**Research Article**

**Clinical Experience of Family Nurse Practitioner Students during the COVID-19 Pandemic**

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**Abstract**

**Aim:** The aim of this study was to ascertain the experiences of Family Nurse Practitioner (FNP) students participating in clinical experience during the COVID-19 pandemic and to identify the clinical challenges faced by FNP students during the COVID-19 pandemic.

**Background:** Literature reveals the current COVID-19 pandemic poses urgent and prolonged threats to the health and well-being of the population worldwide. FNP students have struggled to find clinical sites and preceptors during the pandemic.

**Design:** A qualitative research design involving interviews asking open-ended questions to converse with students was conducted. Interviews were conducted during the fall 2021 semester.

**Method:** All interviews were transcribed and analyzed. Each transcript was read multiple times and themes were developed. Three main themes emerged.

**Conclusion:** Clinical experience is an intricate part of the program as confidence to treat and educate patients is paramount. The themes identified during student interviews included: 1) Anxiety and stress; 2) Hindrance of knowledge base; and 3) Personal growth.

**Recommendation:** Utilization of telehealth during education and clinical experiences will assist the FNP student maintain success throughout the program.

**Keywords:** Clinical experience; COVID-19; Family nurse practitioner students; Telehealth

**Introduction and background**

On March 11, 2020, the United States Department of Health and Human Services (HHS) declared a public health emergency due to the COVID-19 virus (2020) [1]. As information of the virus became forth coming, the nation began to shut down in order to preserve life and wellbeing of the population. In light of the COVID-19 pandemic, FNP programs around the country made changes to their programs in order to meet the educational needs of their students. Even with these changes, FNP students from West Texas A&M University (WTAMU) were challenged throughout their course work during the COVID-19 pandemic. Students reported that they were unsure of the future [2].

Regardless of the institutional program, FNP students must be prepared with medical knowledge and a specialized skill set to provide an accurate diagnosis and appropriate plan of care across the life span for the patient population. Face to face clinical experiences provide hands on practice for assessment skills and procedures as well as patient interaction for enhancement of interpersonal communication skills. According to the 2016 Criteria for Evaluation of Nurse Practitioner Programs, 5th Edition, A Report of the National Task Force [3]. on Quality Nurse Practitioner Education Chapter III: Curriculum, Criterion III.E, “the NP program/track has a minimum of 500 supervised direct patient care clinical hours overall. Clinical hours are distributed to support competency development that represents the population needs” [3].

Numerous articles and studies reveal the COVID-19 pandemic poses an urgent and prolonged threat to the health of the population. The available literature also discusses the effects of the pandemic and lockdowns on the mental health and mental wellbeing of all communities. At the beginning of the pandemic, treatment guidelines for COVID-10 were nonexistent. As the pandemic continued, the treatment guidelines often were inconsistent among facilities. As a result, the COVID-19 pandemic created total chaos within the clinical component of FNP student education. Some clinical sites would not allow students inside the clinic and preceptors were not working with students.

**Purpose**

The purpose of this study was to gain a deeper understanding of the lived experiences of FNP students participating in clinical during the COVID-19 pandemic, specifically during the timeframe of January, 2020 through December, 2021. There are limited studies on the clinical experiences and struggles of nurse practitioner students during the COVID-19 pandemic. Due to the shortage of information on this topic, this study explored the lived experience of FNP students completing their program.

**Methodology**

**Design**

This was a qualitative descriptive study utilizing a phenomenological framework to determine the lived experience of FNP students completing their education. Institutional Review Board approval was sought and obtained from WTAMU. Semi-structured interviews were conducted during November and December of 2021.

**Setting and Sample**

The setting for this study is a university located in the Texas Panhandle. The FNP students interviewed were scheduled to graduate in December of 2021. The relevance of this student cohort is significant due to the fact that their entire clinical experience allotment occurred during the pandemic when shut downs were widespread.

There were 18 students in the cohort who graduated in December of 2021. Seventeen students were interviewed for this study. Special attention was given to prevent participants from feeling compelled or obligated to participate in this study. Students were invited only once to participate in the project. Written informed consent was obtained from each participant prior to data collection.

**Data Collection and Analysis**

Faculty sent an email to all students explaining the study and an interview time was arranged. An informed consent was verified before beginning the interview. Each student who agreed to participate was assigned a number. The student name was blocked during the zoom interview session. Each session was recorded and downloaded into Ensemble video library within the university. The interviews ranged from 15-30 minutes. Each interview was transcribed from a voice memo to verbatim text document utilizing Otter. Five semi-structured questions were asked of each participant as well as follow-up questions in keeping with the phenomenological framework (Table 1). All transcripts were reviewed by each researcher multiple times and themes were developed. Faculty researchers discussed themes and consensus was reached.

