

# Nurse Practitioner Fellowship

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*Program Planning and Curriculum Development*



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# Contents

About the Author . . . . .	v
Contributors . . . . .	vii
Dedication . . . . .	ix
Introduction . . . . .	xi
Downloadable Materials . . . . .	xiii
Chapter 1 — Professional Foundations. . . . .	1
<i>Objectives</i> . . . . .	1
<i>Historical Perspective of the Nurse Practitioner Role</i> . . . . .	1
<i>Practice Regulation</i> . . . . .	2
<i>Historical Perspective of Nurse Practitioner Fellowship</i> <i>Program Development</i> . . . . .	11
<i>Benefits of Nurse Practitioner Fellowships</i> . . . . .	16
<i>References</i> . . . . .	18
Chapter 2 — Program Planning and Development . . . . .	23
<i>Objectives</i> . . . . .	23
<i>Program Planning Process.</i> . . . .	23
<i>Developing a Business Plan.</i> . . . .	36
<i>References.</i> . . . .	63
Chapter 3 — Mentor and Faculty Development . . . . .	67
<i>Objectives</i> . . . . .	67
<i>Need for Faculty Development.</i> . . . .	67
<i>Faculty Roles</i> . . . . .	69
<i>Mentoring</i> . . . . .	71
<i>Faculty and Mentor Training and Development</i> . . . . .	79
<i>References.</i> . . . .	84
Chapter 4 — Competency Development . . . . .	87
<i>Objectives</i> . . . . .	87
<i>Competency Development</i> . . . . .	88

## Contents

<i>Competency Frameworks</i> . . . . .	89
<i>National Standards and Competencies</i> . . . . .	91
<i>NPF Competency Framework</i> . . . . .	95
<i>Benefits of Competencies</i> . . . . .	111
<i>Summary</i> . . . . .	113
<i>References</i> . . . . .	113
Chapter 5 — Developing a Curriculum . . . . .	117
<i>Objectives</i> . . . . .	117
<i>Learning Theories</i> . . . . .	118
<i>Curriculum Plan</i> . . . . .	122
<i>Program Implementation</i> . . . . .	163
<i>References</i> . . . . .	174
Chapter 6 — Evaluation of Outcomes . . . . .	177
<i>Objectives</i> . . . . .	177
<i>Definitions</i> . . . . .	177
<i>Planning the Evaluation Process</i> . . . . .	178
<i>NPF-Focused Outcomes</i> . . . . .	188
<i>Patient-Focused Outcomes</i> . . . . .	210
<i>Mentor/Faculty Outcomes</i> . . . . .	212
<i>Program-Focused Outcomes</i> . . . . .	214
<i>Evaluation Plan</i> . . . . .	219
<i>Summary</i> . . . . .	225
<i>References</i> . . . . .	225
Chapter 7 — Future Directions in Nurse Practitioner Fellowships . . . . .	229
<i>Objectives</i> . . . . .	229
<i>NP Fellowship Program Recognition</i> . . . . .	229
<i>Interprofessional Training</i> . . . . .	230
<i>Funding</i> . . . . .	230
<i>Academic Integration and Collaboration</i> . . . . .	232
<i>Validation of NP Fellowship Program Outcomes</i> . . . . .	234
<i>Summary</i> . . . . .	237
<i>References</i> . . . . .	237



# About the Author

## **Marci Farquhar-Snow, MN, RN, APRN, CCRN, CMC, ACNP-BC, AACC**

Marci Farquhar-Snow, MN, RN, APRN, CCRN, CMC, ACNP-BC, AACC, is an assistant professor at the Mayo College of Medicine, where she has practiced as a cardiology nurse practitioner since 2001. She has worked for 35 years in multiple aspects of inpatient and outpatient cardiovascular care as a staff nurse, clinical nurse specialist, and nurse practitioner in several areas, including critical care, emergency, education, and program development and research.

Farquhar-Snow completed her undergraduate studies to earn a Bachelor of Science of Zoology at University of California, Davis, and Bachelor of Nursing at California State University, Bakersfield. She then attended the University of California, Los Angeles, where she obtained her Master of Nursing as a clinical nurse specialist with cardiopulmonary focus and her Post-Master of Nursing as an acute care nurse practitioner (ACNP). She is board certified as an acute care nurse practitioner and a clinical nurse specialist. She is also certified in critical care nursing and cardiac medicine.

Farquhar-Snow developed the first nurse practitioner fellowship at the Mayo Clinic and was the program director of the Cardiology Nurse Practitioner Fellowship (established in 2009) until 2018, after having laid a pathway for fellows she trained to continue the program whose curriculum and tools she designed. It is the first nationally accredited program of its specialty. She is active in developing national standards and establishing guidelines for nurse practitioner fellowships and has networked formally and informally with numerous organizations to construct their own programs. She is a Practice Transition Accreditation Program team leader appraiser contracting with American Nurses Credentialing Center and served as a founding member of the Association of Post Graduate APRN Programs.

Over the course of her career, Farquhar-Snow has presented at local, national, and international conferences on nurse practitioner fellowships and a variety of cardiovascular topics. She has developed numerous orientation and education programs for critical care and cardiovascular settings. She was awarded the Mayo Clinic Arizona Fellows Association Allied Health Educator of the Year in 2003 and the Mayo Clinic School of Health Sciences Distinguished Allied Health Educator of the Year in 2010, and she received a Mayo Clinic Blended Learning Project grant in 2016 to develop a comprehensive Focused Cardiac Ultrasound course.

## About the Author

She has been a principal investigator for Mayo Clinic studies regarding hospital readmissions in cardiovascular services, novel anticoagulants, and the focused cardiac ultrasound training of advanced practice providers.

Farquhar-Snow is active member in many professional organizations. She achieved an Associate of the American College of Cardiology (ACC) designation and is serving as the national chair of its Cardiovascular Team State Liaisons Committee. She actively serves on multiple communities and workgroups, including the Board of Governor Wellness and Cardiovascular Team Taskforces and the Accreditation Compliance Work Group, Education and Standards, and she participated in the Emerging Faculty program. She was a peer reviewer for the 2016 ACC/AHA/HRS Guideline for the Evaluation and Management of Syncope and the 2020 ACC/AHA/HRS Guideline for Transcatheter Valve Repair and Replacement: Operator and Institutional Requirement. She is a member of the Writing Committee for the 2020 ACC Clinical Competencies for Cardiovascular Nurse Practitioners and Physician Assistants and a peer reviewer for the *Journal of the American Academy of Physician Assistants*.

Farquhar-Snow has been active with the American Association of Critical Care Nurses as a member of multiple committees and workgroups over the past 25 years, including the Beacon Award program, Continuing Education Articles Review, Critical Care Registered Nurse, Cardiac Medicine Certification, Acute Care Nurse Practice Certification Exam Development, and Practice Analysis and Review panels. She has served as a senior Beacon Award reviewer. She was a member of the ACNP Scope and Standards 2017 Task Force.

Farquhar-Snow has kept abreast of issues related to the advanced practice nursing professions. She served two terms on the Arizona State Board of Nursing to Advanced Practice Subcommittee and was a member of the Adding Skills to Nursing Scope of Practice task force. In addition, she has lobbied on Capitol Hill for full scope-of-practice issues related to cardiovascular patient care.

Farquhar-Snow is an avid seamstress and enjoys many crafts, including shoemaking. In her spare time, she can be found sewing, hiking, or traveling.



