



Advanced Training and Practice: Postdoctoral Fellowship and Beyond

Learn something new every day, do good work, and have fun doing it.

– Steve Correia, PhD, ABPP-CN

Graduate school is a monumental hurdle, and making it through the gauntlet is a praiseworthy accomplishment. But your training is not quite finished. In order to become a clinical neuropsychologist, you are required to complete a 2-year neuropsychology fellowship, pursue licensure as a psychologist, and (we hope) obtain board certification in neuropsychology. In this chapter, we will walk you through each of these steps and touch upon securing employment, independent practice, managing student loans, and advocacy work. We also provide a brief overview of the re-specialization process for those of you who have not taken a traditional path into the field.

Postdoctoral Fellowship

Postdoc is the time to truly specialize in neuropsychology.¹ By now, your generalist training is complete, and you can immerse yourself in your area of deepest interest. Many neuropsychologists say that fellowship was the most enjoyable and rewarding

¹As we spelled out in Ch. 6, it is crucial for neuropsychology fellowships to adhere to the Houston Conference (HC) guidelines and American Board of Clinical Neuropsychology (ABCN) requirements (see the *Board certification* section, below). For this reason, all of our advice in this chapter is consistent with these training models. We strongly recommend that you educate yourself and use these guidelines as a compass while navigating the postdoc experience.

stage of their training. It allows for greater autonomy than did graduate school while still providing support and guidance as needed, and it prepares the trainee to transition into fully independent practice. Fellowship is also your last chance to fill in any gaps in knowledge and skills while still in a formal training role. As such, it is important to make your wishes and expectations known early on by sitting down with your advisor and creating an individualized education plan that includes the professional experiences you need and desire in your last years as a trainee.²

Postdoc training varies widely across institutions and people. For example, our respective experiences differed significantly, despite the fact that we both fit squarely under the neuropsychology umbrella. I (Ryan) completed a 2-year research fellowship in the Geriatric Mental Health T32 at UCSD, where I focused on neuropsychological research, supplemented with clinical work, teaching, and professional development. The program is open to scientists of many ilks, including neuroscientists, psychiatrists, data scientists, and exercise physiologists, along with psychologists and neuropsychologists. In addition to mandatory research productivity, I contacted faculty at UCSD and nearby universities to offer my services as a clinician, teacher, and consultant. As a result, I remain eligible to apply for board certification in clinical neuropsychology. Although the goal of the fellowship is to train academic scientists to apply for National Institute of Health (NIH) Career Development (K) Awards, there was great flexibility in the overall training experience, and I enjoyed frequent interdisciplinary collaborations and an intellectually rich work environment.

On the other hand, I (John) completed a formal 2-year clinical neuropsychology fellowship at Brown University. I was housed at the Providence VA where I regularly provided services to Veterans with a variety of neurocognitive issues. In this setting, I gained depth in serving Veteran populations. However, it also afforded me significant breadth in terms of setting and testing approach. For example, I provided services to Veterans from different eras (e.g., WWII, Vietnam, the conflicts in the Middle East) and engaged in teleneuropsychological evaluations, home-based testing, community outreach through a self-created “Lifestyle and Brain Health” education and consultation service, neuropsychology didactics, neuroradiology rounds, neuropathological autopsies (i.e., “brain cuttings”), and multiple research projects (20% of my time was protected for research). By the end of fellowship, I felt very prepared for independent clinical practice.

One helpful way to conceptualize the postdoc experience is as the transition phase between student who is supervised and colleague who supervises and consults. Technically, fellows are still trainees (i.e., they are not autonomous clinicians, and they are not the PIs of major grants), but in practice they often function more as early career faculty than graduate students. This becomes even truer as the trainee progresses through the fellowship program. In other words, we are advocates of a

²Consider using the competencies listed in Smith and CNS 2019, to guide that conversation.

titrated approach to training, where the degree of supervision tapers off and the degree of independence simultaneously expands over the course of the experience. Specifically, the first year of fellowship will still involve oversight and the smoothing out of areas of inexperience, with gradual increases in autonomy. The second year then involves a slow removal of all training wheels. In the clinical realm, we believe that the transition from fellow to full-fledged neuropsychologist is smoother and more natural if the trainee is provided with the opportunity to act as a fully independent professional, albeit with the buffer of a behind-the-scenes supervisor who can step in if necessary. And we are not alone in this belief.³

The most valuable experience I had as a trainee was about two months prior to the end of my postdoc, when my supervisor, John Beetar, stopped supervising me. He had me conduct clinical evaluations and write neuropsych reports and then he provided guidance as needed. And it was terrifying, but it gave me a safety net... the opportunity to be a grown up psychologist before I was actually out on my own. So I think that if trainees can work with supervisors to allow for more independence on the back end of postdoc, it will make them stronger clinicians later on.

– Kira Armstrong, PhD, ABPP-CN

In practice, this clinical safety net approach may involve the trainee independently performing the records review, clinical interview, testing, scoring, and report writing and then discussing the case with the supervisor as needed before finalizing the report and providing feedback. We agree with Dr. Armstrong that several months of this type of training serve as excellent preparation for the next stage. If you are fortunate enough to have this experience, we encourage you to adopt the mindset of an independent clinician. Imagine that it is your license number and signature at the bottom of the report and that you are responsible for all aspects of the case. This is a major responsibility that we all take very seriously, and it can lead to anxiety in freshly minted clinical neuropsychologists. Although some level of anxiety and worry are natural and can motivate attention to detail, we know from the famous Yerkes-Dodson curve (Yerkes and Dodson 1908) that too much can be paralyzing and can curtail performance. So, lean into the new responsibilities, do your due diligence for each and every case, and round out your skills as a neuropsychologist, all in preparation for the start of a successful career.

Although postdoc programs vary wildly and we will not presume to be able to provide individually tailored advice, we do have a few points of consideration, which we provide first for research-focused fellows and second for clinically oriented fellows.

Research fellowships:

- Publish! Peer-reviewed journal articles are the currency of the academic world, so make this a priority.

³Of course, a licensed professional should always provide the degree of clinical oversight required by state law.





- Submit applications for grants and awards. These can include smaller supplemental awards such as the Society for Clinical Neuropsychology (SCN) Early Career Pilot Study Award (<https://scn40.org/sac/>) and the International Neuropsychological Society (INS) Nelson Butters Award (<https://www.the-ins.org/about-ins/ins-awards/nelson-butters-award-recipient/>), as well as large grants such as the NIH K Award (<https://researchtraining.nih.gov/programs/career-development/K01>) and the VA Career Development Award (CDA) (<https://www.research.va.gov/funding/cdp.cfm>).
- Narrow your focus. This is a good time to select a niche research area if you have not done so already.
- Maximize efficiency without sacrificing quality.
 - This means collaborating with interdisciplinary teams where tasks are delegated accordingly. For example, in the context of writing papers, undergraduates can perform literature reviews and handle references and formatting, colleagues can share co-first authorship, statisticians can consult on complex analyses, and experts can provide relevant guidance and resources. You do not need to shoulder each and every manuscript task by yourself – be a team player and reap the benefits.
 - This also means improving your own personal approach to grant writing and paper composition. Are you minimizing distractions and making the most of your time? Everyone has their own style, and it is important that you find the routine that works well for you. I (Ryan) spend a great deal of time searching the literature, reading, taking notes, and making outlines before I ever write a single word. Using this approach, I have found that the task of actually writing a paper is relatively smooth and straightforward, and my output has increased accordingly.

Clinical fellowships:

- Adopt your supervisor's report template, but also develop your own style. Try to absorb the good and leave the not-so-good as you begin forming your own approach to important high-level tasks such as case conceptualization, clinical interviewing, test selection, report writing, and feedback.
- To the extent possible (and ethical), test out different models of, and approaches to, clinical care. For example, try providing extended feedback that includes several sessions of cognitive training before referring patients to other providers. Try out different ways of explaining difficult and complex topics in feedback sessions (see www.NavNeuro.com/29). Experiment with different neuropsychological tests (see www.NavNeuro.com/30).
- Seek out new experiences. For example, teleneuropsychology is likely to remain an important approach to clinical evaluations for the foreseeable future (see www.NavNeuro.com/41), so consider asking your supervisor if you can participate in remote assessment and intervention.

