

Postdoctoral opportunities for nursing PhD graduates: A resource guide

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Abstract

Before completing a nursing PhD program, doctoral students are encouraged to seek out and apply for a position in one of many, often highly competitive postdoctoral programs. These programs include the more traditional NIH funded experiences, such as the T32, as well as the non-traditional institution funded positions, including the associate faculty role. Graduates often need guidance on which postdoctoral programs are available, the resources each program offers to promote development of the applicant's program of research, the disadvantages of each program, and what each program uses as benchmarks for success. This paper summarizes both traditional and non-traditional postdoctoral positions including the T32, F32, F99/K00, T90/R90, research supplements, associate faculty, research associate, and hospital-affiliated postdoctoral positions. This paper updates previous papers describing post-doctoral opportunities and offers a starting place to aide PhD students planning their post-graduate activities in seeking and evaluating these positions.

Keywords: Nursing PhD, Post-doctoral funding, Nursing research, Nursing faculty

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Postdoctoral experience has been acknowledged as a critical stepping stone for PhD-prepared graduates, including nursing graduates, to acquire professional and/or advanced research skills needed for a productive research career. According to the National Postdoctoral Association (2014), a postdoctoral scholar is “an individual holding a doctoral degree who is engaged in a temporary period of mentored research and/or scholarly training for the purpose of acquiring the professional skills needed to pursue a career path of their choosing.” Compared to 20-30 years ago, there are now more postdoctoral opportunities across all fields, including nursing (Kelsky, 2015).

Existing publications on postdoctoral opportunities and postdoctoral experience in nursing date back as far as 27 years ago (Lev, Souder, & Topp, 1990; Sigmon & Grady, 2001; Waters, 1996). Updated information on postdoctoral opportunities for nursing PhD graduates is needed, given the rapid changes in nursing science. For instance, nursing research has become more interdisciplinary over the past decade (Larson, Cohen, Gebbie, Clock, & Saiman, 2011; Yarcheski & Mahon, 2013). Nurse researchers are no longer working independently in silos but are conducting collaborative research with other disciplines to improve the health of patients, communities, and populations (Yarcheski & Mahon, 2013). To better prepare interdisciplinary researchers, some nursing scholars may benefit from training in other disciplines through postdoctoral programs housed in non-nursing schools or interdisciplinary postdoctoral programs.

In addition, postdoctoral training has increasingly become an expectation for new hires in most research-intensive institutions (Miller, 2012). Hence, nursing PhD graduates are pursuing traditional postdoctoral opportunities funded through the National Institutes of Health (NIH). There is an expectation that having postdoctoral training will lead to an increase in research productivity and grant success. As a result, postdoctoral training would provide new faculty with

a jumpstart on his or her research career, ultimately increasing the likelihood of a successful, independent research career. While there are no nationwide surveys describing the post-graduation placement of nursing PhD students, a nursing faculty survey reported by Dreher and colleagues (2012) found that although a majority of the faculty respondents were full-time and either tenure or tenure track, just 19% had completed postdoctoral training. With the rising expectation of postdoctoral preparation, this number can be expected to rise in the coming years. At the same time, nursing PhD program graduations have increased by more than 50% (AACN, 2014). The growing expectation of postdoctoral education, combined with a growing number of PhD graduates, means there is an ever increasing need for postdoctoral opportunities.

Due to the expectation that graduates who intend to obtain a faculty position at a research-intensive institution have prior postdoctoral training, there is an emerging initiative from some research-intensive institutions to create new, non-traditional postdoctoral opportunities for nursing PhD graduates. These opportunities are similar to postdoctoral positions funded through an appointment with an institution. For instance, the non-traditional postdoctoral opportunity may include an early-entry faculty position that provides the faculty member with one-year protected time to transition into the new faculty role with a reduced teaching and service load.

