The Minnesota Conference 2023 Competency Guidelines for Education and Training in Clinical Neuropsychology

Preamble

The Minnesota Conference (MNC) Competency Guidelines for Education and Training in Clinical Neuropsychology (hereafter referred to as the Minnesota Guidelines) reflect the vision and core values of the field of clinical neuropsychology. Clinical neuropsychologists aspire to best practices in the development and use of technological and innovative scientific methods and tools to advance the specialty, expand access, and benefit society. Clinical neuropsychologists seek to develop an equitable and just scientific knowledge base to advance assessment, intervention, and consultation services for individuals affected by brain dysfunction including patients, care providers, significant others, employers, educators, etc. Clinical neuropsychologists acknowledge and strive to repair historical and contemporary bias, discrimination, and structural and systemic oppression that have harmed marginalized, minoritized, and excluded populations. To that end, clinical neuropsychologists advocate for equity and access for all persons. Members of this specialty operate with integrity and accountability in the broad professional, social, and cultural contexts in which their services are provided.

The Minnesota Guidelines affirm a competency-based approach to training that incorporates classroom and laboratory-based instruction and inquiry, supervised clinical practice and experiential learning, ongoing self-reflection, and a commitment to lifelong learning across the career span. The Minnesota Guidelines provide observable criteria that define entry level competence for the professional practice of clinical neuropsychology.

In contrast to mandatory and enforceable standards, APA defines guidelines as “aspirational in intent; they are not mandatory, definitive, or exhaustive” (APA, 2020, p. 4). Therefore, the Minnesota Guidelines do not establish enforceable legal requirements or training standards. Nonetheless, they were developed through broad input and consensus to meet both current and anticipated future requirements for entry level competence in neuropsychology. Endorsement of the Minnesota Guidelines is a commitment to begin work immediately on establishing the educational and training infrastructure needed to achieve these goals.

Definitions and Scope of the Minnesota Guidelines

The Minnesota Guidelines provide foundational and functional competencies for the specialty of clinical neuropsychology. The foundational competencies are broad, cross-cutting areas of science, ethics, and clinical knowledge necessary for entry level practice. The functional competencies reflect the ability to integrate scientific, ethical, and clinical knowledge in providing patient care, consultation, and related services. The Minnesota Guidelines ground and integrate all competencies in a framework of equity, justice, cultural respect, and inclusion consistent with APA (2017) Multicultural Guidelines. In addition, the Minnesota Guidelines incorporate innovation and technology
The Minnesota Guidelines are specific to the training and practice of clinical neuropsychology. They do not duplicate the competencies required of all health service psychologists regardless of specialty or the guidelines specifying core knowledge and skills that are essential for all psychologists who provide assessment services (APA, 2020), except where necessary to describe how these competencies apply to clinical neuropsychology. It is explicitly assumed that prior to clinical neuropsychology specialization, trainees will acquire the profession-wide competencies for health service psychology (APA, 2018). Finally, the Minnesota Guidelines assume that acquisition of health service psychology and clinical neuropsychology specialty competencies occurs over the course of graduate school, practicum training, internship (in some training settings internship will be considered the first year of residency), and postdoctoral fellowship (also called residency in some settings). Evaluations appropriate at each level of training will occur throughout this course of instruction so that areas requiring further attention are identified and addressed as part of subsequent training experiences. At the completion of residency/fellowship, entry level competency is expected in all areas. Finally, neuropsychologists engage in continuing education to maintain competency throughout their career.

The Minnesota Guidelines are applicable to education and training in Clinical Neuropsychology in North America (i.e., the United States and Canada). They offer guidance to educators about competency-based training outcomes and preparation for entry level clinical practice and they inform the public about the specialty of Clinical Neuropsychology as it is practiced in North America. It is recognized and acknowledged that in other countries and geographic areas, different models and approaches to neuropsychology training will be required that are appropriate to the local educational, social, and cultural context. In addition, variations in training and practice opportunities in the United States and Canada require an adaptive approach to implementation that is appropriate for each country.

The Minnesota Guidelines

The entry level clinical neuropsychologist should demonstrate competency in each of the following areas.