- Maximize efficiency without sacrificing quality. This means taking advantage of report templates (<https://iopc.online/report-writing>), utilizing dictation software, and cutting unnecessary time from your clinical routine. Also, be on the lookout for a standardized, computerized history form and other exciting technological developments (www.NavNeuro.com/33).
- Remain engaged in research. Many clinical fellowships in neuropsychology are 10–25% research, and this is an important part of the capstone experience. Lean into these opportunities and align your scientific work with your clinical interests.

Action steps

-  Look up and adhere to the Houston Conference (HC) Guidelines and ABCN requirements for postdoc training in neuropsychology.
 -  Sit down with your advisor and plan for the remainder of your fellowship training.
 -  Request a “hands-off” approach to supervision for the last several months of your fellowship.
 -  Work to maximize efficiency without sacrificing quality.
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Psychology Licensure

Licenses are designed to protect the public. They signify that the person has achieved a minimal level of competency in order to deliver safe and effective services.

– Joel Kamper, PhD, ABPP-CN

Up until now, you have been providing clinical care under the license of a supervisor. In order to begin seeing patients as an independent clinical neuropsychologist, you will first be required to obtain a psychology license in a particular state or province.^{4,5} This is an important point: the requirements for licensure in psychology vary by jurisdiction. Consequently, we cannot provide specific advice. Each individual applicant must look up and then follow the requirements for the area in which they wish to practice. Of course, many people do not know where they will settle down, and this process can become complicated when someone decides to move

⁴If you seek a purely academic (research/teaching) career, then licensure is not necessary. However, we recommend that all neuropsychologists interested in clinical research also become licensed, even if provision of clinical services is only a small fraction of their professional time. This both a) diversifies a neuropsychologist’s professional skills portfolio and b) improves their scientific acumen by putting them in touch with clinical populations.

⁵You will almost always be a licensed psychologist practicing neuropsychology, not a “licensed neuropsychologist.”

from one region to another. For now, we will refer you to a full NavNeuro episode on the topic (www.NavNeuro.com/42) and advise that you begin the process of applying for licensure as soon as you are eligible. Typically, a state or province will require a particular number of graduate and postdoctoral clinical hours prior to submission of the application, and many trainees will become eligible during their second year of fellowship, so this is a common time to begin focusing on this task.

There are several steps to becoming licensed, and we will touch upon these steps throughout the remainder of this section. Again, keep in mind that much of the following information varies by jurisdiction.

Step #1: Determine the state(s)/province(s) in which you will seek licensure and look up/follow the requirements for licensure in those jurisdictions.

First, know this: you are specializing in neuropsychology and are required to complete a 2-year fellowship as part of the HC guidelines (most specialties in clinical psychology do not require a 2-year postdoc). This experience, together with an APA-accredited graduate program and high quality/quantity of clinical hours, should prepare you to meet licensure criteria. Still, be diligent and ensure that you are on the correct path. To do so, consider your individual situation. Do you know exactly where you want to live and work in the future? If you answered “yes,” then your situation is simpler and more straightforward. Learn the requirements for your jurisdiction and adhere to them. On the other hand, if you are like many psychological trainees, your future home is not yet known, and your situation is more complex. If you can narrow down the candidate jurisdictions to 2–3, then we recommend checking the requirements of each state/province and following them. If you cannot narrow down the candidate jurisdictions, it is obviously untenable for you to look up the specifications of dozens of different states/provinces. One strategy here is to adhere to a set of very strict criteria (e.g., Massachusetts, California), knowing that this will likely cover you for states with less stringent criteria.⁶

Under certain circumstances in the United States, it is possible to practice across state lines without being licensed in both states. Indeed, reciprocity among states is becoming increasingly common, thanks in large part to the Psychology Interjurisdictional Compact (PSYPACT). If you are licensed in one of the PSYPACT states, you can request permission to practice telepsychology/teleneuropsychology and/or deliver in-person services in another PSYPACT state.⁷ This process is much easier (and cheaper) than becoming licensed in the second state. In today’s world,

⁶Here is a list of state, provincial, and territorial agencies responsible for licensure of psychologists throughout the United States and Canada: <https://www.asppb.net/page/BdContactNewPG>.

⁷Check if your state is part of PSYPACT: <https://psypact.org/page/psypactmap>.

with telehealth becoming more and more common, there are good reasons for many neuropsychologists to consider applying for these reciprocity arrangements. That being said, some circumstances do call for obtaining licensure in multiple jurisdictions. If this applies to your circumstances, you may benefit from “banking” your credentials and materials in order to ease the application process. Two organizations currently offer this paid service – National Register, <https://www.nationalregister.org/apply/credentialing-requirements/>, and ASPPB <https://www.asppb.net/page/TheBank>.⁸

Step #2: Once eligible, collect the required materials and submit your application for licensure.

Each state/province has its own application form and set of required materials. Materials may include academic transcripts, Examination for Professional Practice in Psychology (EPPP) scores, reference letters, and verification of supervised experience.⁹ States vary in whether applicants are required to submit these documents before or after taking the EPPP (see below).

Tip: If needed, request signatures before leaving a site. For example, if you know that your internship supervisor will be required to complete a verification of experience form for licensure, then get it signed before you move away at the end of the year. This will save you time and energy later on.

Step #3: Register for the EPPP and begin studying.

Once your application is approved, the state will typically grant you permission to take the EPPP,¹⁰ which is developed and owned by the Association of State and Provincial Psychology Boards (ASPPB). A passing score on the EPPP is required for a psychology license in all jurisdictions, so you will be taking it regardless of the state in which you choose to practice. There are now two parts to this computerized exam: Part 1 (knowledge) and Part 2 (skills).¹¹

⁸The ASPPB Credentials Bank has partnered with ABPP. Visit <https://abpp.org/Applicant-Information/5-Types-of-applications/Early-Entry.aspx> for details.

⁹Note that some states require that you register your anticipated postdoc experience and verify supervision *prior to* the start of fellowship, so check the rules of the state in which you plan on becoming licensed before starting your training.

¹⁰Some jurisdictions have waiting periods before an applicant is allowed to register to take the EPPP. This can cause unfortunate delays, and some applicants choose to register for the EPPP in a different, more lenient state/province than the one in which they live so that they can take the test and get this step out of the way sooner rather than later.

¹¹Visit <https://www.asppb.net> for guidance on how to register for the exam and additional exam information.

Part 1 (Knowledge) consists of 225 multiple-choice questions covering large content areas within psychology (e.g., assessment and diagnosis, professional issues, lifespan development, social psychology). A score of 500 is considered passing in most jurisdictions at the doctoral level, and this score translates to having answered 70% of items correctly. All jurisdictions require Part 1.

Part 2 (Skills) is designed to test the examinee's ability to apply their knowledge to clinical situations. There are 170 questions.¹² Part 2 is a recent addition to the EPPP and, at the time of this writing, is still being rolled out in particular jurisdictions. In other words, you may or may not be required to complete Part 2. Neither of us has taken Part 2 of the exam, so the remaining advice in this section pertains to Part 1. If you are required to take Part 2 as well, there will be plenty of study materials available through ASPPB and PsychPrep.

