits needed for recertification every 5 years (AANP, n.d.b).

Webb et al. (2015), found credit toward recertification was rated as the highest motivating factor within the "preceptor learning opportunities" category of incentives. Similarly, Todd et al. (2019), found 94% of NP preceptors (n=776) felt credits toward recertification was an important factor in the decision to precept. In the Roberts et al. (2017) study, only 28% (n=548) of preceptors viewed recertification credits as an incentive to precept. Roberts et al. discovered that only 28% of preceptors identify recertification credit as an incentive. Some certifying bodies only recently began offering recertification credit and preceptors may have been unaware of the incentive. For example, the AANP did not begin offering recertification credit for precepting until 2017, a year after the Robert et al. (2017) survey period.

Incentives Provided by the Clinical Site

Although a strong preceptor workforce benefits clinical facilities, most surveys contained little data regarding what incentives clinical sites offer their preceptors (Budd et al., 2015; Han et al., 2018). The lack of data may be because much research regarding preceptor incentives was conducted by graduate nursing schools (Logan et al., 2015). Participants in Roberts et al. (2017) survey did not list incentives from their employer as top motivators to precept. The list of incentives in Roberts et al. (2017) survey was compiled based on an extensive literature review of existing preceptor research. Of the eleven incentives, "access to CE programs" and "preceptor training" were two that could ostensibly be provided by the clinical site. In Todd et al. (2019) survey, incentives offered by the clinical site included preceptor recognition luncheons, a framed

certificate of appreciation and other small gifts. Recognition events and gifts were ranked as "least important" by the 776 NP preceptor participants. Other examples of clinical site preceptor incentives include creative scheduling solutions to accommodate students, preceptor training, financial renumeration, and student screening methods (Davis & Fathman, 2018). A lack of clinical facility-based research about incentivizing APP employees to precept presents an opportunity for further research.

Intrinsic Preceptor Incentives

Some incentives are less tangible and harder to quantify than recertification credits or access to online databases. Incentives that are not easily quantifiable but provide personal benefit to the individual are considered "intrinsic benefits" (Roberts et al. 2017). Preceptors consistently report they enjoy precepting and experience a sense of altruism in the role (Chen et al., 2016; Davis & Fathman, 2018; Roberts et al., 2017; Todd et al., 2019). Providers' value precepting as students expose them to new medications, guideline changes, and the latest in evidenced-based practice. Preceptors report students in their second and third years may even aid in productivity and enhance the efficiency of the clinical team (Roberts et al., 2017; Roberts et al., 2019; Todd et al., 2019). Patients may appreciate the preceptors' professional expertise more when they realize their provider was chosen as an expert to educate students (Todd et al., 2019)

Preceptor Barriers

While incentives motivate APPs to precept, precepting challenges create barriers and decrease the number of APPs interested in the role. Morgan et al. (2018) asked preceptors (n=165) to rank precepting barriers; the top two barriers were decreased productivity (59.6%) and inadequate time to teach (54.7%). Productivity concerns and lack of time are interrelated; advanced practice providers have many demands on their time and are often compensated based

on productivity metrics (Forsberg et al., 2015; Logan et al., 2015; Morgan et al., 2018; Todd et al., 2019). Precepting can reduce the APP's ability to meet patient quotas and productivity goals as student learning needs can be time-consuming (Ferrara, 2012; Forsberg et al., 2015).

Time Barriers

Currently, there is minimal research quantifying lost productivity or personal time related to precepting. The 1999 AANP Preceptor and Faculty Survey is a landmark study related to the time commitment or precepting (Amella et al., 2001). Although the survey was conducted over 20 years ago, the findings provided the foundation for future preceptor research. Nurse practitioner preceptors (n=87) in the 1999 survey estimated the time precepting added to their workday. Forty-four percent of participants reported precepting added 31-60 minutes to their clinical day. Ninety-three percent estimated their patient load was reduced by one to three patients per hour when precepting. Fincham et al. (2019) examined NP preceptor attitudes toward time constraints. Eighty-two percent of participants (n=83) indicated time constraints and scheduling are the biggest barrier to precepting. Ninety-three percent did not have their schedule altered to accommodate a student and 75% estimated working longer days when a student was present.

Vinson et al. (1996) studied the difference in 22 primary care physicians' time and productivity on precepting and non-precepting clinic days. Observers recorded the physicians' face- to-face time with patients, time spent on patient-centered activity, the number of patient encounters, and total time in the clinic. Patient-centered activity is described as time spent on lab and diagnostic interpretation, medical decision making, consultation, and other patient care tasks completed outside of the face-to-face appointment. Physicians saw 3.3 patients per hour when precepting and 3.9 patients per hour when not precepting. Additionally, physicians spent an

average of 52 more minutes per day at work and spent 27 fewer minutes per day on patient-centered activities when precepting. While the Vinson et al. study is one of the few to objectively measure preceptor time and productivity, the small sample of only physicians limits the applicability to all preceptors.

Interestingly, the longer workday associated with precepting in the Vinson et al. study is similar to the estimated increase in workday length in the1999 AANP survey. Advanced practice preceptors likely see a similar reduction in their number of patient encounters. While both the 1999 AANP survey and Vinson et al. survey are frequently cited in preceptor research, there is a lack of quantitative research evaluating preceptor time and productivity. Current clinical practice is quite different than in the late 1990s. Electronic health records, telemedicine, and increased productivity-based reimbursement models must be considered when studying preceptor time today.

Productivity and Reimbursement Barriers

Reduced productivity-based reimbursement is a significant concern for preceptors (Morgan, et al., 2018; Roberts et al., 2017). Productivity-based reimbursement is often measured using relative value units (RVU) (Centers for Medicare and Medicaid Services [CMS], n.d.). A RVU is a unit measure of value created by Centers for Medicare and Medicaid Services (CMS) and used to calculate reimbursement for provider services. Calculation of RVUs includes three components: physician work, practice expenses for non-provider work, and professional liability insurance to offset the cost of malpractice insurance (George Washing University [GWU], 2015). Elements of physician work include time, technical skill, critical thinking, and patient counseling and practices expenses for non-provider work include payroll for non-provider staff and overhead costs of running the clinic (GWU, 2015). The reimbursement formula uses calculated

RVUs multiplied by a monetary conversion factor and adjusted using the geographic practice cost index (GPCI), as determined by CMS (CMS, n.d.). Reimbursement is higher for provider performed procedures, complex patients, advanced clinical decision making, increased time on patient-centered activities, patient counseling, and the amount of risk associated with patient management. Global reimbursement increases with the number of patients and procedures.

Initially, RVUs and productivity-based reimbursement was based on physician-provided care, however, APPs are now included (CMS, n.d.). In a 2018 survey conducted by Stokowski et al., 34% of 3271 NPs surveyed were paid based on a combined salary-productivity pay structure. In a salary-productivity pay structure, providers earn a base salary based on the minimum number of expected RVUs with productivity "bonuses" from RVUs beyond what is accounted for in their base salary (Pickard, 2014). Advanced practice providers in primary care are paid by salary-productivity combination more often than APPs in a specialty area., who are usually compensated by salary only (Pickard, 2014, Stokowski et al., 2018).

Sixty-six percent of advanced practice nursing (APRN) students are in family nurse practitioner (FNP) programs (Fitzgerald, 2018). In a nationwide survey of APRN programs, Doherty et al. 2019) found FNP programs were most likely to require 701-750 clinical hours and specialty most likely to require 500-700 hours. Subsequently, primary care preceptors may see a greater impact on productivity-based reimbursement related to precepting than their colleagues in specialty areas.

Potential preceptor reimbursement solutions

Objective research on the impact of precepting on NP productivity and pay is sparse. Funds from the Affordable Care Act (ACA), the Graduate Nurse Education (GNE) Demonstration, a coalition of professional APRN organizations, and the CMS piloted a project

focused on increasing APRN student enrollment (Hesgrove et al., 2019). Goals of the GNE Demonstration project included increasing APRN student access to qualified training and studying the value of reimbursing preceptors (Hesgrove et al., 2019). Nursing programs could use the funds to reimburse clinical sites and/or preceptors for precepting students. The GNE determined $25 per hour should offset the lost productivity related to precepting (Delaney et al., 2019). Graduate nursing programs made payments to the clinical sites using funds distributed to GNE by the ACA. At the completion of the four-year project, only one of the 19 participating graduate nursing programs was able to continue paying preceptors. Due to loss of GNE funds, the majority of graduate nursing programs were unable to retain preceptors at the end of the study. Physicians who precept medical students receive compensation through monies in the Graduate Medical Education (GME) system, funded by CMS (Hesgrove et al., 2019). The GNE report recommends reforming the GME system to include funding for APRN preceptors (Hesgrove et al., 2019). Compensating APRN preceptors using CMS monies has been challenging to orchestrate, and to date, unsuccessful (Delaney et. al, 2019; Hesgrove et al., 2019).

Delaney et al. (2019) posit that compensating preceptors based on productivity may be the wrong approach. Reimbursing based on productivity reinforces the idea that precepting leads to a loss of productivity and drains clinical site and preceptor resources. The impact of precepting on productivity has not been objectively studied, however researchers suggest that all precepting experiences do not have the same impact on productivity (Delaney et al., 2019). Delaney et al. (2019) found that preceptors reported proficient students in their final year of school may have a positive effect on productivity. Competent and experienced students may allow providers to see more patients and attend to time-consuming, non-patient related tasks.

Similarly, Todd et al. (2019) found that 80% of NP preceptors (n=778) felt students in their final semester improves productivity. Preceptor compensation is more complicated than reimbursing lost RVUs as the impact on the preceptor and the value imparted to the student is difficult to quantify.

Payor options

Beyond the complex matter of preceptor payment, is the matter of who furnishes compensation. For most graduate nursing program budgets, absorbing the cost of preceptor reimbursement is not feasible (Delaney et al., 2019). A survey conducted by the American Association of Colleges of Nursing (AACN) in 2016, found only 4% of graduate nursing programs in the nation pay preceptors.

Physician assistant programs have faced similar preceptor challenges, though 21% of PA programs pay preceptors (Delaney et al., 2019). A 2015 brief from the Physician Assistant Education Association (PAEA) reported that paying preceptors increased the cost of education by $12,000-15,000 per student. Programs absorb preceptor cost by increasing student fees and tuition, and reallocating existing funds within the budget (PAEA, 2015). Fifty-eight percent of graduate nursing directors (n=295) felt pressured to provide preceptor reimbursement from program budgets a decision that may result in increased cost to the student (AACN, 2015). Increased student costs may lead to more student debt, reduce the diversity of program applicants, and potentially drive new graduate providers away from primary care and into higher paying specialties.

Nurse practitioner organizations throughout the country have attempted to address the issue of preceptor renumeration. In 2018, the Northern Colorado NP Coalition approved financial compensation via an honorarium paid to preceptors (Hildebrand, 2018). Qualified

preceptors received $2 per hour per student, up to $500 per student with a maximum of $1500 per year (Hildebrand, 2018). State boards of nursing and other professional APRN organizations have introduced legislation to address preceptor compensation (Carelli et al., 2019). Carelli et al. (2019) surveyed AANP state chapters about legislation regarding NP preceptors, representatives from 22 state chapters responded. Nine state chapters were actively pursuing preceptor reimbursement focused legislation. Three chapters tabled discussions due to lack of legislative support, five state chapters reported NP preceptor reimbursement was not an issue, and one chapter was lobbying for active legislation supporting NP preceptor compensation (Carelli et al., 2019).

Georgia, Maryland, Colorado, and Hawaii have implemented tax incentive programs to compensate providers who serve as preceptors to healthcare students (Carelli et al., 2019). Each state has unique qualifications to receive credits. Credits range from $375 to $1000 per clinical rotation, up to $10,000 in tax credits per year. Other than Hawaii, all states require preceptors to have a certain percentage of Medicare/Medicaid patients and/or practice in rural or underserved areas to be eligible. Currently there is no long-term research regarding the effectiveness of tax incentive programs or a consensus if such programs are the best way to compensate preceptors. Legislation supporting compensation of APP preceptors is a step toward establishing programs resembling the GME, as legislative action demonstrates recognition of APP preceptor value.

Regardless of the means of financial compensation, preceptors' desire for financial renumeration is a recurring theme in preceptor research. Webb et al. (2105) surveyed NP preceptors nationwide (n=521), 79% noted a monetary stipend is, or would be, the most motivating incentive to precept. In another national survey, 66% of NP preceptors (n=1,021) reported financial renumeration would be most influential in their decision to precept (Todd et

al., 2019). Morgan et al. (2018) found surveyed preceptors in the southwest United States ranked financial renumeration in the top three most valuable incentives to precept. Nurse Practitioner preceptors in a Roberts et al. (2017) survey ranked "financial compensation" as the most important motivator to precept.

Researchers describe compensation as an incentive in surveys, however surveys do not discuss whether compensation is an existing or potential incentive (Morgan et al., 2018; Roberts et al., 2017; Todd et al., 2019; Webb et al., 2015). Conversely, Davis and Fathman (2018) describe "lack of compensation" as a barrier, although did not survey preceptors regarding this barrier. Centers for Medicare and Medicaid do not fund APP preceptor compensation, only 4% of nursing programs pay preceptors and four out of 50 states provide precepting tax incentives (AACN, 2015; Carelli et al., 2019; Hesgrove et al., 2019; Webb et al., 2015). Preceptor payment by the clinical organization was not apparent in the review of literature. A significant imbalance exists between preceptors' interest in compensation and the availability of preceptor compensation.

Other Barriers and Challenges

While compensation is a complex challenge for preceptors, other barriers also exist. Existing and potential barriers identified in the literature are operational and logistical in nature, such as student documentation, preceptor training, and experiences with graduate nursing programs and faculty (Morgan et al., 2018; Roberts et al., 2017; Roberts et al., 2019; Todd et al., 2019).

Student documentation and the EHR

Student documentation in the EHR is a barrier to precepting (Morgan et al., 2018; Robert et al., 2017; Roberts et al., 2019; Todd et al., 2019). Orienting students to the EHR is time

consuming and educating students on EHR documentation varies among clinical sites (Carelli et al., 2019). Students may be exposed to multiple different EHR platforms during their education. Large facilities often have non-provider, information technology (IT) staff that conducts student EHR training, however smaller clinical sites with less extensive EHR platforms may not have designated IT staff or EHR training environments. At sites without IT staff, preceptors must orient students to the EHR themselves, often in real time during the clinic day.