Because of the changing landscapes of nursing science and expectations for new hires, it is critical that nursing PhD students understand the scope of available postdoctoral research opportunities. Thus, the purpose of this manuscript is to provide updated information for nursing PhD students and recent graduates about various postdoctoral (hereafter referred to as postdoc) opportunities including types of programs (both traditional and non-traditional), where to find them, their advantages and disadvantages, and how to decide which postdoc opportunity is

suitable. This information can inform decisions about post-graduation opportunities and help students and recent graduates ask relevant questions during the interview process. While an overview of common post-graduation opportunities is provided, this information is not exhaustive. This paper builds on previous articles by offering fresh perspectives on both traditional and non-traditional postdoc opportunities.

Postdoctoral Research Training Opportunities

There are many different types of post-graduation opportunities that nursing PhD students and graduates can pursue after completion of their PhD program. There are traditional pathways for postdoc funding which include well-known programs funded through federal agencies, including the NIH, the U.S. Department of Veterans Affairs (VA), and well-established non-federal organizations such as the Robert Wood Johnson Foundation, the Ford Foundation, the American Heart Association, and the Alzheimer's Association. Additionally, there are non-traditional post-graduation opportunities that are unique to the institution where funding does not necessarily come from a federal source. Table 1 provides an overview of some of the most common traditional and non-traditional opportunities.

Many existing United States (U.S.) postdoc opportunities require that the nursing PhD graduate have U.S. citizenship or permanent resident status. However, many non-traditional postdoc positions are not restricted in this way. For example, non-traditional postdoc training from professional associations (e.g., American Cancer Society, American Heart Association, and International Association for the Study of Pain) and postdoc positions supported by academic institutions allow non-citizens to apply.

Traditional Pathways

The purpose of the traditional postdoc pathways is to focus on the development of the nursing PhD graduate to become an independent, productive researcher. The goal of the postdoc training is to provide protected time for the individual to focus on scholarship with no teaching or service commitment. The traditional pathways are typically from federal funding sources including the NIH in the form of: 1) Ruth L. Kirschstein National Research Service Award (NRSA) Institutional Training Programs (referred to as T32); 2) Ruth L. Kirschstein Postdoctoral Individual NRSA (referred to as F32); 3) individual pre-doctoral to postdoctoral fellow transition award (referred to as F99/K00); 4) Ruth L. Kirschstein Interdisciplinary Research Training Award (referred to as T90/R90); and 5) research grant programs such as research supplements (e.g., administrative supplement or research supplement to promote diversity, typically on R01 grants).

Ruth L. Kirschstein NRSA Institutional Training Program (T32). The T32 is one of the most common traditional postdoctoral pathways that nursing PhD graduates pursue. Specifically, a T32 is an NIH-funded research training grant awarded to an institution with the purpose of providing support and training in a specified area, including basic, clinical, and behavioral research for both pre- and/or postdoctoral fellows (https://projectreporter.nih.gov/reporter_searchresults.cfm). The content area of focus for each T32 program varies, hence it is up to the applicant to find an available T32 with a research focus that best matches their own research interests.

Although the duration of T32 postdocs is typically two years, the structure of the T32 also varies across institutions (National Institutes of Health, 2017a). For example, some institutions may require their postdocs to attend formal training sessions, seminars, or courses, and/or teach while others are more flexible. Furthermore, there could be variations in mentor

match. A new component in many T32 programs is an increasingly multidisciplinary focus; postdocs are being mentored by both nursing and non-nursing disciplines, where the training and research is conducted as part of an interdisciplinary team.

Ruth L. Kirschstein Postdoctoral Individual NRSA (F32). An F32 is a postdoctoral individual NRSA that is available to individuals who hold a PhD or equivalent doctoral degree from an accredited domestic or foreign institution and have an appointment at an institution eligible to conduct the research (<https://grants.nih.gov/grants/guide/pa-files/PA-18-670.html>). The purpose of an F32 is to provide training to individuals in specified health related areas (National Institutes of Health, 2017c). The F32 requires the individual to submit a research training proposal prepared under the guidance of a sponsor at the institution. Consequently, the training content and structure of the postdoc vary based on the proposed activities. In contrast, the T32 is an institutional award and the postdoc applies for a position to the specific T32 program at the institution where the award is funded.

Individual Predoctoral To Postdoctoral Fellow Transition Award (F99/K00).

