

An exemplar to address clinical competency in a primary care fellowship

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Abstract

Needs Assessment

The Covid-19 pandemic has had a negative impact on clinical experiential learning for nurse practitioner (NP) and nurse midwife (CNM) students. During one post graduate fellowship, gaps in clinical competency were identified in new graduate fellows serving in a large Federally Qualified Healthcare Center. The fellowship faculty evaluated the deficits using multi-modal methods including survey tools, objective observation, and during precepted clinics.

Objectives:

- 1) Learn strategies to assess clinical preparedness of NP Fellows
- 2) Utilize tools to support NP Fellows to achieve standards of clinical competency
- 3) Mitigate the impact of Covid-19 on struggling learners with three distinct methods

Purpose

To identify and support struggling NP fellows early in a 12-month primary care fellowship to assure completion of the program year through improvement of clinical confidence, high quality primary care, and safe clinical practice.

Methods

The faculty completed an assessment, intervention, and evaluation to address the disparate experience of NP students during the COVID-10 pandemic. First, the fellows completed three different baseline measurements including formal evaluation methods using the Diagnostic Thinking Inventory (DTI) and simulation lab case-based assessment. Next, faculty provided a variety of interventions based on the findings including didactic session, fellow led case presentations, faculty/preceptor partnered process improving plans and intensive faculty preceptor support. Lastly, the interventions were evaluated using multimodal methods.

Principal observations

Developing and implementing multipronged plan focused on assurance of clinical competency for fellows trained after the COVID-19. Providing support in all aspects of the curriculum including experiential learning simulations, diagnostic illness scripts, case based learning and focused process improvement plans contributed to the improvement of clinical competency for NP and CNM's in their first year of practice.

Impact

The interventions performed helped to increase the clinical competency of APRN's trained during the COVID-19 pandemic and successfully trained seventeen advanced practice registered nurses. These interventions can be applied to a variety of post graduate training programs for advanced practice registered nurses.

Illness Script template

Illness Script Template	Focus/Goal	DTI - PD	DTI - PD	DTI - PD	DTI - DC
Assessment	Assess				
Diagnosis	Apply/Plan/Execute/Reflect/Teach/Practice/Explain/Assess/Manage				
Pathophysiology	Communicate/Plan/Teach				
Typical presentation	Identify/Explain/Teach/Plan/Execute/Reflect/Teach/Practice/Explain/Assess/Manage				
Treatment	Identify/Explain/Teach/Plan/Execute/Reflect/Teach/Practice/Explain/Assess/Manage				

Introduction

The Covid-19 pandemic has had a negative impact clinical experiential learning for nurse practitioners' students. Due to shelter in place orders, risk of infection and morbidity and mortality, NP and CNM students' curriculum for clinical competency became dependent on virtual simulation training. During one post graduate fellowship, primary Federally Qualified Healthcare Center clinically competency issues were identified, and faculty evaluated deficits through multi-modal methods including survey tools, objective observation and during precepted clinics.

To respond to the need for more robust clinical support including physical exam skills, procedural skills, interpreting diagnostic tests and building robust diagnostics skills the faculty created a multiprong approach to meet the needs of the learners.

Methodology

Assessment

1. Simulation: Full scope simulation lab experience where fellows were given case based clinical cases with live actors, interactive mannequins and actors.

Clinical competency was assessed using scale:

- a. correctly obtain history
- b. include pertinent aspects of physical exam
- c. order appropriate tests
- d. provide differential diagnosis with appropriate management plan

2. Surveys:

- a. Learners' assessments
- b. Diagnostic Thinking Inventory (DTI)
- c. Baseline self-assessment

Intervention

Didactic session adaptations:

- a. Diagnostic Reasoning/Diagnostic Scripts
- b. Case Based Team Based Learning

Focused Mentorship/Process Improvement Approach:

- a. Focused Process improvement plans
- b. Faculty focused continuity clinics for real time feedback

Sample Evaluation

Assessment	Intervention	Outcome
<p>Assessment</p> <p>1. Fellow conducted accurate history by gathering appropriate information about the patient's symptoms and medical history.</p> <p>2. Fellow performed a thorough physical exam including all relevant systems.</p> <p>3. Fellow conducted an appropriate differential diagnosis of patient's condition by identifying and prioritizing the most likely causes.</p> <p>4. Fellow identified and explained the pathophysiology of the patient's condition.</p> <p>5. Fellow identified and explained the pathophysiology of the patient's condition.</p> <p>6. Fellow identified and explained the pathophysiology of the patient's condition.</p> <p>7. Fellow identified and explained the pathophysiology of the patient's condition.</p>	<p>Intervention</p> <p>1. Didactic session on diagnostic reasoning and diagnostic scripts.</p> <p>2. Case-based team learning.</p> <p>3. Focused process improvement plan.</p> <p>4. Faculty focused continuity clinic.</p>	<p>Outcome</p> <p>1. Fellow demonstrated improved clinical competency.</p> <p>2. Fellow demonstrated improved clinical competency.</p> <p>3. Fellow demonstrated improved clinical competency.</p> <p>4. Fellow demonstrated improved clinical competency.</p> <p>5. Fellow demonstrated improved clinical competency.</p>