# Contributors

## **Alexandrea Bartow, MBA, MSN, RN, APRN, ACNP-BC, CSSGB**

Alexandrea Bartow, MBA, MSN, RN, APRN, ACNP-BC, CSSGB, has 16 years of nursing experience that have included many growth stages in her professional career. She obtained her Bachelor of Science in Nursing from the University of Washington Seattle in 2003. Her passion for knowledge and ability to make critical decisions for patients as an active team member inspired her first transition to become an acute care nurse practitioner after completing her Master of Nursing at Loyola University in Chicago. Her next transition was to validate her clinical competence by participating in the Mayo Clinic School of Health Sciences Cardiology Nurse Practitioner Fellowship and completing the Focused Cardiac Ultrasound Certificate in 2013. Following the fellowship, she accepted a position at the University of Washington Medical Center as the lead cardiothoracic intensive care advanced practice provider (APP), and co-director of the cardiothoracic intensive care unit (ICU), before transferring with her husband to the University of Pittsburgh.

Bartow applies lifelong learning to her role and completed the Focused Adult Echocardiography certificate at the Ultrasonography Training Program of Gulf Coast Ultrasound Institute, St. Petersburg, Florida, and Lean Six Sigma Certification Program at Villanova University in Villanova, Pennsylvania. Her clinical and leadership experiences have provided her with a more well-rounded understanding of healthcare systems, which led to her next transition: focusing on enriching the role of the APP. In 2019, she completed her Master of Business Administration at University of Pittsburgh. She now concentrates on creating opportunities for APP education and professional growth within the healthcare community and ensuring that APPs have the skills and resources necessary to provide exceptional quality care. Bartow currently practices at the University of Pittsburgh Medical Center as the senior ICU APP of the department of cardiothoracic surgery, director of cardiothoracic APP education and development, and co-director of APP thoracic quality and research. She continues to dedicate her career to caring for and managing cardiothoracic critical care patients, as well as her passion for quality improvement and lasting organizational change.

## **Claudia Lucas, MSN, RN, APRN, AGACNP-BC**

Claudia (Tarin) Lucas, MSN, RN, APRN, AGACNP-BC, has 15 years of nursing experience in various roles. She originates from Texas where, before becoming a registered nurse, her experience as a medical assistant led to her to develop her love for cardiology. She attended the University of Texas at El Paso and obtained



## Contributors

a Bachelor's in Nursing degree in 2004. She has dedicated her nursing career to working in critical care cardiovascular units and in cardiovascular coordinator roles. She facilitated the successful Chest Pain Center certification by the Society of Chest Pain Center for University Medical Center of El Paso, Texas, in 2012 and the Joint Commission Primary Stroke Center recertification for Las Palmas (Texas) Medical Center in 2014.

In 2015, Lucas moved to Phoenix, where she later obtained her master's degree as an acute care nurse practitioner at Grand Canyon University. She wanted to solidify her career in cardiology and was accepted to the Mayo Clinic Cardiology Nurse Practitioner Fellowship but shortened her training due to life events. She is now refocusing on her career goals at the Duke University School of Nursing Post-Graduate Cardiology Specialty Certificate program and as a Doctor of Nursing candidate at Arizona State University. Lucas has published in the journal *Heart Rhythm* a paper with the title "Stroke in patients with cardiovascular implantable electronic device infection undergoing transvenous lead removal." She continues to pursue her love for cardiology, currently practicing as a nurse practitioner in electrophysiology at Banner University Medical Center Heart Institute in Phoenix.

Lucas provided significant contributions to the chapter activities and tools in this book, which could not have been created without her experience and dedication to their development.



# Dedication

For Linda



# Introduction

Over the past decade, there has been a growing trend toward the development of postgraduate nurse practitioner (NP) fellowship programs with the purpose of either facilitating the transition of an NP into clinical practice or advancing their professional expertise within a specialty area. Because I am a founding program director (PD) of a successful NP fellowship program, many individuals from various institutions have contacted me regarding how to set up such a program. I have reached out to mentor individuals at various professional venues to share learned experiences and tools.

To answer questions for others interested in starting NP fellowship programs, this book is designed to be used as a roadmap for the NP fellowship planning team throughout the program planning and development process. It is recommended that your planning team move sequentially through the chapters and refer to the corresponding download files as a guide through the essential steps of designing a program that is both tailored to your program needs and aligned with national standards. Each chapter also contains useful activities and examples of frequently asked questions when starting an NP fellowship program, including the following:

- How to set up the program infrastructure
- How to determine a budget and get approval within an organization
- How to develop faculty
- What to include in the program content
- What methods can be used to determine outcomes

After reading this book and completing the activities, you will have a better understanding of the challenges and opportunities that NP fellowship programs face and will be able to customize or update your current program based on your organization or specialty needs.

The *Nurse Residency Program Builder* (Hansen, 2018) focused on registered nurse graduates entering their new nursing role. This is a valuable resource to which all nursing profession PDs may refer for additional educational theories and competency development. I thank the author, Jim Hansen, for the groundwork he has laid to establish residencies and fellowships in general. Although the principles and infrastructure of NP fellowship programs are similar to those of registered nurse residency programs as well as other advanced practice provider (APP) fellowships, such as those for clinical nurse specialists, certified nurse midwives, certified

## Introduction

registered nurse anesthetists, and physician assistants, this book will highlight the issues pertaining to nurse practitioners because they are currently more common.

With this book, I also hope to empower others to become confident to develop more APP fellowships. Readers from other professional roles may find the contents of this book helpful by extrapolating, substituting, or supplementing information that applies to the APP profession, such as the national and specialty scope of practice and standards. In general, all fellowship programs share a common goal: to provide optimal patient care by developing providers at an entry level of competence related to a clinical area through curriculum and clinical practice based on consistent standards to verify competence.

Marci Farquhar-Snow, MN, RN, APRN, CCRN, CMC, ACNP-BC, AACC

## Reference

Hansen, J. (2018). *Nurse Residency Program Builder*, second edition. Brentwood, TN: HCPro.



## Downloadable Materials

Readers of *Nurse Practitioner Fellowship: Program Planning and Curriculum Development* can download tools and templates from the web address found on the copyright page. There you will find tables and figures from the book, as well as bonus handout materials. Excel spreadsheet templates have been provided to help design your program. The files are easily customizable, so you can adapt and use them at your facility today.

# 1

## Professional Foundations

*“We cannot run and ask for permission every time we want to do something new.”*

—Dr. Loretta Ford, founder of the nurse practitioner role

### Objectives:

- Outline a brief historical review of the evolution of nurse practitioner role and nurse practitioner fellowship programs
- Discuss how practice regulations affect the nurse practitioner scope of practice

### Historical Perspective of the Nurse Practitioner Role

Before you plan a nurse practitioner (NP) fellowship program, a brief historical overview of how the NP role has evolved will enhance your understanding of the issues that may be encountered when discussing the nurse practitioner fellow (NPF) role and the scope of practice issues with stakeholders.

