Relevance Today, 2050 & Beyond: Suggestions for Preparing Trainees to Meet the Clinical Demands in a Changing US Culture

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¡Gracias!
Demographics
Houston Conference ~ 2000
US Hispanic Population and Projections 1950-2050
(000) Millions

Source: Synovate, U.S. Census Bureau
Figure 6
Population by Race and Ethnicity, Actual and Projected: 1960, 2005 and 2050 (% of total)

<table>
<thead>
<tr>
<th></th>
<th>1960</th>
<th>2005</th>
<th>2050</th>
</tr>
</thead>
<tbody>
<tr>
<td>White</td>
<td>85%</td>
<td>67%</td>
<td>47%</td>
</tr>
<tr>
<td>Hispanic</td>
<td>3.5%</td>
<td>14%</td>
<td>29%</td>
</tr>
<tr>
<td>Black</td>
<td>11%</td>
<td>13%</td>
<td>13%</td>
</tr>
<tr>
<td>Asian</td>
<td>0.6%</td>
<td>5%</td>
<td>9%</td>
</tr>
</tbody>
</table>

Note: All races modified and not Hispanic (*): American Indian/Alaska Native not shown. See “Methodology.” Projections for 2050 indicated by light brown bars.
Source: Pew Research Center, 2008
The American Dream: Embracing Diversity
Heterogeneity of Subgroups

Hispanics/Latinos
Hispanic Subgroups by Region

Adapted from Pew Research Center, 2010 (Salinas, in preparation for presentation)
Language Use Among Hispanics

• ~50% of the world are bilinguals
• ~20% of US citizens are bilinguals/Spanish is 2nd most common language (38M)
• 82% of Latino adults speak Spanish*
  • 76% Spanish “dominant” or bilingual
  • 24% English “dominant”
  • Importance of indigenous languages

• Dialect differences
  • (“tutear”; grammar use; vocabulary)

• Cultural influences on L1 maintenance

US Census, 2010
Implications For Neuropsychology & Community

Relevance Today!!!
Current Guideline Recommendations

Representation of ‘Cultural Competence’ Language

Houston Guidelines: Total Words = 2,035; Total Culturally-Relevant Words = 11 (0.5%)

Slide Courtesy of Monica Rivera Mindt
Healthcare Disparities for Hispanics

<table>
<thead>
<tr>
<th>Organization</th>
<th># Spanish Speaking NPs</th>
</tr>
</thead>
<tbody>
<tr>
<td>NAN</td>
<td>96</td>
</tr>
<tr>
<td>HNS</td>
<td>157</td>
</tr>
<tr>
<td>AACN</td>
<td>25</td>
</tr>
</tbody>
</table>

-mort in most states

-1:81,000

*Spanish speaking population has 2-7x LESS ACCESS to Neuropsychology in most states

Adapted from NAN, HNS, AACN Directories; Salinas, Bordes-Edgar, & Puente, 2015; Romero et al., 2009; Judd, 2010
Training Challenges: Hispanics

Echemendia et al, 1997; Renteria et al, 2010; Renteria, Saez, Salinas, & Pliskin, in preparation
Lack of Postdocs with multicultural NP training/bilingual NPs

- Review of HNS Training database and Pediatric Programs that are Association of Postdoctoral Programs in Clinical Neuropsychology (APPCN) Members with Spanish speaking supervisors
  - Boston Children’s Hospital (1);
  - Children’s Hospital Colorado (3);
  - Kennedy Krieger Institute (1 + 1 Affiliated);
  - St. Louis Children’s Hospital (1)
  - Children’s National Medical Center (1)
  - Other non-match sites such as UCLA Cultural Neuropsychology Initiative, MGH MUNDOS, University of New Mexico, Baylor

Salinas, in preparation for presentation
Challenges in Clinical Practice

• ~15% of 3500 tests are in Spanish
  • Only 5 meet Standards for Educational & Psychological tests
• Use and selection of appropriate interpreters
  • 25% of neuropsychologists still use family members
• Verbatim translations are used more than adaptations
  • Up to 1/3 of time!!
• Clinicians are NOT using normative data for Spanish tests when available
  • Only 1/3 of time!
• Lack of supervision for bilingual and diverse psychometrists and trainees
• Minorities are judged as cognitively impaired more often
• Recommendations may be based on myths, not evidence (e.g., English only ST)