People differ in their approach to preparing for Part 1 of the exam. Your graduate school training will have prepared you to answer many of the questions correctly; indeed, the test is designed to assess the same content areas as were covered in graduate classes. Still, studying will increase the probability that you will pass on your first attempt. Although examinees are allowed multiple attempts to pass the test, it is expensive and time-consuming to take, and not passing may delay your licensure and potential employment. With this in mind, our recommendation is to begin studying early (4–5 months in advance) and begin at a slow pace, with a gradual increase in frequency as the exam approaches and heavy studying for 1–2 weeks prior to the exam. Research shows that spaced practice/distributed learning such as we are recommending leads to more efficient memory consolidation than does cramming (Cepeda et al. 2006; Dunlosky and Rawson 2015). Moreover, there is an enormous amount of content to cover for the EPPP, so cramming is even less effective here than it is when taking an exam in college or graduate school. Consequently, we caution against procrastination.

So if you agree with us about when and how much to study, you may be wondering *what* to study. There are several formal programs that offer resources for a fee. We both used and enjoyed PsychPrep (<https://psychprep.com>), but there are several other options as well. Typically, these programs include written study guides, practice tests, and audio files, all covering the relevant topic areas. If you are interested in more in-depth training, some programs also offer workshops and individualized expert feedback. We both found it very useful to take in the material from several different modalities (i.e., written study guides, audio files, and online tests), and we recommend this approach.¹³

¹²For sample items and other resources, see <https://www.asppb.net/page/EPPPPart2-Skills>.

¹³In addition to online tests through third parties, ASPPB provides access to retired questions from prior exams for a small fee: <https://www.asppb.net/page/Practiceexinfo>.

Step #4: Take any additional exams, if needed.

In addition to the EPPP, some states/provinces require an additional exam, which can be administered in either written or oral format and typically covers ethical and legal considerations pertaining to mental health in that particular jurisdiction (i.e., “jurisprudence exam”). As always, check the requirements in the jurisdiction(s) in which you are applying for licensure.

Step #5: Submit your final documents and pay your licensure fee.

Action steps



If possible, determine the jurisdiction(s) in which you will practice and then look up and adhere to their licensure requirements.



Begin studying for the EPPP early and space out your studying initially, with gradual increases in time spent studying as the exam approaches.

Securing Employment

Finally! You are no longer a trainee. After so many years of study, it is now time to seek employment as an independent psychologist and clinical neuropsychologist. We will keep our guidance broad because the process of securing employment is as variable as the number of settings and geographic locations available (see Ch. 3). Once you decide on the *where* (i.e., setting and region), you can begin actively searching for openings. Generally speaking, we recommend that you begin this process in earnest about 7–10 months before your fellowship ends.

Here are some methods for identifying openings:

- Rely heavily on your network. Tell your current and past supervisors and colleagues that you will be “on the market” soon and ask them to notify you if they hear about any openings. Don’t be shy about this – we recommend a low threshold for sending these emails. Additionally, if you are interested in a job at your current fellowship site, talk with your supervisor about the possibility of applying to an open position and/or creating an on-site position.
- Where appropriate, send cold emails to department chairs and other decision-makers at facilities that are of interest to you.
- For government positions (e.g., VAs), sign up to be notified of openings at <https://www.usajobs.gov>. Many large healthcare providers have similar notification lists.
- Sign up for and monitor neuropsychology listservs (<https://scn40.org/scn-listservs/>; www.neurolist.com) where job openings are frequently posted.
- Check the notification boards at neuropsychology conferences.

- Periodically check webpages of the major neuropsychological organizations (e.g., <https://theaacn.org/view-jobs/>; <https://nanonline.org/jobbank/>; <https://www.the-ins.org/job-postings/>).
- Search major professional network and career development websites (e.g., Indeed, Glassdoor, Lensa, LinkedIn).
- Simply Google “neuropsychologist job in [location].”
- Consider joining a local state, provincial, or territorial psychological association (SPTA), and networking with psychologists and neuropsychologists in your area. This is a great way to meet people who will be able to help you find a job in your desired region. Visit <https://www.apaservices.org/practice/advocacy/state/spta> for more information.

Regarding the job interview, see Ch. 6 and www.NavNeuro.com/08 for general advice. Similarly, if you receive multiple job offers, see Ch. 6 for tips on how to think through this decision. Although these resources focus on internship and fellowship, much of the advice applies to your current situation as well.

Once you have secured an offer, do not be afraid to negotiate for better compensation and benefits. We do not learn negotiation skills as part of our graduate or fellowship programs, so we have little, if any, formal training in this area. However, these skills help us in both salary discussions and in daily interpersonal interactions, so the downstream benefits are worth the upfront cost. For a primer, consider reading the book, *Negotiation Genius: How to Overcome Obstacles and Achieve Brilliant Results at the Bargaining Table and Beyond*, by Malhotra and Bazerman (2007). If you do not currently have the bandwidth for an entire book, Deepak Malhotra (2014) also wrote a helpful article entitled, *15 Rules for Negotiating a Job Offer*, published in *Harvard Business Review*.¹⁴

Specific to neuropsychology, we suggest that you leverage data from the most recent salary survey (Sweet et al. 2020a) to justify your requested compensation amount, adjusting the number based on your individual experiences, work setting, and the cost of living in your area. We understand that the negotiation process can feel awkward and uncomfortable for psychologists who are trained to communicate in a very different manner. However, keep in mind that most employers expect a negotiation to take place, and there is nothing to lose by making reasonable requests or simply asking whether there is any “wiggle room.” So remind yourself that you are a well-trained professional who deserves fair compensation for the work that you do. Read up on resources for negotiation such as those we provided above. And, if you feel anxious, use one of the many effective techniques to ameliorate social/performance anxiety and do not let your fear get in the way of self-advocacy.

¹⁴There are also resources specific to women such as the book *Women Don't Ask: The High Cost of Avoiding Negotiation – and Positive Strategies for Change* by Babcock and Laschever; SCN's Women in Neuropsychology Subcommittee (<https://scn40.org/piac-win/>); and NAN's Women in Leadership Committee (https://www.nanonline.org/NAN/_AboutNAN/Committee_Pages/Women_in_Leadership.aspx).

The initial job negotiation will likely impact your salary for years to come, so this process is well worth your mindful attention and effort.

Importantly, there are many relevant job-related factors in addition to salary. Below, we list several of the variables that we encourage you to inquire about and (if possible) negotiate for. Even settings that have a set pay schedule and benefits package (e.g., VA hospitals) may be flexible with respect to miscellaneous factors such as office space, support staff, compressed work week, etc. Note that some of what we discuss below will be setting specific (e.g., fee-for-service, research/academic).

- Referral sources and patients
 - Who are the main referral sources?
 - What are the most common referral questions and cases?
 - Is the patient population demographically diverse?
 - How steady/reliable is the stream of referrals?
 - Are you required to see a minimum number of patients per week?
- Compensation/promotion
 - What is the compensation model? (e.g., salary, fee-for-service)
 - How is your value measured? (e.g., revenue generation, number of patients assessed, number of publications)
 - Will you receive a raise when you become board certified?
 - If fee-for-service^{15,16}:
 - What is the percentage split? (i.e., what is the percentage of the total reimbursed amount that you keep after the company/owner takes their share? In our experience, this ranges from 50–65%.)
 - How often are claims not fully reimbursed? Does the company offer any protection against lost compensation? (e.g., can they guarantee that you will receive a certain amount of money per case?)
 - Is there any protection in the event that the referral stream ebbs?
 - Which insurance providers does the group accept and what is the average number of cash-pay patients?
 - What is the typical take-home amount per case?

¹⁵This applies primarily to clinicians in private/group practice.

¹⁶If you are considering a job in private practice or taking on a role with administrative responsibilities, the book *The Business of Neuropsychology* (2010) by Mark Barisa is a helpful resource.