Additionally, guidelines for student documentation in the EHR are lacking (Logan et al., 2015). Student documentation is further complicated by restrictions from the CMS. Until 2019, APP preceptors could not cosign or attest APP student notes in the EHR (AANP, 2020). Students were permitted to create a note in the patient's chart; however, the student note could not be used for billing purposes. The preceptor was required to review the student's documentation and document their own note to bill for services rendered, effectively doubling documentation requirements. In November 2019, the CMS passed an amendment to the 2020 Medicare Physician Fee Schedule and effective January 1, 2020, APP preceptors were permitted to review and verify student documentation rather than writing a separate note. Clinical facilities continue to update documentation policies to reflect the changes. As such, students and preceptors may not yet be able to utilize the EHR as collaboratively and efficiently as possible.

Lack of support and training for the preceptor role

Lack of support for the preceptor role is another barrier identified in the literature (Amirehsani et al., 2019; Davis & Fathman, 2018; Logan et al., 2015; Pearson & Hensley, 2019; Roberts et al., 2017; Roberts et al., 2019; Webb et al., 2015). Components of preceptor support include preceptor training, role support from clinic administration, and support from the graduate nursing faculty (Davis & Fathman., 2018; Logan et al., 2015; Pearson & Hensley, 2019; Roberts

et al., 2019). Roberts et al., (2019) reported preceptors express desire for formal preceptor training, improved student matching processes, schedule accommodations, and better communication with graduate nursing faculty. Wiseman (2013) noted that clinical facilities provide "philosophical" support for precepting, such as expressions of gratitude, but do not support precepting in practical ways. Preceptors expressed desire for more time in their schedule to teach and evaluate students however, preceptors report extra time was not provided. APPs felt precepting was a job expectation, but acknowledgement for precepting is not reflected in their performance reviews. Sixty-six percent of providers believe precepting should improve their chances for a merit-based raise, promotion, or other advancement within their organization, although this is not always the case (Wiseman, 2013).

In the Fincham et al. (2019) preceptor survey (n=83), 68% of preceptors report preceptor training would be valuable. Preceptors expressed confidence in their clinical knowledge, but lacked knowledge of how to teach adult learners, how and when to provide feedback, and how to manage time while precepting (Fincham et al. 2019; Logan et al., 2015; Pearson & Hensley, 2019) conducted preceptor training modules with online and in-person components for 58 preceptors. Preceptors rated the training as "excellent" or "good." Preceptors reported the training identified important elements of student orientation, how to accommodate students' level of education and experience, how to foster learning, and how to apply preceptor methods to clinical scenarios. The training also provided information regarding interpretation of student orientation checklists, which 100% of preceptors found helpful. Additionally, participants felt the strategies were simple, easy to implement, and would increase efficiency and effectiveness in the preceptor role. Seventy-two percent of preceptors found the training to be "extremely helpful"

but felt the course could be longer with more time to role-play training scenarios. All participants believed that any healthcare provider who precepts should take the course.

Logan et al. (2015) surveyed 50 NP preceptors within one organization. Eighty-one percent of the NPs surveyed had precepting experience (>10 students), yet 67% would be interested in completing a half-day preceptor training course. Precepting challenges "stemmed from lack of unified method of precepting NP students within the institution" (p. 678). There was no established process for precepting students and preceptors often had to learn to precept with students present, in real time. Logan et al., also noted that most preceptors teach students from several graduate nursing programs. Expectations for clinical experiences are not standardized among all graduate nursing programs and preceptors cannot be well-versed in processes unique to every school. A well-established, organization-wide approach to precepting could prepare preceptors to effectively teach students from multiple graduate nursing programs.

In response to lack of organization guidance for preceptors, Logan et al. (2015) developed and implemented a precepting workshop. The workshop focused on student mentorship by experienced NPs, effective assessment of students' skills, interpretation of course objectives, use of student evaluation forms, and time management. Following the workshop, participants reported a high level of satisfaction with the content and delivery of the material. An unexpected benefit of the workshop was the opportunity for NP preceptors to network with each other. A debriefing session after the workshop allowed participants to reflect on additional preceptor needs and how to disseminate the workshop strategies throughout the organization.

Graduate program and faculty support

Preceptors express feeling unsupported by faculty (Davis & Fathman, 2018; Logan et al., 2015; Roberts et al., 2019). Preceptors in multiple studies have consistently reported that a strong

relationship with graduate nursing programs and graduate nursing faculty is a motivator to precept, yet preceptors did not feel adequately supported or directed by faculty (Davis & Fathman, 2018; Logan et al., 2015; Roberts et al., 2019). Amirehsani et al. (2019) surveyed 29 preceptors within the same organization and found that 57% of preceptors felt at least one faculty site visit per student experience was appropriate, however routine faculty site visits were not taking place. Roberts et al. (2019) conducted small preceptor focus groups and found that preceptors expect a level of preparedness from students that is not consistently met. Furthermore, clear, concise clinical objectives from faculty would help preceptors set realistic expectations of the student and streamline the clinical orientation process.

The preceptor-faculty checklist referenced earlier could be adapted and utilized to facilitate communication and collaboration among preceptors and faculty (Pitts et al., 2019). Clinical facilities have developed questionnaires for students to self-report level of experience and goals for the clinical rotation that is shared with the preceptor prior to beginning the rotation (Logan et al., 2015, Pearson & Hensley, 2019). Preceptors in specialty areas may prefer to develop their own checklist specific to their patient population (Roberts et al., 2019). Logan et al. (2015) suggested that clinical facilities develop a standard expectation for site visits, preceptor-faculty communication, and faculty support. Clinical administration and preceptors must work collaboratively with graduate nursing programs to ensure an optimal clinical experience.

Impact of Barriers

Importantly, Roberts et al. (2017) nationwide survey only 9.5% of NP preceptors (n=2275) reported no interest in precepting. This sentiment is echoed in many of the articles included in the literature review. Ninety-three percent of receptors (n=377) in Latessa et al. (2013) report they enjoy the role and 91% intended to continue precepting for at least another

five years. Similarly, 97% of preceptors in Todd et al. (2019) survey report they enjoy the role. Despite barriers and challenges, it seems APPs will continue to rise to the challenge of the preceptor role.

Summary and Knowledge Gaps

Preceptors' experiences have become a priority research topic in nursing academia and healthcare organizations alike. Researchers have found that different stakeholders have different bodies of knowledge and areas of interest regarding the preceptor experience. Authors describe the importance and weight of the preceptor role and the resources available to guide the precepting process (Pearson & Hensley, 2019; Pitts et al., 2019). Further research is necessary to determine if preceptors are aware of what resources are available in their facilities and to evaluate the impact such resources have on the preceptor experience. Additionally, clinical facilities ought to evaluate the availability, utilization, and impact of precepting resources.

Incentives and barriers to precepting have been the topic of several studies. Advanced practice providers are intrinsically incentivized to precept by a sense of professional responsibility, to better themselves as healthcare providers, and by a sense of enjoyment of the role (Davis & Fathman, 2018; Roberts et al., 2017; Todd et al., 2019; Webb et. al, 2015) Graduate nursing programs and clinical facilities often offer incentives that preceptors do not find valuable, such as tokens of appreciation or preceptor recognition events (Todd et al., 2019). Evaluating graduate nursing programs and clinical facilities' perceptions of the value of these offerings and comparing the findings to preceptors' perceptions could close the gap between what schools and clinical facilities offer and APPs desire.

The greatest opportunity for further research in the preceptor experience is preceptor renumeration. Preceptors know their worth and expect to be fairly compensated for their time,

mentorship, and expertise. Preceptors fear lost revenue, reduced productivity, and extended working hours, however there is a dearth of objective data quantifying this information. If researchers quantify this data, clinical facilities and graduate nursing schools will be able to move forward with better preceptor recruitment tactics and compensation strategies. If clinical facilities can speak to potential lost revenue or extended workdays and present creative solutions to these issues that do not impact the providers' bottom line, APPs may be more inclined to accept a preceptor role. Quantifying lost revenue may help graduate nursing programs develop a fair hourly preceptor wage that they could finance with tuition or student fees, budget reallocation, and statewide legislation with the support of professional APRN organizations. The preceptor role will continue to be in high demand as NP program enrollment and demand for new providers continues to grow.

Project Framework

Theory of Structural Empowerment

The theory chosen to guide the project is the Theory of Structural Empowerment developed by Rosabeth Moss Kanter and published in 1993, also referred to as Empowerment Theory (Larkin et al., 2008). Kanter holds Ernest L. Arbuckle Professorship at Harvard Business School and has worked for decades in the field of corporate business, specializing in innovative corporate structures, corporate culture, and horizontal management (Harvard Business School, n.d.). In addition to her faculty position, Kanter advises senior executives in large corporations on the culture of transformational leadership via her corporate consulting firm.

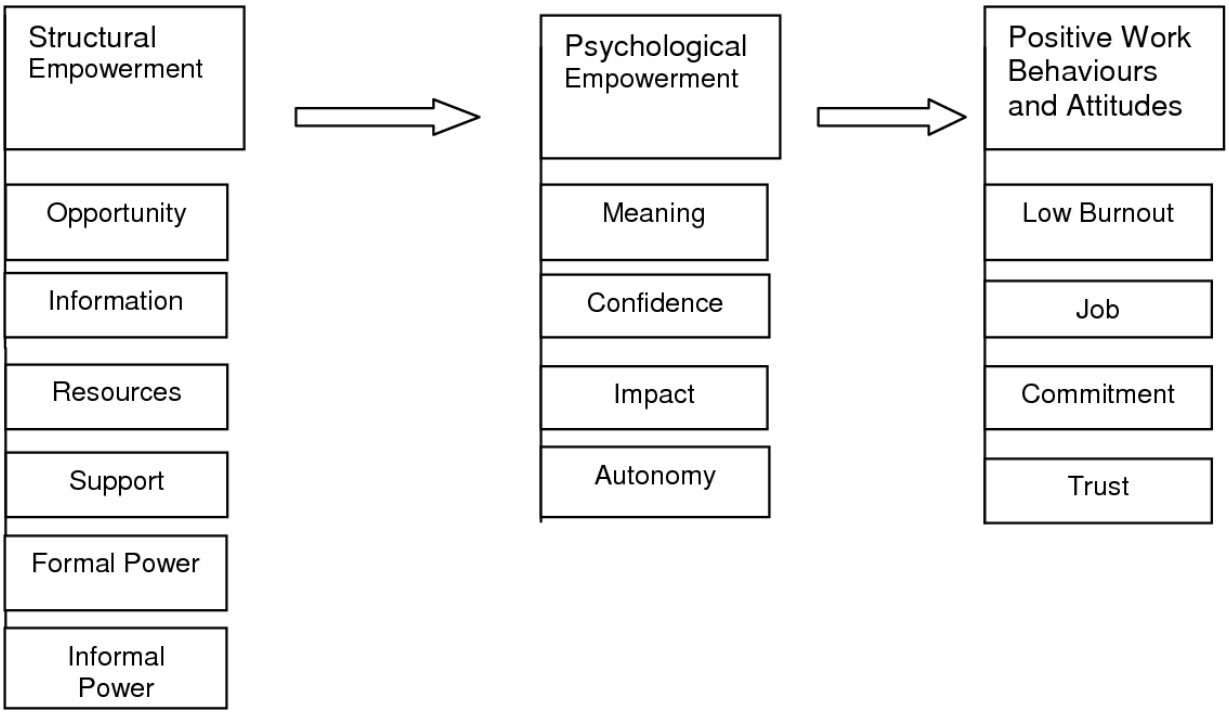
Kanter describes the theory of structural empowerment in *Men and Women of the Corporation* (1993) Kanter was one of the first to discuss empowerment in the workplace and describes power as the "the ability to mobilize resources to get things done" (p. 210). Employees

exercise power in the workplace when they have resources such as information, a supportive administration, and opportunities to gain experience and advance within their role (Orgambidez-Ramos & Borrego-Ales, 2014). Kanter explains organizations are responsible for putting these resources in place and facilitating employees' access to them, thereby creating structural empowerment in the workplace. Notably, employees' perception of structural empowerment is the most important aspect of the framework (Orgambidez-Ramos & Borrego-Ales, 2014).

While the Theory of Structural Empowerment was developed in the corporate world, it has been applied extensively to healthcare and the nursing profession (Orgambidez-Ramos & Borrego-Ales, 2014). Professional nursing research has correlated healthcare facilities with a high degree of structural empowerment to remarkably high levels of job satisfaction and low rates of turnover within nursing staff and nurse management (Laschinger et al., 2001). Empowering structures specific to nursing include professional autonomy, involvement in practice committees and opportunities for professional development (Orgambidez-Ramos & Borrego-Ales, 2014).

Figure 1

Components of the Expanded Model of Empowerment Theory (Laschinger et al., 2009)



Kanter's theory is an obvious choice to guide and inform this project. The importance of structural empowerment in the preceptor role is detailed in Chapters One and Two. APPs who feel dissatisfied in the preceptor role cite inadequate or nonexistent compensation, lack of professional recognition, and minimal support from administration issues that demonstrate a clear lack of empowerment structures (Faraz, 2016; Hagan & Curtis, 2018). Conversely, APPs who enjoy precepting report elevated levels of autonomy, visibility in the role, exciting professional challenges, and increased likelihood they will remain in their current role for at least another five years- all outcomes of empowering structural supports (Faraz, 2016; Hagan & Curtis, 2018; Han et al., 2018). Using a preceptor survey, the co-investigator aims to assess the existence, visibility, accessibility, and effectiveness of empowerment structures within the partnering healthcare system. The subsequent PowerPoint presentation to the APP Council will

provide recommendations for structures needed to empower and support APPs in the preceptor role.

CHAPTER THREE: METHODS

Project Design

This study utilized a combination of quantitative and qualitative study with a focus on preceptors working within Internal and Family Medicine departments in an outpatient clinic setting. An electronic survey was created specifically by the co-investigator with input from the APP Council to address concerns unique to the organization. Additional survey items were developed based on preceptor experiences addressed by several existing surveys including Morgan et al. (2018), Roberts et al. (2017), Todd et al. (2019) and Webb et al. (2015).

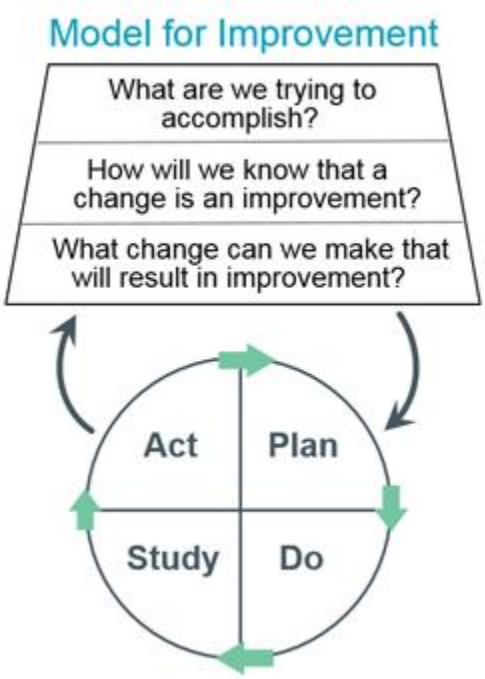
Quantitative data were obtained using Likert scale items to assess frequency, likelihood, level of agreement, and satisfaction. Likert scale data operationalizes abstract concepts such as preceptor's beliefs and attitudes toward the preceptor experience (Bhandari, 2020). A five item Likert scale provided a more user-friendly experience. Descriptive statistics were used to summarize the data. Summarized data were interpreted through an ordinal lens to create an overall impression of the survey participants' responses. One open ended question was included to elicit information about the preceptor experience in the participants' own words. Open-ended question responses were analyzed using content analysis to identify themes within the preceptors' subjective experiences.