**Foundational Competencies**

1. Integration of Science and Practice
2. Ethics, Standards, Laws, and Policies
3. Equity, Justice, Cultural Respect, and Inclusion
4. Self-reflection and Self-care
5. Professional Relationships
**Functional Competencies**

6. Assessment  
7. Intervention and Recommendations  
8. Interdisciplinary Systems and Consultation  
9. Research and Scholarly Activities  
10. Teaching, Supervision, and Mentoring  
11. Administration, Management, and Business  
12. Advocacy  
13. Technology and Innovation

The Association of Postdoctoral Programs in Clinical Neuropsychology (APPCN) Workgroup on Competency-Based Assessment recommends consolidation and simplification of competencies to facilitate measurement of progress (Heffelfinger et al., 2020). Consistent with this recommendation, the Minnesota Guidelines define competency in each area using a minimum number of broad, overarching elements. The criterion for determining entry level competency in clinical neuropsychology is demonstration of each of the following elements within each competency area.

**Competency Elements**

1. **Integration of Science and Practice**  
   a. Apply scientific evidence to clinical practice.  
   b. Use clinical practice to inform science.  
   c. Center this reciprocal process in a framework of equity, justice, cultural respect, and inclusion.

2. **Ethics, Standards, Laws, and Policies**  
   a. Center all professional activities in an ethical and justice-oriented framework that is grounded in transparency.  
   b. Demonstrate awareness of intersectionality.  
   c. Demonstrate accountability to consumers, the profession, and the public.  
   d. Recognize and address power differentials and inequities, particularly involving marginalized persons.  
   e. Recognize and address ethical and legal issues relevant to emerging technologies, data use, and associated science.

3. **Equity, Justice, Cultural Respect, and Inclusion**  
   a. Demonstrate self-awareness, cultural humility, and respect.  
   b. Understand culture’s impact on all professional activities.  
   c. Demonstrate awareness of intersectional identities.  
   d. Demonstrate awareness of historical and institutional inequities.  
   e. Advocate for marginalized and/or minoritized individuals, populations, and perspectives, traditionally defined by differing ability levels, ethnicity, gender, sexual orientation, and other social and economic constructs.
4. **Self-reflection and Self-care**
   a. Actively engage in reflection about one’s identity as a clinical neuropsychologist, including one’s knowledge, skills, and attitudes.
   b. Maintain individual well-being.

5. **Professional Relationships**
   a. Interact and communicate within professional relationships with respect, courtesy, and a collaborative attitude.
   b. Manage conflict within professional relationships with respect, courtesy, and a collaborative attitude.

6. **Assessment**
   a. Use tests and procedures, including measures developed with innovative methods and technologies, that are evidence-based, reliable, valid, and culturally and normatively appropriate.
   b. Conduct culturally-informed neuropsychological evaluations.
   c. Develop diagnostic case conceptualizations and interpretations that consider ethnicity, language, education level and quality, literacy, gender, sexual orientation, disability status, and other identities and their intersectionality.

7. **Intervention and Recommendations**
   a. Provide treatments and/or recommendations that are evidence-based, culturally responsive, and patient-centered.
   b. Provide treatments and/or recommendations inclusive of relevant innovative methods and technologies.
   c. Provide treatments and/or recommendations appropriate to the context or setting.

8. **Interdisciplinary Systems and Consultation**
   b. Conduct consultation and interprofessional activities using relevant innovative methods and technologies.
   c. Conduct consultation and interprofessional activities using culturally responsive methods.

9. **Research and Scholarly Activities**
   a. Consume and/or conduct research or scholarly activities utilizing a critical framework that considers methodological limitations and best practice.
   b. Consume and/or conduct research or scholarly activities consistent with professional and scientific ethics.
   c. Consume and/or conduct research or scholarly activities, considering equity, justice, cultural respect, inclusion, identities, and intersectionality.
d. Consume and/or conduct research or scholarly activities utilizing innovative methods and technologies.

10. Teaching, Supervision, and Mentoring
   a. Engage in culturally-sensitive, responsive, and informed supervision, teaching, and mentoring.
   b. Maintain self-awareness of the strengths and limitations of one’s teaching style, supervision skills, and mentoring approach.
   c. Employ appropriate innovative methods and technologies.

11. Administration, Management, and Business
   a. Employ fiscally sound operational and management principles and procedures appropriate for the context of professional activities.
   b. Comply with ethical and regulatory requirements.
   c. Promote equity, justice, cultural respect, and inclusion.

12. Advocacy
   a. Promote the welfare of oneself, consumers, trainees, colleagues, and the profession.
   b. Advance clinical neuropsychology’s role in addressing community needs.
   c. Center advocacy efforts across systems in a framework of humility, equity, justice, cultural respect, and inclusion.