Recently, a new F99/K00 mechanism has been created to support the pre- to post-doctoral transition for PhD graduate students (<https://researchtraining.nih.gov/programs/fellowships/F99-K00>). This mechanism is available through many of NIH institutes and is not limited to PhD nursing students. The purpose of this mechanism is to support outstanding PhD students who want to pursue a career as an independent researcher (National Institutes of Health, 2017b).

While the K99/R00 provides supports for the current postdoc (<https://grants.nih.gov/grants/guide/pa-files/PA-16-077.html>), the F99/K00 provides support for the pre-doctoral student's dissertation research training (F99 phase) followed by a transition into mentored postdoc research training (K00 phase). This mechanism helps facilitate the transition

from pre- to postdoc and covers up to six years combined for both phases. Like the F32, the individual applies and submits an individualized research training and career development plan with support from his or her sponsor and organization to develop the application.

Ruth L. Kirschstein Interdisciplinary Research Training Award (T90/R90). The T90/R90 is an institutional training grant that supports comprehensive interdisciplinary research training programs at the predoc (graduate PhD) and postdoc levels (<https://researchtraining.nih.gov/programs/training-grants/T90-R90>). The purpose of this mechanism is to build on the infrastructure of existing multidisciplinary and interdisciplinary research programs focusing on a specific health condition. The training is one year. Unlike the T32, this mechanism focuses its training on a team approach (<https://grants.nih.gov/grants/funding/t90.htm#comparison>). In addition, the T90/R90 has the option of supporting non-US citizens.

Research Supplements (Administrative Supplement to an R01). Principal Investigators (PIs) with an R01 can request an administrative supplement to financially support and mentor a postdoc fellow from their NIH institutions. There are the types of administrative supplements with a specific option to support a postdoc: 1) one to promote reentry into biomedical and behavioral research careers (<https://grants.nih.gov/grants/guide/pa-files/PA-18-592.html>); and 2) one to promote diversity in health-related research (<https://grants.nih.gov/grants/guide/pa-files/PA-18-586.html>). The purpose of the funding received from the administrative supplement is to help the postdoc develop into an independent productive researcher. In contrast to the F32 where the postdoc is the PI, in the administrative supplement, the PI of the R01 remains the PI and the postdoc has to be willing to work on the existing parent project. The structure of this kind of postdoc position also varies.

Non-traditional Pathways

Most non-traditional pathways consist of an entry level position into the faculty role with minimal teaching and service responsibilities. The goal is to ease the individual into the faculty role. While a federally-funded postdoc position is the “traditional pathway” for post-graduation opportunities, other non-federally funded positions also offer structured mentorship and protected time for research, including foundation grants and institutional funds. The availability, names, and types of non-traditional postdoc positions vary based on the institution.

One such example associated with institutional funding is as an Associate Faculty position. This position title can be specific to individual universities, and as such may not be a universally offered faculty position, but similar positions are offered by other schools. The Associate Faculty position (also known as preliminary faculty) serves to ease the new faculty member into the duties of the tenure track over a two- to three-year period. In this position, the recent graduate has reduced teaching and service responsibilities (e.g., half of what is expected of the tenure-track assistant professor) so that a majority of their time can be spent on scholarship. This position also matches the graduate with a research mentor and a teaching mentor. With the guidance of a research mentor, milestones typically include two publications from the graduate’s dissertation and, at minimum, a draft of a grant application.

Another non-traditional pathway that is institutionally-based is the Research Associate position, which may also be called a research-track Assistant Professor. This position is a one- or two-year training program that includes individualized training, expansion of dissertation research, and dissemination of research findings through publication and conference presentations. In this position, the Research Associate may have the opportunity to work with multiple mentors. Teaching requirements for such a position vary based on institution.

A final non-traditional pathway is a hospital-affiliated postdoc opportunity offered by a hospital or medical institution that may have an affiliation with a university. Positions such as this can be created based on the need and availability of funding. This position also allows the recent graduate to have direct access to applicable patient populations for research purposes, a research mentor, and access to interdisciplinary researchers and clinicians.