Renteria et al, 2010; Ojeda & Puente, 2010; Echemendia & Harris, 2004; Manly et al, 1998
Challenges in Cultural NP Research

- >600 abstracts reviewed (PubMed):
  - Keywords: Epilepsy+ language, memory, cognition, behavior, QOL, neuropsych, fMRI
  - Important Keywords: culture, Hispanic, Spanish
  - Only 15 articles identified for inclusion in review:
    - Peer reviewed
    - Use of at least one standardized or experimental neuropsychological test
    - Sample size greater than 5

Salinas, in preparation for presentation
How can training programs prepare trainees to meet the clinical demands in a changing US culture?
Read/Teach Historical Antecedents

- anthropology (Boas)
- genetics (Belyaev)
- Vygotsky
- Luria
Promote Cultural Neuroscience Models

Falk et al., 2013; Chiao et al, 2013
Conceptualize Whole Child/Person

4. The brain does not operate in isolation. Both the structure of the brain and its development depend on the context in which it operates. How brain function is manifested in behavior at any given moment is determined as much by contextual variables as by brain structures. Observed behavior is the product of transactions between the organism and its environment. Assessment of behavior must therefore be based on close scrutiny of the context in which the brain operates and behavior is observed.

5. The theoretical matrix within which developmental neuropsychological assessment takes place is therefore conceptualized as one whose interacting variables are BRAIN, CONTEXT, and DEVELOPMENT. All behaviors are scrutinized within this matrix. No behavioral outcome can be understood in terms of only one of the variables in the matrix.

Holmes Bernstein, 2000
Re-Evaluate Whether Nonverbal Tests are Culture “Free”

Some Examples:

Do you think that things should be done...? 
As faster as possible, no matter if you make mistakes

Slowly and without making mistakes

Agranovich et al. (2013). The culture of time in neuropsychological assessment: exploring the effects of culture-specific time attitudes on time test performance in Russian and American samples. JINS
Promote Cultural Competence Framework for NP

**Awareness**
- Assumptions/values/biases @ cultural minorities
- Impact provision of NP services
- Positive stance towards multiculturalism

**Knowledge & Understanding**
- Own world view
- Clients’ culture & world view impacts NP performance & intervention
- Understanding of sociopolitical influences

**Acquisition**
- Specific, culturally appropriate assessment, intervention, & communication skills
- Necessary to effectively work with cultural minority groups

**Individuals & Organizations**
- Development of core cultural competencies
- Based on new theories, practices, policies
- Organizational structures that are more responsive to *all* groups.

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Slide Courtesy of Monica Rivera Mindt

D.W. Sue, 2001; Rivera Mindt et al., 2010
Engage in Socially Responsible Neuropsychology

Ethical framework which suggests that an entity, be it an organization or individual, has an obligation to act for the benefit of society at large.

**Equality**
- Individual
- Patients are most vulnerable
- Trainees are vulnerable
- No specific guidelines
- Left to individual interpretation
- No accountability

**Equity**
- Competencies are acquired at the individual level
- Patients are served adequately
- Burdensome for a few
- Trainees are still vulnerable

**SRN**
- Collective
- Culture at the core of competencies
- Equitable care for ALL patients
- Broader impact on the Health Care System
- Social Justice

Slide Courtesy of Paola Suarez
Promote Paradigm Shift in NP

- Move from Universalism to Relativism
- Avoid having conversations about cultural issues in silos
- Integrate Culture into all that you do/teach
- Create + Implement Multicultural NP Training Standards/Benchmarks
- Foster Evidence Based Approach to Cultural NP
- Implement Reflective Research Practices
- Know/Teach that cultural experiences not only modulate but determine pre-existing patterns of neural activity (Han and Northoff, 2008)
- Know/Teach that cultural differences can be expressed in actual brain structural changes (e.g., gray-matter volume; Park and Gutchess, 2002; Draganski et al., 2004; Mechelli et al., 2004; Turner and Whitehead, 2008).
Promote Paradigm Shift in NP (continued)