- If academic¹⁷:
 - What does the academic review/promotion process look like? That is, what is required to move from assistant professor to associate professor to full professor? (Examples include publications, grants, teaching, and service.)
 - Is tenure offered? If so, how does one achieve tenure?
 - Is the position funded primarily through grants or through department funds?
 - Are there opportunities for sabbaticals? If so, what is offered?
- Benefits package
 - Does the company offer medical insurance, liability coverage, paid time off, retirement contributions, professional development funds, and/or coverage of licensure and board fees?
- Job duties
 - Are you responsible for marketing and bringing in new clinical referral sources/patients?
 - Are you responsible for administrative tasks? (e.g., scheduling, payment receipt)
 - Do you have access to a psychometrist to aid in testing/scoring? If so, does this affect your salary/percentage split?
 - Do you have access to research assistants to aid with data collection/management?
 - Are there students (e.g., practicum students, interns) and/or fellows to supervise?
 - What percentage of your time will be devoted to teaching/research/clinical work?
 - Will you receive an academic affiliation with employment, and what are your responsibilities to maintain that affiliation? (e.g., teaching)
- Miscellaneous
 - Is the institution willing to buy you new equipment? (tests, software, record forms, laptops, etc.)
 - How much autonomy do you have over the assessment battery and report format?
 - What safety precautions are in place at the facility?
 - What does IT support look like?
 - To what journal subscriptions will you have free access?
 - To what statistical software will you have free access?

¹⁷Also consider reading the book, *The Professor Is In: The Essential Guide to Turning Your Ph.D. into a Job* (2015) by Karen Kelsky, PhD.


Another crucial job-related factor that is not typically negotiable but is nevertheless critical to well-being is the length of the daily commute. There is a growing literature showing negative correlations between commute length and health outcomes (e.g., Hansson et al. 2011; Künn-Nelen 2016), which is not surprising given the time demands, monetary cost, and sedentary nature of this task. Of course, some commutes (e.g., quietly working on a train or riding a bicycle) are more enjoyable and productive than others (e.g., anxiously negotiating rush hour traffic). Consequently, we encourage you to carefully consider the length and quality of your daily commute and then weigh it heavily when considering your job options.


Securing job offers and navigating this process of negotiation and decision-making can be stressful, as it is a major life decision. We want you to be thoughtful, mindful, and decisive. We also want you to free yourself from unnecessary pressure and burden because you will have other opportunities down the road.


Your first job doesn't have to be your forever job.


– Christine Koterba, PhD, ABPP-CN

Action steps

-  To find job openings, make it known to everyone in your professional network that you are on the job market. Also monitor listservs, notification boards, and relevant websites.

-  After securing offers, read up on negotiation tactics and then implement them as appropriate. Use the Sweet et al. (2020a) salary survey to justify your requested compensation amount.

-  Inquire about and negotiate for important fringe benefits.

-  Take steps to reduce daily commute time.

Independent Neuropsychology

No matter how independently you functioned during fellowship, it will always be a shift to move from trainee to self-sufficient practitioner. There is a great deal of responsibility that comes with serving as the Principal Investigator (PI) on major grants, supervising and teaching students, and signing off on clinical reports. It may feel strange to submit a clinical note or a research paper without asking an advisor to review the document first. However, it is entirely normal to doubt your competence at times and to wonder whether or not you made a mistake. We have a few pieces of advice if you find yourself plagued by doubt and/or imposter syndrome:

1. A modest degree of concern about the validity of your work can be beneficial – it can motivate you to increase your conscientiousness and attention to detail. So, inasmuch as these feelings lead you to read a few more journal manuscripts and/or spend more time preparing for a new patient, lean into them.
2. Too much self-doubt is certainly not healthy and attenuates performance (think of it as related to stress/anxiety and then invoke the Yerkes-Dodson law). In this case, remember that you successfully completed years of rigorous academic training and cultivate confidence in your professional abilities. If this does not help and you are still struggling, talk to trusted friends and colleagues.
3. Regardless of your degree of confidence/self-doubt, keep in touch with mentors and colleagues. Do not feel shy about consulting with others, especially when you are faced with challenging clinical cases, complex statistical analyses, or any other difficult problem. Neuropsychology involves lifelong learning and collaboration, and we encourage you to always turn to knowledgeable peers and seasoned professionals when in doubt.
4. Take advantage of early career resources. For example, SCN has an Early Career Neuropsychologist Committee (ECNPC) that provides guidance to individuals such as yourself (<https://scn40.org/about-join-ecnpc/>). APA has a similar committee, the Committee on Early Career Psychologists (CECP, <https://www.apa.org/careers/early-career/>).
5. Blaze your own trail and find your own style. You are no longer following the preordained path from college through fellowship. You will now have much more room for creativity and a greater degree of decision-making ability in determining your career path as a neuropsychologist. Take advantage of this.

Independent neuropsychology is a universe unto itself, and volumes could be written on this topic alone. But the purpose of this book is on how to *become* a neuropsychologist, not how to *be* a neuropsychologist, so we will focus on two important aspects of early professional development and allow your training and job experience to do the rest.

Continuing Education

Always be curious and consider yourself a student and a learner.

– Julie Hook, PhD, MBA, ABPP-CN

Becoming an independent neuropsychologist does not signify the end of new learning. Even 4 years of college, 6 years of graduate school, and 2 years of fellowship are not nearly enough to cover *all* of the information and skills that could be

relevant to a neuropsychologist. Moreover, the knowledge turnover in medicine and psychology is rapid, so even if you did learn everything there is to know about neuropsychology by the end of fellowship, it would still be necessary to continue updating your internal models to account for new evidence.

I am on PubMed every day of my life. With my students, if I can communicate one thing, it's that we are always, always learning.

– Karen Postal, PhD, ABPP-CN

Clearly, there are good reasons to continue learning throughout your career. But even if you aren't convinced, the licensing boards are. To our knowledge, every jurisdiction requires that psychologists complete a certain number of continuing education (CE) credits per renewal period in order to maintain their license. And both teaching/supervision and research necessarily involve continued consumption of the scientific literature as well. Below, we provide options for remaining relevant and up to date in neuropsychology, and many of the options listed come with formal CE credits.

- Read neuropsychology journals.¹⁸
 - *Journal of the International Neuropsychological Society* (<https://www.the-ins.org/education/online-continuing-education/>)
 - *Neuropsychology*
 - *Neuropsychologia*
 - *Archives of Clinical Neuropsychology*
 - *The Clinical Neuropsychologist* (<https://aacncontinuingeducation.org/>)
 - *Neuropsychology Review*
 - *Child Neuropsychology*
 - *Journal of Pediatric Neuropsychology*
 - *Journal of Clinical and Experimental Neuropsychology*
 - *Applied Neuropsychology*
- Listen to the NavNeuro podcast (www.NavNeuro.com/INS).
- Complete formal online didactics.
 - International Neuropsychological Society (INS, <https://www.the-ins.org/education/ce/>)
 - National Academy of Neuropsychology (NAN, www.nanonline.org → “Continuing Education”)
 - American Academy of Clinical Neuropsychology (AACN, <https://aacncontinuingeducation.org/>)

¹⁸Many scientific journals in related fields are also likely to be relevant to neuropsychologists. Consider journals in neurology, neuroscience, psychology, psychiatry, assessment, statistics, pediatrics, geriatrics, rehabilitation, and others.

- Engage in neuropsychology-focused webinars and lecture series (e.g., <https://knowneuropsych.org>).
- Monitor listservs and engage with colleagues.
- Attend conferences (i.e., INS, NAN, AACN, APA) and complete CE workshops.
- Read and re-read test manuals to reduce “administrator drift.”
- Frequently consult with colleagues.

Preventing Burnout

As we discussed in Ch. 4, neuropsychologists often wear many hats. Together with increasing expectations in terms of patient care and scientific productivity, this can be a recipe for burnout. If you find yourself in this position, we have included some advice in Ch. 4 and 6. We will also refer you to APA resources here: <https://www.apa.org/monitor/2018/02/ce-corner>. The take-home point is, no matter how much you enjoy your work, your health and well-being are more important, so align your behavior with your values.

Managing Student Loans

If you are like most doctoral graduates, you are saddled with significant student loan debt. Specifically, a recent APA survey reported a median graduate debt of \$98,000 for early career professionals (Doran et al. 2016). We know that this can feel burdensome and stressful. We do not have a simple solution to this massive problem, but we have some general information that we hope will prove useful. Keep in mind that we are not financial advisors and are not offering personalized recommendations.