Where to Find Postdoctoral Research Training Opportunities

There are many ways to find both traditional and non-traditional postdoc opportunities. For traditional federally-funded postdocs, the most direct route is to search using the NIH Research Portfolio Online Reporting Tools, specifically RePORT (<https://projectreporter.nih.gov/reporter.cfm>). Also, many postdoc programs housed in other fields are also open to nursing graduates (e.g., public health, medicine, pharmacy, ethics, etc.). In addition to searching on the NIH RePORTER, one could find postdoc opportunities by asking for recommendations from mentors, colleagues, and other members of the graduate's professional and personal network; attending research conferences in the field of interest; and participating in sessions and recruiting events to learn more about potential opportunities. Many schools also advertise their postdoc programs at regional or national conferences as well as their official websites. Internet searches on platforms such as social media and job seeking tools can also be helpful such as ResearchGate, Twitter, Facebook feeds, LinkedIn, and Chronicles of Higher Education.

For non-traditional postdocs like the Associate Faculty, Research Associate, or a hospital affiliated postdoc, the best way to find these opportunities is much in line with a standard job search. A great place to start is emailing or making telephone calls to schools, hospitals,

foundations, and associations that have ongoing programs of research and faculty or researchers that have research interests that align with the graduate's program of research.

Advantages of Postdoctoral Training

Despite the different postdoc training opportunities available, they share common advantages such as independence/autonomy, mentorship, protected time for research, network opportunities, and improved knowledge and skill development (Gennaro, Deatrick, Dobal, Jemmott, & Ball, 2007). The expected outcomes of both traditional and non-traditional postdoc opportunities vary, but typically include manuscript submissions, grant submissions, and research presentations. However, the expectations of these outcomes vary based on the institution and mentor. Demonstrating higher research productivity could make a candidate more competitive for a faculty position at research-intensive universities.

Independence/Autonomy

While in a graduate program, nursing PhD students are often less independent due to the structure and requirements of their program. However, as a postdoc there is greater independence and autonomy in one's scholarship. Postdocs are responsible for the development of their program of research and can choose the next direction they would like to take (e.g., next relevant study) in their program of research. Some postdoc programs offer more opportunities for independent work. For example, in a traditional T32 position, the postdoc has an individual mentor that guides their research and who is responsible for helping them make good progress. In some cases, the postdoc is brought on to the mentor's ongoing research as a co-investigator. With the associate faculty position, the postdoc has research mentorship available but is expected to conduct research independently from the start. In addition, if the postdoc would like more

teaching experience, many postdoc opportunities allow the graduate to do some teaching to not only gain teaching experience but to also supplement their salary.

Mentorship

While postdocs have a great extent of independence and autonomy, it is helpful to have mentors to consult and provide guidance along the way. In particular, if the nursing PhD students have completed an accelerated doctoral program, they may want a postdoc with strong mentorship and time to publish to improve their CV and learn more research methods or techniques. Across all postdoc opportunities, postdocs are paired up with a formal mentor who has expertise in their areas of interest. In some cases, like the Associate Faculty and the Research Associate Faculty position, the graduate is matched with a research mentor as well as a teaching mentor. The role of the mentor is to help guide career development and provide opportunities for the graduate to learn and grow.

In addition to formal mentoring, there is also an advantage for postdocs to have informal mentoring. Most institutions have infrastructure to support trainees, including appointment of program director(s), interdisciplinary co-mentors/consultants, program coordinators, and support staff. Some postdoc opportunities may have a large number of postdocs, which can evolve into mutual peer support groups (e.g., for informational support, emotional support, and peer mentoring on scientific work).

Protected Time

Typically, when graduates transition directly into a tenure-track position in a research-intensive university, there is an expectation of simultaneous teaching, service, and research/scholarship. However, in a postdoc position, the teaching responsibility can vary from limited to none. For example, the traditional T32 postdoc position typically does not require a

PhD graduate to take on any teaching responsibilities, while the Associate Faculty position requires a reduced teaching and service load (e.g., half of what is expected of the tenure-track assistant professor) leaving a large majority of time to be spent on scholarship. Nevertheless in both positions, graduates have protected time for research and scholarship.