Plan-Do-Study-Act

The Plan-Study-Do-Act cycle, commonly known as "PDSA," is a widely utilized project model to design, implement, and evaluate change within large organizations (Institute for Healthcare Improvement [IHI], 2020). The PDSA is a model favored by healthcare organizations and is a preferred tool of the SH enterprise. The visual model of the PDSA cycle used with permission from publisher John Wiley, see Appendix B for permissions.

Figure 2

The Improvement Model



Plan

The research problem and proposed study were identified in the *Plan* stage of the PDSA cycle. The preceptor experience at SH is a matter of special interest to the APP Council. The co-investigator became aware of the council and their interest in studying the preceptor experience through a clinical experience at SH clinic sites. The co-investigator attended APP Council meetings and through collaboration with the council, identified specific aspects of the preceptor experience to explore in the proposed study. Stakeholders were identified during the planning phase of this project. Stakeholders specifically targeted by this project include members of the APP Council, SH clinic administration, and nursing leadership. Other stakeholders in the preceptor experience include APP preceptors, NP students, and graduate nursing faculty.

Key Planning with APP Council

The council has attempted to study the preceptor experience previously. In 2018, the council conducted a survey of preceptors within the organization. Unfortunately, survey results were lost due to restrictions in the host website used to disseminate the survey and store data. Despite inability to access the full survey results, the partial results available to the council suggested a dissatisfaction with the preceptor experience. Survey topics requiring further exploration included defining the preceptor role, preceptor education, reworking the preceptor-student pairing process, and creative scheduling strategies to mitigate preceptor time constraints.

Additionally, the 2018 survey was completed by APPs throughout the organization including certified registered nurse anesthetists (CRNA) and APPs in specialty departments. According to the data provided by the Student Experience Coordinator, clinical rotations in specialty areas are shorter than primary care rotations. Average specialty rotations were approximately 80 hours compared to 150-hour average primary care rotations. Students mostly observe in specialty rotations whereas students tend to be directly involved in patient care in primary care rotations, creating vastly different experiences for the preceptor., As such, participants expressed a wide variety of preceptor attitudes and experiences and the council found it difficult to identify themes in the preceptor experiences or possible practice improvement projects. The council requested a re-survey of preceptors focused on preceptor experiences, incentives, barriers, and educational needs. A focus group was proposed by the co-investigator to obtain deeper insight, assess preceptor attitudes and beliefs not easily captured by other study methods, and reveal potential themes not addressed in the survey.

A review of literature about preceptor experiences was conducted concurrent to the on-going APP Council meetings and further informed project. Due to lack of objective data in the

literature about preceptor time constraints, the co-investigator and APP Council believed quantitative data about the preceptors' time commitment would enrich the project results. Therefore, an hour tracking tool was developed to record workday hours and to evaluate the impact of precepting on the length of the workday. The hour tracking tool is further described in the *Do* section of this chapter.

The project was approved and permission to proceed was granted by the dissertation committee. The project was granted exempt status by the North Dakota State University Institutional Review Board. Following IRB exemption, the Nursing Research Council at Sanford approved the project. The project was also reviewed and approved by the Vice President of Nursing and Medical Director at Sanford.

Setting

The setting of this study included the SHCs in Fargo, ND (North Dakota), and participation from five clinic sites. Fargo is the largest city in the state of North Dakota with an estimated population of 124,662 (ND Bureau [USCB}, 2018). Fargo is in Cass County on the eastern edge of the state and shares a border with its sister city of Moorhead, MN.

Five clinics were included in the SH clinic designation. At the time of survey dissemination and focus group recruitment, four PAs and seven NPs in Internal Medicine and 11 PAs and 16 NPs Family Medicine worked among the five clinic sites. The clinic location of the APP was not relevant, APPs within this clinic system often travel between clinics. Additionally, students were assigned to preceptors equally throughout the facilities.

In addition to providers, the Internal and Family Medicine departments employ patient care technicians (PCT), licensed practical nurses (LPN), and registered nurses (RN). Patient care technicians and LPNs escort patients to the examination rooms, obtain and document vital signs,

review allergies and medication lists, and document the reason for the visit. RNs process prescription refills: triage patients telephone calls, provide telephone counseling to patients regarding medications and lab results, process prior authorizations, and fulfill provider orders. Patient care technicians and LPNs support preceptors by informing the patient that the provider was precepting a student, giving report to the APP provider and student, and socializing the student to the clinic environment.

Sample

The study used a purposive sample of APPs from the Internal Medicine and Family Medicine departments at SH. The sample included all NPs and PAs working in primary care at SH, 38 APPs total. According to the data provided by SH student placement coordinator, most requests for student placement are in primary care, therefore primary care preceptors were asked to complete the survey (Appendix A). Survey participants were recruited via organization email. Text of the survey recruitment email and informed consent is included in Appendix C.

A convenience sample of APP Council members who had precepted students were recruited for participation in the focus group. The co-investigator attempted to recruit focus group participants via interagency email and at APP Council meetings. The lack of volunteers for focus group participation is discussed later. Text of the focus group recruitment email and informed consent is included in Appendix D.

Timeline

Table 1

Project Timeline

Date	Event
October 2019-July 2020	Literature review, proposal development
August 2020	Proposal Meeting and approval by the Dissertation Committee
September 2020	IRB Approval
September 2020-November 2020	Disseminate survey, survey open for 6-week period to allow for adequate response rate
October-December 2020	Disseminate hour tracking tool, track hours for 3-month period
November 2020	Conduct APP focus group
January-March 2021	Data analysis and evaluation
February 2021	Presentation to stakeholder committee
March 2021	Defend
April 2021	Submit dissertation for final review
May 2021	Present project at NDSU Poster Presentation

Project Resources

Project resources included time on behalf of the co-investigator, project committee, and the APP Council. The PowerPoint presentation was disseminated electronically and did not incur any printing costs. The survey findings and recommendations were presented virtually via WebEx online meeting platform during a regularly scheduled council meeting. Council members attended voluntarily, schedules were already blocked to accommodate the meeting, therefore no additional cost was incurred for attendee compensation. The statistical evaluation of this project required assistance from statistics department staff at NDSU; this service is free to university students.

Do

The *Do* phase of the project included presentation of survey findings and clinical recommendations. Study tools correlated with the objectives of the proposed study and related actions are described below.

Objective One

The purpose of Objective One was to quantify experiences of APP preceptors in Internal and Family Medicine departments including preceptor attitudes, existing and potential incentives to precept, and challenges and barriers of the preceptor role. To meet Objective One, an electronic survey was distributed to APPs working in Internal and Family Medicine via Qualtrics via the SH organization email system. The survey was available for a four-week period from November 2020 through December 2020. A weekly reminder email was sent to participants to encourage completion during the data collection period.

The survey was English and contained 28 total items; participants did not complete all items as there were separate tracks depending on preceptor experiences. 27 questions. Participants who had precepted NP students were asked to complete 28 questions which included demographic and preceptor experience questions. Participants without preceptor experience completed nine questions which included demographic questions and questions about reasons for not precepting. Qualtrics estimated the survey would take seven to eight minutes to complete, which is considered an ideal length of time for participant engagement and survey completion according to Qualtrics metrics. The survey is included in Appendix E.

Participants were not required to complete the survey in one attempt and were able to save responses and finish the survey later. Participants with incomplete surveys were sent weekly email reminders autogenerated by Qualtrics until the survey was complete. The survey was

accessible by invitation only and participants were unable to submit more than once. Survey responses were anonymous.

Survey questionnaire

Survey items 1-6 obtained demographic information about survey participants. Item 7 was a yes or no question to determine if the participant is a current preceptor. Current preceptors continued to item 8; non-preceptors were directed to item 26. Items 8, 9, 12, and 13 were to address the overall experience of the preceptor role. Items 10 and 11 address incentivizing factors and potential barriers to precepting. Items 14-20 evaluate existing and potential resources provided by the clinical facility to support the preceptor role. Items 21-23 assessed the participants' relationship with graduate nursing faculty and item 24 assesses the participant's likelihood of continuing to precept. Item 25 was a free-text response allowing participants to include any additional thoughts regarding the preceptor experience. For those who responded "no" to item 7, items 26 and 27 evaluate reasons for not precepting and likelihood of becoming a preceptor. Item 28 was a free-text response that allowed preceptors to share additional thoughts regarding the preceptor experience. The survey is included in Appendix E.

In addition to surveys from the literature, survey items for this study were developed by the co-investigator and utilized input from the APP Council to address the overall preceptor experience at SH clinics. The survey was further informed by recommendations from the review of literature. Based on the review of literature, preceptor surveys should explore what incentives are valued by preceptors, what real or perceived barriers exist to precepting, and what policies, programs, and other structures within the clinical facility are most supportive to the preceptor (Logan et al., 2015; Roberts et al., 2019; Roberts et al., 2017; Webb et al., 2015).

Notably, impact on productivity and lack preceptor compensation was not directly addressed in the survey. Preceptors surveyed in existing research identified potential reduction in RVU production and lack of preceptor compensation as barriers to precepting. The Sanford liaison requested that the co-investigator omit items addressing the impact on productivity and lack of compensation from the survey. Sanford Health leadership had previously informed the Sanford liaison that as an organization SH is not currently able to reimburse lost RVUs or provide preceptor compensation and would therefore prefer to avoid addressing the matter directly at this time.

Objective Two

The purpose of Objective Two was to identify qualitative themes related to the preceptor experience. To meet Objective Two the co-investigator intended to conduct focus group interviews. During the inception of this project, council members expressed willingness to participate in focus group and complete interviews with the co-investigator. Prior to the COVID-19 pandemic the council was meeting monthly, in person, with robust attendance. When recruitment for the focus group began, COVID-19 restrictions that included social distancing were enacted, therefore meetings became exclusively virtual, and meeting attendance was significantly reduced. While focus group recruitment was attempted via email and presented at virtual APP Council meetings, the co-investigator was unable to recruit any volunteer participants. The recruitment email is attached in Appendix D. After four weeks of unsuccessful recruitment attempts, the principal investigator, co-investigator, and Sanford project liaison decided to eliminate focus group interviews from the project. A free text response question was added to the preceptor survey to obtain qualitative responses from survey participants.

Focus group interview questions

Information regarding the development and content of the focus group interview and hours tracking forms was left in the document to allow for future study replication. Focus group interview questions were developed based on input from the APP Council members. The goal of the focus group was described by one interested member as, "the opportunity for preceptors to say what it [precepting] is really like." The co-investigator created an original interview outline to identify themes within the preceptor experience. Item 1 addressed the participant's entry into precepting. Item 2 and 3 addressed the positive and negative experiences of precepting. Items 4-6 addressed the participant's relationship to other stakeholders in the preceptorship experience, namely clinic administrators, NP students, and graduate nurse faculty. Item 7 evaluated the preceptor's awareness of preceptor programs in the clinical facility and potential areas of unmet needs for greater preceptor support within the facility. Item 8 allowed the participant to express additional thoughts and viewpoints related to the preceptor experience that were not addressed by earlier questions.

Objective Three

The purpose of Objective Three was to quantify lost personal time/extended workday hours related to precepting NP students. To meet Objective Three, the co-investigator developed an hour tracking tool for APP Council focus group participants to complete over a one-month period. The form tracked the presence of a student, the student's year and semester in their program, number of scheduled patients, and workday commitments such as a lunch meeting, appointment no-shows, and other factors that may impact the length of a preceptor's workday. In the review of literature, the co-investigator identified that lack of time and lost productivity were major barriers to precepting (Roberts et al., 2017; Todd et al., 2019). The literature was deficient

in objective data on lost productivity or increased work hours of preceptors. The form was designed to track work hours, not lost productivity related to precepting. Additional research methods to track the impact of precepting on productivity would add value to this body of research but was outside the scope of this project.

Figure 3

Hour Tracking Form Example

Date	Time in	First appt	Student	Experience	Lunch break	Last Appt	# pts	Time out	Other
4/1	0800	0815	Yes	5th semester	charting	1615	14	1745	Student first day
4/2	0805	0815	No	N/A	charting	1615	15	1700	
4/3	0750	0815	Yes	5th semester	charting	1600	11	1715	3 No shows

A description of the goals of the hour tracking form and directions to complete were included in the recruitment email to providers. Unfortunately, as previously discussed, the focus group and associated study tools (interview and hour tracking form) were omitted due to lack of volunteer participants.

Study

The *Study* phase of the PDSA cycle analyzed and evaluated the data collected in the *Do* phase. The goal of the study phase was to determine what information was gained from the research, what trends emerged, identify any surprising or unintended findings, and to assess the meaning of the findings (Minnesota Department of Health [MNDH], n.d.). In this phase, the summarized data was analyzed using a combination of statistical and content analysis.

Data management

Survey response data was stored in Qualtrics and password protected with a password known only to the co-investigator. Data was exported to NDSU statistics department for analysis and did not include any identifying participant information. Statistical interpretation of the survey data was compiled in a Microsoft Excel spreadsheet and stored on the co-investigator's personal computer which was password protected with two-authentication sign on and was not used by any other persons.

Data analysis

Objective One was evaluated using descriptive statistics. All Likert scale items included neutral response options and were scored on a 5-point scale. Rank items adapted from the Roberts et al. (2017) survey were analyzed, and results compared to the Roberts et al. (2017) survey results. Objective Two was evaluated using content analysis to explore qualitative themes in the open-ended question responses included in the survey. Due to elimination of the hour tracking component of this project, no evaluation of Objective Three was possible.

Act

The final stage of the PDSA cycle involves reflection on the previous steps. Reflection includes evaluation of the research process and the effectiveness of the research tools in answering the research questions (MNDH, n.d.). This step allows researchers to disseminate findings and make recommendations based on the findings. Objective Four reflects the actions of the *Act* phase.

Objective Four

The purpose of Objective Four was to disseminate the survey results to the APP Practice Committee. To meet Objective Four the co-investigator developed a PowerPoint presentation

with study findings and recommendations based on information garnered from the review of literature. At the recommendation of the Sanford liaison, the co-investigator presented summary and analysis of survey data and information from the literature to the APP and Nursing Student Placement Council (hereby referred to as the Student Placement Council). The council fields all requests for clinical hours from prospective APP students, recruits preceptors, and places students with selected preceptors. The presentation took place February 19th, 2021 and was held virtually via WebEx.