Advanced practice registered nurses (APRN) have been utilized by the healthcare systems since the 19th century (Roux & Halstead, 2018). The first APRN role, the certified registered nurse anesthetist (CRNA), was initially developed in response to a shortage of physicians during the Civil War who were available to administer anesthesia, but the professional role was not officially recognized until 1956 (American Association of Nurse Anesthetists, 2019). Again, due to wartime-related staffing resources and a decline in physician availability after World War II, nurses filled another void in healthcare provision. The population had grown due to baby boomers, and the availability of the medical professionals to meet the nation's healthcare needs was limited. Both the urban and rural populations were affected across the lifespan. The concept of NPs began in 1965 when Drs. Loretta Ford and Henry Silver created the first NP program at the University of Colorado (American Association of Nurse Practitioners, 2019). Working as a public health nurse in rural Colorado, Ford perceived access to providers as a healthcare need. She received a small grant from the University of Colorado to develop a pilot project that would extend the role of the nurse in the rural setting. By integrating the traditional nursing role with advanced medical training knowledge and skills, the advanced practice nurse would be empowered to deliver comprehensive

## Activity: Assessment of Practice Regulations

Before planning your NP fellowship program, it is important to review the APRN scope and standards of practice regulations as they pertain to NPs practicing at your organization. This activity will ensure that the planning team understands how the program will meet compliance with national, state, and organizational requirements. Although it may seem cumbersome, after completing this activity and the subsequent activities throughout this book, you will have a stronger understanding of practice regulations and the beginnings of creating NPF core competencies tailored to your program. Listed are some examples using the National Organization of Nurse Practitioner Faculties (NONPF) and American Nurses Association (ANA) standards to get you started, but due to the dynamic practice trends and complexity of various national accreditation, certification, state, and organization regulations (which is another reason that the Consensus Model adoption will be helpful nationwide), I encourage you to insert the most recent regulatory data as determined by the program needs.

Complete the activity Excel sheets to guide your research on the topics and better identify the gaps to address during the planning phase. There may not be specific requirements or statements based on your state, specialty, and/or organization; therefore, use the Excel document as a tool to assign planning team tasks, collate your document retrieval, and guide your research. I recommend that you keep a file of these documents separate from your program curriculum to have for future reference when discussing the startup of your program or to make modifications to the program content with stakeholders, as they may not fully understand the complexity of the regulatory issues.

General questions to be considered:

1. Review the national NP scope and standards of practice for the practice setting. A starting point would be to review the *Nursing: Scope and standards of practice* and the ANA *Scope and standards of practice* and if there are any population-focused standards related to the NP fellowship program clinical environment (NONPF, 2017; ANA, 2015). List them in the national Excel sheet.
2. Is there a national specialty organization for the NP fellowship program clinical environment(s) that has developed a scope and standards of practice document? If so, list the standards of practice statements and the competencies for each statement as they apply to the NP role in the specialty Excel sheet. For example, the cardiovascular nursing scope and standards of practice, developed in collaboration of various nursing organizations, describe the standards of cardiovascular nursing practice, regardless of role, population foci, or specialty, that such nurses are expected to perform competently (ANA, 2015). With the second edition, the updated standards also denote additional

## 2

# Program Planning and Development

*“I can’t change the direction of the wind, but I can adjust my sails to always reach my destination.”*

—Jimmy Dean

## Objectives:

- Formulate the mission and goals for the nurse practitioner (NP) fellowship program
- Perform an analysis of the cost and benefits when implementing a program
- Develop a business plan that can be submitted for organizational approval using components recommended for a program startup

## Program Planning Process

Program planning involves developing strategies that target the program mission and goals. Ensuring that the stakeholders understand how the program addresses needs and gaps may affect the success of the NP fellowship proposal’s approval. Program development can be conceptualized as four phases:

1. Assessment of program need
2. Planning of program design
3. Implementation of curriculum
4. Measuring the impact of the program or outcomes

This chapter will discuss the key issues and concerns that the planning team will confront in the first phase: assessment of the NP fellowship program need. Further chapters will review the other phases of program development.



Although there are currently a limited number of outcomes studies on the effectiveness of NP fellowship programs compared to nurse residency programs, examples of cost-effectiveness measures will also be provided in this book for justification of the NP role. If this book is being used to develop other health profession fellowships, literature review of those professions will be warranted. Finally, because a common question when conceptualizing a program is “How do I obtain support to sustain a program?” suggestions for how to conduct a financial analysis and budgeting will be provided.

### Identifying stakeholders

A stakeholder is an individual or entity who will be involved in or affected by the NP fellowship program. These individuals are identified by the program director (PD) early in the program development to ensure that their broad representation on the planning and advisory teams will bring their expertise and perspectives regarding the NP's role in the proposed NP fellowship program clinical settings. Stakeholders will include, but not limited to, the following people who will be interacting with the nurse practitioner fellows (NPF) and will be integral in the role of faculty or mentors:

- Program director
- Administrators
- Education/professional development department
- NP colleagues
- Interprofessional team members
- Outside organization members
- Past and current NPFs

The administrative member will provide insight regarding the financial analysis and identification of cost-effective measures the organization may require. Consider asking a nursing administrator, supervisor, or medical director to participate. However, be cautious of unconscious bias if the individual would be hiring candidates, because the primary program intent for that individual might be to recruit NPs to fill staffing needs rather than to enhance NP professional role development. Determine whether the program will be administered within the nursing education or another professional education department within your organization or will be a collaborative effort with an academic institution. To ascertain the support by colleagues with the introduction of NPFs into the clinical practice areas, an experienced and/or a newly hired staff NP can provide a colleague's perspective.

A variety of interprofessional team members who interact with the NP role in the clinical environments should be included because interprofessionalism encompasses a large portion of core NP competency domains—in particular, coordination of care, communication, and collaboration (American Nurses Association, 2015). For example, a pharmacist member can provide perceived learning needs regarding prescriptions orders they receive, or drug interaction questions routinely asked by NPs during team rounds or phone calls for expert advice. An outside community member stakeholder can represent the patient population or demographical area as a consumer of healthcare services by an NP of the organization. Often these members have preconceived

### Activity: Data Collection

Download the Chapter 2 Activity: Data Collection Excel sheet.

This activity will help determine how you would like to assess the needs specific to your program that may be affected by implementing the program.

1. Download and distribute the following materials to the planning team:
  - Chapter 1 Activity: Practice Regulations sheet
  - Chapter 2 Activity: Data Collection sheet
2. Assign members to collect data listed on the Chapter 2 Activity: Data Collection sheet. This information will be helpful to complete the background information when putting together the executive summary.
3. Ask the members to refer to the scope and practice of the NP role that was addressed in the Chapter 1 Activity: Practice Regulations to ensure an understanding of the NP role practicing in the NP fellowship program clinical setting.
4. Complete the data collection and return to the PD.
5. Following the activity, the PD will compile data and distribute a copy of the completed file to all members prior to the next activity, which is a needs assessment.

### Needs assessment tool

A needs assessment tool is a powerful way to identify perceived gaps in knowledge, skills, or behaviors for change and can be used when determining whether competencies developed will be suitable for a novice NP and will guide the curriculum planning. The areas listed in the needs assessment may cover various subspecialty areas in which you envision the NPF will need to obtain knowledge, skills, and behaviors to become competent.

As a starting point, refer to the Chapter 1 Activity: Assessment of Practice Regulations for broad performance expectation headings, such as using the American Nurses Association (ANA) national standards or competency domains (e.g., advanced assessment, differential diagnosis, and outcomes identification) (ANA, 2015). An NP fellowship program should be structured to enhance, not to replace, the core academic training to further develop knowledge, skills, and behaviors in targeted areas of new trends, technology, or evidence-based practice. There is no right or wrong way to structure a needs assessment, but building upon the ANA standards will make it easier to stay focused on competencies that are consistent among fellowships.

RVUs can be used by administrators to quantify the value of the NP fellowship program to the service. Value contribution can also be measured by the perceived or actual benefits gained despite cost, as described in this chapter's section on cost-effectiveness. Impacts to quality, efficiency, effectiveness, and patient satisfaction can have an estimated value, and then they become a metric to measure throughout the program. As a PD, you can use these metrics to predict improvement and thus a returned benefit. An example would be increased service efficiency with the use of an NPF due to increased direct labor hours for patient care.