• Acknowledge test limitations & problems of equivalence with use of interpreters/translations

• Know/Teach literature regarding NP in bilinguals (Bialystock literature; delayed dementia; EF “advantage”; lexical access)

• Understand Role and Influence of Education, Acculturation, Stereotyped Threat, Institutional Racism, Locus of Control, Communication Preferences, Sociopolitics, Health Disparities on behavioral presentation + NP evaluations/response to interventions

• Promote Lifespan Model to Learning/Achieving Cultural Competence

• Encourage Ethnographic/Anthropological Approach (Read Paul Farmer’s Work!)

• Be a Model Advocate, especially in interdisciplinary teams!
Additional Solutions & Next Steps? Ideas from Houston to Austin: HNS Brainstorming Session (11/2015, >60 attendees)
Diversity Recruitment

- Access to bilingual & bicultural supervisors, mentors, consultants
- Retention of students
- Access to funding for training for minority students
- More culturally diverse faculty supervisors in training
- Incentives to programs with cultural competencies/bilingual profs
- Political advocacy & leadership development
- Explicit mentor network/database
- Eliminate training pipeline barriers
Improving Access to Cultural NP Knowledge

- Centralize information to not reinvent the wheel
- Google Scholar
- Summarize institutes within us
- Pool expertise
- Train the trainers
- Cultural Fairness Access
- Get to know what other countries are doing
- Open source download of tests
- Have all the national NP orgs create a website w/ resources on cultural NP
Promote Diversity/2nd Language Experiences

- Meals with culturally diverse individuals
- Immersion activities to experience life in shoes of the minority group
- Professional Time for Developing Language/Cultural Competencies
- Exposure to diverse communities: Exchange program, living in community
- Student to “hop starts” Civil Institutions for gaining exposure to
- Volunteer w/ underserved communities
- Hands-on experience working w/ individuals of different cultures

Rosetta Stone partnership (my hospital had free access)
exposure to diverse patients

Teach health disparities course

Teach reflective research practices

Share cultural values with each other

RESILIENCE TRAINING

Integrate cultural neuroscientific aspects of each course

Ask new trainees (people applying) what they want to learn...

Didactics/Training

Integration of ideas of context training

Knowledge of literature

Use televirtual training mode

CULTURAL CLASSES

CULTURAL NEUROSCIENCE

Education - epigenetics

acknowledge that we don't know everything - that's ok!
Didactics/Training Continued

1. Decision Tree for what to do with diversification.
2. Supervision and Training in interpreting laws.
3. Teach culturally competent research methods.
4. Probability and statistical thinking.
5. Teach at the level of the learner.
7. Engage in case studies and case conference that must include multicultural cases.
8. Training in immigration status and law.
9. Analysis of social-political factors that contribute to health disparities.
10. Teach how to influence legislation.
Promote Cultural Competence

- Infuse culture as a basic variable such as age in all training.
- Mandatory CEUs in multicultural competence for licensure.
- Taskforce to guide training curriculum.
- Incentivize language/diversity training.
- Bigger emphasis on cultural issues on Board Certification Exams.
- Commit to thus.
- More concise explanation of cultural competencies.
Suggested Readings


Free access to articles

• [http://antonioepuente.com](http://antonioepuente.com)

• [https://aalfredoardila.wordpress.com/articles-papers/](https://aalfredoardila.wordpress.com/articles-papers/)
Resources

• Hispanic Neuropsychological Society [http://hnps.org/](http://hnps.org/)
• Office of Minority Health at the Department of Health and Human Services [http://minorityhealth.hhs.gov/](http://minorityhealth.hhs.gov/)
• National Culturally and Linguistically Appropriate Services (CLAS) Standards [https://www.thinkculturalhealth.hhs.gov/content/clas.asp](https://www.thinkculturalhealth.hhs.gov/content/clas.asp)
• NIH Office of Equity, Diversity, and Inclusion (EDI) [http://edi.nih.gov/](http://edi.nih.gov/)