13. Technology and Innovation
   a. Demonstrate understanding and ability to apply innovative methods and technologies to professional activities.
   b. Demonstrate understanding and ability to apply innovative methods and technologies to improve access and decrease barriers.
   c. Recognize the potential benefits and harms of using innovative methods and technologies, especially with respect to minoritized and/or disadvantaged groups.

Expanded Competency Definitions

While limiting the number of overarching elements that define each competency, the Minnesota Guidelines acknowledge that several competency elements require elaboration. Tables 1-13 provide supplemental material for a more granular and expanded definition of competencies where needed.
Table 1

*Competency 1: Integration of Science and Practice*

**Expanded Definition**

**a. Apply scientific evidence to clinical practice.**
1. Employ knowledge of brain-behavior relationships, functional neuroanatomy, and principles of brain development to clinical and research questions.
2. Utilize knowledge of neuropathology and the presentation of clinical symptoms and signs to arrive at accurate diagnoses and behavioral descriptions.
3. Apply theories and methods of measurement and modern psychometrics to the collection and interpretation of data.
4. Utilize genetic and epigenetic science relevant to brain health to guide research and treatment.
5. Utilize knowledge of scientific underpinnings of intervention to support functional recovery and/or attenuate cognitive and functional loss.
6. Account for factors that can affect cognition, emotion, and behavior including medications, the natural course of a condition, and the differential impact on marginalized or minoritized communities.
7. Employ knowledge of existing and emerging technologies and innovations including anatomical and functional imaging of neurological and psychiatric disorders, as well as methods that capture functioning in the real world.
8. Utilize existing and emerging information sciences and technologies, including methods for acquiring, aggregating, and sharing information for clinical, scientific, and teaching purposes.

**b. Use clinical practice to inform science.**
1. Demonstrate the ability to develop a scientific question, conduct a systematic inquiry to address the question, and disseminate the results to advance scientific knowledge.

**c. Center this reciprocal process in a framework of equity, justice, cultural respect, and inclusion.**
1. Identify cultural, environmental, and social determinants of brain health and development, including institutionalized biases and health disparities.
2. Appreciate the impacts of individual characteristics (including age, gender, ethnicity, sexual orientation, culture, language, ability status, health literacy, comfort with testing, etc.) on assessment.
3. Demonstrate commitment to promoting positive change by opposing historical inequities and injustices perpetuated by the field.
Table 2

Competency 2: Ethics, Standards, Laws, and Policies

Expanded Definition

a. Center all professional activities in an ethical and justice-oriented framework that is grounded in transparency.
   1. Follow current ethical, legal, regulatory, and professional standards applicable to the practice of clinical neuropsychology.
   2. Maintain confidentiality and test security.
   3. Recognize and resolve ethical dilemmas across professional settings.
   4. Utilize peer, professional, and legal consultation as appropriate.

b. Demonstrate awareness of intersectionality.

c. Demonstrate accountability to consumers, the profession, and the public.

d. Recognize and address power differentials and inequities, particularly involving marginalized persons.

e. Recognize and address ethical and legal issues relevant to emerging technologies, data use, and associated science.
### Competency 3: Equity, Justice, Cultural Respect, and Inclusion

<table>
<thead>
<tr>
<th>Expanded Definition</th>
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<tbody>
<tr>
<td><strong>a. Demonstrate self-awareness, cultural humility, and respect.</strong></td>
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<tr>
<td>1. Cultivate one’s own social and cultural humility, curiosity, and respect.</td>
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<tr>
<td>2. Promote equity, justice, cultural respect, and inclusion in all professional neuropsychological activities.</td>
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<tr>
<td>3. Hold self and others accountable to promoting equity, justice, cultural respect, and inclusion.</td>
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<tr>
<td>4. Recognize and actively address negative assumptions, implicit and explicit biases, stereotypes, and micro and macro aggressions, particularly pertaining to marginalized groups.</td>
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<tr>
<td>5. Know the limits of one’s competence in working with individuals and communities.</td>
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| **b. Understand culture’s impact on all professional activities.** |
| 1. Integrate theoretical and empirical knowledge pertinent to neuropsychology about culturally and socioeconomically diverse populations. |
| 2. Critically evaluate the limitations of current theoretical and empirical knowledge about culturally and socioeconomically diverse populations. |
| 3. Work effectively with populations having diverse demographic characteristics, cultures, intersectional identities, and worldviews. |
| 4. Develop, or have knowledge of, strategies for working effectively with areas of individual and cultural diversity not previously encountered. |
| 5. Seek and utilize peer, professional, and cultural consultation and referrals, as appropriate, to meet the needs of diverse populations. |