There are two main options when it comes to eliminating student loan debt. Option 1 is to pay off the full amount at your own pace. This offers you the most flexibility because there are no restrictions regarding work setting or payoff timeline, aside from a minimum payment amount. People who choose this option often refinance the loans to obtain the lowest possible interest rate. However, interest continues to accrue, so paying off the loan quicker saves money.

Option 2 is to commit to a loan forgiveness or repayment program. There are a number of different types of programs, and the details are complex, so an in-depth discussion is outside the scope of this book.¹⁹ One of the more popular options is the

¹⁹There are many excellent resources available for both clinicians and researchers: <https://www.apa.org/apags/resources/affording-repaying>; <https://www.ed.gov>; <https://www.lrp.nih.gov>; <https://studentaid.gov/manage-loans/repayment/plans>; <https://theaacn.org/financial-resources/>.

Public Service Loan Forgiveness (PSLF) Program (<https://studentaid.gov/manage-loans/forgiveness-cancellation/public-service>). To qualify for the PSLF, you must be employed by a US jurisdiction or not-for-profit organization, work full time, have direct loans, agree to an income-driven repayment plan, and make a certain number of qualifying payments (typically 10 years' worth). The upside to this type of program is that, over the course of the payment period, you could pay significantly less than the total loan amount. However, there are several downsides. First, the stipulation regarding working for federal or specific organizations limits your employment options and flexibility. Second, your loans and repayment plan must meet particular criteria. Of course, it is crucial that the details be followed scrupulously in order to avoid jeopardizing your standing in the program.

If you meet criteria for option 2, then the decision about whether to choose option 1 or 2 comes down to both the math and your own personal values. For example, even if it entails paying slightly more money by choosing option 1, some people prefer not to have this type of debt hanging over their head for years or decades. Of course, given the stakes and the level of complexity, we recommend that you seek professional guidance early on (preferably while still on fellowship) regarding this important decision. To this end, you could contact your loan servicer, reach out to a third party that specializes in student loans (e.g., Student Loan Planner, www.studentloanplanner.com), and/or consult with a local certified financial planner (CFP).²⁰

There are a variety of books, podcasts, and blogs on personal finance management. There are also several helpful expense tracking platforms and budgeting programs. We will share a few of our favorites because we think they are very helpful for living well and avoiding/managing debt:

Books

- *Personal Finance For Dummies*, by Eric Tyson (2019)
- *ChooseFI: Your Blueprint to Financial Independence*, by Chris Mamula, Brad Barrett, and Jonathan Mendonsa
- *The Total Money Makeover: A Proven Plan for Financial Fitness*, by Dave Ramsey

Podcasts

- ChooseFI (start with episode 100)
- The White Coat Investor

Blogs

- Mr. Money Mustache (<https://www.mrmoneymustache.com>)
- Mad Fientist (<https://www.madfientist.com>)

²⁰As an aside, whenever you interact with a CFP, we recommend that you ask how they are paid and whether they have a *fiduciary* relationship with you (meaning that they have to act in your best interest). We suggest going with someone who is a fiduciary and who you pay an hourly rate for their time (as opposed to being paid on commission or through an assets under management model).

Budgeting and expense tracking

- YNAB (<https://www.youneedabudget.com>)
- Personal Capital (<https://www.personalcapital.com>)

Advocacy and Outreach

Early organizational involvement is really important. So many of my mentors were involved in national organizations and I looked up to them and saw the contributions they were able to make and how they were able to impact the field.

– Munro Cullum, PhD, ABPP-CN

An often overlooked but important aspect of early career neuropsychology is advocacy and outreach. In other words, in addition to our core responsibilities as teachers, clinicians, and researchers, how can we use our skills and platforms to further neuropsychology and help the general public? There are a number of ways to do so, and this work not only benefits the field and wider communities of people but also benefits you as the neuropsychologist. Below are some options to consider:

- Join committees in professional organizations (i.e., INS, AACN, NAN, APA). For example, go to www.nanonline.org → About NAN → NAN Committees – Get Involved.
- Join SPTAs and work at the jurisdiction level in conjunction with APA to advance psychology as a science and profession. For example, see <https://illinoispsychology.org/> or <https://wspapsych.org/>. Also see www.NavNeuro.com/43 for more information.
- Volunteer to speak about topics such as neuropsychological assessment and brain health to your local community and to patient advocacy groups.
- Engage in mentorship in neuropsychology. See the following resources for more information: <https://theaacn.org/student-mentorship-program/> and <https://scn40.org/piac-ema/>.
- Establish an online presence (e.g., through a blog) to provide evidence-based information and answers regarding brain health.

Board Certification

We have made it explicit several times throughout this book that board certification is the highest clinical credential available in our field, and we believe that it is in the best interest of each clinical neuropsychologist to do what it takes to earn these stripes. Moreover, we support the mission of the American Academy of Clinical Neuropsychology (AACN) – promoting board certification as the standard for competence in the practice of clinical neuropsychology (<https://theaacn.org>). The reasons for endorsing this achievement are numerous, including benefits to the

profession, patients, and the practitioners themselves (Armstrong et al. 2019; Cox 2010). As of 2017, neuropsychologists made up only 9% of licensed psychologists, yet they made up 26% of board-certified psychologists (<https://www.apa.org/monitor/2017/09/datapoint>), thereby underscoring the importance that neuropsychologists assign to board certification. With that in mind, the purpose of this section is to lay out the steps to reach this goal.

There are currently two boards that certify psychologists in general clinical neuropsychology: the American Board of Clinical Neuropsychology (ABCN) and the American Board of Professional Neuropsychology (ABN). A nuanced explanation of the histories and differences between the boards is outside the scope of this book. However, we will focus our attention on board certification through ABCN for the following reasons:

1. ABCN is a member of, and is regulated by, the American Board of Professional Psychology (ABPP).
2. ABPP is the oldest peer-reviewed board for psychology and regulates most of the professional psychology specialties recognized by APA (AACN Practice Guidelines 2007).
3. ABPP is psychology's analog to the American Board of Medical Specialties (the predominant medical board).
4. ABPP has certified the most clinical neuropsychologists (nearly five times as many), and nearly all neuropsychology trainees who responded to recent surveys said they intend to pursue board certification through ABPP/ABCN (Sweet et al. 2020b; Whiteside et al. 2016).

You should know that the requirements for certification are very similar between the boards, so by following the criteria for ABPP (and ABCN, see below), you will likely also meet criteria for ABN.²¹

Note: The American Board of Clinical Neuropsychology (ABCN) is one of 15 examining boards under ABPP and is responsible for the board certification examination process in clinical neuropsychology. AACN is the membership organization for clinicians who have attained board certification through ABCN.

Given that board certification is such an important aspect of our field, you may be wondering when you can begin this process. Importantly, you will want to begin thinking about the ABPP/ABCN eligibility criteria while in graduate school because the prerequisites cover the entirety of your neuropsychological training. The primary eligibility requirements for the application are a) completion of a 2-year

²¹For more information regarding ABN, visit <https://abn-board.com> and <http://aabnonline.com>.

fellowship in neuropsychology and b) acquisition of state/provincial licensure in psychology (but see below for more details). As such, our advice is to align your training with these requirements and begin the application as soon as possible, ideally a few months after postdoc.²² Candidates have 7 years from the date of credential approval to complete all required steps (known as the “candidacy period”), and the sooner you tackle the process, the more time you will have to reap the rewards of your hard work. It can also be helpful to view the board certification process as an extension of the postdoc experience – the training mindset is still present, and the knowledge base is as fresh as it will ever be. However, it is never too late to pursue this credential.