Continuing the Cycle

The benefit of the PDSA model is the cyclical process that encourages continued exploration into the research question (IHI, 2020). The council has the electronic files for the PowerPoint presentation and a document summarizing survey results for future review and continued use. The presentation contains clear and actionable recommendations for enhancing the preceptor experience at SH clinics and the council is encouraged to proceed with these recommendations as they see fit. The research findings and strategies extracted from the literature review and synthesized into recommendations to enhance the preceptor experience will be further described in Chapter 5.

CHAPTER FOUR: RESULTS

A Qualtrics survey link was disseminated via corporation email to APPs working in primary care at SHCFs; the sample size was N=38. Twenty-four (63%) surveys were returned, 22 were complete and are summarized in the following tables. Surveys were considered incomplete if all questions were not answered.

Table 2

Demographics (N=22)

Sex	Frequency	Percent
Female	20	91
Male	2	9
Age in years		
<25	0	0
25-30	2	9.1
31-35	9	40.9
36-40	7	31.8
41-50	2	9.1
51-55	0	0
56-60	2	9.1
>60	0	0
Years in practice		
<1	2	9.1
1-5	13	59
6-10	3	13.6
11-15	2	9.1
16-20	1	4.5
21-25	0	0
26-30	1	4.5
Title		
Certified Nurse Practitioner	15	68.2
Physician Assistant	7	31.8
Department		
Family Medicine	11	50
Internal Medicine	10	45.4
Other	1	4.6
Hours per week		
32-40	17	77.3
>40	5	22.7
Previously precepted		
Yes	18	81.8
No	4	18.2

Objective One

The first objective of this project was: Explore experiences of APP preceptors by conducting survey of 38 APP preceptors (with a 50% completion goal) regarding preceptor attitudes, existing and potential incentives to precept, and challenges and barriers of the preceptor role. Twenty-two (58%) completed surveys were returned. Eighteen (81%) participants had precepted and four (19%) participants had never precepted. The data for all Likert scale and yes/no items were summarized using frequency tables to evaluate overall participant response. Results are summarized in Table 3-18. Chi-square test was attempted to associate Likert scale responses to demographic characteristics including years of work experience and role (PA vs NP), however sample size was too small to produce valid chi-square test results.

Table 3

Reasons for not Precepting (N=4)

Please select the answer that best describes why you have not precepted.	Frequency	Percentage
I have less than 1 year in my role	1	25
I am not confident in my ability to precept.	1	25
I am not interested in precepting.	1	25
I have never been asked to precept.	1	25

Table 4

Likelihood to Precept (N=4)

Based on your impression of precepting at Sanford, how likely are you to precept in the future?	Frequency	Percentage
Extremely likely	1	25
Somewhat likely	2	50
Neither likely nor unlikely	0	0
Somewhat unlikely	1	25
Extremely unlikely	0	0

The data for preceptor responses were summarized in Tables 5-21 using frequency tables to display overall participant response. Chi-square test was attempted to associate Likert scale responses to demographic characteristics including years of work experience and role (PA vs NP), however sample size was too small to produce valid chi-square test results.

Table 5

Overall Preceptor Experience (N=18)

Please describe your experience serving as a to NP students	Frequency	Percentage
Extremely positive	5	28
Somewhat positive	13	72
Neither positive nor negative	0	0
Somewhat negative	0	0
Extremely negative	0	0

Table 6

Choice to Precept (N=18)

I feel I have a choice if I want to precept a NP student or not.	Frequency	Percentage
Yes	18	100
No	0	0

Table 7

Clinic Administration Support (N=18)

I feel supported and valued by clinic administration when serving as a preceptor.	Frequency	Percentage
Strongly agree	5	28
Somewhat agree	5	28
Neither agree nor disagree	3	17
Somewhat disagree	2	11
Strongly disagree	3	17

Table 8

Confidence as a Preceptor (N=18)

Please rank your level of confidence in your abilities as a preceptor.	Frequency	Percentage
Extremely confident	5	28
Somewhat confident	13	72
Neither confident nor unconfident	0	0
Somewhat unconfident	0	0
Extremely unconfident	0	0

Table 9

Attitudes Toward Preceptor Training (N=18)

I believe an in-person preceptor training course or computer-based training module would enhance my confidence as a preceptor.	Frequency	Percentage
Strongly agree	2	11
Somewhat agree	5	28
Neither agree nor disagree	5	28
Somewhat disagree	3	17
Strongly disagree	3	17

Table 10

Likelihood of Attending a Preceptor Training (N=18)

How likely are you to attend or complete an in-person preceptor training course or computer-based preceptor training module?	Frequency	Percentage
Extremely likely	2	11
Somewhat likely	5	28
Neither likely nor unlikely	2	11
Somewhat unlikely	3	17
Extremely unlikely	6	33

Table 11

Student Documentation Policy (N=18)

I have a good understanding of my facility's policies for NP student documentation.	Frequency	Percentage
Strongly agree	1	5
Somewhat agree	10	56
Neither agree nor disagree	5	28
Somewhat disagree	1	5
Strongly disagree	1	5

Table 12

Student Scope of Practice (N=18)

I have a good understanding of the NP student scope of practice.	Frequency	Percentage
Strongly agree	5	28
Somewhat agree	7	39
Neither agree nor disagree	4	22
Somewhat disagree	2	11
Strongly disagree	0	0

Table 13

APP Student Forms (N=18)

I find the "APP Getting to know me" and the "APP Student Clinical Experience Tracking Form" to be a helpful tool.	Frequency	Percentage
Very helpful	6	33
Somewhat helpful	4	22
Neither helpful nor unhelpful	3	16
Somewhat unhelpful	0	0
Completely unhelpful	0	0
I have never seen the student forms when precepting	5	28

Table 14

Reduced Patient Load (N=18)

A reduced patient load when precepting, based on student's level of experience, would improve the preceptor experience	Frequency	Percentage
Strongly agree	10	56
Somewhat agree	3	17
Neither agree nor disagree	5	28
Somewhat disagree	0	0
Strongly disagree	0	0

Table 15

Feedback for Preceptors (N=18)

Receiving feedback and evaluation from my supervisors, NP students, and graduate nursing faculty would enhance my experience as a preceptor	Frequency	Percentage
Strongly agree	7	39
Somewhat agree	5	28
Neither agree nor disagree	4	22
Somewhat disagree	1	5
Strongly disagree	1	5

Table 16

NP Student Clinical Objectives (N=18)

The NP student's clinical objectives are clearly defined and my role in meeting the objectives is clear.	Frequency	Percentage
Strongly agree	9	50
Somewhat agree	6	33
Neither agree nor disagree	2	11
Somewhat disagree	2	11
Strongly disagree	1	5

Table 17

Graduate Faculty Support (N=18)

I feel supported by the graduate nursing faculty when serving as a preceptor.	Frequency	Percentage
Strongly agree	5	28
Somewhat agree	6	33
Neither agree nor disagree	6	33
Somewhat disagree	1	5
Strongly disagree	0	0

Table 18

Graduate Faculty Site Visit (N=18)

Do you find site visits from graduate nursing faculty visits useful when precepting?	Frequency	Percentage
Extremely useful	1	5
Somewhat useful	2	11
Neither useful nor not useful	4	22
Minimally useful	2	11
Not at all useful	1	5
I have never had a faculty site visit when precepting.	8	44

Table 19

Continue to Precept (N=18)

Based on your experiences precepting, how likely are you to continue precepting?	Frequency	Percentage
Extremely likely	7	39
Moderately likely	7	39
Slightly likely	4	22
Neither likely nor unlikely	0	0
Slightly unlikely	0	0
Moderately unlikely	0	0
Extremely unlikely	0	0

The results of rank ordered incentives and barriers are described in Tables 19 and 20. Incentives and barriers are summarized in Tier 1, Tier 2, and Tier 3. Tier 1 represents how often the incentive or barrier was ranked number 1 by participants. Tier 2 represent how often the incentive or barrier was ranked number 2 by participants. Tier 3 represents how often the incentive or barrier was ranked number 3 by participants.

Table 20

Top Three Incentives to Precepting (N=18)

Incentive Rank by Tier	Tier 1 (N=18) n (%)	Tier 2 (N=18) n (%)	Tier 3 (N=18) n (%)
Sense of professional obligation to mentor NP students	5 (28)	4 (22)	5 (28)
Enjoy precepting	7 (39)	4 (22)	3 (17)
Learn from students about most up to date practice	1 (5)	5 (28)	4 (22)
Credit toward recertification	2 (11)	0 (0)	1 (5)
Foster a relationship with school of nursing/faculty	0 (0)	1(5)	1 (5)
Access to library materials provided by school of nursing	0 (0)	0 (0)	3 (17)
Opportunity to serve as a guest lecturer at the school of nursing	0 (0)	0 (0)	0 (0)
Opportunity to take a course at the university	0 (0)	0 (0)	0 (0)
Discount at the school bookstore	0 (0)	0 (0)	0 (0)
Precepting as a recruitment opportunity for clinical facility	1 (5)	2 (11)	0 (0)
Preceptor recognition events by your employer/management	0 (0)	1 (5)	0 (0)
Thanks and recognition from the student personally	2 (11)	2 (11)	2 (11)

Enjoyment of precepting (7, 39%) was ranked most frequently in tier 1, sense of professional obligation was the second most frequently selected incentive in tier 1 (5, 28%) and credit toward recertification and thanks from the student (2, 11%) tied as the third most frequently selected incentive in tier 1. Learning from students (5, 28%) was ranked most frequently in tier 2, sense of professional obligation and enjoyment of precepting (4, 22%) tied as the second most frequently selected incentive in tier 2, and recruitment opportunity and thanks from the student (2, 11%) tied as the third most frequently select incentive in tier 2. Sense of professional obligation (5, 28%) was ranked most frequently in tier 3, learning from the student (4, 22%) was the second most frequently selected incentive in tier 3, and enjoyment of

precepting and access to library materials (3, 17%) tied as the third most frequently selected incentive in tier 3.

Table 21

Top Three Barriers to Precepting (N=18)

Incentive Rank by Tier	Tier 1 (N=18) n (%)	Tier 2 (N=18) n (%)	Tier 3 (N=18) n (%)
Time constraints	13 (72)	4 (22)	1 (5)
Lack of office space to accommodate students	3 (17)	4 (22)	5 (28)
Lack of employer support	2 (11)	3 (17)	2 (11)
Lack of confidence in precepting ability	0 (0)	1 (5)	3 (17)
Issues related to student documentation in EHR	0 (0)	4 (22)	5 (28)
Not interested in being a preceptor	0 (0)	0 (0)	1 (5)
Patient acuity is not appropriate for NP student	0 (0)	0 (0)	0 (0)
Inadequate provider staffing in practice setting	0 (0)	0 (0)	0 (0)
Practice setting is inappropriate for NP student	0 (0)	1 (5)	0 (0)
Lack of nursing faculty supervision/involvement/availability	0 (0)	1 (5)	1 (5)

Time constraints (13, 72.2%) was ranked most frequently in Tier 1, lack of space to accommodate students (3, 17%) was the second most frequently selected incentive in Tier 1 and lack of employer support (2, 11%) was the third most frequently selected incentive in Tier 1. Time constraints, lack of employer support, and issues related to student documentation (4, 22%) tied as the most frequent barrier in Tier 2. Lack of employer support (3, 17%) was the second most frequently selected barrier in Tier 2. Lack of confidence, inappropriate practice setting, and lack of faculty support (1, 5%) tied as the third most frequently selected barrier in Tier 2. Lack of space to accommodate students and issues with student documentation (5, 28%) tied as most frequent barrier in Tier 3. Lack of confidence in precepting ability (3, 17%) was the second most frequently selected barrier in Tier 3 and lack of employer support (2, 11%) was the third most frequently selected barrier in Tier 3.

Objective Two

The second objective was: Explore experiences of APPs in the preceptor role at SH by interviewing a focus group of five APP preceptors to identify qualitative themes regarding preceptor attitudes, existing and potential incentives to precept, and challenges and barriers of the preceptor role with expanded insight of the preceptor experience. The investigators eliminated the interview due to lack of focus group participants. As such, an additional item was added to the preceptor survey. The item, "Please use the space below to include any additional thoughts regarding your experiences as a preceptor. (Response optional)" was answered by 8 out of 18 preceptors (44%).

Responses were coded using deductive codes developed from themes identified in the review of literature and summarized in Table 22. Codes included preceptor attitudes, positive and negative preceptor experiences, incentives to precept, and barriers to precept. Twenty-two (N=22) statements were extracted from the responses and coded as data points.

Table 22

Thematic Responses (N=22)

Thematic Category	Frequency	Percentage
Attitudes		
Opinions	2	9
Suggestions	3	14
Experiences		
Positive	0	0
Negative	4	18
Incentives		
Enjoy precepting	0	0
Opportunity to learn from students	0	0
Give back to profession	0	0
Barriers		
Time constraints	4	18
Lack of space for student	0	0
Issues with student use of EHR	0	0
Compensation concerns	9	41

Five statements (5, 23%) were coded as attitudes and included concepts such as, “fewer hours per student would improve the role,” “preference to PA students as current PA faculty member,” “precepting creates highly skilled NPs,” “Sanford needs to do more to incentivize preceptors,” and “colleges will need to provide financial incentive to preceptors.” Four statements (4, 18%) were coded as preceptor experience, zero positive and four negatives. Negative statements included concepts such as, “hard [to take students],” “difficult to reduce patient load,” “difficult to develop relationship with student,” “difficult to coordinate student schedule.” Statements coded as incentives were not identified in any of the responses. Thirteen statements (13, 59%) were coded as barriers. Deductive subcategories were selected based on top barriers identified in the survey and include time constraints (4, 18%), lack of space (0,0%), and issues with the EHR (0, 0%). Time constraint statements included concepts such as “students slow you down,” “students need too many hours,” “less time to teach.” An inductive subcategory, compensation, was added as compensation emerged as a significant concept in the responses. Nine (9, 41%) statements were coded as compensation and statements include concepts such as “hard to take students with RVU based payment,” “difficult to work with students due to compensation plan,” and “students can affect reimbursement.”

Objective Three

The third objective of this project was: Quantify the extended working hours/lost personal time related to precepting of the five APP preceptors participating in the focus group over a three-month period. Due to lack of participants to complete the hour tracking form, no data was collected thus no results were available.