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| How do you feel your clinical experience was impacted due to COVID-19? |
| Did you see COVID-19 patients during your clinical experience? |
| Did you have difficulty finding clinical experiences due to COVID-19? |
| What would you change about your clinical experience? |
| Is there anything else you would like to share about your clinical experience during the COVID-19 pandemic? |

**Table 1:** Semi-structured Interview Questions.

**Findings**

A phenomenological approach was utilized to allow 17 FNP students to reflect upon their clinical experience during the COVID-19 pandemic. Through qualitative data analysis, three main themes were identified as relevant to the students’ experiences. The three themes are: 1) Anxiety and stress; 2) Hindrance of knowledge base; and 3) Personal growth.

**Theme 1 - Anxiety and Stress**

The first theme, anxiety and stress, revealed overall feelings of fear, worry, and uneasiness. Feelings of stress and anxiety are common among graduate students due to a variety of reasons during normal periods of time. As a result of the COVID-19 pandemic, anxiety levels increased exponentially in the FNP students. Many students were unable to attend in-person clinical experience at their current sites due to clinic closures and industry pandemic guideline changes. Financial stress from furloughs and shutdowns plagued many of the students and their families. In order to combat the financial stress, WTAMU FNP students battled the balance of work, family and school loads resulting in fatigue and burnout. The overwhelming majority of FNP students had difficulty finding sites that would accept students during the COVID-19 pandemic. One student stated: “I had a fifty percent loss in capability to achieve the one hundred and eighty hours in that short eight to nine week period.” Fear of not meeting required clinical hour guidelines fueled distress felt by the students.

Many clinics transitioned to telehealth services in order to meet the needs of their patients and staff. There was a 154% increase in telehealth services during the last week of March 2020 versus the same time period in years passed [4]. This change in clinical delivery was encouraged by Centers for Disease Control (CDC) recommendations for social distancing. Students transitioned to telehealth delivery thus reducing the amount of “hands on” experiences that they previously obtained. One student commented: “It was less hands on with the sick patients during the telemed visits.” Telehealth visits coupled with a curbside clinical delivery added to the pressure of clinical experiences. Many FNP students expressed concerns that the missed clinical opportunities will have a negative effect on their transition from a student role to a provider role.

Family Nurse Practitioner students juggled work and school in order to meet their strained financial needs. The nursing field had already experienced a shortage of nurses prior to the COVID-19 pandemic. During the pandemic forty-one percent of intensive care nurses expressed burnout with their positions and over half of those surveyed planned on leaving the nursing field [5]. The flight of nurses leaving their current posts increased the number of patients per nurse ratio and increased need for overtime requirements [6]. Many of the FNP students were required to work longer hours and mandatory overtime. One student exclaimed: “School in itself is stressful enough, but working during COVID is just another level of stress.” Not only did this result in fatigue and burnout in their current employment positions, but the extra work hours took time away from their FNP coursework and clinical attendance.

Finally, students enrolled in various healthcare programs across America feared contracting COVID-19 [7]. WTAMU FNP students were no different and explained that they were fearful of contracting COVID-19 during their clinical experiences. A student stated: “I think it was an overwhelming season, especially at the onset with having a family and just the unknown of the variability with this virus. I was unsure how it could affect myself.” Precaution was taken but guarantees could not be made for accidental transmission due to the nature of FNP clinical work. Many students feared spreading COVID-19 to their loved ones.

**Theme 2 - Hindrance of knowledge Base**

The second theme, hindrance of knowledge base, was due to several factors including inconsistencies among clinics and clinical sites. Information from one day to the next, or one clinic site to the next, changed daily and students were unsure of the best practice standards to care for patients. One student stated, “… data was constantly pouring in with new standards and research and that was often dramatically different from what was being practiced at other organizations and hospitals.” Another participant said “at one facility I was able to go with my preceptor and see COVID patients, and at another site I was not allowed in the room.” As students learning in the best clinical situation struggle to find consistent ways to treat patients, these FNP students were forced to treat patients in an unknown situation.

Numerous FNP students reported they were utilized as staff and not given the opportunity to assess, diagnose, and treat with their preceptor. Students are currently registered nurses (RN) and stated their knowledge base was hindered as they were treated as a RN instead of an advanced practice student during clinical experiences. One stated, “It was frustrating to be in clinical and be treated almost like a nursing student who had never practiced before.” Another stated, “As a registered nurse and professional, I have been trained to deal with infectious disease and it was as if I was now a new nurse and it was frustrating.”

Many of the student participants stated their knowledge base had been hindered due to clinical sites limiting them to well patient visits only. “I was unable to see any sick patients, only well visits.” “I didn’t get to see sick patients or learn how to diagnose them.” The pandemic “impacted my ability to get experiences with sick patients.” And “I wish I could have seen a wider variety of disease processes.” One participant stated, “the pandemic’s impact on my education was significant.” Another stated “I felt robbed of my clinical learning experience.” Students eagerly entered the clinical sites to engage and learn from their assigned preceptor but voiced concern over the lack of patient variety.