Results

Despite evaluation baseline scores being lower than the previous cohort figure 1.A and 1B demonstrate the overall improvement in holistic clinical knowledge, professionalism, communication, diagnostic skills, systems-based practice and interprofessional collaboration and evaluations. Moreover, despite initial concerns for clinical competency the completion rate for this cohort was 100% (n=9). The last figure demonstrates the improvement in medical knowledge and planning/managing care respectively (Figure 2.A, 2B.). We were unable to provide the results from the DTI with a change to baseline due to data being lost.

Figure 1.A

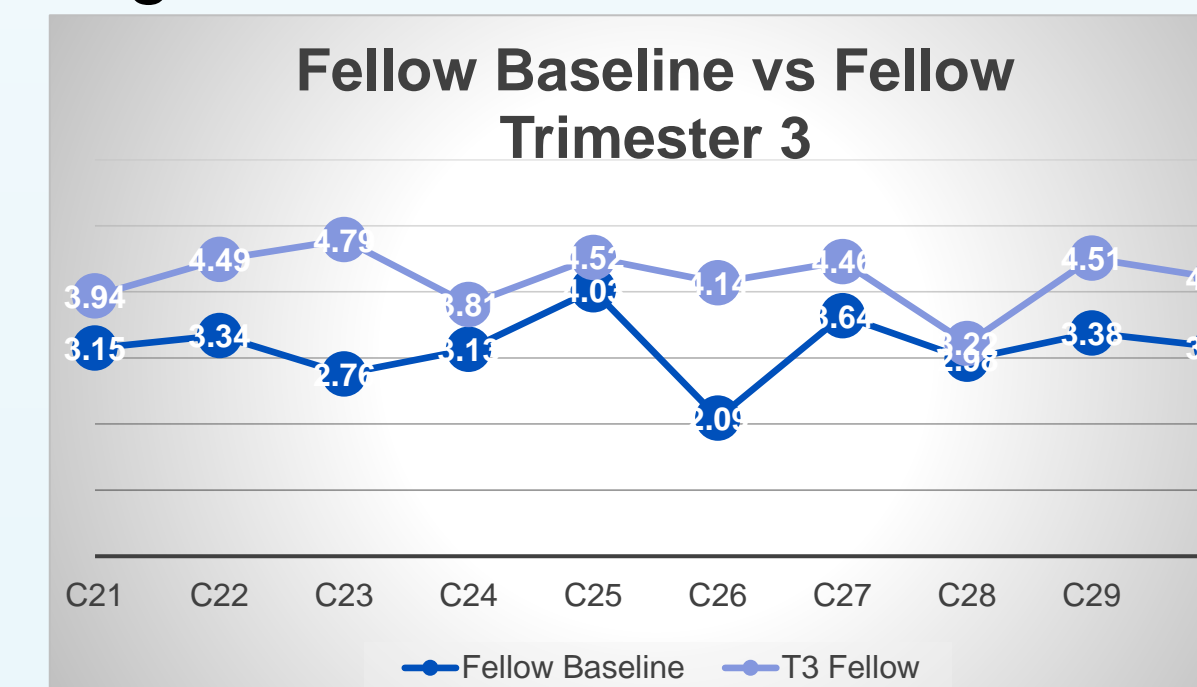


Figure 1.B

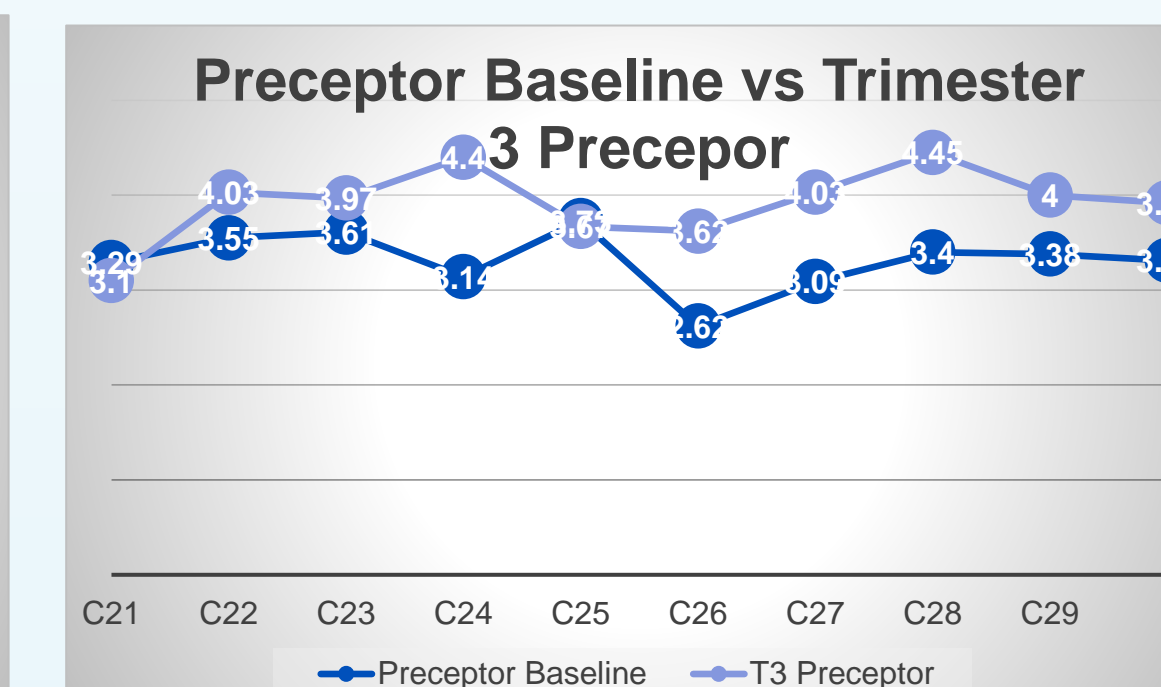


Figure 2.A

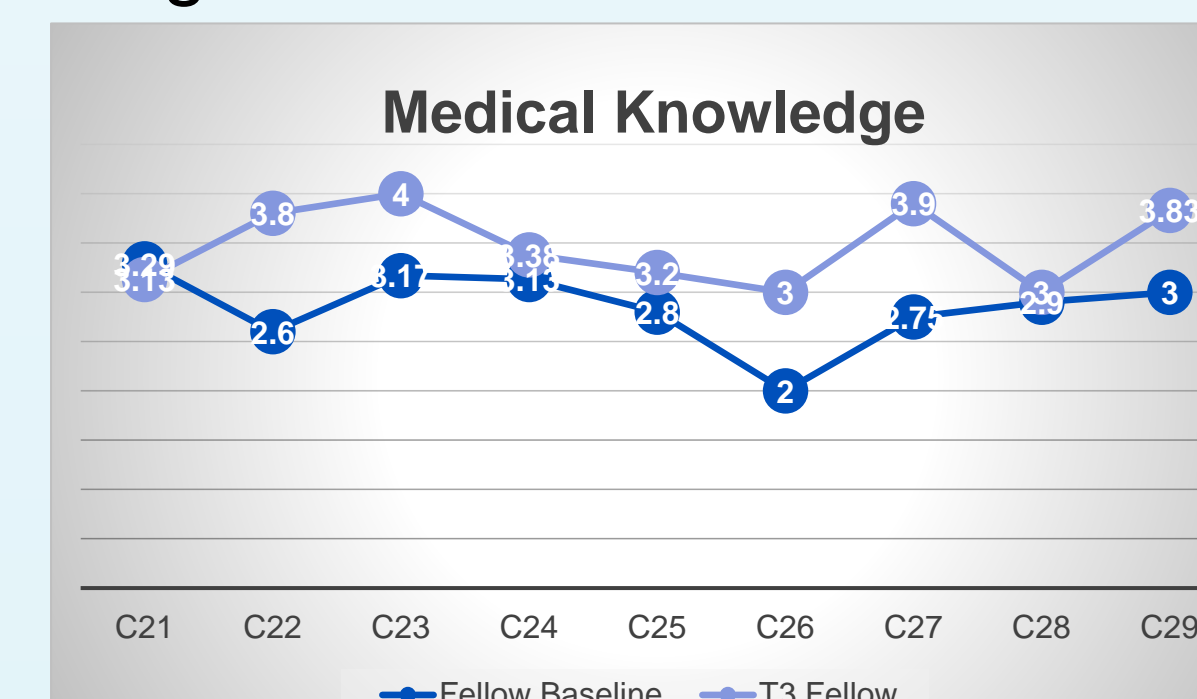
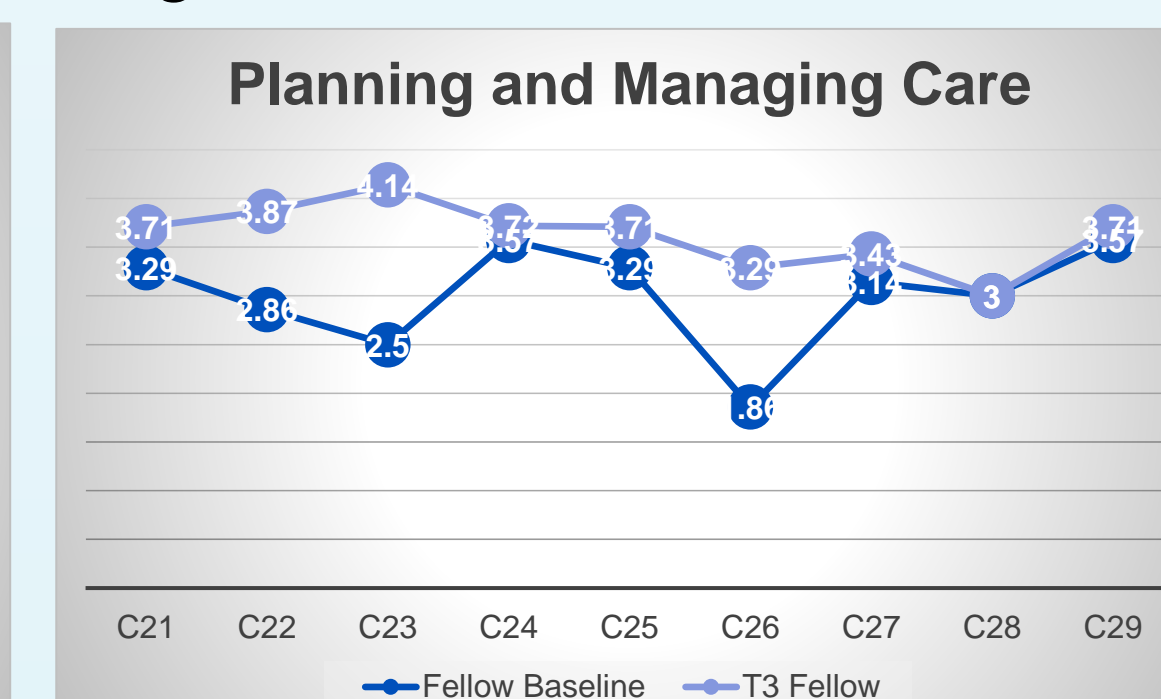