Because finance is about predicting the future based on present information, the rate of return for the program is based on opinion or comparison to similar NP fellowship programs that are available. With relatively low cost and expenses in comparison to a standard employee hire, training an NPF would generate a lower risk. By demonstrating the revenue potential brought by an NP fellowship program, the reward is high. Also, the value concept an NP fellowship program brings to an organization or group is also low-risk with a high reward. Therefore, investing in developing a program will guarantee a positive return.

The \$43,900 calculated in the previous example program operating budget represents the present value of the cash flows that the investment is expected to provide the practice. It is assuming a rate of return 6% discount rate (opportunity cost). To measure the dollar return on the investment, the cost of the NP fellowship program would need to be compared to the present value of the cash inflows (expected benefits).

Using this simple example:

- The program costs \$101,700 (including salary, overhead cost, and expenses), and the expected dollar return of the program is \$43,900
- The expected dollar return on the NP fellowship program is  $\$101,700 - \$43,900 = \$57,800$

When performing these analyses, be aware of the units chosen. The unit should represent the desired goal. If the goal is to demonstrate the rate of return for a yearlong program, then estimate the inflows produced by the NPFs over the 12 months compared to the initial investment.

## Funding and support

The Institute of Medicine (IOM) report recommended that nurse residency programs support the transition of newly qualified nurses into practice (IOM, 2010). In response to this call for action, many organizations have developed nursing residencies and fellowships, although there has been little guidance on how to financially support the development and sustainability of these program using consistent methods. We will discuss some suggestions of ways to seek support.

### Organizational support

In this method, the clinical departments in which the NPFs rotates will support the program based on an internal approval process. Because there is variability in advanced practice registered nurse (APRN) leadership and oversight among organizations, the PD needs to determine under which department the current onboarding or ongoing education occurs to seek approval. The APRNs may be aligned with the medical staff, nursing, or a

If the budget includes conference attendance, summarize why the request is being made instead of other alternatives.

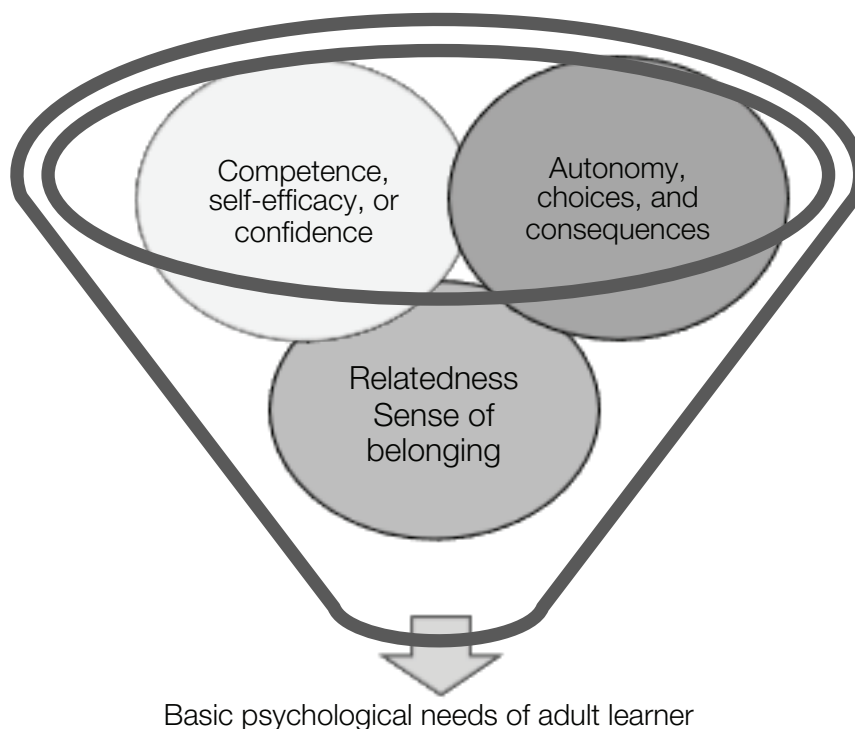
Example: Because the [blank] department is restructuring the [blank] services being used to treat [blank] disease, the attendance at the [blank] national conference is to ensure that the NPF is trained with the most current evidence-based practices and has the opportunity to practice with the latest technology, which is not currently available at our organization.

**Figure 2.9:** Example budget

Expenses/Direct Costs	Projected Costs	Actual Costs
NPF Salary/Stipend	\$64,000.00	\$63,750.00
NPF Benefits	\$1,125.00	\$1,076.00
Program Director	\$25,000.00	\$25,203.00
Coordinators		
Administrative Support		
Faculty/Mentors		
Professional Fees		
Licensing	\$0.00	\$0.00
DEA	\$1,200.00	\$1,200.00
Societal Membership	\$0.00	\$0.00
Supplies/Equipment (i.e., pager, computer)	\$50.00	\$35.00
Training Equipment (i.e., simulation lab, online learning course)	\$250.00	\$300.00
References/Books	\$100.00	\$300.00
Awards/Recognition	\$100.00	\$124.00
Conferences/Events	\$6,000.00	\$5,766.00
HR/Orientation Costs		
Space		
Marketing (online journals, webpage costs, conference fees)		
<b>Total Expenses/Direct Costs</b>	<b>\$97,825.00</b>	<b>\$97,454.00</b>
<b>Revenue/Income</b>		
Billing for NPF Services	\$150,000.00	\$135,000.00
Grants		
<b>Total Revenue/Income Costs</b>	<b>\$150,000.00</b>	<b>\$135,000.00</b>

Figure 3.2 is a framework to develop the mentoring process. The self-determination theory supports this model by recognizing that mentors facilitate the basic psychological needs of an adult learner to allow autonomy to practice, the sensation of belonging, and promotion of self-efficacy or confidence to practice (Ryan & Deci, 2000). Additionally, the self-efficacy theory states that having a positive perception and expectation of themselves should have a profound effect on individuals' self-efficacy and ultimately their performance (Bandura, 1977). See Figure 3.3 for characteristics considered most helpful for a mentoring relationship from studies of new NPs (AANP, 2006; Gibson and Heartfield, 2005). These concepts can be applied to how mentors can participate in the process leading to improved NPF confidence and satisfaction during their role transition.