If you have completed, or will complete, fellowship at an Association of Postdoctoral Programs in Clinical Neuropsychology (APPCN) program (see Ch. 6) in good standing, then you are virtually guaranteed that it will meet standards for board certification. If you are not in an APPCN program, then the onus is on you to ensure that your fellowship adheres to the HC guidelines (Hannay et al. 1998) and ABPP/ABCN requirements.^{23,24} We will not cover all of this content in detail here, but we will provide a couple quick tips.

As you embark on the path to board certification, an excellent primer is the book *Board Certification in Clinical Neuropsychology: A Guide to Becoming ABPP/ABCN Certified Without Losing Your Sanity*, by Dr. Kira Armstrong et al. (2019). Relatedly, we discussed the purpose and process of certification through ABPP/ABCN with Dr. Armstrong in a NavNeuro episode (www.NavNeuro.com/28). Additional resources include ABCN’s website (<https://theabcn.org/resources/>) and their mentorship program, where they pair the applicant with a board-certified advisor who provides guidance through the process (<https://theabcn.org/mentorship-program/>).²⁵ We list and describe the primary steps to board certification and offer some advice/guidance below.

²²If you completed a portion of your fellowship during the COVID-19 pandemic and want to know more about how this will impact your career, see the following website: <https://theabcn.org/covid-19-postdoctoral-training-memo/>.

²³Here are some relevant webpages to be aware of: <https://abpp.org/Applicant-Information/Specialty-Boards/Clinical-Neuropsychology/Application,-Specialty-Specific-Fees.aspx>; <https://theabcn.org/credential-review-frequently-asked-questions/>; <https://theabcn.org/resources/>.

²⁴Also see the recent publications by the Clinical Neuropsychology Synarchy (Smith and CNS 2019) and Hessen et al. (2018), which describe competencies needed for clinical neuropsychologists.

²⁵Also, see <https://theaacn.org/relevance-2050-webinar-series/>.

Application and Credential Review

Fortunately, the application process is relatively straightforward. Once you are licensed in psychology and have completed fellowship, go to <https://abpp.org> and begin the process.²⁶ You will fill out your information and enclose a CV, transcript, and documentation of internship completion. ABPP also requires two letters of recommendation, preferably from board-certified neuropsychologists.

Once the application is submitted, ABPP will first review your general credentials. At this stage, your doctoral training will be vetted in order to ensure that you graduated from a psychology program that met certain requirements (e.g., accreditation; see *Re-specializing in Neuropsychology*, below). ABPP will also verify that you are licensed as a psychologist in a jurisdiction in the United States, its territories, or Canada. If the reviewers deem your credentials to be satisfactory, they will forward the application to ABCN for the specialty (neuropsychology) review. ABCN will focus its review on your fellowship experiences (both clinical and didactic), ensuring that the program was consistent with the HC guidelines (see Ch. 6 for details).²⁷

Either ABPP or ABCN may ask you questions and/or request more detailed information. If you followed the HC guidelines and our advice in this book, then you will easily sail through the credential review process. On the other hand, if you have taken a nontraditional path into neuropsychology, or if you have a gap in your training, then see our section below regarding re-specialization.

Written Exam

Once your credentials are accepted, you will be cleared to take the written exam, which consists of 125 computer-administered multiple-choice questions covering general psychology (including statistics and methodology), general clinical psychology, general psychopathology/neuropathology, brain-behavior relationships, and the practice of clinical neuropsychology (ABCN Candidate's Manual 2020). As always, allow yourself plenty of time to prepare for the exam (see our EPPP advice, above). Fortunately, the content of this exam is more targeted than the EPPP, but do not underestimate the breadth and depth of material covered.

²⁶There is also an “early entry” option for individuals who are not yet licensed. This option allows trainees to begin the application process for a reduced fee. Find out more at <https://www.abpp.org/Applicant-Information/5-Types-of-applications/Early-Entry.aspx>

²⁷There are different requirements for candidates who completed the doctoral degree before 2005 (<https://theabcn.org/becoming-certified/>). Also, Canadians are offered a bit more flexibility in terms of fellowship training (<https://theabcn.org/canadian-guidelines/>).

Everyone has their own method for studying, but here are a few options that are specific to this exam:

- Join a study group (<https://brinaacn.org/join-a-written-exam-study-group/>).
 - Craft a study plan and schedule with your group.
 - Test your study partner(s) on key terms/concepts.
- Read and re-read the book, *Clinical Neuropsychology Study Guide and Board Review* (2020), edited by Stucky, Kirkwood, and Donders.
- Supplement the Stucky et al. book with relevant journal articles, as well as the following books²⁸:
 - *Neuroanatomy Through Clinical Cases, 2nd edition* (2010), by Blumenfeld
 - *Fundamentals of Human Neuropsychology, 7th edition* (2015), by Kolb and Whishaw
 - *Neuropsychological Assessment, 5th edition* (2012), by Lezak, Howieson, Bigler, and Tranel
- Utilize the Be Ready for ABPP in Neuropsychology (BRAIN; <https://brinaacn.org>) resources. It is not necessary to read every study note or take every mock exam – cherry pick what is helpful to you and use it.
- Create mnemonics, associations, and acronyms for difficult-to-remember syndromes/anatomy. For example, when asked about Sturge-Weber Syndrome, think “S = seizures” and “W = wine-like stain on the face.”
- Use spaced repetition/distributed practice rather than cramming.

Practice Samples

After passing the written exam, you will be eligible to submit two neuropsychological evaluations as practice samples. These are reports for cases that you completed independently (it is acceptable for a psychometrist to have administered and scored the tests). The cases “should differ sufficiently to demonstrate a range of clinical knowledge and assessment skill, and should demonstrate clearly that the candidate practices clinical neuropsychology at the specialist level of competence” (ABCN Candidate’s Manual 2020, p. 12). In addition to the clinical report, you will include a score summary sheet and all raw data (e.g., record forms, score printouts). It is essential that you adequately de-identify all of these materials (triple check to be sure). These practice samples will be reviewed by three ABCN specialists. If deemed acceptable, you will be allowed to advance to the oral examination.

²⁸These are just a few of the many useful neuropsychology-related books.

There are a variety of strategies for selecting cases. One approach is to begin saving potentially appropriate cases as soon as you start seeing patients independently in order to provide you with multiple options from which to choose. If you do this, then we recommend that you keep a spreadsheet or list of the clinical reports with relevant details (e.g., age, diagnosis, etiology). We also recommend that you select cases that sit squarely within your clinical wheelhouse. In other words, this is not the time to comb through your records looking for patients with rare conditions, multiple comorbidities, and complex, atypical histories. You want to be able to discuss all aspects of the case and the relevant literature, so go with what you know.

Oral Exam

Once the practice samples are deemed acceptable, you are allowed to move on to the final step in the process: the oral exam. This is a three-part, in-person test that has historically been held in Chicago. Each component lasts 45–55 min. The three components, in no particular order, are as follows:

- A set of questions pertaining to the two practice samples submitted by the applicant. The examiner may ask questions about any aspect of the case or may ask the applicant to explain their work based on the scientific literature and professional standards.
- A fact-finding exercise in which the examiner presents the applicant with information pertaining to a neuropsychological case (not one of their own) and the applicant works through the case conceptualization in a one-on-one conversation with the examiner. The applicant obtains the details of the case through questions, similar to a typical clinical interview, requests the cognitive and medical data, and provides their impressions (e.g., diagnosis, etiology, prognosis) and recommendations. The applicant is allowed to choose either an adult or pediatric case.
- An examination of ethics and professional practice, in which the examiner presents a brief vignette containing ethical/professional issues. The applicant must identify the issues, explain the underlying rationale for the ethical principles involved, and describe corrective actions that they would consider taking to resolve the problem and/or how they would have behaved differently in that situation. Following the vignette discussion, the examiner asks the applicant to describe their clinical practice, professional involvement, and continuing education activities. The examiner may ask questions about different professional issues or ethical dilemmas that the applicant has faced.