Network Opportunities

One of the advantages of being in a postdoc position is having the time to create and expand networks to enhance one's pool of collaborators. Through the networks, opportunities can be fostered for the postdoc in the areas of research collaboration, learning, and mentoring. In the traditional postdoc position, the graduate is encouraged to work with mentors from outside the nursing field and may even accept a position in a non-nursing field. The non-traditional postdoctoral positions like the Associate Faculty role encourage collaboration and networking, but they may be expected to engage in this independently in the same way a tenure-track professor would.

Skills Development

Another advantage is that one can have the opportunity to expand and learn new research skills in a specialized area or expand and enhance their knowledge. Besides learning new research skills, postdocs have the opportunity to develop skills in grant writing and research publication. In the traditional T32 postdoc, the postdoc is encouraged to attend research seminars and take classes to improve certain research skills while having emphasis placed on development into an independent nurse scientist. The non-traditional Associate Faculty position also values skills development, but the teaching and service responsibilities, though reduced, are still a barrier to attending more than the occasional seminar and conference.

Disadvantages Postdoctoral Training

While there are advantages to a postdoc, there are also many common disadvantages across the different types of postdocs. This includes financial constraints and fewer research grant opportunities.

Financial Constraints

One of the disadvantages postdocs encounter is financial constraints (Yang & Webber, 2015). Although the salary for postdocs may vary, it is typically much lower than what a tenure-track assistant professor would make. Federally-funded postdocs (T32, F32) have a capped national salary (<https://grants.nih.gov/grants/guide/notice-files/NOT-OD-17-084.html>) that does not take into consideration geographic differences in living costs or costs of relocation of the individual or their family. Thus, accepting a postdoc position may be costly due to financial constraints.

Another aspect of financial constraints involves financial support to attend conferences. Most postdoc programs provide financial support for only one conference or only offer a particular amount. Without additional funding support available, it can be difficult to disseminate research findings at more than one conference.

Fewer Research Grant Opportunities

Although some institutions may have internal research grants available for postdocs, other institutions may not. Some institutional funding opportunities require that the applicant hold a faculty position to be eligible to apply for internal research grants, thus making it impossible for the postdoc to apply for funding as a PI. In addition, while foundation and organization grants are available, these grants are often very competitive, and the number awarded to postdocs each year are very small. Hence, it may be difficult for postdocs to obtain funding to support their research.

When and How To Select a Postdoc

Figure 1 shows a timeline of the process of applying and deciding for a postdoc based on the authors' experiences. However, we would like to acknowledge that it is never too early to learn about potential postdoc opportunities. In addition, the timeline can vary from person to person and institution to institution. Based on our experience, it is important that the nursing PhD students discuss postdoc opportunities with their PhD advisors soon after they defend their dissertation proposal. The conversation should include an assessment of the nursing PhD student's goals after graduation including research and personal needs. For instance, does the student want to transition more quickly into a tenure-track role or is additional training time more important? Specifically, does the student need more research training in a particular area? Does the student want more time to work on his or her publications to have a competitive CV when applying for junior faculty positions? Does the student need more teaching experience? Does the student have preferences on salary? This conversation will inform the type of postdoc the student could pursue.

Searching and applying for postdocs should take place at the start of the students' final year in their PhD program. It is also important to understand what postdoc training programs require of the applicant. Some of the main selection criteria for both the traditional and non-traditional postdoc positions include the quality of the applicant's academic record, past research experience, publications, commitment to independent research, and match with research interests of potential faculty mentors. Therefore, applications for postdocs vary based on the institution and the type of postdocs the students are seeking, with variations in the application requirements, process, and deadline. Applications requirements vary, including some combination of a cover letter, CV, research proposal or research statement, and one to three letters of recommendations.

In addition, all postdoc positions have an interview; hence, it is critical that nursing PhD students prepare for the interview including asking pertinent questions to ensure the opportunity is a good fit (see Table 2). While the job search process for non-traditional postdocs may be like a standard job search, the application and interview process is typically similar to what is required for a tenure-track position. For example, the interview for a non-tradition postdocs such as an Associate Faculty may include attending a one- to two-day on-campus interview that includes a faculty presentation, and meeting individually with the dean, associate deans, and other faculty or executive leadership. In contrast, traditional postdocs' interview can be down in person, on the telephone, or on skype that may last one hour.