**Figure 3.2:** Application of self-determination theory to the mentoring process



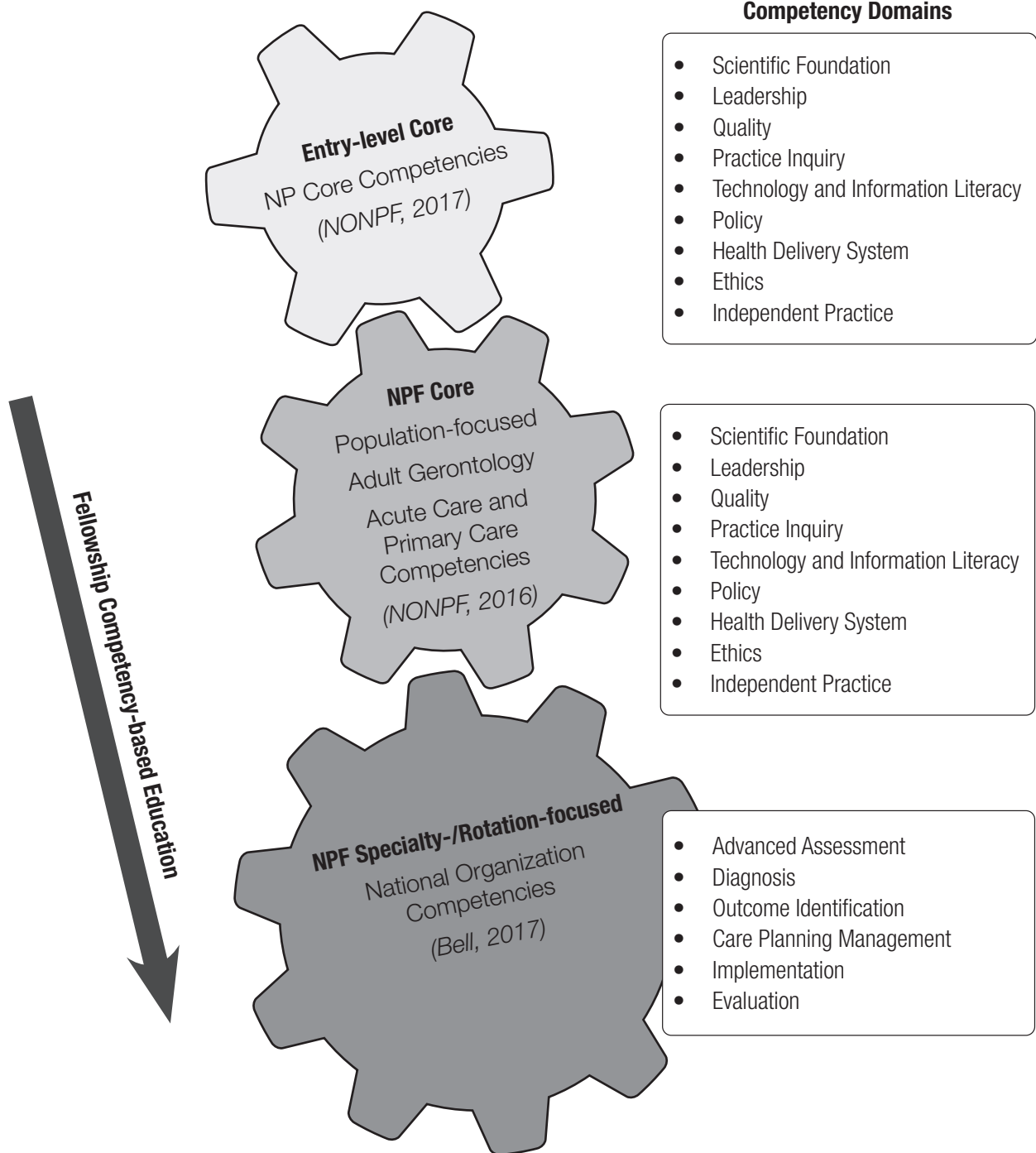
*Adapted from the self-determination theory (Ryan & Deci, 2000) and the self-efficacy theory (Bandura, 1977).*

**Figure 3.3:** Characteristics of a mentoring relationship

<b>Personal development</b>
<ul style="list-style-type: none"> <li>• Sharing ideas</li> <li>• Overcoming fear and anxiety</li> <li>• Dealing with isolation</li> <li>• Increasing confidence</li> <li>• Solving problems</li> <li>• Career development</li> </ul>
<b>Professional relationship development</b>
<ul style="list-style-type: none"> <li>• Understanding organizational, state, and national politics related to the NP role</li> <li>• Knowledge of interdisciplinary relationship</li> <li>• Balancing clinical practice with personal responsibilities</li> </ul>
<b>Role development</b>
<ul style="list-style-type: none"> <li>• Developing clinical skills</li> <li>• Managing patient caseloads</li> <li>• Grasping the business aspect of practice</li> <li>• Managing time and productivity</li> </ul>

Mentoring has been described as an ongoing process in which the mentor provides guidance to increase competence, commitment, and confidence (Hayes, 1998). This relationship has adaptability and flexibility based on the NPF's needs and method of learning that can be assessed by the self-assessment, individualized learning plan, and opportunities for feedback and reflection. To facilitate the NPF's learning process, elements of the Model of Reflection may be used by the mentor not only to review with the NPF the clinical aspect of their role but also to identify areas needing to be addressed (Driscoll, 1994):

- What? (Reflection of a learning experience)
  - What were key elements of the whole experience?
  - What did you observe and what did you perform?
  - What did the healthcare team, patients, and others do?
- So what? (Understand and find meaning)
  - How do you feel as a result of the experience?
  - What were the outcomes of your actions in the experience?
  - Was anything concerning about your experience compared to your perception of those involved?

**Figure 4.2:** NPF competency framework

Similar to other national competency frameworks, this NPF competency framework integrates a hybrid of competency domains and the supporting competency statements. Refer to Figure 4.1 for a comparison summary of common national organization and specialty competency domains and standards. If your program is being developed with other professional or national organization competencies, such as when combining NP and physician assistant programs, the respective domains and competencies can be substituted to tailor to your program fellows, patient population, or clinical setting. Of note, these documents are dynamic and are updated every few years. Although the current competency domains and date of publication is referenced, it may be necessary to check for updates, as healthcare professions frequently collaborate on developing initiatives and educational efforts to improve the quality and effectiveness of healthcare delivery.

### Entry-level NP competencies

The first cog of the NP fellowship program framework represents the entry-level NP core competencies obtained from prior academic preparation as outlined by NONPF (2017). The NP is determined to be competent in these core competencies for the general NP professional role through graduation from an academic institution, certification, and licensure. Therefore, the NPF core competencies should reflect the entry-level knowledge, skills, and attitudes that are required of the postgraduate professional to perform effectively in the clinical setting. Listed below are the nine competency domains, which are essential for the NPF to practice within the NP scope of practice:

1. Scientific Foundation
2. Leadership
3. Quality
4. Practice Inquiry
5. Technology and Information Literacy
6. Policy
7. Health Delivery Systems
8. Ethics
9. Independent Practice

### NPF core competencies

The second cog represents the NP fellowship program core competencies built upon the entry-level NP core competency domains by integrating the population-focused competencies that use the same competency domains listed previously (NONPF, 2016). The Consensus Model for APRN regulation uses the term population focus to describe the broad area of preparation that all entry-level NPs should master in addition to the NP core competencies (APRN, 2008). The population-focused NP competencies should match their educational NP training and scope of practice. Therefore, the patient population determines NPF core competencies where the NP will be practicing.



# 5

## Developing a Curriculum

*“If you throw enough mud, some of it will stick.”*

—English proverb

### Objectives:

- Develop a curriculum that achieves the program’s mission and goals
- Formulate learning activities based on learning theories
- Create individualized learning plans based on preferred learning styles

My fifth-grade teacher Mr. Murphy frequently applied the mudslinging expression at the beginning of this chapter to his method of instruction and our ability to learn new concepts. When he was frustrated that the class didn’t understand what he wanted to get across to us, he would rephrase or present the topic in a different way. It wasn’t until years later that I realized that this phrase, in this context, meant to try new angles or different teaching methods to improve the understanding of new concepts in hopes that the “mud stains” (or knowledge being retained) build upon each other and last longer. There are many excellent educational design resources in the nursing and healthcare fields literature that may be referred to as well. This chapter will put together an approach to develop fellowship curriculum through the application of learning theories that foster “mudslinging” engagement.

