

ABGC CGC® Practice Analysis Executive Summary

This summary describes the methodology and procedures used to conduct a practice analysis and develop the exam specifications for the American Board of Genetic Counseling, Inc. (ABGC) Certified Genetic Counselor (CGC®) certification examination.

A practice analysis, also referred to as a job analysis, job task analysis, role delineation study, work analysis, or competency profiling, is a scientific inquiry conducted to identify the tasks and work activities performed by a profession (genetic counseling profession), the context in which those tasks and activities are carried out, and the competencies (knowledge areas, skills, and abilities) required to perform a job role successfully. Different methods can be used with the choice of method largely dependent on the intended purpose and use of the results. The methodology of the current analysis was tailored to the creation of exam specifications for test development.

The three major activities that comprise the practice analysis process described in this report are as follows:

Practice Analysis Committee Meeting – A gathering of subject matter experts (SMEs) to discuss and develop a description of the professions' current scope of practice; i.e., the tasks they do and the knowledge required to complete these tasks.

Practice Analysis Survey – A large-scale survey of practitioners not involved with the SME panel to validate the task and knowledge statements developed by the committee.

Development of Examination Specifications – The development of an Examination Content Outline by the committee based on the results of the survey.

Ten practitioners and one ABGC board liaison were assembled by ABGC to serve as subject matter experts (SMEs). The individuals selected represented a wide variety of work-related characteristics such as years of experience, work setting, geographic location, training program attended, and areas of specialty. ABGC also considered self-reported factors including race, ethnicity, gender identity, and sexual orientation in order to convene a diverse group of SMEs. Assembling a varied group of SMEs helps in developing a scope of practice that is reflective of the wide variety of roles and responsibilities of practitioners and helps reduce bias. By analyzing the experiences and expertise of current practitioners, the results from the practice analysis become the basis of a validated assessment that reflects the knowledge and associated tasks required for competent practice.

The practice analysis was conducted in accordance with principles and practices outlined in the *Standards for Educational and Psychological Testing*¹, which describe principles and guidelines for all aspects of test development, including content validation.

When completed, the practice analysis process yields exam specifications that accurately reflect the scope of practice, allowing for the development of fair, accurate, and realistic assessments of candidates' readiness for certification. The practice analysis is typically performed every 5 to 7 years so that the content outline represents the current scope of practice. Because it serves as the primary basis for content validity evidence, as required by the aforementioned standards, the practice analysis is a primary mechanism by which a certifying body or regulatory board can ensure the accuracy and defensibility of an exam. It serves as the foundation of the certification exam and is critical to the success of the entire exam development process.

¹ American Educational Research Association, American Psychological Association, National Council on Measurement in Education (2014). *Standards for Educational and Psychological Testing*. Washington, DC: AERA.

Process and Timeline:

PSI Services LLC (PSI), the ABGC contracted test vendor, and ABGC convened a 2-day practice analysis committee meeting on January 27-28, 2022, with the ABGC-identified SMEs to discuss genetic counselor scope of practice and develop a list of tasks and knowledge areas that reflect the practice role. The meeting was led by the committee chair and by a PSI psychometrician.

The committee used many resources to help describe the current scope of genetic counseling practice. These included but were not limited to reviewing materials that describe genetic counselor knowledge, skills, and scope (e.g., practice-based competencies, training program accreditation standards, practice resources and guidelines, NSGC scope of practice, codes of ethics, and other relevant documents), sharing their own professional experiences, and discussing in depth the knowledge needed and tasks performed as a genetic counselor. Based on this work, the practice analysis committee drafted 76 knowledge statements and 40 task statements describing genetic counselor scope of practice.

PSI staff, with the input from the Practice Analysis committee members, then developed, administered, and monitored a survey to validate the tasks and knowledge areas developed during the committee meeting and to help determine content weighting. To this end, the survey collected respondents' ratings of the importance and frequency for each task and knowledge area. A draft of the survey was piloted with the practice analysis committee and modifications or corrections were made in response to the committees' feedback. ABGC then sent a link to the live survey to a list of approximately 5,900 individuals. The list consisted of all professionals who are currently ABGC-certified (ABGC diplomates). The survey opened on April 26, 2022 and closed May 23, 2022. The number of individuals that responded to the survey was 717 (12%).

After the survey was closed the practice analysis committee and PSI met to review survey outcomes. All but one knowledge statement were validated by the survey results for a total of 75 statements. Thirty-eight of the original 40 task statements were validated by the survey. One of the task statements was deemed redundant (covered in two tasks statements) and as such was removed. Two other task statements were removed because <30% of respondents performed the specific task. This resulted in a total of 37 task statements.

The committee organized the knowledge statements into a set of 5 domains with 14 subdomains to form the basis of the exam content outline. The five domains are:

1. Clinical Information, Human Development, and Genetic Conditions
2. Risk Assessment and Principles of Human Genetics and Genomics
3. Testing Interpretation, Testing Options, and Reproductive Risk Management
4. Counseling Skills, Communication, and Education
5. Financial/Reimbursement Issues, Resources and Services for Clients, Legal and Regulatory Requirements, and Professional Frameworks

The 75 knowledge statements are included in the exam content outline which is available at <https://www.abgc.net/Portals/0/2023%20CGC%20Exam%20Content%20Outline.pdf> .

The 37 task statements, each of which maps to multiple knowledge statements, are included below.

1. Assess case urgency, appropriateness, and logistics
2. Evaluate medical records and elicit additional pertinent information
3. Elicit medical history
4. Conduct family history interview and construct pedigree
5. Analyze pedigree
6. Integrate medical, laboratory, and pertinent genetic and non-genetic information

7. Evaluate the applicability of reference resources, risk assessment tools, position statements, and practice guidelines
8. Identify testing strategies
9. Select the most appropriate person to test, type of test, and timing of testing
10. Analyze results and implications
11. Follow up as needed, e.g., results reclassification, new genetic information
12. Contract with client
13. Assess health literacy to tailor education approach
14. Discuss reason for referral
15. Discuss diagnosis and natural history
16. Describe risk
17. Explain testing options
18. Review significance of results
19. Describe follow up (management)
20. Identify patient/family's values and beliefs
21. Facilitate informed decision making
22. Obtain informed consent
23. Adapt psychosocial counseling to client and service model needs
24. Perform psychosocial assessment
25. Integrate psychosocial support/counseling throughout interactions
26. Advocate for clients in medical or non-medical settings
27. Identify, evaluate, and provide resources and services
28. Comply with ethical/professional practices
29. Comply with privacy and confidentiality regulations
30. Adhere to the medical and legal requirements of case documentation
31. Adhere to legal and institutional requirements (e.g., licensure, credentialing)
32. Identify and manage real or perceived conflicts of interests
33. Comply with research regulations
34. Promote involvement in research
35. Educate students, professionals, and public
36. Promote new and existing services
37. Provide training and supervision