| **c. Demonstrate awareness of intersectional identities.** |

| **d. Demonstrate awareness of historical and institutional inequities.** |
| 1. Understand and address inequities in clinical neuropsychology at multi-systemic levels (i.e., individual, familial, community, local, national, and global). |
| 2. Understand how inequities may bias the accumulation of knowledge about diverse populations. |
| 3. Demonstrate awareness of how historical and contemporary biases (implicit and explicit) held by groups with power and privilege perpetuate harm and impact patient care and the field of neuropsychology. |

| **e. Advocate for marginalized and/or minoritized individuals, populations, and perspectives, traditionally defined by differing ability levels, ethnicity, gender, sexual orientation, and other social and economic constructs.** |
| 1. Have knowledge of challenges related to unequal access and different patterns of technology use associated with demographic, identity-based, and sociocultural differences. |
| 2. Expand access and decrease barriers to technology use in neuropsychological practice across demographic, identity-based, and sociocultural differences. |
| 3. Understand and address oppressive systems and power dynamics relevant to neuropsychology. |
### Table 4

**Competency 4: Self-reflection and Self-care**

**Expanded Definition**

**a. Actively engage in reflection about one’s identity as a clinical neuropsychologist, including one’s knowledge, skills, and attitudes.**

1. Critically evaluate one’s own personal and cultural history, intersectional identity, attitudes, and implicit and explicit biases to understand how these affect interactions with others.
2. Recognize one’s roles as a clinical neuropsychologist across settings and contexts, with attention to potentially conflicting and overlapping roles and boundaries.
3. Reflect on how one’s behavior represents the values outlined in the preamble, including equity, justice, integrity, and accountability.
4. Pursue an attitude of curiosity, lifelong learning, and innovation through maintenance of competency in all foundational and functional areas.
5. Engage in ongoing reflective self-assessment regarding one’s knowledge, skills, and attitudes, including limits of competence and nondefensively seek and utilize constructive feedback from others.

**b. Maintain individual well-being.**

1. Practice and model self-care, and work to promote self-care in others.
2. Demonstrate positive coping strategies to manage personal and professional stressors and challenges.
### Table 5

**Competency 5: Professional Relationships**

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<th>Expanded Definition</th>
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<tbody>
<tr>
<td><strong>a. Interact and communicate within professional relationships with respect, courtesy, and a collaborative attitude.</strong></td>
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<tr>
<td>1. Develop effective interpersonal and interdisciplinary professional interactions and relationships.</td>
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<tr>
<td>2. Cultivate and maintain professional relationships with diverse individuals, with specific attention to equity, justice, cultural respect, and inclusion in interactions and communications.</td>
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<td>3. Create and contribute to safe clinical and professional environments for diverse individuals.</td>
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<td>4. Successfully work within interdisciplinary teams and professional organizations in both member and/or leadership roles.</td>
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<td>5. Practice allyship with individuals from marginalized and minoritized communities across professional settings.</td>
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<tr>
<td><strong>b. Manage conflict within professional relationships with respect, courtesy, and a collaborative attitude.</strong></td>
</tr>
<tr>
<td>1. Manage difficult communications and resolve conflicts in professional and organizational settings.</td>
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<td>2. Receive, integrate, and implement feedback from others in a non-defensive manner.</td>
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</table>
# Competency 6: Assessment

## Expanded Definition

### a. Use tests and procedures, including measures developed with innovative methods and technologies, that are evidence-based, reliable, valid, and culturally and normatively appropriate.

1. Employ innovative and emerging assessment technologies, as appropriate.
2. Integrate the clinical and scientific evidence on the psychometric properties and limitations of tests used in neuropsychological evaluations, including reliability, validity, and available normative comparison groups.