For each portion of the exam, it is important for you as the applicant to vocalize your thought process so that your examiner can assess your ability to think through the information. Even if your final impressions are incorrect, you can still pass the

exam if your method for arriving at conclusions is sound. At the end of the oral exam, you will be dismissed, and your examiners will collectively reach a decision about whether or not you have passed.

Here are a few pointers for preparing for each component of the oral exam:

Practice Sample Exercise

- Read and re-read your reports. These are your clinical cases and you are expected to be the expert on them.
- Brainstorm for questions that the examiner may ask you and then consider how you would respond to each question.
- Read the literature on all aspects of the case (e.g., medications, differential diagnoses, psychometric test properties, selection of normative data).
- Ask trusted colleagues to vet your practice samples and generate questions/potential areas of concern.

Fact-Finding

- Participate in mock fact-finding cases, both within your study group and with someone who is already board certified. If possible, also hold a mock session with a board-certified clinician who you do not know well in order to simulate the context of the real exam.
- Study common clinical syndromes so that you are familiar with the clinical presentation, disease course, functional neuroanatomy, and typical cognitive profile for those syndromes. Referring back to the *Clinical Neuropsychology Study Guide and Board Review* book is helpful in this regard.
- Read the book, *The Neuropsychology Fact-Finding Casebook: A Training Resource* (2017), by Drs. Kirk Stucky and Shane Bush. These cases are great to use for mock fact-finding exercises.
- Several podcasts have episodes that are relevant to neuropsychology. These include the *Neurology Exam Prep Podcast*, *Neurogenesis*, and the *Neurology Podcast*.

Ethics and Professional Practice

- Read the book, *Ethical Decision Making in Clinical Neuropsychology* (2018), by Dr. Shane Bush.
- Read the *Ethical Principles of Psychologists and Code of Conduct* (2017; <https://www.apa.org/ethics/code/>).
- Review the Health Insurance Portability and Accountability Act (HIPAA) guidelines and details about your state laws (e.g., whether you are obligated to report an impaired driver).

- Review ethical information/questions from your EPPP study materials.
- Respond to mock ethics vignettes on BRAIN (<https://brinaacn.org/mock-ethics-vignettes/>).
- Discuss common ethical issues/dilemmas with your study group.

Pediatric Subspecialty Certification

ABCN offers a pediatric subspecialty certification to clinicians who have obtained board certification through ABPP/ABCN. According to the ABCN website, “the subspecialization process involves: (a) credential review of training, education, and practice in pediatric clinical neuropsychology; (b) written examination; and (c) submission of one subspecialty practice sample case” (<https://theabcn.org/subspecialty-certification-in-pediatric-clinical-neuropsychology/>). ABCN may offer additional subspecialty certifications in the future (e.g., in forensic or geriatric neuropsychology), but as of writing, the pediatric subspecialty certification is the only option.

Finally, there is another board that offers a certification in pediatric neuropsychology, namely, the American Board of Pediatric Neuropsychology (ABPdN). This board is not affiliated with ABPP or ABCN. For more information, visit <https://theapn.org/abpdn/>.

Action steps



Ensure that you will be eligible for board certification by conforming to HC guidelines and ABCN regulations.



Once you begin independent practice, set aside clinical reports for cases that may be appropriate as practice samples.



To prepare for the written exam, read Stucky et al. (2020), as well as relevant peer-reviewed manuscripts and other neuropsychology books.



To prepare for the written and oral exams, join a study group and utilize the BRAIN resource.

Re-specializing in Neuropsychology

Up to this point, we have been covering traditional routes into neuropsychology for people in North America. To review, this is the process of earning a PhD or PsyD from an accredited clinical psychology program, completing a 1-year accredited psychology internship, and then finishing a 2-year neuropsychology fellowship that adheres to the HC guidelines. But not everyone traverses this path into our field, and we welcome people from a variety of different training backgrounds. This diversity

will only strengthen our field, as it creates a wider set of perspectives, thinking styles, and problem-solving approaches. So if you are a clinical psychologist who was originally interested in specializing in trauma interventions, if you are a cognitive neuroscientist who is seeking to add patient care to your repertoire, or if you trained in an entirely different field (e.g., computer science, economics, marketing), it is still possible for you to become a neuropsychologist. The path can be challenging, and it is important to consider your individual circumstances when coming to a decision regarding whether or not to re-specialize.²⁹

We will approach the topic of re-specialization (sometimes called “re-treading”) by setting the bar at eligibility for ABPP through ABCN. You can review the eligibility criteria for ABPP in the Checklist below and ABCN’s criteria in Ch. 6, but we will re-iterate the most important points here and address how to meet the criteria through additional training. You should know up front that re-treading is not as easy as merely completing extra CE courses or reading a few books. According to the HC guidelines, “Continuing education is not a method for acquiring core knowledge or skills to practice clinical neuropsychology or identify oneself as a clinical neuropsychologist. Continuing education also should not be the primary vehicle for career changes from another specialty area in psychology to clinical neuropsychology” (Hannay et al. 1998; p. 4–5).

Checklist for the ABPP general review:³⁰

-
- 1) ___ Doctoral degree (PhD, PsyD, EdD)³¹
 - 2) ___ The degree was from a psychology program which, at the time the degree was granted, was accredited by the APA, CPA, or an accrediting agency recognized by the US Department of Education.³²
 - 3) ___ Your doctoral program met the requirements listed in the ABPP Generic Doctoral Program Eligibility document (www.NavNeuro.com/ABPPrequirements).
 - 4) ___ You are licensed as a psychologist for independent practice at the doctoral level in a jurisdiction in the United States, its territories, or Canada.³³
-

²⁹ If you decide that neuropsychology is not the right fit, there are several related fields that allow work at the master’s level. Consider looking into training as a psychometrist, marriage and family therapist, social worker, school counselor, or research coordinator.

³⁰ This information is from the ABPP website (<https://abpp.org/Applicant-Information/Degree-Requirements.aspx>). If you are not sure whether you meet these requirements, reach out to ABPP (contact info is at the bottom of their website at <https://abpp.org>).

³¹ According to ABPP: “Applicants who hold the Certificate of Professional Qualification in Psychology (CPQ) from the ASPPB qualify as meeting the doctoral degree and professional program requirements.” For information, visit <https://www.asppb.net/page/CPQ>.

³² If you obtained your doctoral degree prior to 2018, an acceptable degree is also one that is listed in the publication *Doctoral Psychology Programs Meeting Designation Criteria*.

³³ If you completed your doctoral degree and/or work outside of the United States, its territories, or Canada, then please contact ABPP to determine your eligibility status.

Every person considering re-specialization brings with them their own unique, nuanced story, and it is impossible for us to provide tailored advice to everyone. In lieu of that, we have three pieces of advice. First, we recommend that you write up a synopsis of your training/background and proposal for re-specialization (e.g., plan for obtaining didactics and fellowship experience) and submit this information to ABCN for advice and guidance prior to embarking on the journey.³⁴ Given the level of commitment required, you will want to know with a high degree of certainty that your re-specialization training will be sufficient to pass a credential review.

Second, we encourage you to document every experience related to neuropsychology and file away all written communications, syllabi, and other materials that may be helpful in order to demonstrate compliance with the HC guidelines. Third, we will sketch out a few general vignettes in order to illustrate potential paths to board eligibility. We think that one of these scenarios will resemble your own and will help provide you with a general idea as to your path forward. The following information pertains to individuals who received their doctoral degree after 2004.³⁵

Scenario 1: You are a licensed psychologist who completed an accredited counseling or clinical doctoral program but took a generalist path, without any specialty coursework or training in neuropsychology.