A structured fellowship curriculum is especially important for nurse practitioners (NP), who, unlike registered nurse postgraduates, come to an organization with a variety of backgrounds and clinical experiences and may not have dedicated support from a formalized advanced practice professionals–focused professional development or education department. Setting up a framework using the most favorable learning methods to benefit the learning of the individual nurse practitioner fellow (NPF) will also focus attention on the program goals and competencies to ensure that they are in congruence with the organizational, professional, and specialty standards of practice. Throughout this chapter, multiple examples and templates will be given to demonstrate how to create a program curriculum that engages various learning styles and how to make meaningful activities so that knowledge will build upon the competencies created in previous chapters. I encourage you to be creative and resourceful with the many potential learning opportunities that encourage learning in real-life situations.

## Learning Theories

Learning theories provide guidance on how to approach the introduction of new ideas to a general audience of learners. Structuring your program around key theories will help to link the most effective methods to deliver the program content.

### **Adult learning theory**

Let's discuss two styles of adult learning: pedagogy and andragogy. *Pedagogy* is considered a classroom approach through which students learn through instructions given by an instructor. In contrast, andragogy is the self-directed, independent, and cooperative way of learning that most adults prefer and is more applicable to the advanced practice provider (Knowles, 1984).

The assumptions of adult learning are as follows:

1. Self-concept moves from dependence to self-direction as a person matures
2. Adults want to be involved in the planning and evaluation of their education
3. Past experiences form the foundation of reference for current experiences
4. Readiness to learn becomes oriented increasingly to the developmental tasks of adults' social roles as they mature
5. Adults want to apply concepts learned right away to real life, including the possibilities of making errors
6. Adults want learning content that has immediate relevance to and impact on their role
7. Adults want to be engaged in more problem-centered activities rather than content-centered memorization of facts

Both pedagogy and andragogy learning styles are beneficial and can be applied in various situations. For example, during orientation, a pedagogy approach is valid to impart organizational, routine practices, and policies to a new employee. Another form of pedagogy is intentional learning, which directs the individual to use methods that foster deep learning, clinical judgment, and critical thinking (Nielsen et al., 2013). An online learning module with instruction followed with a knowledge assessment quiz is another example of pedagogy. As NPFs become more comfortable with and socialized into the organization, the learning methods should shift to an andragogy approach, which allows more autonomy to test critical thinking skills that have been learned from didactic curriculum, clinical practice, and mentorship, to hone their patient management strategies. The progression to andragogy is important for NP training as they transition into independent practitioners who lead teams of individuals.

### **Self-efficacy theory**

In self-efficacy theory, perceptions and expectations are suggested to have a profound effect on outcomes (Bandura, 1977). The contributing factors for self-efficacy include a combination of how an individual assesses

These individuals prefer situations that require gathering information and being able to respond to thought-provoking ideas for feedback. Clinical practice helps them develop role identity by judging the impact of what they have learned.

Examples: learning modules and case studies that ask for essay-type responses, shadowing a chaplain, or developing a quality improvement project of their choice

- Converging (doing and thinking)

These individuals prefer technical tasks that require a solution and are less interested in socialization.

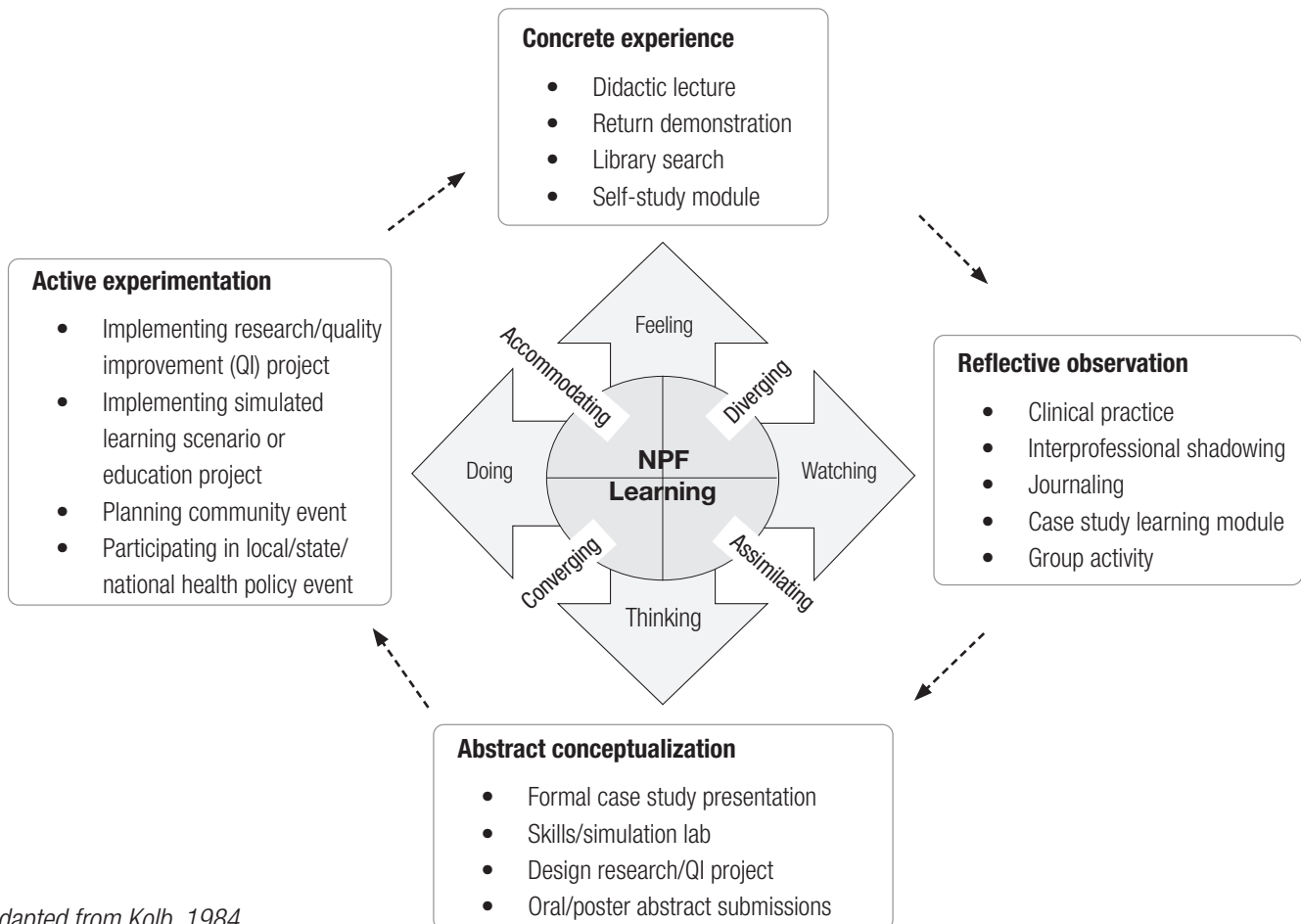
Examples: procedural skills in the clinical setting, independent case studies, or setting up a research project

- Assimilating (watching and thinking)

These individuals prefer independent or formal learning approaches that are presented in a clear and organized format. They prefer to have time to think things through before making a decision. The formative approach of reflection is helpful to foster an awareness of role transition and professional identity (Cruess et al., 2018).