Objective Four

The fourth objective of this project was: Disseminate the results and recommendations of the data collection tools via PowerPoint presentation to the APP Council. The PowerPoint was presented by the co-investigator to the APP and Nursing Student Placement Council (hereby referred to as the Student Placement Council) on February 19th, 2021. The Sanford liaison felt that the Student Placement Council was the most appropriate council to share the findings with as the council was actively addressing APP preceptor recruitment on the February agenda. Five out of 10 council members (50%) were present at the presentation. The presentation lasted 15 minutes with an additional 30 minutes of question and answer with the co-investigator. Council members collectively expressed positive reactions to the presentation. The primary theme expressed by the council members was "action." The council expressed the desire to translate the recommendations into additional practice improvement projects to further develop the SH preceptor experience. Additional information regarding commentary from the presentation was included in the Discussion portion of Chapter Five.

CHAPTER FIVE: DISCUSSION AND RECOMMENDATIONS

Summary

The project was an exploration of the preceptor role at Sanford Health (SH), in response to a request by the APP Council at the SH. Nationally, NP student enrollment has increased steadily since 2007 (AANP, 2019). Nurse practitioner programs have found obtaining clinical preceptors to be incredibly challenging, 94% of program directors express (n=295) concern over securing preceptors (AAMC, 2014). Demand for clinical preceptors has increased along with NP student enrollment and APPs in primary care are heavily sought as preceptors (Doherty et al., 2019). In addition to requests for preceptorship, APPs experience many other demands in their role, including productivity-based reimbursement, high patient quotas, and time-consuming documentation and activities related to the EHR. The daily requirements of the APP's workday, combined with the unique challenges of precepting can contribute to APP role strain and burnout, and thus perpetuating the preceptor shortage (Faraz, 2016; Hagan & Curtis, 2018; Roberts et al., 2017; Todd et al., 2019).

Sanford Health has experienced the increased preceptor demand. In the 2019-2020 school year, SH placed 76 APP students for a total of 8,849 clinical hours. Over half the hours requested were for placement in primary care. The APP Council has been exploring the experience of preceptors for several years. In 2018, the council surveyed APPs throughout the organization. The survey was completed by APPs throughout all departments and included certified registered nurse anesthetists (CRNA) as well as NPs and PAs. Student rotations in specialty areas tend to be much shorter and more observational in nature and CRNA student rotations differ from other APRN clinical rotations. As such survey responses expressed a wide variety of preceptor attitudes and experiences. Due to the variety of experiences, council members struggled to

identify themes in the preceptor experiences or determine which practice improvement projects would benefit the most preceptors. The council elected to survey a group of APPs in primary care because most clinical requests for preceptors are for placement in primary care. The co-investigator developed a survey to examine preceptors' attitudes, experiences, and interactions with aspects of structural empowerment at SH. The aspects of structural empowerment examined in the project included preceptor's perception of administrative support, awareness and usefulness of existing and potential preceptor resources, relationships with graduate nursing faculty, and incentives and barriers to precepting.

Results of the survey of SH preceptors reflected a positive overall experience which corresponds to existing preceptor research. As such, valuable resources and recommendations in the literature may be useful for guiding and enhancing the preceptor role at SH. Recommendations developed from the survey results and review of literature were included to direct development of the SH preceptor role.

Discussion

Overall Preceptor Experience

Objective One and Two focused on exploring experiences of APP preceptors regarding preceptor attitudes, existing and potential incentives to precept, and barriers of the preceptor role. Most SH preceptors felt supported and valued by clinic administration when serving as a preceptor. Participants have had a positive overall preceptor experience and plan to continue precepting students. Similarly, in the Todd et al. (2019) survey 97% of preceptors enjoyed the role, likewise 93% of preceptors in the Latessa et al. (2013) survey enjoyed the experience and 91% planned to continue precepting. Sanford Health preceptors expressed confidence in their precepting ability. Preceptor confidence was a motivating factor in the decision to continue

precepting in the Morgan et al. (2018) survey. Fifty-six percent of preceptors in the Todd et al. (2019) study listed role confidence as motivation to continue to precept.

All the SH preceptors denied feeling pressured to precept students, a contrast from the summary of the data from a similar study at SH conducted in 2018. A major theme in the 2018 survey was the lack of autonomy in the decision to precept. Free-text responses from 2018 expressed concepts such as feeling "forced" to precept and that preceptors "had no say in the matter." Sanford Health preceptors' feelings related to the decision to precept suggest autonomy in the preceptor role. Autonomy improves employee's perceptions of professional visibility and is a crucial component of structural empowerment (Faraz, 2016; Orgambidez-Ramos & Borrego-Ales, 2014).

Incentives

Identifying incentives and barriers to precepting was a significant component of this project. Lists of incentives and barriers were adapted from several surveys found in the literature including Morgan et al. (2015), Roberts et al. (2017), Todd et al. (2019), and Webb et al. (2015). Notably, items addressing compensation or lack of compensation were not included at the request of the Sanford liaison. The APP Council and SH administration preferred not to address compensation in the scope of this project.

Incentives to continue to precept for SH preceptors included enjoyment of precepting, learning from students, and a sense of obligation/giving back to the profession as the top three incentives. Enjoying the preceptor role is a recurrent theme in the literature. Ninety-seven percent of preceptors in Todd et al. (2019) survey ranked "enjoy precepting student" as "very important." Free-text responses in the Robert et al. (2017) study identified intrinsic incentives as the second most important category of incentives and enjoyment of precepting was a major

theme. Similarly, preceptors in the Morgan et al. (2015) survey frequently free texted the response, “love to teach.”

Sanford Health preceptors ranked learning from students as the second most important incentive to precept. Roberts et al. (2017) acknowledged that exposure to new medications and clinical guideline updates by students is an important benefit of precepting as well as a vital component to staying current in clinical practice. Professional obligation or desire to give back to the profession, ranked third most important incentive to precept by SH participants. The desire to give back to the profession was frequently identified as an incentive to precept in the literature review (Amirehsani et al., 2019; Roberts et al., 2017; Webb et al., 2015; Todd et al., 2019). Gifts from the student, preceptor recognition events, or access to university online libraries were low ranked incentives among SH participants. Said incentives also ranked exceptionally low or unimportant in multiple preceptor surveys (Morgan et al., 2018; Roberts et al., 2017; Todd et al.,2019).

Barriers

Sanford Health preceptors (72%) identified time constraints as the number one barrier to precepting and overwhelmingly (100%) listed time constraints among the top three barriers. In the Amella et al. (2001) study, providers estimated that precepting increased the workday by 30-60 minutes. For 82% of preceptors in the Fincham et al. (2019) survey, time constraints and scheduling were the biggest barriers to precepting. Seventy-five percent of respondents believed that the workday was extended due to precepting.

Scheduling problems contribute to time constraints; Fincham et al. (2019) reported that 93% of preceptors’ schedules were not reduced to compensate for the additional time demands of precepting. Seventy-two percent of SH preceptors responded positively to the survey statement,

"A reduced patient load when precepting, based on student's level of experience, would improve the preceptor experience." Preceptors in the Robert et al. (2017) echoed this sentiment in free-text responses, reporting a reduced patient load would enhance the preceptor experience.

Preceptors are clearly strained by the time commitment of precepting and desire scheduling solutions to ease the burden. Confoundingly, though preceptors expressed interest in a reduced patient load, another top concern was reduced productivity and lack of financial compensation. While lost productivity and lack of compensation were not directly addressed in the survey, 41% of coded statements in the free-text responses referenced compensation. Sanford Health preceptors responded that they "can't afford" to precept due to a decreased earning floor. One participant reported, "the biggest draw-back to precepting is it can slow you down […]and that can affect reimbursement as we are paid on RVUs." Concerns over reduced productivity are abundant in previous research. Fifty-nine percent of preceptors in the Morgan et al. (2018) survey chose lost productivity as the number one barrier to precepting and a major theme in free-text questions in Roberts et al. (2017) was reduced productivity due to precepting.

Objective Three of the project sought to quantify extended working hours related to precepting using an hour tracking form. Unfortunately, due to lack of preceptor volunteers, the hour tracking form was eliminated from the project and no objective data regarding the impact of precepting on the length of the workday was obtained.

Preceptor resources and structural empowerment

Resources that are easy to access and utilize are a component of structural empowerment (Kanter, 1993). Potential and existing preceptor resources addressed in the survey included faculty site visits, preceptor trainings, organizational policies, and APP student forms. Most SH preceptors have never had a faculty site visit while precepting. Nursing program directors

surveyed stressed the importance of site visits and state that one to two site visits per rotation were recommend (Pitts et al., 2019). Sanford Health preceptors may be missing the benefit of valuable collaboration with nursing faculty and the disconnect between preceptors and faculty should be rectified.

Sanford Health preceptors' attitude toward preceptor training opportunities differed from preceptor attitudes in the literature. Most participants (66%) disagreed that a preceptor training course would be valuable and would unlikely attend. Conversely, Fincham et al. (2019) found 68% of preceptors (n=63) felt a preceptor training course would be valuable. In the Logan et al. (2015) study 67% of preceptors (n=50) expressed willingness to attend a half-day preceptor training seminar. While SH preceptors are not interested in trainings, researchers studying preceptor training have found formal preceptor training increases job satisfaction and preceptor effectiveness and SH preceptors' training hesitancy should be explored (Gatewood & De Gagne, 2019; Kennedy, 2019).

Clear policies are an important aspect of structural empowerment and provide preceptors with information necessary for role performance (Kanter, 1993). Sanford Health preceptors have mixed awareness of existing policies. Most are cognizant of policies related to precepting, such as student documentation and student scope of practice. A positive response regarding preceptor awareness of SH policies suggests SH preceptors not only know about the policies but follow the policies when precepting.

Unfortunately, five preceptors were unaware of another valuable resource, the APP Student Getting to Know Me and the APP Clinical Experience Tracking forms (Appendix G). Student forms were developed by the APP council in response to the 2018 survey. Students are asked to complete the forms prior to clinical rotations to introduce themselves to the preceptor

and to describe clinical experience. While 56% of SH preceptors found the forms "helpful" or "extremely helpful," 28% have never seen the forms. Students invest time in completing the forms and most SH preceptors find the forms helpful, increasing awareness of this valuable resource must be prioritized by clinical site administrators when promoting the preceptor role.

Objective Four

Survey findings and recommendations from the review of literature were summarized and presented to the APP and Nursing Student Placement council. The council consists of 10 members, five (50%) attended the presentation. Council members attendance included the Director of Nursing, Southpointe Clinic Director, Executive Director of Primary Care and Behavioral Health, the Chair of the APP, and the Student Experiences Coordinator. Findings and recommendations were presented followed by a 30- minute question and answer session. Council members expressed excitement and reported feeling encouraged by the findings. One member was most surprised that participants felt they were not being forced to precept. The comment inspired conversation regarding the preceptor recruitment process and how to have collaborative conversations with prospective preceptors. Scheduling strategies suggested in the presentation were identified by council members as an actionable recommendation with a low barrier to implementation. Council members expressed discouragement that preceptor compensation and schedule modification was out of the scope of the council. Members felt wave scheduling may be an excellent solution to reduce the time burden on preceptors without impacting productivity and that the council could facilitate this intervention. One member recommended presenting PowerPoint at an APP Council meeting to allow providers to reflect on survey findings and identify recommendations they find potentially helpful.

Recommendations

Recommendations developed from the survey findings and review of literature were included in the co-investigator's presentation to the Student Placement Council and summarized below.

- Providers must be empowered to decide if they want to precept or not. Autonomy is a crucial component of structural empowerment, job satisfaction, and employee retention (Faraz, 2016; Orgambidez-Ramos & Borrego-Ales, 2014). All primary care SH preceptors who completed the survey felt precepting was their choice. Primary care clinic directors at SH are evidently connecting with participants in a way that empowers individuals to decide whether they want to precept or not. Stakeholders might query primary care clinic directors to identify what communication techniques empower the preceptor's decision to precept.
- Emphasizing intrinsic incentives that preceptors highly value is more important than providing incentives that organizations think preceptors want. Sanford Health preceptors are intrinsically motivated to precept and intend to continue precepting for the personal, internal benefits they experience. A such, stakeholders should avoid wasting resources on low ranked, unimportant incentives, and instead prioritize reducing preceptor barriers and expanding preceptor resources.
- Sanford Health administrators might consider addressing financial compensation. Preceptors frequently described financial compensation as an important incentive to precept (Morgan et al., 2018; Roberts et al., 2017; Todd et al., 2019; Webb et al., 2015). While the organization may be unprepared to compensate preceptors, understanding SH preceptors' desire for financial compensation is meaningful.

Sanford Health stakeholders may utilize data describing interest in financial compensation to reinforce policy change supporting preceptor compensation and represent preceptor interests to outside parties.

- Further research regarding reduced RVU production and extended preceptor workdays would enrich stakeholder's understanding of the preceptor experience. Research quantifying lost productivity and extended workdays related to precepting is lacking in the existing literature. Stakeholders may consider research measuring productivity and work hours when precepting to provide evidence on the financial impacts of precepting. Research correlating reduced RVU generation and/or extended workdays to precepting could be used by stakeholders to influence legislators, professional organizations, and nursing programs to prioritize compensating preceptors.
- Implementing creative scheduling strategies may lessen the burden of time constraints related to precepting without reducing RVU generation. A reduced patient load for preceptors may not be feasible; however, SH stakeholders could adopt strategies to accommodate precepting without negatively impacting productivity. The focused half day and wave scheduling are two workflow strategies known to improve preceptor efficiency and timeliness (Barker and Pittman, 2010; Lehner & Smith, 2016). Both strategies are described in the PowerPoint in Appendix J.
- Standard expectations of graduate nursing programs should be established. Nursing programs have different processes for student rotations which may be overwhelming for preceptors. Clinic administration and leadership should establish a process to standardize precepting for clinic providers. Logan et al. (2015) recommends

establishing an organization-wide expectation for number of site visits and preferred means of communication amongst the preceptor, student, and faculty. National Organization of Nurse Practitioner Faculties (NONPF) and the AANP created a checklist outlining responsibilities of the preceptor, faculty, and student that may be useful to establish clear expectations for all clinical rotations (Pitts et al., 2019). Authors recommend adapting the checklist to suite the clinical site and preceptors' needs.

- Access to preceptor model education and organization-specific preceptor training courses would enhance the preceptor role at Sanford Health. Providers who attend formal trainings are more confident and effective preceptors and have greater satisfaction in the preceptor role (Gatewood & De Gagne, 2019; Kennedy, 2019; Logan et al., 2015). Both organization-specific preceptor trainings and trainings regarding standardized preceptor models are recommended. Preceptor models are teaching methods that outline a standardized approach to providing clinical education (Bazzell & Dains, 2017). Preceptors utilize the stepwise approach provided in models to assess student knowledge, guide student learning, and provide meaningful feedback. Organization-specific preceptor training creates standardized expectations and processes for preceptors, and informs preceptors of available resources, such as the student forms SH preceptors were unaware of (Logan et al., 2015). Recommendations for preceptor model trainings and organization-specific trainings are included in the PowerPoint in Appendix F. The importance of preceptor training is clearly described in the literature and stakeholders should explore SH preceptors' hesitation to complete preceptor training.