Deciding Which Postdoc Opportunity is the Best Fit

The process of selecting a postdoc position can be difficult. It is important that future nursing PhD students assess their career goals and long-term plans for the next 5 to 20 years. Selecting a postdoc that is most in line with future career goals and long-term plans will be beneficial for meaningful career advancement. In addition, it is also important to assess the student's current situation regarding financial constraints, relocation, and family. Table 3 contains a list of relevant reflection questions that could be used to help one decide whether a postdoc opportunity is appropriate for them. Moreover, to help with information gathering and deciding which postdoc position might be best, it is important to speak with other trainees currently and previously in the position one hopes to obtain, as well as junior and senior faculty at the institution.

Conclusions

The postdoc experience is critical to the development and advancement of a nurse researcher's career. Due to the changing context of the nursing science, nursing PhD students

and graduates need to understand the training opportunities available to them post-graduation, how to find them, assess their advantages and disadvantages before making a decision, and how to choose the one that fits best with their career goals and life situation. Consequently, graduates will be able to have a fulfilling and satisfying postdoc experience that meets their goals and needs which can set them up best for a successful long-term career.

References

- American Association of Colleges of Nursing. (2014). Data on doctoral programs. Retrieved from <http://www.aacn.nche.edu/dnp/JK-2014-DNP.pdf>
- Dreher, H. M., Smith Glasgow, M. E., & Cornelius, F. H. (2012). A report on a national study of doctoral nursing faculty. *Nursing Clinics of North America*, 47(4), 435–453.
doi:10.1016/j.cnur.2012.07.001
- Gennaro, S., Deatrck, J. A., Dobal, M. T., Jemmott, L. S., & Ball, K. R. (2007). An alternative model for postdoctoral education of nurses engaged in research with potentially vulnerable populations. *Nursing Outlook*, 55(6), 275–281.
- Kelsky, K. (2015). *The Professor Is In: The Essential Guide To Turning Your Ph.D. Into a Job*. New York, NY: Three Rivers Press.
- Larson, E. L., Cohen, B., Gebbie, K., Clock, S., & Saiman, L. (2011). Interdisciplinary research training in a school of nursing. *Nursing Outlook*, 59(1), 29–36.
- Lev, E., Souder, E., & Topp, R. (1990). The postdoctoral fellowship experience. *Journal of Nursing Scholarship*, 22(2), 116–120.
- Miller, J. M. (2012). *Postdoctoral appointments: motivations, markets, and experiences* (PhD Thesis). The University of North Carolina at Chapel Hill.

National Institutes of Health. (2017a). 11.3 Institutional Research Training Grants. Retrieved January 16, 2018, from

https://grants.nih.gov/grants/policy/nihgps/html5/section_11/11.3_institutional_research_training_grants.htm?TocPath=11%20Ruth%20L.%20Kirschstein%20National%20Research%20Service%20Awards%7C11.3%20Institutional%20Research%20Training%20Grants%7C_____12

National Institutes of Health. (2017b). Individual Fellowships Research Training and Career Development. Retrieved January 16, 2018, from

<https://researchtraining.nih.gov/programs/fellowships/F99-K00>

National Institutes of Health. (2017c). Individual Fellowships Research Training and Career Development. Retrieved January 16, 2018, from

<https://researchtraining.nih.gov/programs/fellowships/F32>

National Postdoctoral Association. (2014). What is a Postdoc? Retrieved January 16, 2018, from http://www.nationalpostdoc.org/default.asp?page=What_is_a_postdoc

Sigmon, H. D., & Grady, P. A. (2001). Increasing nursing postdoctoral opportunities: National institute of nursing research spring science work group. *Nursing Outlook*, 49(4), 179–181.

Waters, C. M. (1996). Professional development in nursing research—a culturally diverse postdoctoral experience. *Journal of Nursing Scholarship*, 28(1), 47–50.