This is the most common nontraditional scenario. Although the path is not necessarily easy, it is relatively straightforward. Given that you earned a clinically oriented doctorate and that you completed an accredited internship, you would not need to repeat these experiences. You are also a licensed psychologist, so you have already met the licensure requirements. Finally, you may also have some experience and training in psychological, psychoeducational, and cognitive testing. Presumably, the only area that is lacking from your training is in-depth, specialty training in neuropsychological populations and assessment methods. You would easily clear the ABPP general review but would not pass the ABCN specialty review. To receive clearance from ABCN, you would be required to complete a formal 2-year postdoctoral fellowship in clinical neuropsychology. The safest way to ensure that you meet ABCN's criteria would be to earn a position in an established fellowship program with a track record of producing board-certified neuropsychologists. However, any fellowship that met the HC guidelines would suffice. We suggest that you refer back to our section on the fellowship application process in Ch. 6.

³⁴We recommend that you email the ABCN Credential Review Committee Chair (Credentialreview@theabcn.org).

³⁵As noted above, ABCN training/eligibility requirements are directly tied to the year that the doctoral degree was conferred or the re-specialization program was completed. If you received your degree or re-specialized prior to 2005, see the ABPP website for the requirements that apply to you: <https://abpp.org/Applicant-Information/Specialty-Boards/Clinical-Neuropsychology/Application,-Specialty-Specific-Fees.aspx>.

It is difficult to say exactly what you could do to make yourself competitive to neuropsychology-specific fellowship programs at this stage. Because each program will differ, we recommend that you reach out to several training directors and supervisors at sites that interest you. It would likely impress them if you had already completed several neuropsychology-related courses such as those offered by the National Academy of Neuropsychology³⁶ or those offered at your local university. We also recommend that you read the seminal books (e.g., Lezak et al. 2012; Kolb and Wishaw 2015), regularly consume the neuropsychology literature, and attend multiple neuropsychology conferences (see Ch. 5).

Some people may wonder why a formal fellowship is necessary in order to call oneself a neuropsychologist. They might further contend that CE workshops and occasional consultation are sufficient to perform neuropsychological evaluations and take on the title, “neuropsychologist.” As noted above, the HC guidelines explicitly prohibit this, and there is good reason for that. It would be tantamount to a primary care physician (PCP) calling themselves a neurologist without completing a neurology fellowship. Yes, non-neuropsychologists may administer and interpret neuropsychological measures, just as a PCP may perform aspects of a neurological exam. However, there is simply too much nuanced specialty knowledge and too many skills required for someone to absorb all of it from occasional didactics or consultation.

Note: There are a handful of university-based programs specifically designed for re-specialization in neuropsychology. We cannot vouch for any specific program, but you can look into this as another option. APA lists a few such programs on their website: <https://www.apa.org/ed/graduate/respecialization>. However, keep in mind that a formal neuropsychological fellowship with on-site supervised experience is still required.

Scenario 2: You completed a nonaccredited counseling or clinical doctoral program (with a nonaccredited internship), and/or your doctoral program did not meet the requirements listed in the ABPP Generic Doctoral Program Eligibility document (see Checklist).

ABPP clearly states that your doctoral program must be accredited through APA, CPA, or an accrediting agency recognized by the US Department of Education and that it must meet the requirements listed in the ABPP Generic Doctoral Program Eligibility document (see Checklist). If your graduate program did not meet one of these criteria, we recommend reaching out to ABPP directly to ask about your options. The guidance laid out in the following document may also be of some assistance: <https://www.apa.org/about/policy/chapter-9#respecialization-training>. It is possible that you will be allowed to fulfill the requirements through

³⁶Visit <https://www.nanonline.org> and then click “Continuing Education.”

re-specialization at the graduate level (<https://www.apa.org/ed/graduate/respecialization>). However, this is not guaranteed. For example, some states do not approve people with re-specialization certificates for licensure, and you must hold a psychology license in order to pass the ABPP review.³⁷ If you cannot re-specialize, then, unfortunately, you will likely be required to complete an additional doctorate from an accredited program.

Although it is the case that doctoral programs must be accredited, this does not necessarily apply to internships. We could not find any materials specifically addressing this question on the ABPP general review pages. However, according to the ABPP specialty page for neuropsychology, “ABCN does not require neuropsychological training during internship. In addition, although ABCN prefers that applicants have completed an APA or CPA accredited internship program, the review decision regarding internship training is made by ABPP Central Office during the generic review. If ABPP passes the candidate’s non-APA/CPA internship credentials during generic review, ABCN will typically defer to that decision” (<https://theabcn.org/becoming-certified/>). That being said, some states or provinces require an accredited internship in order to obtain licensure, so check your jurisdiction’s requirements. Furthermore, many neuropsychological fellowships require completion of an APA or CPA accredited internship.

If you are able to clear the ABPP general review stage, it may still be difficult to attain approval through the ABCN specialty review process, given that many neuropsychology-specific fellowships require applicants to have completed substantial neuropsychological training at accredited doctoral and internship programs. To this end, we encourage you to follow the advice laid out in Scenario 1.

Scenario 3: You completed a doctorate in a nonclinical field of psychology (e.g., experimental), or in a field other than psychology, without an internship or other clinical experience.

In this situation, it is likely that ABPP would require you to complete a new clinical doctorate. The potential exception to this is for someone whose degree is in psychology; in this case, a re-specialization at the graduate level may suffice. If so, the guidance offered in Scenario 2 will apply to your situation.

No matter your situation, we understand that it is difficult mentally, emotionally, and financially to pivot to another career path. You may be required to uproot yourself and your family and move across the country. You will certainly be serving as a trainee and supervisee for longer than you otherwise would have. And you will be

³⁷In addition to checking with your state/province’s requirements, general licensure information can be found at <https://www.asppb.net/page/guidelines>; many jurisdictions use these guidelines as the basis for their standards.

waiting, possibly for years, before setting out as a full-fledged, independent practitioner. The sacrifices are substantial. But if neuropsychology is the career that will afford you a productive, fulfilling work life, then the cost is almost certainly worth it.

Action steps



Look closely at the requirements for both ABPP and ABCN approval, determining your unique situation.



Contact ABPP and/or ABCN if you are not sure whether you meet criteria or what the pathway to approval would be.

Conclusion

The roots of neuropsychology took hold in antiquity when humankind first began demonstrating an overt curiosity around the cause and structure of the mind and behavior. However, it wasn't until several millennia had passed and the scientific revolution had taken place that the tools became available to truly capitalize on this curiosity. Nineteenth- and early twentieth-century discoveries by neuropathologists and neuroscientists provided a biological basis for understanding the brain and paved the way for psychologically minded scientists to turn their attention to unlocking the secrets of the mind. Indeed, it was amidst the chaos and destruction of two world wars that neuropsychology began growing up and taking on its own identity. This occurred as a result of a confluence of movements, including intellectual assessment during WWI and WWII, advancements in statistical methods and psychometrics, and the release of early neuropsychological test batteries such as the Wechsler scales and the Halstead-Reitan battery. With this foundation in place, the first neuropsychology journal (*Neuropsychologia*) was established in 1963, the first professional society (INS) was founded in 1967, and the first two textbooks (*Neuropsychological Assessment* and *Fundamentals of Human Neuropsychology*) were released in 1976 and 1980, respectively. Since then, neuropsychology has undergone a revolution due to advancements in structural neuroimaging techniques, and it is in the process of undergoing another transformation today in response to managed care, genomics, and AI/informatics (Bilder 2011).

As a reader of this book, you are in the position to affect the future of neuropsychology. The field, while still small, continues to grow at a rapid pace and will likely be larger, stronger, and more innovative 10, 20, and 30 years down the road. By incorporating functional neuroimaging, computerized testing, data science, and biometric techniques, we hope to revolutionize the way in which the brain/behavior assessment and intervention are conducted. We hope that people who suffer from ailments such as dyslexia, Parkinson's disease, and traumatic brain injury will continue to turn to neuropsychologists for precise measurements, explanations, and diagnoses of their symptoms, as well as comprehensive treatment plans tailored to

their individual characteristics and circumstances. But we will need hard work from a large number of bright, motivated teachers, clinicians, and researchers in order to further refine these services. We sincerely hope that you will consider contributing to what we feel is the greatest field ever: neuropsychology.

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