Theoretical Framework and Model

Kanter's Theory of Structural Empowerment was appropriate for the project. Kanter states that empowerment in the workplace occurs when organizations provide employees with information, resources, administrative support, and opportunities to develop professionally (Kanter, 1993). When employees access and utilize empowering structures they become psychologically empowered, a phenomenon that creates feelings of autonomy and job meaningfulness (Larkin et al., 2008). Employees who are psychologically empowered experience increased job satisfaction, commitment to the organization, and role efficacy. Sanford Health preceptors reported high levels of role satisfaction and enjoyment of precepting, awareness and utilization of existing resources, and support from clinic administration. Researchers may assume that preceptors are experiencing elevated levels of empowerment due to existing empowerment structures at Sanford Health.

Potential empowerment structures were also addressed in the survey. According to Erickson et al. (2003), "empowerment is thought to occur when an organization sincerely engages people and progressively responds to engagement with mutual interest and intention to promote growth" (p. 96). Project team members empowered providers to enhance the preceptor experience through participation in research and promoted interdisciplinary engagement via the stakeholder presentation. Exploring the preceptor experience revealed the value of existing empowerment structures and uncovered the opportunity for the implementation of new empowering resources and strategies.

Use of the PDSA cycle was helpful for planning, implementing, and evaluating the project. Investigators used the stepwise approach of the PDSA cycle to explore the preceptor experience and identify actionable items within each step. A natural progression of the project

emerged as the model is meant to be a continuous cycle (MNDH, n.d.). The APP Council and Student Placement Council can begin the cycle again as they plan interventions based on the co-investigator's recommendations presented in the PowerPoint presentation. Recommendations the councils intend to pursue include wave scheduling, development of an organization-specific preceptor training course, and an annual survey of SH preceptors.

Implications for Practice and Policy

Advanced practice provider preceptors will continue to be an essential component to nurse practitioner student education and providers must be empowered to influence the preceptor role. Providers and healthcare administrators can enhance precepting by developing and implementing empowering structures. The co-investigator identified opportunities to implement strategies identified in the literature that support the preceptor role to increase APP job satisfaction and improving NP student outcomes.

Policy implications were also identified in the project. Preceptors in this and other surveys have articulated barriers of lost productivity and lack of preceptor compensation. CMS funding and state level tax incentives were identified as two possible opportunities for preceptor compensation, though addressing these complex matters further was outside the scope of this project. Forming alliances with employers, NP professional organizations, state boards of nursing, and legislators on issues of preceptor compensation may be more effectual than individual NP approaches.

Dissemination

In service of Objective Four, findings and recommendations from this project were shared with a stakeholder committee via PowerPoint presentation. A virtual poster was presented at the 2020 North Dakota Nurse Practitioner Association pharmacology conference exhibition

and at North Dakota State University in Fall 2020 and Spring 2021, respectively. The project was presented at the co-investigator's final defense to the dissertation committee for the disquisition.

Limitations

While the sample was representative of the primary care APP population in the Fargo-Moorhead area, a small sample size limited the capacity for integrative analysis. Chi-square testing was attempted to determine interdependence of demographic variables, such as years of experience or role (NP vs PA), however tests were invalid due to small sample size. Integrative analysis would have provided the ability to identify trends in the preceptor experience among subcategories of participants. Researchers could utilize integrative analysis to target interventions, resources, and support to specific groups of preceptors should trends regarding preceptor attitudes and needs among groups emerge.

A larger sample size may have been possible had the study period been 8 weeks as originally planned. The project was approved in September 2020 by the Nursing Research Review committee; however, final approval was not granted until December 2020. An appended step was added to the approval process, usually the Sanford Nursing Research committee has the final say, however approval from the Vice President of Nursing and Medical Director were required to proceed. Delay in leadership review of the project was due to urgent matters related to the Covid-19 pandemic. As such, the survey period was limited to 4 weeks, which may have prevented targeted providers from participating.

Delayed project approval and the Covid-19 pandemic contributed to lack of volunteers for focus group participation. The co-investigator intended to recruit participants at in-person APP Council meetings. In response to Covid-19 pandemic restrictions, APP council meetings

became virtual, and attendance declined. Focus group recruitment was attempted four times via organization email, however no APPs responded or volunteered.

The study tool may have created limitation to the project. As previously described, a free-text question was included to obtain qualitative responses from participants. Less than half of participants responded to the free-text question as response was not mandatory to complete the survey. Free-text responses were optional to prevent participant abdication of the survey. Eight participants responded to the free-text response. To obtain more responses, the co-investigator may consider making the free-text response required to complete the survey and offered an incentive, such as a drawing for a gift card, upon completion of the survey.

Conclusion

The purpose of this project was to explore the experiences of primary care APP preceptors in the outpatient clinic setting at Sanford Health in response to a request by the APP council. Preceptors are in high demand and as such, providers who serve as preceptors are at risk for role strain and burnout. The co-investigator identified opportunities for practice improvement and further research but found the preceptor experience at Sanford was generally positive. The project may inform future practice improvement projects at SH including on-going preceptor surveys, creation of preceptor resources, and development of preceptor training modules at Sanford.

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APPENDIX A: APP CLINICAL PLACEMENT NEEDS

	A	B	C	D	E	F
1	**APP Clinical Placement Needs**					
2	Requested: 90	Filled: 76	Location was not in Fargo (but within our region)			
3	***Program***	***School***	***Period***	***Req. Hrs***	***Facility***	***Department***
4	Neonatal Nurse Practitior	University of Missouri Kansas City	08/19/19 - 12/13/19	72		NICU
5	Neonatal Nurse Practitior	University of Missouri Kansas City	08/19/19 - 12/13/19	72		NICU
6	Nurse Practitioner (NP)	North Dakota State University - Fargo	08/26/19-12/20/19	40		Internal Medicine
7	Nurse Practitioner (NP)	University of North Dakota	08/19/19 - 12/13/19	40		Cardiology
8	Nurse Practitioner (NP)	Maryville University	08/25/19 - 12/15/19	125		Cardiology
9	Nurse Practitioner (NP)	Maryville University	08/26/19 - 12/15/19	120		Cardiology
10	Nurse Practitioner (NP)	Maryville University	08/25/19 - 12/15/19	125		Critical Care
11	Nurse Practitioner (NP)	University of North Dakota	08/19/19 - 12/13/19	40	EGF	Dermatology
12	Nurse Practitioner (NP)	University of North Dakota	08/19/19 - 12/13/19	40	EGF	Dermatology
13	Nurse Practitioner (NP)	Maryville University	08/26/19 - 12/15/19	250		Emergency Department
14	Nurse Practitioner (NP)	University of North Dakota	08/19/19 - 12/13/19	40		Endocrinology
15	Nurse Practitioner (NP)	North Dakota State University - Fargo	08/19/19 - 12/13/19	60		Family Practice
16	Nurse Practitioner (NP)	Georgetown University	09/02/19-12/13/19	150		Family Practice
17	Nurse Practitioner (NP)	North Dakota State University - Fargo	08/19/19 - 12/06/19	140	Jamestown	Family Practice
18	Nurse Practitioner (NP)	Concordia University-Wisconsin	08/26/19 - 12/06/19	200		Family Practice
19	Nurse Practitioner (NP)	North Dakota State University - Fargo		50		Family Practice
20	Nurse Practitioner (NP)	North Dakota State University - Fargo	08/26/19 - 12/20/19	120	Valley City	Family Practice
21	Nurse Practitioner (NP)	North Dakota State University - Fargo	08/26/19 - 12/20/19	140		Family Practice
22	Nurse Practitioner (NP)	North Dakota State University - Fargo	08/26/19 - 12/20/19	180	TRF	Family Practice
23	Nurse Practitioner (NP)	North Dakota State University - Fargo	08/27/19 - 12/20/19	90	Ulen	Family Practice
24	Nurse Practitioner (NP)	North Dakota State University - Fargo	08/26/19 - 12/20/19	140	Alexandria	Family Practice
25	Nurse Practitioner (NP)	North Dakota State University - Fargo	08/26/19 - 12/20/19	140	DL	Family Practice

26	Nurse Practitioner (NP)	North Dakota State University - Fargo	08/26/19 - 12/20/19	140	DL	Family Practice
27	Nurse Practitioner (NP)	North Dakota State University - Fargo	08/26/19 - 12/20/19	100		Family Practice
28	Nurse Practitioner (NP)	North Dakota State University - Fargo	08/26/19 - 12/20/19	180	Valley City	Family Practice
29	Nurse Practitioner (NP)	North Dakota State University - Fargo	08/26/19 - 12/20/19	40		Endocrinology
30	Nurse Practitioner (NP)	North Dakota State University - Fargo	08/26/19 - 12/20/19	60		Family Practice
31	Nurse Practitioner (NP)	University of North Dakota	08/26/19-12/20/19	140	Pelican Rapids	Family Practice
32	Nurse Practitioner (NP)	University of Mary	09/09/19 - 12/13/19	200		Family Practice
33	Nurse Practitioner (NP)	Simmons College	09/09/19 - 12/14/19	224	Split Fargo/Mahnomen	Family Practice
34	Nurse Practitioner (NP)	North Dakota State University - Fargo	08/26/19-12/20/19	140	Wahpeton	Family Practice
35	Nurse Practitioner (NP)	University of North Dakota	08/19/19-12/13/19	225	Wahpeton	Family Practice
36	Nurse Practitioner (NP)	University of North Dakota	08/19/19 - 12/13/19	150		Family Practice
37	Nurse Practitioner (NP)	University of North Dakota	08/19/19 - 12/13/19	150		Family Practice
38	Nurse Practitioner (NP)	University of North Dakota	08/19/19 - 12/13/19	150		Family Practice
39	Nurse Practitioner (NP)	University of North Dakota	08/19/19 - 12/13/19	150		Family Practice
40	Nurse Practitioner (NP)	University of North Dakota	08/19/19 - 12/13/19	150	TRF	Family Practice
41	Nurse Practitioner (NP)	University of North Dakota	08/19/19 - 12/13/19	150		Family Practice
42	Nurse Practitioner (NP)	University of North Dakota	08/19/19 - 12/13/19	150	Lisbon	Family Practice
43	Nurse Practitioner (NP)	University of North Dakota	08/19/19 - 12/13/19	40		Hospitalist
44	Nurse Practitioner (NP)	Maryville University	08/26/19 - 12/15/19	40		Hospitalist
45	Nurse Practitioner (NP)	Maryville University	08/26/19 - 12/15/19	40		Infectious Disease
46	Nurse Practitioner (NP)	University of North Dakota	08/19/19 - 12/13/19	40		Nephrology
47	Nurse Practitioner (NP)	University of North Dakota	08/19/19 - 12/13/19	40	DL	OB-GYN
48	Nurse Practitioner (NP)	University of North Dakota	08/19/19 - 12/13/19	40	DL	OB-GYN
49	Nurse Practitioner (NP)	Maryville University	08/26/19 - 12/15/19	70	Placed in DL	OB-GYN
50	Nurse Practitioner (NP)	Maryville University	08/26/19 - 12/15/19	70		OB-GYN

51	Nurse Practitioner (NP)	Maryville University	08/26/19 - 12/15/19	70		OB-GYN
52	Nurse Practitioner (NP)	Simmons College	09/09/19-12/14/19	112	Placed in Jamestown	OB-GYN
53	Nurse Practitioner (NP)	North Dakota State University - Fargo	08/26/19-12/20/19	40		OB-GYN
54	Nurse Practitioner (NP)	North Dakota State University - Fargo	08/26/19-12/20/19	40		OB-GYN
55	Nurse Practitioner (NP)	North Dakota State University - Fargo	08/26/19-12/20/19	40		OB-GYN
56	Nurse Practitioner (NP)	University of North Dakota	08/19/19 - 12/13/19	40		Oncology
57	Nurse Practitioner (NP)	University of North Dakota	08/19/19 - 12/13/19	40		Orthopedics
58	Nurse Practitioner (NP)	North Dakota State University - Fargo	08/26/19-12/20/19	40		Orthopedics
59	Nurse Practitioner (NP)	North Dakota State University - Fargo	08/26/19-12/20/19	40		Orthopedics
60	Nurse Practitioner (NP)	University of North Dakota	08/19/19 - 12/13/19	40		Orthopedics
61	Nurse Practitioner (NP)	Maryville University	08/26/19 - 12/15/19	165		Pediatrics
62	Nurse Practitioner (NP)	Maryville University	08/26/19 - 12/15/19	250		Pediatrics
63	Nurse Practitioner (NP)	Maryville University	08/26/19 - 12/15/19	165		Pediatrics
64	Nurse Practitioner (NP)	North Dakota State University - Fargo	08/26/19-12/20/19	40		Pediatrics
65	Nurse Practitioner (NP)	Maryville University	08/26/19 - 12/15/19	165		Pediatrics
66	Nurse Practitioner (NP)	University of North Dakota	08/19/19 - 12/13/19	40		Pediatrics
67	Nurse Practitioner (NP)	University of North Dakota	08/19/19 - 12/13/19	40		Pediatrics
68	Nurse Practitioner (NP)	Spring Arbor University	08/05/19 - 01/26/20	125	Alexandria	Urgent Care
69	Nurse Practitioner (NP)	Frontier Nursing University	07/22/19-01/22/20	300		OB-GYN
70	Nurse Practitioner (NP)	Frontier Nursing University	07/22/19-01/22/2020	300		OB-GYN
71	Nurse Practitioner (NP)	Walden Univeristy	08/26/19-11/10/19	160	Jamestown	Psychology
72	Physician Assistant (PA)	De Moines University	12/31/19-1/21/20	160	Hillsboro	Family Practice
73	Physician Assistant (PA)	University of North Dakota	09/16/19 - 12/20/19	352		Family Practice
74	Physician Assistant (PA)	University of North Dakota	09/16/19 - 12/20/19	80		Hospitalist
75	Physician Assistant (PA)	University of North Dakota	09/16/19 - 12/20/19	80		Hospitalist

Sanford Health Student Placement Coordinator (2020)

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APPENDIX C: SURVEY RECRUITMENT AND CONSENT

Hello,

My name is Carly Kaspari. I am a third year Doctor of Nursing Practice student at NDSU, and I am reaching out to request your participation in a research study. In partnership with the Sanford APP Council, I am researching the APP preceptor experience at Sanford for my dissertation project.

You have been selected to participate in this research as our area of focus is specifically APPs working in Internal or Family Medicine. These departments receive the majority of requests for clinical hours for nurse practitioner student preceptorship and the goal of this project is to gather information regarding the preceptor experience to ultimately make recommendations and provide resources to enhance the preceptor experience at Sanford.