Yang, L., & Webber, K. L. (2015). A decade beyond the doctorate: the influence of a US postdoctoral appointment on faculty career, productivity, and salary. *Higher Education*, 70(4), 667–687.

Yarcheski, A., & Mahon, N. E. (2013). Characteristics of quantitative nursing research from 1990 to 2010. *Journal of Nursing Scholarship*, 45(4), 405–411.

Running head: POSTDOCTORAL OPPORTUNITIES FOR NURSING PHD GRADUATES

Table 1
Comparison of postdoctoral programs and positions

Name	Independence	Mentorship	Protected time	Networking	Improved knowledge	Salary	Funding constraints	Travel Funds	Available to non-permanent resident	Website Link ^a
Traditional Postdoctoral Training Programs										
T32	May be a co-investigator on mentor's research or conduct independent research with mentor's guidance	1:1 mentorship	No teaching or service responsibilities unless desired	Opportunities to conduct research with collaborators within and outside the college of nursing	Emphasis on attending classes and seminars that help the graduate develop as a scientist	Refer to NIH stipend levels for post doctoral trainees (https://grants.nih.gov/grants/guide/notice-files/NOT-OD-17-003.html). Determined by number of years since postdoctoral appointment was made.	Can't apply to funding opportunities that require applicant to be a faculty member	Yes	No	https://researchtraining.nih.gov/programs/training-grants/T32
F32	Conduct research independently under mentor's guidance; can also work on mentor's research	1:1 mentorship	No teaching or service responsibilities	Opportunities to conduct research with collaborators within and outside the college of nursing	Based on individual's proposed research training	Refer to NIH stipend levels for post doctoral trainees (https://grants.nih.gov/grants/guide/notice-files/NOT-OD-17-003.html). Determined by number of years since postdoctoral appointment was made.	Can't apply to funding opportunities that require applicant to be a faculty member	Yes	No	https://grants.nih.gov/grants/guide/pa-files/PA-16-307.html

F99/K00	Work on research dissertation	1:1 mentorship	Focus on research training full-time; no teaching or service responsibilities	Opportunities to conduct research with collaborators within and outside the college of nursing	Skill development is encouraged	Refer to NIH stipend levels for post doctoral trainees (https://researchtraining.nih.gov/resources/policy-notices). Determined by number of years since postdoctoral appointment was made.	Can't apply to funding opportunities that require applicant to be a faculty member	Yes	No	https://researchtraining.nih.gov/programs/fellowships/F99-K00
K00	Conduct research independently; can also work on mentor's research	1:1 mentorship	75% is committed to research and 25% can be engaged in other activities (e.g., training, teaching, etc.)	Opportunities to conduct research with collaborators within and outside the college of nursing	Skill development encouraged	Dependent on which NIH institution apply for		Yes	No	
T90/R90	Work in a team approach, interdisciplinary	1:1 mentorship or co-mentorship		Opportunities to interact with individuals in the interdisciplinary team	Research skills in the parent proposal and skills in working in an interdisciplinary team	Refer to NIH stipend levels for post doctoral trainees (https://grants.nih.gov/grants/guide/notice-files/NOT-OD-17-003.html). Determined by number of years since postdoctoral appointment was made.		Yes	Yes for the R90 ^b component	https://grants.nih.gov/grants/guide/pa-files/PA-18-586.html

Research Supplements including diversity supplements	Work on the existing research project of PI under the parent grant	1:1 mentorship	No teaching	Opportunities to interact with individuals on the parent grant	Research skills and knowledge improvement can be done in a selected area of biomedical, behavioral, clinical or social sciences	Refer to NIH stipend levels for post doctoral trainees ^c (https://grants.nih.gov/grants/guide/notice-files/NOT-OD-17-003.html). Determined by number of years since postdoctoral appointment was made.	Can't apply to funding opportunities that require applicant to be a faculty member	Yes	Yes	https://grants.nih.gov/grants/guide/pa-files/PA-18-586.html
Non-Traditional Postdoctoral Training Positions										
Associate faculty	Conduct research independently, has access to support and administrative staff	Matched with research and teaching mentor	Reduced teaching and service load (i.e., half of tenure-track professors)	Opportunities to conduct research with collaborators within and outside the college of nursing	Skills development encouraged	Varies based on institution; typically more than NIH postdoctoral stipend, but depends on institution + benefits	None	Yes	Yes	
Research associate	Conduct research independently, has access to support and administrative staff	1:1 mentorship	No teaching or service responsibilities	Opportunities to conduct research with collaborators within outside the department	Skill development encouraged	Varies based on institution; typically more than NIH postdoctoral stipend + benefits	Can't apply to funding opportunities that require applicant to be a faculty member	Yes	Varied	
Hospital-affiliated postdoc	May be a co-investigator on mentor's research; conducts research independently, has access to support and administrative	1:1 mentorship	No teaching or service responsibilities	Opportunities to conduct research with collaborators within and outside the college of	Skills development encouraged	Varies based on institution and funding availability	None	Yes	Varied	