Examples: attending lectures and blended learning activities that are supported by reading resources, checklist of competencies to complete for rotations, and submission of patient documentation examples

**Figure 5.1:** NPF experiential learning curriculum model



*Adapted from Kolb, 1984.*

**Figure 5.3:** Example blended learning template

<i>Clinical rotation/area:</i>
<i>Learning activity:</i>
<i>Due date:</i>
<i>Competency statement/domains covered:</i>
<i>Resources (e.g., personnel, readings, equipment):</i>
<i>Learning methods (e.g., self-study, group project, presentation, discussion):</i>
<i>Evaluation method (e.g., presentation, quiz, evaluation tool):</i>
<i>Instructions:</i> <ol style="list-style-type: none"> <li>1.</li> <li>2.</li> <li>3.</li> <li>4.</li> <li>5.</li> <li>6.</li> </ol>
<p>Be prepared to discuss or present on this topic using the following discussion points:</p> <ul style="list-style-type: none"> <li>• Discuss ...</li> <li>• How ...</li> <li>• Why ...</li> <li>• As a result of this activity, how would you modify patient management strategies?</li> </ul>

## Clinical practice

### ***Clinical rotations***

Clinical practice with real patients should be ongoing and interspersed throughout the program so that the NPFs can practice the concepts learned from other methods. Mentors will be able to validate what NPFs have learned and guide them through the learning process and role transition. Mentors can provide feedback on any gaps in the NPFs' knowledge, skills, or attitude (KSA) at the point of recognition.

Although organizational policies and practices may vary, and because fellowships are not currently required for NPs to practice, the term *mentor* is used to acknowledge that an NPF is a licensed and credentialed provider who does not require an additional layer of supervision to practice during postgraduate programs. The term

*preceptor* generally connotes that close supervision is required during an orientation process or student rotation. Rather, the mentor who is assigned to the NPF functions as a supportive colleague who facilitates learning opportunities and provides guidance for patient management and role transition questions.

### ***Continuity clinic***

Whether an NPF is practicing in an inpatient or outpatient setting, experience working in a clinic setting, where a patient returns for scheduled follow-up appointments, is a helpful way to increase the patient rapport once exposed to cultural and environmental factors outside of the healthcare system and promote accountability as an independent provider. Continuity clinics, or the ability to develop a patient panel, allow NPFs to do the following:

- Apply evidence-based practices acquired from prior experiences to develop a patient management plan
- Educate patients and their families regarding the management plan
- Identify social, cultural, and environmental issues pertinent to the patient and family that foster follow-up on recommendations and the management plan
- Evaluate the outcomes of diagnostics and the therapeutic management plan developed for patients
- Revise the patient management plan based on needs
- Facilitate role identification and transition to practice

If this option is not available, consider repeating general rotations at staged intervals throughout the program to reassess the core competencies and acquisition of core concepts that may not be as applicable to more focused specialty rotations. Refer to the program rotations created in Chapter 3.

Possible competency domains: Scientific foundations, communication, health delivery systems, teamwork and collaboration, technology and information literacy, policy, ethics, quality.

Evaluation methods: Clinical practice can be assessed by formative feedback from those observing the NPF's performance. Mentors will assess this based on an evaluation tool that reflects the NPFs' expected level of competence. Patients may also provide feedback with a survey.

### **Didactic/Classroom presentation**

What distinguishes a fellowship from academic training are the additional opportunities to integrate current evidence-based advanced clinical knowledge into clinical practice and reinforce learned behaviors at the point-of-care level. Most learning methods should focus on the application of clinical practice, whether on real patients or in a simulated environment. Didactic presentations (or lectures) should incorporate information in parallel with patient management strategies rather than providing the bulk of the program content up front before the NPFs can correlate the content to the patient diagnoses they encounter in the clinical practice setting. For example, a presentation on cardiac pacemakers during orientation will be quickly forgotten if the rotation focusing the patient diagnoses requiring pacemaker implantation is scheduled five months later. The expected level of competency and learning activities also need to be in alignment for the focus of the NP fellowship program. For ex-

The following activity can be given during the first week of orientation to provide socialization and awareness of resources early in the program and determine how well the NPFs work together as a team. This learning activity fosters team bonding and socialization but also creates an awareness of what the typical patient experiences when diagnostic tests are ordered that may be challenging to perform. The activity also helps to identify gaps in the basic understanding of common patient diagnoses needing attention or additional preparation before the NPFs start clinical practice rotations.

### Example group project

Competency statement(s): Utilizes evidence-based interventions consistent with the plan of care; modifies the plan of care based on patient's response to treatment

Clinical rotation: Cardiology

Learning activity: Stress tests

Resources: Backpack, water, portable blood pressure (BP) cuff, portable pulse oximeter, notepad, pencil

Learning methods: Group activity, NPF presentation

Evaluation methods: Presentation evaluation tool based on group PowerPoint presentation

Instructions:

1. Pick up the learning activity stress test backpack from the NPF workstation. Included are a trail or mall walking map, water bottles, sunscreen, a stethoscope, pens and a notebook, a portable BP cuff, and a pulse oximeter.
2. Meet your NPF teammate(s) for breakfast at [designated location].
  - a. Take BP and pulse oximetry readings for each NPF.
  - b. Order breakfasts and beverages of choice and record in the notebook the approximate calories, sodium, carbohydrates, and protein consumed.
3. Hike the trail or walk mall of your choice at [include trail or mall walking location options] for a minimum of 30 minutes at a moderate pace, achieving a target heart rate using generalized formula:  $180 - \text{age}$ .
  - a. Perform BP, pulse oximetry, and heart sounds assessment at baseline. Repeat every 15 minutes throughout the activity and 15 minutes after completion.
  - b. Record in your notebook heart rate, BP, oxygen saturation, and heart sounds at each interval.
4. Prepare a PowerPoint presentation with your team member for the NPF conference scheduled in two weeks. You may use any additional resources.

**Figure 5.14:** Example NPF rotation schedule

Rotation year:		
	NPF:	Contact:
	NPF:	Contact:

	October	November	December	January	February	March
Dates	10/1–10/31	11/1–11/28	11/29–12/26	12/27–1/30	1/31–2/27	2/28–3/27
NPF 1						
Contact						
NPF 2						
Contact						
	April	May	June	July	August	September
Dates	3/28–5/1	5/2–5/29	5/30–6/26	6/27–7/31	8/1–8/28	8/29–9/22
NPF 1						
Contact						
NPF 2						
Contact						

1st Qtr Oct.–Jan.

2nd Qtr Feb.–May

3rd Qtr June–Sept.

# 6

## Evaluation of Outcomes

*“Criticism may not be agreeable, but it is necessary. It fulfills the same function as pain in the human body. It calls attention to an unhealthy state of things.”*

—Winston Churchill

### Objectives:

- Identify methods and tools to evaluate the learning process
- Incorporate program competency statements into the evaluation process