Included in this email is a link to an anonymous survey. Attached in the email is an informed consent form further detailing this research and disclosing any potential risks and benefits to the study.

Thank you for reading this email, I appreciate your time and hope you will consider participating in my research. Please feel free to contact me at this email or at 701-730-4623 with any questions.

Carly Kaspari, DNP-S, BSN, RN

North Dakota State University
School of Nursing
1919 N University Drive
NDSU Dept. 2670 PO Box 6050
Fargo, ND 58108-6050
(701) 231-7395

Advanced Practice Provider Experiences Precepting Nurse Practitioner Students

Dear participant:

My name is Carly Kaspari. I am a graduate student in the School of Nursing at North Dakota State University (NDSU), and I am conducting a survey to seek feedback on the experiences of advanced practice providers serving as clinical preceptors to nurse practitioner students. The survey will inform research in service of my dissertation project to meet the requirements for graduation with a doctorate in nursing practice. The survey is being sent to APPs at the Sanford Broadway Clinic, Sanford North Fargo Clinic, Sanford Southpointe Clinic, Sanford Moorhead Campus, Sanford West Fargo Clinic and Sanford Veterans Square Clinic who work in Internal or Family Medicine.

Participation in the survey is voluntary. Participants will not incur cost or receive reimbursement for completing the survey. If you feel uncomfortable in any way while filling out the survey, you have the right to decline to answer any question(s), or to stop taking the survey at any time without consequence. This survey is anonymous. The survey will be administered electronically and will not include any personal identifiable information. The responses you give in the survey will not influence your current or future employment. The responses will aid in enhancing the APP preceptor experience at Sanford Health clinics in the FM area.

The survey should take about eight minute or less to complete. The survey information will be kept confidential and survey participants will not be identifiable in the survey results. Individual survey information will be combined with the information gathered from other participants taking part in the survey and reported in aggregate form only. The survey results will be part of the researcher's Doctor of Nursing Practice dissertation at NDSU and may be published in a professional journal. Participant's survey results will be reported in aggregate and individual responses will not be identifiable in the researcher's published work.

It is not possible to identify all potential risks in research procedures, but the researcher has taken reasonable safeguards to minimize any known risks.

If you have any questions or concerns about completing the survey or about being in this study, you may contact me at (701) 730-4623 or at carly.kaspari.2@ndsu.edu or contact my advisor Dr. Tina Lundeen at (701) 231-7747 or tina.lundeen@ndsu.edu. You have rights as a research participant. If you have questions about your rights or complaints about this research, you may talk to the researcher or contact the NDSU Human Research Protection Program at 701.231.8995, toll-free at 1-855-800-6717, by email at ndsu.irb@ndsu.edu, or by mail at NDSU HRPP Office, NDSU Dept. 4000, and P.O. Box 6050, Fargo, ND 58108-6050.

Thank you for taking part in the survey,

Sincerely,

Carly Kaspari, BSN, RN, DNP-Student

APPENDIX D: FOCUS GROUP RECRUITMENT AND CONSENT

Hello,

Thank you for your interest in the APP preceptor focus group. The purpose of this focus group is to provide greater insight into the experiences of APP preceptors at Sanford. The ultimate goal is to garner information from APP preceptors that will explore the APP experience and provide direction for further resources and suggestions to enhance the preceptor experience at Sanford.

The focus group will consist of an individual interview conducted via Zoom and an hour tracking form. The interview will consist of open- ended questions and participants are encouraged to share their experiences candidly. The interview responses will be confidential and not associated with any of your personally identifying information. The interview will take 20-30 minutes to complete.

The hour tracking form will be used to gather quantitative data regarding the time investment related to precepting. Preceptors will track their work-day hours and note if they have a nurse practitioner student with them that day. Data will be analyzed to determine if the presence of a student impacts the length of the APP's workday. This is exciting research as current literature lacks any quantitative data regarding the time investment of precepting.

Attached is an informed consent form further detailing the project and your rights as a participant. Participation in the interview and completion of the hour tracking form signifies your informed consent in participating in this project.

Thank you for your time, and please reach out to me at this email address or at 701-730-4623 with any questions.

Carly Kaspari

North Dakota State University
School of Nursing
1919 N University Drive
NDSU Dept. 2670 PO Box 6050
Fargo, ND 58108-6050
(701) 231-7395

Advanced Practice Provider Experiences Precepting Nurse Practitioner Students

Dear participant:

My name is Carly Kaspari. I am a graduate student in the School of Nursing at North Dakota State University (NDSU), and I am assembling a focus group to explore the experiences of advanced practice providers serving as clinical preceptors to nurse practitioner students. The goal of the focus group is to obtain qualitative information regarding the APP preceptor experience via individual interviews and to obtain quantitative information regarding the time investment related to precepting a nurse practitioner student. The focus group will consist of members of the APP council at Sanford Broadway Clinic, Sanford North Fargo Clinic, Sanford Southpointe Clinic, Sanford Moorhead Campus, Sanford West Fargo Clinic or Sanford Veterans Square Clinic who work in Internal or Family Medicine.

Focus group interviews will be conducted individually via Zoom with only this writer and the participant present. The interview will be recorded using the Zoom "record meeting" feature and any correspondence in the Zoom chat will be saved. Participation in the interview signifies your consent to be recorded. Recordings and saved chats will be stored on the researcher's personal password computer until the interview can be transcribed by this writer, after which time the recording will be destroyed. Transcriptions of the interviews will be stored on the researcher's personal password protected computer until successful defense of the project and graduation. Any personally identifying information will be redacted from the transcription of the interview. Your name will not be associated with your responses.

The hour tracking data form will be disseminated via Sanford email and downloaded to your office desktop. The form will be stored electronically on your computer during the data collection period. The form is not to be shared with other during the data collection period and upon completion and return to this writer, will be stored securely on the researcher's personal, password protected computer until successful defense of this project and graduation after which time it will be destroyed. Identifying information will not be associated with the completed form.

Participation in the focus group is voluntary. Participants will not occur cost or receive reimbursement for participating in focus group activities. If you feel uncomfortable in any way while filling out the participating in the interview, you have the right to decline to answer any question(s), or to stop the interview at any time without consequence. The responses you give in the interview and the data you record on the hour tracking form are confidential and will not influence your current or future employment. Your responses will aid in enhancing the APP preceptor experience at Sanford Health clinics in the FM area.

The information gathered from focus group activities will be kept confidential and participants will not be identifiable in any results. Individual focus group activity information will be combined with the information gathered from other participants taking part in the focus group and reported in aggregate form only. The focus group information will be part of the researcher's Doctor of Nursing Practice dissertation at NDSU and may be published in a professional journal. Participant's survey results will be reported in aggregate and individual responses will not be identifiable in the researcher's published work.

It is not possible to identify all potential risks in research procedures, but the researcher has taken reasonable safeguards to minimize any known risks.

If you have any questions or concerns about completing the survey or about being in this study, you may contact me at (701) 730-4623 or at carly.kaspari.2@ndsu.edu or contact my advisor Dr. Tina Lundeen at (701) 231-7747 or tina.lundeen@ndsu.edu. You have rights as a research participant. If you have questions about your rights or complaints about this research, you may talk to the researcher or contact the NDSU Human Research Protection Program at 701.231.8995, toll-free at 1-855-800-6717, by email at ndsu.irb@ndsu.edu, or by mail at NDSU HRPP Office, NDSU Dept. 4000, and P.O. Box 6050, Fargo, ND 58108-6050.

Thank you for taking part in the survey,

Sincerely,

Carly Kaspari, BSN, RN, DNP-Student

APPENDIX E: APP PRECEPTOR SURVEY

APP Preceptor Experience

Q1. Please select your role/title

a. Certified Nurse Practitioner
b. Physician Assistant
c.

Q2. How many years have you practiced as an APP?

Q3. What is your age?

Q4. What is your gender?

a. Male
b. Female

Q5. Please indicate how many hours per week you work.

a. <16
b. 16-32
c. 32-40
d. >40

Q6. Please indicate your department.

a. Internal Medicine
b. Family Medicine
c. Other (please indicate your department below)

Q7. Have you ever served as a preceptor for a nurse practitioner (NP) student?

a. Yes
b. No

(If yes, participants directed to Q8, if no, participants directed to Q26)

Q8. Please describe your experience serving as a preceptor to NP students.

a. Extremely positive
b. Somewhat positive
c. Neither positive nor negative
d. Somewhat negative
e. Extremely negative

Q9. I feel I have a choice if I want to precept a NP student or not.

a. Yes
b. No

Q10. Of the options below, please select the top 3 incentivizing factors that motivate you to precept, 1 being *most* incentivizing.

— Sense of professional obligation to provide mentorship to NP students
— Enjoy precepting
— Learn from students about most recent evidence-based practice guidelines and new medications
— Credit toward re-certification
— Foster a relationship with school of nursing and/or nursing faculty
— Access to library materials provided by the school of nursing
— Access to online clinical databases provided by the school of nursing
— Opportunity to serve as a guest lecturer at the school of nursing
— Opportunity to take a course at the university
— Discount at the school bookstore
— Precepting as a recruitment opportunity of new graduate APPs to your facility/department
— Preceptor recognition events by your employer/management
— Thanks and recognition from the student personally

Q11. Of the options below, please select the top 3 obstacles you have experienced when precepting NP students, 1 being the *most* significant obstacle.

— Time constraints
— Lack of office space to accommodate students
— Lack of employer support
— Lack of confidence in precepting ability
— Issues related to electronic medical recording

— Not interested in being a preceptor
— Patient acuity is not appropriate for NP students
— Inadequate provider staffing at clinic
— Practice setting in not appropriate for students
— Lack of faculty supervision/involvement/availability

Q12. I feel valued and supported by my clinic/hospital administration when serving as a preceptor.

a. Strongly agree
b. Somewhat agree
c. Neither agree nor disagree
d. Somewhat disagree
e. Strongly disagree

Q13. Please rank your level of confidence in your abilities as a preceptor.

a. Extremely confident
b. Somewhat confident
c. Neither confident nor unconfident
d. Somewhat unconfident
e. Extremely unconfident

Q14. I believe an in-person preceptor training course or computer-based training module would enhance my confidence as a preceptor.

a. Strongly agree
b. Somewhat agree
c. Neither agree nor disagree
d. Somewhat disagree
e. Strongly disagree

Q15. How likely are you to attend or complete an in-person preceptor training course or computer-based preceptor training module?

a. Extremely likely
b. Somewhat likely
c. Neither likely nor unlikely
d. Somewhat unlikely
e. Extremely unlikely

Q16. I have a good understanding of my facility's policies for NP student documentation.

a. Strongly agree
b. Somewhat agree
c. Neither agree nor disagree
d. Somewhat disagree
e. Strongly disagree

Q17. I have a good understanding of the NP student scope of practice (i.e., procedures the student can perform, level of independence afforded the student, amount of preceptor oversight required)

a. Strongly agree
b. Somewhat agree
c. Neither agree nor disagree
d. Somewhat disagree
e. Strongly disagree

Q18. I find the "APP Getting to know me" and the "APP Student Clinical Experience Tracking Form" to be a helpful tool in understanding the APPs students' previous experience and level of knowledge/ability

a. Very helpful
b. Somewhat helpful
c. Neither helpful nor unhelpful
d. Somewhat unhelpful
e. Completely unhelpful
f. I have never seen these student forms when precepting.

Q19. A reduced patient load when precepting, based on student's level of experience, would improve the preceptor experience.

a. Strongly agree
b. Somewhat agree
c. Neither agree nor disagree
d. Somewhat disagree
e. Strongly disagree

Q20. Receiving feedback and evaluation from my supervisors, NP students, and graduate nursing faculty would enhance my experience as a preceptor.

a. Strongly agree
b. Somewhat agree
c. Neither agree nor disagree
d. Somewhat disagree
e. Strongly disagree

Q21. The NP student's clinical objectives are clearly defined and my role in meeting the objectives is clear.

a. Strongly agree
b. Somewhat agree
c. Neither agree nor disagree
d. Somewhat disagree
e. Strongly disagree

Q22. I feel supported by the graduate nursing faculty when serving as a preceptor.

a. Strongly agree
b. Somewhat agree
c. Neither agree nor disagree
d. Somewhat disagree
e. Strongly disagree

Q23. Do you find site visits from graduate nursing faculty visits useful when precepting?

a. Extremely useful
b. Very useful
c. Moderately useful
d. Slightly useful
e. Not at all useful
f. I have never had a site visit from faculty

Q24. Based on your experiences precepting, how likely are you to continue precepting?

a. Extremely likely
b. Moderately likely
c. Slightly likely
d. Neither likely nor unlikely
e. Slightly unlikely
f. Moderately unlikely
g. Extremely unlikely

Q25. Please use the space below to include any additional thoughts regarding your experiences as a preceptor. *(Response optional)*

(Q25 end of preceptor items)

Q26. Please select the answer that best describes why you have not precepted.

a. I have less than 1 year in my role
b. I am not confident in my ability to precept
c. I am not interested in precepting
d. I have never been asked to precept

Q27. Based on your impression of precepting at Sanford, how likely are you to precept in the future?

a. Extremely likely
b. Somewhat likely
c. Neither likely nor unlikely
d. Slightly unlikely
e. Extremely unlikely

(Q27 end of non-preceptor items)

APPENDIX F: FINDINGS AND RECOMMENDATIONS POWERPOINT

Slide 1

Slide 2

Survey Results and Practice Recommendations

Carly Kaspari
BSN, RN, DNP Student

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Slide 3

Background and Significance

- There is a projected 36% increase in NPs by the year 2026 (AANP, 2019)
  - This correlates to an increase in NP students nationwide (Fitzgerald, 2018)
    - NP program enrollment as increased 14.5% each year from 2008-2017
  - 94% of NP program representatives report “significant concern” regarding securing qualified preceptors (American Association of Medical Colleges, 2014).
  - Increased demand due to increased student enrollment has overextended the preceptor pool, in addition to the increased strain on the APPs time has created burnout in the APP preceptor role (Morgan et al., 2018; Roberts et al., 2019, Roberts et al, 2017).
    - Productivity based reimbursement
    - Complicated EMR documentation requirements
    - Patient quotas
- Role strain is a major issue when it comes to recruiting and retaining preceptors and may also be linked to high rates of turnover in the APP workforce (Hagan & Curtis, 2018; Morgan et al., 2018)

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Slide 4

Sanford Significance

- 90 requests for APPA student placement in the Fargo market for the 2019-2020 school year
  - 76 students accepted (68 NP, 8 PA)
    - 31 students placed in primary care
- 8,849 clinical hours in total
  - Requests for 40-352 hours per student
  - 4,773 hours, over half of all requested hours were for placement in primary care
- 190 APPs in ambulatory positions to 74 students (excludes 15 neonatal providers/2 placement requests)
  - 2.5 providers per student
  - Does not take into account FTE

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Slide 5

Advanced Practice Provider Experiences Precepting Nurse Practitioner Students

Purpose statement: The purpose of this dissertation is to aid in the enrichment of the APP preceptor role at SHS by exploring the experiences of APP preceptors in the Internal and Family Medicine departments within an urban clinic setting.

