COMMENTARY

Considerations in the Neuropsychological Evaluation and Treatment of Children with Limited English Proficiency

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The intention of this article is to raise the awareness of clinicians regarding the appropriate assessment of intellectual competence and neuropsychological function of children and adolescents whose first language is not English. Given the large number of Spanish speakers in the US, we illustrate, with a case example, the need to test students in their native language especially when the second language has not yet been mastered. Accurate assessment of the brain's potential may yield enhanced opportunities and optimize expectations, rather than undervaluing a developing child's elastic brain maturation. Our article intends to raise awareness of the developmental and school psychologists, neuropsychologists, and child psychiatrists who serve a broad base of the immigrant population.

Language is fundamental to virtually all aspects of human experience and represents a core focus of neuropsychological evaluation.[1]

Our patient was an 11-year-old, Spanish-speaking patient with disruptive mood dysregulation disorder who was recently admitted to a behavioral health facility after an altercation in school involving a knife. He was being seen at our pediatric mood disorders clinic. During a recent inpatient admission, he had a neuropsychological evaluation, including neurocognitive testing, which showed moderate mental retardation—currently termed "intellectual disability" in the *Diagnostic Statistical Manual of Mental Health Disorders-Fifth Edition* (DSM-V). Both the child psychiatry fellow and the medical student who are native Spanish speakers noticed the incongruence between the test results and the patient's clinical presentation. During the interview, it was apparent that the patient was quite comfortable conversing in English, though his understanding was greater in Spanish.

Neuropsychological testing evaluates a child's cognitive abilities by assessing memory, attention and concentration, problem solving, language, and emotion among other neuropsychological domains. Physicians and other clinicians use the results to clarify the relationship among an individual's brain, thoughts, behavior, and mood.

In our patient's case, the intelligence test battery (Wechsler scale) compared the child's overall abilities with specific functions to identify a potential cognitive issue possibly exacerbating his emotional frustration and physical aggression. However, because the test was not normed to the patient's native language as would be recommended,[2] because Spanish was the language of schooling, and because of the patient's short length of stay in the US leading to the administration of the test, the test was not considered a relevant factor, and thus the results of the test were not accurate or valid. Furthermore, the misdiagnosis did not reflect his adaptive functioning as is recommended in the DSM-V.

In light of these common unsuspected problems in evaluation, we suggest the following pragmatic considerations:

1. Language dominance and proficiency must be determined[2] before using a psychometric battery. Did the child with limited English proficiency (LEP) learn certain concepts such as multiplication tables in his/her native language? Would the child need to first understand the question in his/her nonnative or second language, then translate it into his/her native language, and then translate back to English in order to respond? These processes take time and mental effort beyond what is needed to solve the underlying test question or problem.
2. In the case of a child using two languages, there could be competition or interference between the languages. For example, the child could be asked to say as many words as s/he can think that begin with a certain letter. However, if s/he thinks of a word in one language and the same word does not start with the same letter or fit in the same category in the other language, s/he loses time and may not attain the same level of proficiency as his/her monolingual counterpart. The problems of delay and translational difficulty can be anxiety provoking, which in turn affects concentration and overall outcome.
3. With regard to testing in bilinguals, Mindt et al[1] illustrated the well-established connection between frequency of use and lexical accessibility explaining that by virtue of speaking each language only some of the time, bilinguals use each language less frequently than their monolingual counterparts. In addition, cognitive academic language proficiency takes longer to develop compared with conversational proficiency. Thus individuals with LEP also have disadvantages when tested in their first-acquired, dominant language. The child with LEP must be assessed at least partially in his/her native or primary language to avoid misclassifications.[1]
4. Self-reported ability alone may not always be the most accurate assessment of actual proficiency.[3] Researchers and clinicians must provide more accurate assessments by using both subjective and objective measures. Proficiency in each language may differ depending on the skill assessed (eg, conversation,

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reading, writing, or mathematics), and thus evaluation in both languages is preferred where possible. Subjective measurement includes clinical interview in which the examiner can judge basic interpersonal fluency, questionnaires regarding linguistic preferences in which the client rates her or his own fluency, and measures of acculturation.

5. Issues including the degree of acculturation and assimilation, education, socioeconomic status, immigration history and country of origin, housing issues, experience of stress, any racial bias, social support, and access to/use of health care services are important considerations when interpreting the battery results and developing the written assessment.
6. Specifically, examiners looking to evaluate a Spanish-speaking child can use any one of the following batteries: See Sidebar: Intelligence Assessments Available in Spanish.

Although being bilingual can confer disadvantages in a timed neuropsychological evaluation, research also suggests there are advantages to bilingualism.[4] Bilingual children exceed monolinguals in executive control tasks because language switching requires exercising inhibition and attention.[4] Preliminary data also suggest a protective effect of bilingualism against cognitive decline.[4] Thus, balanced bilingualism is to be encouraged, and promoted. However, language-sensitive services should be provided while proficiency is developing.[2] Moreover, from a social justice perspective, neglecting language-assistance needs of LEP individuals is not clinically appropriate, and the US Office of Civil Rights mandate in Title VI of the US Civil Rights Act requires that no one be denied services on grounds of national origin.[5] With respect to our case, pharmacotherapy for mood regulation and therapeutic school placement involving clear communication with school staff on the absence of intellectual disability led to the student being placed back in a traditional school setting. The reinterpretation of neuropsychological test results as well as knowledge of native language capabilities in the context of recent immigration and comorbid mental illness offered a valuable new beginning to our patient. ❖

Intelligence Assessments Available in Spanish

- Batería Woodcock-Muños which tested individuals from Costa Rica, México, Peru, Puerto Rico, Spain, and the US
- Escala de Inteligencia Wechsler Para Niños Revisada or EIWN-R
- WISC-R version normed in México or Escala de Inteligencia Wechsler para Niños-Revisada de Puerto Rico (EIWN-R-PR) which was developed by translating some items from the WISC-R and by adding, as well as adapting, items that are appropriate for the Puerto Rican culture

Disclosure Statement

The author(s) have no conflicts of interest to disclose.

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Language

If you talk to a man in a language he understands, that goes to his head.
If you talk to him in his own language, that goes to his heart.

— Nelson Mandela, 1918-2013, South African anti-apartheid revolutionary, politician, philanthropist, and President