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Notes: ^a Many of these program announcements are updated and re-issued annually so it's important to check for the most recent opportunity.

^b The T90 component supports citizens and the R90 component ONLY supports non-US citizens. From day 1 of this type of training grant, a US OR non-US citizen can be appointed at any time – if they are US citizens, they are appointed under the T90 component and if they are non-US citizens they are appointed under the R90 component.

^c Important note for supplements: the NIH postdoc stipend level is the MAXIMUM that can be provided – it actually can be less. For the T's and F's, the amount should be EXACTLY as stated in the NIH stipend level announcement.

Table 2

Sample interview questions for current and previous postdocs

1. Can share with me how you selected this postdoctoral experience?
 2. How did you find out who to work with for the postdoc?
 3. What were your expectations of the postdoc coming in? Did it meet your expectations?
 4. What kind of mentoring are you getting? For example, how accessible is your mentor?
How quickly do they respond to emails? Are you able to get feedback on your work?
How long does it take you to get feedback? Do you work independently?
 5. Is there support for publication and grant writing?
 6. What is the culture like at your institution? For example, how collaborative are people?
 7. When you need help, what kind of support do you have?
 8. Are there any other postdocs for you to talk to or work with?
 9. If you had a chance to do this experience over, would you make the same decision?
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Table 3
Reflection Questions

Category	Reflection Questions
Goals	<ul style="list-style-type: none"> ● What are your goals? ● Where do you see yourself in 5, 10, or 15 years? What would you like to accomplish at each of these time points? ● What are the steps you need to take to achieve your goals at each time point? ● Who can help you achieve those goals? ● Where can you achieve those goals? ● Is there a proper research environment to help you achieve those goals?
Mentorship	<ul style="list-style-type: none"> ● What kind of mentorship do you need to achieve your 5-year goals? For example, structured or flexible? ● Do you need to learn a particular method or content area from a specific mentor? ● Is there support from the institution to foster and support constructive mentoring? ● Can you communicate easily with this mentor (i.e., do they have time set aside to work with you)?
Family Situation	<ul style="list-style-type: none"> ● Can you relocate to a new setting? ● How feasible is it to relocate your family for a short period of time (~2 years) to a new place? ● What support/resources are available to manage your family's life while furthering your research career? ● What is your family situation like? For instance, do you need family support for child care?
Finances/ Salary	<ul style="list-style-type: none"> ● What is your financial situation? ● Can you make the most out of your salary? Can you survive on the salary offered? ● Are there opportunities in your postdoc to obtain additional money outside of the position?
Institution	<ul style="list-style-type: none"> ● Does the institution specialize in areas important to your research? ● Will there be staff for research support such as grant writing, submission, data analysis, and dissemination? ● Is there research administration infrastructure that supports postdocs? ● Can you choose mentors outside of nursing? ● Will there be sites for recruitment for participants? For example, are there hospitals or clinics where you can conduct

research?

- Is any assistance with recruitment available?
 - Is there financial support for travel for scholarly dissemination and publication costs?
 - Will there be access to data to conduct secondary analyses?
 - Will there be a library and librarians who support literature reviews?
 - Will there be other postdoctoral fellows in your department and other departments with whom you can collaborate?
 - Is there a strong commitment to research integrity within the lab and institute?
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