**Theme 3 - Personal Growth**

The third theme revealed a sense of personal growth as a result of the student’s COVID-19 experiences. Many spoke of being glad to have had a chance to live through the pandemic. One student said “This has been a good learning lesson. It is good to be a nurse during these times.” Another student reported “I am impressed by all that I have learned during the pandemic.” One student spoke about the interesting pattern in patients that would come in with possible COVID-19. Not all patients reported the same symptoms and symptoms varied based on age groups.

The way students interacted with patients changed during the pandemic. Many students reported interaction with patients via telehealth platforms. The majority of the students had not had telehealth opportunities in their past clinical experiences. Other students reported “curbside visits.” The students described donning gowns, gloves, and masks and seeing patients while they waited in the car. The students voiced an overall sense of appreciation in being able to have the varied ways to interact with patients. “I may not have had the chance to experience telemedicine if it wasn’t for the pandemic.” “I am thankful for the opportunity to learn telemed.”

Due to limitations in interactions with patients, the students also reported improved communication through COVID-19 experiences. The questions asked to patients and families were better focused and pointed to collect subjective data in order to make a diagnosis and treatment plan. Many students felt they interacted better with preceptors, staff, patients and families. The students gave a sense of being more in control during the patient visits. Also due to the sickness in some patients, it became necessary to refer some patients to the hospital or other providers. The students felt the opportunity to communicate with others from the health care field was a good experience.

The overall attitude of improved confidence emerged. One student spoke of “learned independence” that will be used as a practicing FNP. Another student reported improved assessment skills and the feeling of improved “control in the midst of stress.” Additionally, a student reported difficulty managing “life outside of school” along with being furloughed as a working RN. As a result of these challenging times, students will have better organization and independence.

**Limitations**

This study has several limitations. The study was small and participants were recruited from a single university and student cohort. Generalizability of the findings to other settings is cautioned. Although meaningful data was collected, a larger sample may produce additional findings pertinent to this topic. Additionally, the sample in this study is relatively homogeneous and different findings may be uncovered with a more diverse group of participants.

**Faculty Recommendations**

From an educational perspective, FNP students perceived their clinical experiences during COVID-19 pandemic as a learning opportunity. This study showed that despite the challenges, FNP graduate students demonstrated the ability to grow, change and persevere to complete the program and graduate from WTAMU. This cohort of students completed the program on time, graduated, and achieved 100% first time FNP certification pass rate. Students improved their leadership skills and professional duty which will greatly help them as they transition into their own practice as a licensed FNP.

The information learned from this study will benefit other FNP graduate students and faculty. All faculty need to acknowledge the impact COVID-19 has on students in their academic progress, current job status, and personal lives. Based on the three themes developed within this study, we recommend the following strategies for faculty to help future graduate students during the remainder of the COVID-19 pandemic and in similar situations.

* Communicate with each student on a regular basis to monitor their stress level during each clinical rotation. As faculty, it is important to acknowledge and understand the student may have increased stress and anxiety during clinical experiences.
* Faculty should be prepared by obtaining alternative clinical sites and delivery methods such as online activities, case studies, and telehealth Objective Standardized Clinical Exams (OSCE), and student presentations. Communication with personnel at clinical sites, including preceptors should be maintained through phone calls, emails and zoom.
* Find alternative delivery platforms for administering and monitoring exams and conducting class meetings.
* Utilize a telehealth format for conducting OSCEs. Students will be able to attend and move through an OSCE experience from their own computer. In addition, incorporate telehealth etiquette into curriculum.
* Stress interprofessional collaborative practice and interprofessional communication.

**Conclusion**

There was a 154% increase in telehealth services during the last week of March 2020 versus the same time period in years passed [4]. This change in clinical delivery was encouraged by CDC recommendations for social distancing. Health care systems will continue to have the need to provide care to patients through many different avenues in the future. As a result of the comments voiced by students, nurse practitioner faculty members have planned to include telehealth experiences within clinical simulation during the program. Continuing training in this manner will improve students comfort, knowledge, and skills in using telemedicine in health care.

[8]. reported a combination of telehealth with standardized patient simulation to assess clinical competence ensures preparation of students in emerging technologies. Creation of telehealth technology within FNP program curricula requires specific and dedicated didactic and experiential telehealth education [9]. Nurse practitioners experienced in telehealth modalities are in high demand now that the pandemic is waning and therefore this type of experience will be helpful for job placement following graduation.

Interprofessional Collaborative Practice (ICP) supports person-centered practice and is now essential within FNP education. Focus on the needs of individual patients, their families and communities will be recognized through ICP. Working within a collaborative team, professional differences are minimized and shared decision making is developed in a partnership. Collaboration only through face to face meetings is not always possible; therefore, communication via telehealth can serve as a tool to allow interprofessional communication in situations that would otherwise not be possible [9].

Many FNP programs now mandate interprofessional experiences. Faculty need to be aware and be ready to establish additional policies, security for patient confidentiality and privacy, as well as education surrounding telehealth reimbursement.

**Conflicts of Interest Disclosure**

The authors declare that there is no conflict of interest.

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