### Definitions

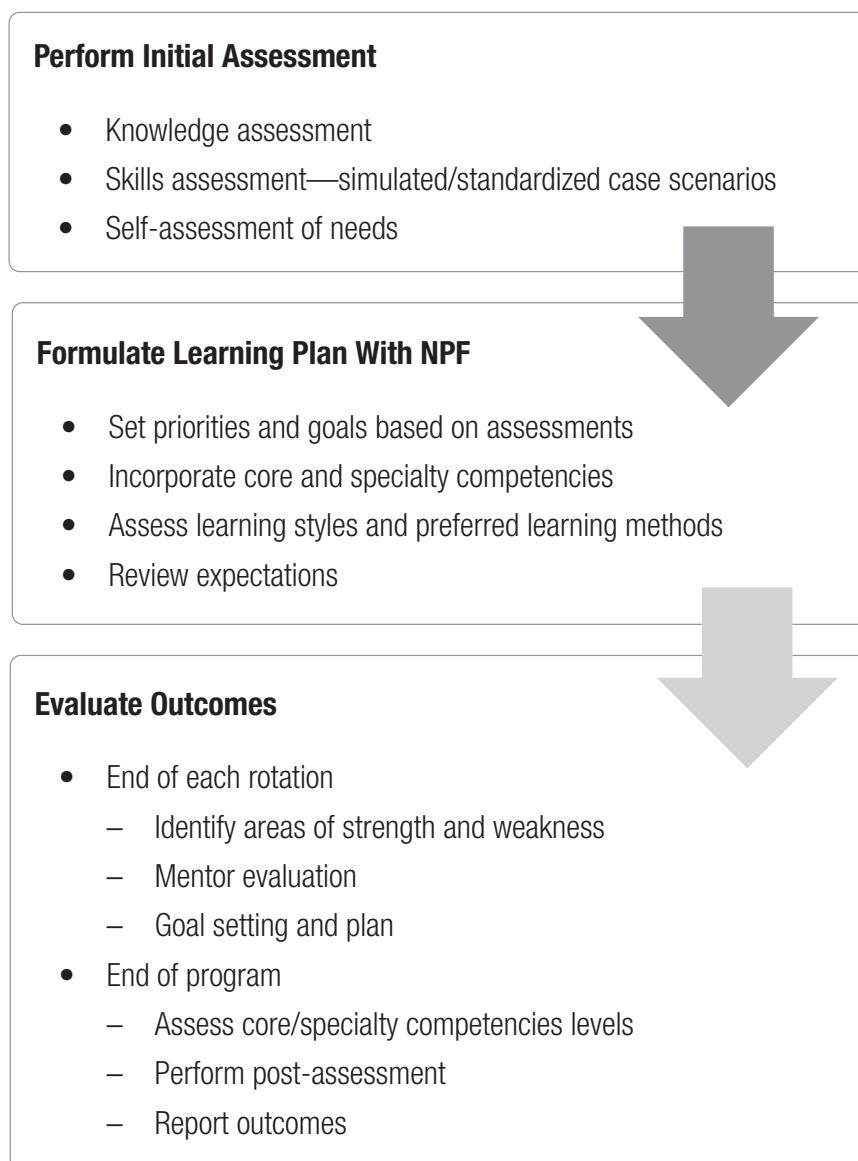
The following terms are commonly used in literature and may be used to discuss the evaluation process:

- *Assessment:* The collection of data through the observation of knowledge, skills, or attitudes (KSA) for the purpose of making decisions.
- *Benchmark:* A target goal set based on established standards and used to compare the actual value of the goal achieved to those of similar programs or clinical settings.
- *Evaluation:* Assigning value to something; the objective observation of KSAs that meets stated goals. The analysis and interpretation of information to judge the effectiveness, efficiency, and outcomes of the learning level achieved against standards or benchmarks.
- *Formative:* Performed at points along a continuum.
- *Gap:* The difference between what is currently being done and what is achievable based on a standard or benchmark.
- *Grading:* Assigning a score to a product or activity to denote the achievement of established goals.
- *Outcomes:* Something that follows as a result or consequence (Merriam-Webster, 2019).
- *Summative:* Performed as an aggregate of various points along a continuum.



At the end of the program, the NPFs will refer back to the learning plan to determine whether their personal goals were met as well as what changes in knowledge, skills, and behaviors occurred over the course of the program and to evaluate their level of competency.

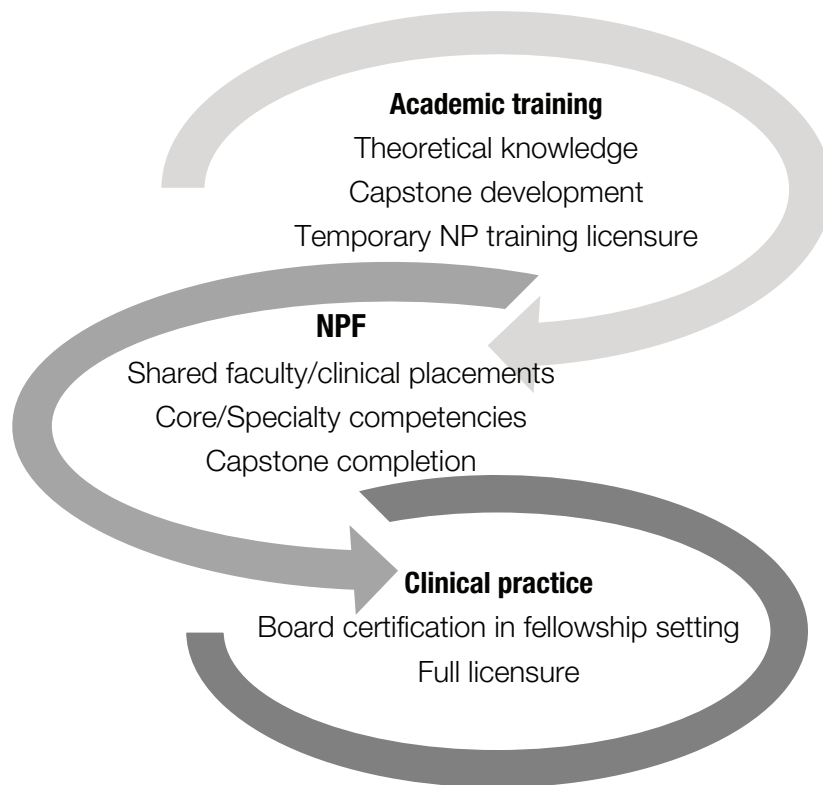
**Figure 6.4:** Individualized NPF learning plan



insurance reimbursement centers challenge the interpretation of APRN scope of practice, the need for fellowship programs grows even greater.

The ultimate goal of NP fellowship programs is to provide a novice or clinical setting with consistent entry-level training across a specialty practice area through curriculum based on nationally recognized standards of practice (see Figure 7.2). Yet with multiple nursing accrediting bodies, each has a different set of standards. In addition to a required clinical practice component, the development of a specialty certification examination that is validated for the NP role would recognize those NPs who have completed rigorous, consistent, and standardized fellowship programs or those who are able to validate that they have met the established competencies. Who will develop these psychometric, reliable, and validated certification exams? The American Academy of Nurse Practitioners has developed one national specialty certification, the Emergency Nurse Practitioner (ENP) certification. Certified ENPs still need to maintain their initial national nursing certification, but the additional ENP competency-based examination provides validation that they have met consistent knowledge criteria to reflect expertise and staves off criticism that they are practicing outside their scope of practice (American Academy of Emergency Nurse Practitioners, 2018). As frequently discussed in learning theories, there are different levels of competence: 1) knowledge, 2) skills, and 3) attitudes. A certification exam alone only determines the first level; a fellowship program that uses multiple methods assesses the second and third levels and more comprehensively performs a competency-based assessment in the actual clinical practice.

**Figure 7.2:** Proposed NPF training partnership



# Nurse Practitioner Fellowship

## *Program Planning and Curriculum Development*

Nurse Practitioner Fellowship: Program Planning and Curriculum Development discusses the rapidly emerging trend to develop nurse practitioner (NP) fellowship programs that facilitate post-graduate transition into practice. The book offers information and tools for developing NP fellowship program infrastructure, faculty development, program content, and evaluation methods.

This resource can be used as a step-by-step guide for those interested in developing, implementing, evaluating and improving upon current NP fellowship programs. Each chapter also contains useful activities and answers to frequently asked questions when starting an NP fellowship program.

Readers will be able to utilize the book's learning activities to develop an NP fellowship program based on their organization and specialty needs.

This book will also help:

- Provide a roadmap for the NP fellowship planning team throughout the program planning and development process.
- Determine a budget and get approval within your organization for NP fellowship program goals and objectives
- Prepare staff and faculty for the challenges and opportunities that NP fellowship programs face
- Customize or update your current program based on your organization or specialty needs

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