### b. Conduct culturally-informed neuropsychological evaluations.

1. Clarify and discern referral questions; the intent, purpose, scope, and potential uses of the assessment; and who the client is in various settings and contexts.
2. Discern when to seek professional consultation or when a referral to another available neuropsychologist or other professional is necessary.
3. Develop a contextual knowledge base and appreciation of the patient’s culture and intersecting identities to guide the assessment process.
4. Adapt the assessment process to address the potential impact of individual characteristics to create a welcoming and inclusive evaluation setting, particularly with marginalized or minoritized populations.
5. Appropriately select best available tests and norms, considering the impact of the patient’s age, ethnicity, language, education level and quality, literacy, gender, sexual orientation, disability status, and other identities and their intersectionality on test performance and results.
6. Appropriately utilize professional language interpretation.
7. Administer, score, interpret, and integrate tests of cognitive, social, emotional, and adaptive functioning, academic achievement, and symptom and performance validity, appreciating the impact of health inequities, language(s) spoken, life experiences and opportunities, abilities, and systemic oppression on neuropsychological test performance and results.

### c. Develop diagnostic case conceptualizations and interpretations that consider ethnicity, language, education level and quality, literacy, gender, sexual orientation, disability status, and other identities and their intersectionality.

1. Develop an individualized cultural conceptualization of the patient to guide data interpretation and recommendations.
2. Evaluate fairness and limitations of tests.
3. Integrate neuropsychological results and interview data with all other relevant sources of health information and diagnostic procedures including neuroimaging and laboratory tests.
5. Provide feedback and recommendations to patients and other consumers of neuropsychological results, considering healthcare literacy, values, linguistic abilities, sociocultural context, and intersectional identities.
Table 7

**Competency 7: Intervention and Recommendations**

**Expanded Definition**

**a. Provide treatments and/or recommendations that are evidence-based, culturally responsive, and patient-centered.**

1. Provide evidence-based, accessible, individually tailored, and socio-culturally relevant recommendations, psychoeducation, and prevention strategies based on assessment results and diagnosis.
2. Provide, or refer for, evidence-based, accessible, individually tailored, and socio-culturally relevant cognitive rehabilitation based on assessment results and diagnosis.
3. Identify how intersecting socioeconomic and cultural factors can affect accessibility and applicability of interventions and recommendations.
4. Identify and recommend needed resources for the benefit of the patient and collaterals.

**b. Provide treatments and/or recommendations inclusive of relevant innovative methods and technologies.**

1. Utilize existing and emerging intervention technologies that may support treatment success.
2. Recommend or utilize appropriate technology in interventions.
3. Monitor and evaluate the effectiveness of interventions and recommendations when appropriate and feasible.

**c. Provide treatments and/or recommendations appropriate to the context or setting.**

1. Identify academic, governmental, vocational, therapeutic, rehabilitation, and advocacy resources relevant to neuropsychological intervention and recommendations.
2. Utilize principles of delivering effective feedback.
Table 8

*Competency 8: Interdisciplinary Systems and Consultation*

<table>
<thead>
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<th>Expanded Definition</th>
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| a. **Conduct consultation and interprofessional activities using best available evidence.**  
1. Acknowledge issues, concepts, roles, and reciprocal responsibilities in working with other disciplines and professions.  
2. Communicate effectively and timely with other professionals across settings. |
| b. **Conduct consultation and interprofessional activities using relevant innovative methods and technologies.**  
1. Utilize innovative technologies appropriate to the setting. |
| c. **Conduct consultation and interprofessional activities using culturally responsive methods.**  
1. Provide evidence-based and culturally responsive neuropsychological services and consultation in clinical, community, legal, public policy, and/or research settings. |
Table 9

Competency 9: Research and Scholarly Activities

Expanded Definition

a. **Consume and/or conduct research or scholarly activities utilizing a critical framework that considers methodological limitations and best practice.**
   1. Demonstrate understanding of quantitative and qualitative and/or mixed method research approaches for studying complex, multi-systemic brain-behavior relationships, and the effect of socio-cultural and environmental factors on cognition.
   2. Communicate neuropsychological research to diverse consumers, including patients, families, policymakers, local, regional and/or national communities.

b. **Consume and/or conduct research or scholarly activities consistent with professional and scientific ethics.**
   1. Apply sound ethical principles and practices in consuming or conducting neuropsychological research, including doing no harm to minoritized, marginalized, and/or other under-included populations.

c. **Consume and/or conduct research or scholarly activities, considering equity, justice, cultural respect, inclusion, identities, and intersectionality.**
   1. Consume, evaluate, and/or conduct research, with particular attention to socio-historical context, community participation, and inclusion of and generalization to minoritized, marginalized, and/or other under-included populations.