Objectives

1. Explore experiences of APP preceptors by conducting survey of 38 APP preceptors (with a 50% response rate goal) regarding preceptor attitudes, existing and potential incentives to precept, and challenges and barriers of the preceptor role.
2. Explore experiences of APPs in the preceptor role at SHS by facilitating a focus group of five APP preceptors to identify qualitative themes regarding preceptor attitudes, existing and potential incentives to precept, and challenges and barriers of the preceptor role with expanded insight of the preceptor experience.
3. Quantify the extended working hours/lost personal time related to precepting of the five APP preceptors participating in the focus group over a three-month period.
4. Disseminate the results and recommendations of the data collection tools via PowerPoint presentation and One-Pager handout to the APP Council.

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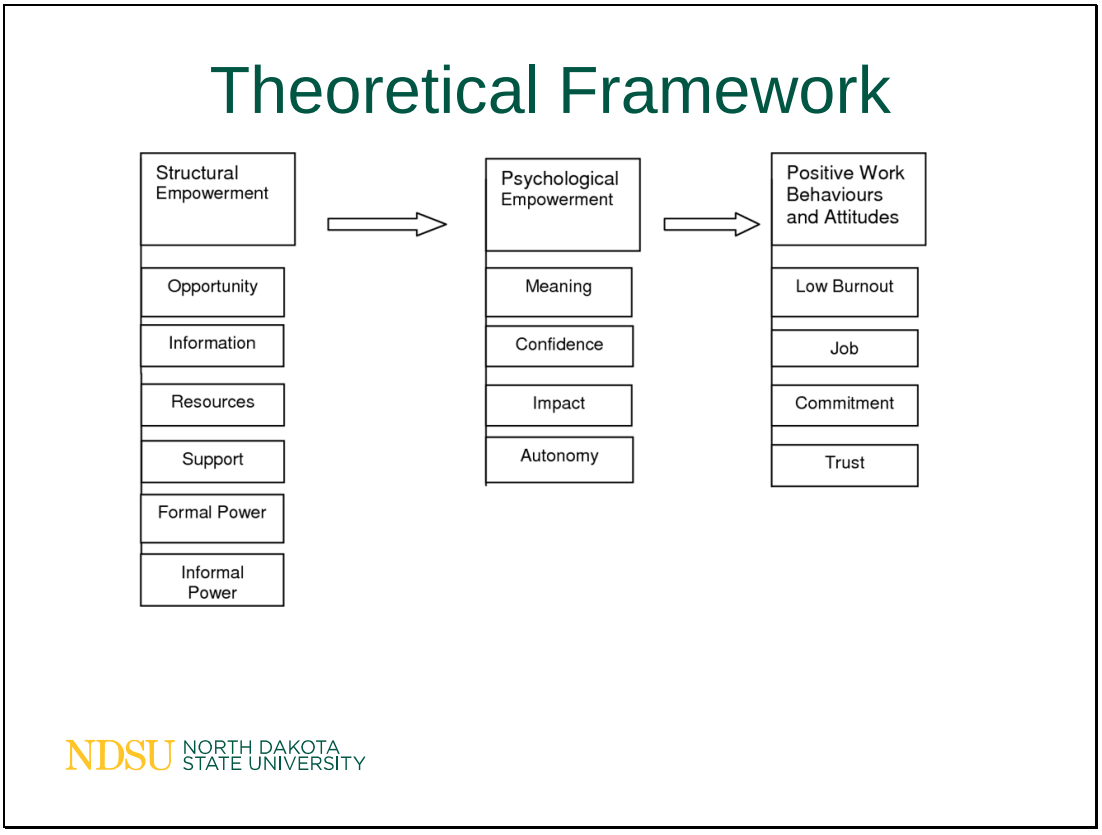
Slide 6


Theoretical Framework
Structural Empowerment
Opportunity
Information
Resources
Support
Formal Power
Informal Power
Psychological Empowerment
Meaning
Confidence
Impact
Autonomy
Positive Work Behaviours and Attitudes
Low Burnout
Job
Commitment
Trust
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Slide 7

The Survey

26 total questions, ~8 minutes to complete

Questions

- Multiple choice
- Yes or no
- 5 point Likert scale
- Two ranked item questions

Themes

- APP Demographics
- Preceptor experience with clinical site
- Preceptor experience with nursing school
- Likelihood of continuing to precept
- Free text regarding overall experience

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Demographics

22 out of 38 APPs participated in the survey

- Title: 15 NPs, 7 PAs
- Gender: 20 female, 2 male
- Age range: 25-60 years old
- Years in practice: 0.5-40 years
- FTE: 17 32-40 hrs/week, 5 >40 hours/week
- Department: 10 Internal Med, 11 Family Med, 1 Other (same day/walk-in)

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Slide 9

Preceptors

18 out of the 22 respondents (81%) report they have served as preceptors to an NP student

Of the 4 respondents who have not precepted, 2 have less than 1 year of experience and 1 has less than 2 years of experience. The 4th reports no interest in serving as a preceptor

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Slide 10

Survey Take Aways

- 100% of preceptors responded positively to the overall experience of precepting
  - 28% extremely positive, 72% somewhat positive
- 100% of preceptors felt it was their choice to precept
- 56% of preceptors feel valued/supported by clinic administration
  - Notably, providers with <5 years of experience were more likely to report feeling unsupported
- Attitudes toward the usefulness of formal preceptor training are mixed and only 39% report they would be likely to attend a formal preceptor training class
- Preceptor perception of level of knowledge is high-majority feel confident re: student scope of practice and documentation
  - Interestingly, there was lack of knowledge re: APP student forms, 55% found useful, but next largest group (28%) had never seen the forms

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Slide 11

Survey Take Aways

- 55% of preceptors feel a reduced patient load would improve the preceptor experience
- 67% of preceptors would value feedback on their precepting abilities, whether that was from clinic admin, students, or graduate faculty
- Preceptors seem to have a good experience working with graduate nursing faculty, majority responded positively to questions regarding relationship with faculty and understanding student objectives
  - Notably, almost half of preceptors, 44% have never had a faculty site visit while precepting
- Ultimately all of your preceptors responded they were likely to continue precepting

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Slide 12

Qualitative Themes

- 5/8 respondents mentioned compensation in some way
  - Key words included: RVU, productivity, compensation, financial incentive
- 4/8 respondents mentioned time as a major concern
  - Students “slow you down”
  - “Less time for students”
- Other take aways
  - Scheduling: Difficult to develop routine/rapport with students as their schedules can be very inconsistent, ex: 2 shifts in a week, then not back for 3 weeks
  - Hours: Would be more interested in taking students for shorter rotations

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Slide 13

Incentives

- Sense of professional obligation to provide mentorship to NP students
- Enjoy precepting
- Learn from students about most recent evidence-based practice guidelines and new medications
- Credit toward re-certification
- Foster a relationship with school of nursing and/or nursing faculty
- Access to library materials provided by the school of nursing
- Access to online clinical databases provided by the school of nursing
- Opportunity to serve as a guest lecturer at the school of nursing
- Opportunity to take a course at the university
- Discount at the school bookstore
- Precepting as a recruitment opportunity of new graduate APPs to your facility/department
- Preceptor recognition events by your employer/management
- Thanks and recognition from the student personally

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Slide 14

Barriers

- Time constraints
- Lack of office space to accommodate students
- Lack of employer support
- Lack of confidence in precepting ability
- Issues related to electronic medical recording
- Not interested in being a preceptor
- Patient acuity is not appropriate for NP students
- Inadequate provider staffing at clinic
- Practice setting in not appropriate for students
- Lack of faculty supervision/involvement/availability

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Slide 15

Top Three Incentives

#1 incentive to precept: Enjoy precepting

#2 incentive to precept: Learn from students/stay up to date in practice

#3 incentive to precept: Sense of professional obligation to provide mentorship to NP students

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Slide 16

Top Three Barriers

#1 barrier to precepting: Time constraints

#2 barrier to precepting: time constraints, inadequate space for students, issues related to the electronic medical record

#3 barrier to precepting: inadequate space for students, issues related to the electronic medical record

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Slide 17

Preceptor Training

- Currently no standardized APP preceptor training in school or at clinical sites (Gatewood and De Gagne, 2019)
- No clear direction for preceptors from graduate nursing programs (Logan et al., 2015)
  - Up to the clinical facility to provide their APPs with a standardized approach to precepting
- Preceptors are more confident and efficient after completing formal preceptor trainings (Gatewood & De Gagne, 2019;Logan et al., 2015; Wilkinson et al., 2015)
- Nurses who complete preceptor trainings have better preceptee outcomes, report higher levels of satisfaction with the preceptor role, report higher levels of self efficacy in preceptor strategies, and objectively test higher on knowledge of preceptor strategies (Kennedy, 2019)

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Slide 18

Training Continued…

- Preceptor training strategies
  - One Minute Preceptor Model
    - Method focused on teaching efficacy and efficiency (Neher et al., 1992)
  - Reporter-Interpreter-Manager-Educator Framework (RIME)
    - Framework for preceptors to assess adult learner
    - Useful for professionals who do not have traditional teaching experience to assess the current skill level of student learners (Fincham et al., 2019)
  - Summarize, narrow, analyze, probe, plan, select (SNAPPS)
    - Learner driven precepting approach that enhances critical thinking (Bazzell & Dains, 2017)
- Online or in person similarly effective (Wilkinson et al., 2015)
  - Interactive component is key to become competent with preceptor strategies

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Training Options

- E-Tips (Kassam et al., 2012)
  - Developed at University of British Columbia based on needs assessment of 500 health professionals in 10 different fields
  - 8 module series
  - 60-90 minutes to complete
  - Free to use
  - 80% of participants found the modules “very helpful” or “extremely helpful”
  - 100% of participants would recommend modules to others

https://www.ualberta.ca/pharmacy/preceptors/training/ubc-e-tips-for-practice-education.html

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Slide 20

Training Options

Enterprise-wide preceptor workshop (Fincham et al., 2019; Logan et al., 2015)

- Introduce existing tools and resources to your preceptors
  - 33% did not know about the APP Student Getting to Know Me form
- Skill building
  - How to teach/coach
  - How to give feedback
  - How to resolve conflict
  - Introduce precepting methods
- Address specific concerns
  - Strategies for time management
    - Review student documents prior to start of rotation, should have APP Student forms and syllabus and/or course objectives
    - Familiarize yourself with upcoming appointments on days student will be present and identify some appropriate cases
    - Utilize observation, talk through tasks as you do them, this keeps you on track but is still valuable to the student
    - Share realistic expectations- the student will not see every patient with the APP
    - Creative scheduling strategies

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Slide 21

Scheduling

- Inadequate data in ROL with objective measure of lost productivity or extended workdays d/t precepting
- Small study of MDs in 1996 showed 52 minute increase in workday when precepting and saw and average of 3.3 patients per hour when precepting versus 3.9 patient per hour when working alone (Vinson et al., 1996)
  - Reasonable to assume productivity is not necessarily impacted as the same average number of patients are scheduled, but provider is staying later to see all patients on days student is present
- Study has not been replicated, unsure of impact of EMR and other modern practice updates
- May consider replicating this research at Sanford to provide objective evidence to our preceptors on the actual impact of precepting both to their bottom line and length of workday

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Focused Half Day

Requires collaboration on part of the preceptor and student (Barker and Pittman, 2010)

- Student identifies area of focus, i.e. physicals, HEENT assessments, acute complaints, etc.
- Provider selects 1-3 patients for student to focus on, look up prior to appointment, see pt independently, report off to preceptor and document
  - Builds student confidence
  - Keeps provider on track
  - Less student documentation to review
  - Very appropriate for novice student
- Student sees these preselected patients and uses as much time as necessary to complete all required tasks, observes preceptor during other visits as time allows

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Wave Scheduling

- Scheduling strategy that allows provider to see full patient load without compromising efficiency, productivity, or extending the clinic day (Lehner & Smith, 2016)
  - No impact to patient satisfaction scores
  - Reduces preceptor burnout
  - Incorporates student as part of the treatment team
  - Most appropriate for experienced students
  - Can be tweaked to provider/student preference- ex: wave scheduling in the morning, then student follows preceptor in afternoon
  - This can happen organically (if a patient checks in early, earlier appointment runs long, same day appointments) or can be put into place when scheduling
    - Requires set student schedule and buy-in from scheduling staff

TABLE.

"Wave Scheduling"

Time	Activity
8:00 to 8:15 AM	Student sees patient 1, preceptor sees patient 2
8:15 to 8:30 AM	Student and preceptor see patient 1 together
8:30 to 8:45 AM	Student charts on patient 1, preceptor sees patient 3
8:45 to 9:00 AM	Student sees patient 4, preceptor sees patient 5
9:00 to 9:15 AM	Student and preceptor see patient 4 together
8:30 to 8:45 AM	Student charts on patient 4, preceptor sees patient 6

Adapted from Ferenchick[6]

- Double book first appointment, block last appointment before lunch, double book first appointment after lunch and block last appointment of the day to allow time for catch up, teaching, and debrief (Biagioli & Chapelle, 2010)

Centralized Information

- Preceptor Sharepoint
  - Easy access to links for training resources
  - Easy access to policies
    - 60% of preceptors say they are confident in student documentation policy, yet this was identified as a top 3 barrier to precepting
- Preceptor handbook
  - Made in conjunction with area nursing programs

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Slide 25

Talk to your preceptors

- Yearly or biannual survey of preceptor experiences recommended (Logan et al., 2015)
- Preceptors want feedback
  - 67% of our preceptors report desire for feedback, consistent with other large studies (Chen et al., 2016, Webb et al., 2015)
    - Work with nursing programs to obtain feedback students are already providing
    - Develop organization-wide preceptor evaluation form
- Consider targeting providers with 5 or less years of experience
  - 60% (6 out of 10) of preceptors with <5 years of experience do not agree with the statement ""I feel valued and supported by my clinic/hospital administration when serving as a preceptor."
  - In contrast, 85% (7 out of 8) of providers with >5 years of experience responded positively to the above statement
    - Current lack of integrated analysis with preceptor experiences and APP job satisfaction does not target the attitudes and experiences of the newer APP population

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Slide 26

Thank you!

…to all providers at Sanford who serve as preceptors to the next generation of healthcare providers.

Big thanks to the APPs in primary care who responded to my survey, many of whom also sent back emails of support and encouragement for this project, which was much appreciated!

Special recognition and thanks to Kate Steinke and Dr. Nicholee Roesler who have provided me with guidance, patience, and mentorship throughout this process

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Slide 27

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Slide 28

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