Figure 2.B



Process Improvement Plan

AdvancingPractice Performance Improvement Plan	
Fellow:	
Supervisor:	
Lead Faculty:	
Preceptors:	
1. Skills / Behavior to improve: Professionalism	
Actions to be taken (what steps or actions need to be taken to ensure improvement?):	<ul style="list-style-type: none"> Be present and engaged for didactic sessions in an area without distractions Be respectful of other fellow's experience in didactic sessions-allow space for others to ask/answer questions Be aware of how your questions are presented and respectful of presenter's experience and advanced knowledge over that of a novice practitioner
Development opportunities / resources (What training, resources or support are needed to improve?):	<ul style="list-style-type: none"> Complete emotional intelligence test through Global Leadership Foundation Complete Professionalism/Ethics CME Bi-weekly meeting with faculty to discuss development
Success measure (what does this improvement look like, what is the metric?):	<ul style="list-style-type: none"> Fellow will improve interpersonal relationships and experience of fellows, faculty and preceptors Fellow will improve on interactions with patients and clinical staff Fellow will eliminate disrespectful tone and interruptions to faculty in didactic sessions while being present and engaged
2. Skills / Behavior to improve: Culturally competent and sensitive care	
Actions to be taken (what steps or actions need to be taken to ensure improvement?):	<ul style="list-style-type: none"> Be sensitive to cultural norms and respectful to patients Allow time for patients to ask questions using interpreter Focus on patient need rather than finishing tasks

Conclusion

Overall, the baseline assessment, intervention and implementation of the multiprong approach to improve clinical competency shows promise. The initiation of focused faculty interventions, process improvement plans, didactics that focus on illness scripts and consistent constructive feedback has proven successful. Despite challenges 100% of the fellows from this cohort completed the program and are employed in underserved populations or FQHC's.

Recommendations

The COVID-19 pandemic has changed healthcare and nursing graduate/doctoral level clinical education. Post graduate fellowships can bridge the gaps and provide more time for development of clinical competency. By providing multiple modal support through well developed curriculum can lead to successful completion of the fellowship and building the workforce for underserved NP/CNM primary care.

Acknowledgements

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