d. **Consume and/or conduct research or scholarly activities utilizing modern/innovative methods and technologies.**
   1. Apply and/or demonstrate understanding of relevant technology to increase accessibility and equity.
   2. Understand community-based participatory research methods.
   3. Provide and/or critically evaluate the comprehensiveness of socio-cultural characterization of participants.
   4. Understand and/or use oversampling of historically under-included or under-characterized populations.
Table 10

*Competency 10: Teaching, Supervision, and Mentoring*

**Expanded Definition**

a. **Engage in culturally-sensitive, responsive, and informed supervision, teaching, and mentoring.**
   1. Utilize evidence-based and culturally responsive pedagogical theories, methods, and practices for teaching and supervision in neuropsychology.
   2. Provide supportive, constructive, and culturally humble and responsive supervision and/or mentorship of trainees to facilitate learning and professional growth.
   3. Create safe and accessible conditions and environments for supervision and/or training.

b. **Maintain self-awareness of the strengths and limitations of one’s teaching style, supervision skills, and mentoring approach.**

c. **Employ appropriate and innovative methods and technology.**
   1. Appropriately use existing and emerging pedagogical technologies for teaching and supervision.
   2. Appropriately use existing and emerging technologies in supervision and training.

Table 11

*Competency 11: Administration, Management, and Business*

**Expanded Definition**

a. **Employ fiscally sound operational and management principles and procedures appropriate for the context of professional activities.**
   1. Utilize innovative and appropriate technology to support staff efficiency and consumer convenience.

b. **Comply with ethical and regulatory requirements.**

c. **Promote equity, justice, cultural respect, and inclusion.**
   1. Identify and reduce barriers to service access.
   2. Ensure referral and billing practices are transparent and equitable.
   3. Effectively manage personnel and resources with specific attention to the needs of a diverse workforce.
### Table 12

**Competency 12: Advocacy**

#### Expanded Definition

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<tbody>
<tr>
<td><strong>a.</strong></td>
<td><strong>Promote the welfare of oneself, consumers, trainees, colleagues, and the profession.</strong></td>
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<tr>
<td></td>
<td>1. Employ best practices for advocating at the individual, interpersonal, institutional, community, professional, national, international, and other system levels.</td>
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<tr>
<td></td>
<td>2. Advocate for one’s own professional and career advancement.</td>
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<tr>
<td></td>
<td>3. Advocate for and empower patients and families, in a culturally responsive manner, with appropriate technology and other tools, resources, and supports to optimize brain health.</td>
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<tr>
<td><strong>b.</strong></td>
<td><strong>Advance clinical neuropsychology’s role in addressing community needs.</strong></td>
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<tr>
<td></td>
<td>1. Understand the importance of advocacy for the betterment and advancement of neuropsychology.</td>
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<td></td>
<td>2. Recognize the importance of advocacy to improve access to neuropsychological services and minimize brain health disparities as a part of the universal right to health care and education.</td>
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<tr>
<td><strong>c.</strong></td>
<td><strong>Center advocacy efforts across systems in a framework of humility, equity, justice, cultural respect, and inclusion.</strong></td>
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<tr>
<td></td>
<td>1. Utilize culturally-informed and community-based approaches to advocacy.</td>
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<tr>
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<td>2. Identify and mitigate sociocultural, environmental, economic, and political barriers to accessing neuropsychological services.</td>
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Table 13

Competency 13: Technology and Innovation

Expanded Definition

a. **Demonstrate understanding and ability to apply innovative methods and technologies to professional activities.**
   1. Demonstrate an understanding of existing and emerging technological advancements as applied to neuropsychological assessment, intervention, and consultation.
   2. Implement innovative and psychometrically sound technological strategies for assessment, intervention, and knowledge sharing.

b. **Demonstrate understanding and ability to apply innovative methods and technologies to improve access and decrease barriers.**
   1. Use clinical practice to inform the development, refinement, or implementation of psychometrically sound technological strategies for assessment, intervention, and knowledge sharing.
   2. Recognize the importance of neuropsychologist involvement and community engagement in technology development and utilization.

c. **Recognize the potential benefits and harms of using innovative methods and technologies, especially with respect to minoritized and/or disadvantaged groups.**
   1. Demonstrate awareness of the potential benefits and harms of technologies and analytic strategies in neuropsychological practice, teaching, and research, particularly with respect to minoritized and/or disadvantaged populations.
   2. Implement technology in a manner that protects rights and dignity with specific attention to populations that are most vulnerable, including minoritized and/or disadvantaged populations.
   3. Mitigate potential harms of technology and electronic data methods in neuropsychology.
References

