

Cross Cultural Use of Autism Screening Measures

NM Lend Capstone Project 2022

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LEND Competencies

Leadership Skills

- Lead through practice, research, teaching, administration, and legislative systems change.
- Develop effective communication and teaching skills, as well as accessible presentation skills appropriate for a variety of professional and community audiences.

Cultural and Linguistic Responsiveness and Diversity

- Demonstrate knowledge and skill building on populations served according to cultural and historically underserved status – racial, ethnic, linguistic, disability, etc.
- Demonstrate knowledge of how multiple societal and cultural disparities influence health and access to health care services.
- Incorporate an appreciation of differences in perspectives into professional behaviors and attitudes while maintaining an awareness of the potential for implicit bias.

LEND Competencies

Research, Quality Improvement, and Evidence-Based Practice

- Use science-based judgment, evidence-based practice, and documentation of outcomes in practice, programs and policy.
- Understand and critically use data to inform continuous quality improvement efforts in clinical and community-based practice.
- Review and discern the quality of research and its applicability to practice.
- Access and utilize electronic information, resources and databases.
- Gain experience with framing a problem, researching, developing a product, disseminating to relevant stakeholders, and providing a professional presentation.
- Demonstrate basic competencies in professional writing.

Problem Framing

- Much of what we know about ASD comes from high-resource areas of the world
- Almost all available diagnostic/evaluation tools were developed in Western societies within selected regional/ethnic groups
- Many of these tools have been adapted into different languages, however the translation and cultural adaptation process itself is not always clearly outlined and often fails to include the recommended guidelines when these tools are used cross-nationally

Problem Framing

- Native American groups are often left out when validating psychological measures and assessments.
- Lack of including Native children when validating measures of autism symptoms such as the Social Responsiveness Scales and Childhood Autism Rating Scale = we do not know how valid these measures are for use on our current population.
- How can we use the SRS and CARS within the Native American population while being culturally sensitive?
- How are these measures useful to the NBCS/ECHO project?

Procedure

Conduct a scoping review of cross cultural use of
CARS and SRS

Gather and clean existing data

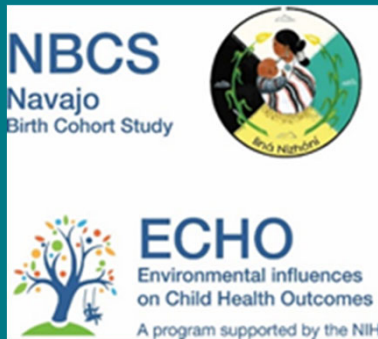
Work with statistician to analyze data

Write up results of data analysis

Develop PowerPoint presentation of findings to
present to NBCS ND team

Continue writing publication in preparation for
submission to journal

Background: The Navajo Birth Cohort Study



- The Navajo Birth Cohort Study addresses the fact that no large-scale efforts have been made to characterize neurodevelopment in Native American groups.
- NBCS tracks the trajectories of neuro- and physical development of enrolled children until age 5 years.
- NIH has launched a new seven-year initiative called the Environmental Influences on Child Health Outcomes (ECHO) program, which allows us to build on the Navajo Birth Cohort Study to follow up with existing participants.
- Given the history of mining across Navajo Nation and previous research evidence, the major goal of NBCS was to examine the effects of exposure to children's health outcomes.

Autism Rating Measures Used in NBCS

The Childhood Autism Rating Scale, Second Edition (CARS-2)

- Published in 1980 by Eric Schopler and Robert Reichler to classify children entering into their outpatient program for autistic children and their families
- 15 item rating scale that considers both parent report and observed behaviors by clinician

The Social Responsiveness Scale (SRS)

- 65-item measure designed to assess autistic traits, primarily reciprocal social behavior
- Completed by the parent without the clinician present

Scoping Review

- Provides an overview of a broad topic
- Different from a systemic review and meta-analysis by addressing a more general question rather than a clearly defined question. Broader conceptual range and less in depth
- Accounts for diversity of relevant literature and studies using different methodologies
- Provide a quick overview of a field of research, examining the extent of research in this area
- Determine feasibility of doing a full systemic review
- Provide focused synthesis
- Drawing conclusions and identify gaps in the existing literature

Search Results

date	database	search terms	number of hits	after exclusionary
19-Jan	Psychology, Counseling, Medicine, Social Science databases	childhood autism rating scale and native American/indigenous/American Indian	0	
19-Jan	Psychology, Counseling, Medicine, Social Science databases	autism and first nation	20	1
19-Jan	Psychology, Counseling, Medicine, Social Science databases	autism and native American or American Indian or indigenous or native tribes or native people	264	0
22-Jan	Psychology, Counseling, Medicine, Social Science databases	childhood autism rating scale and culture	33	0
22-Jan	Psychology, Counseling, Medicine, Social Science databases	childhood autism rating scale and cultural validity	3	1

Search Results continued

date	database	search terms	number of hits	after exclusionary
22-Jan	Psychology, Counseling, Medicine, Social Science databases	childhood autism rating scale and cross cultural	26	2 or 3
25-Jan	Psychology, Counseling, Medicine, Social Science databases	social responsiveness scale and cross cultural	23	7
26-Jan		autism and native	501 (9)	0
9-Feb	google scholar	autism ratings and native Americans	20700	1
9-Feb	google scholar	childhood autism rating scale and socioeconomic status	43,700	3
9-Feb	Psychology, Counseling, Medicine, Social Science databases	childhood autism rating scale, 2nd edition and socioeconomic status/poverty/low income	3	0
9-Feb	Psychology, Counseling, Medicine, Social Science databases	childhood autism rating scale and socioeconomic status	20	0

Databases Searched

- APA PsycInfo Only (for Cited References and Subject Term searching)
- APA PsycArticles
- APA PsycBooks
- Psychology and Behavioral Sciences Collection
- APA PsycInfo
- Mental Measurements Yearbook with Tests in Print
- eBook Collection (EBSCOhost)
- MEDLINE with Full Text
- APA PsycTests
- Funk & Wagnalls New World Encyclopedia
- Health Source - Consumer Edition
- Health Source: Nursing/Academic Edition
- eBook Academic Collection (EBSCOhost)
- Academic Search Complete
- APA PsycExtra
- American Antiquarian Society (AAS) Historical Periodicals Collection

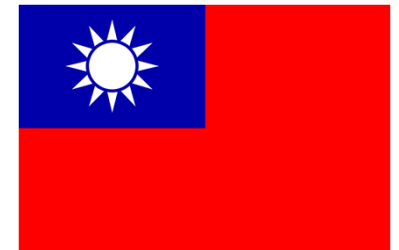
Findings from Scoping Review

- The SRS performs similarly in the UK and US general population samples of children and can be used without modification in the UK.
- Overall, mean SRS scores in different diagnostic categories were similar between individuals from Taiwan, the US, and Germany.



Findings from Scoping Review

- As shown in prior US and German studies, the SRS was able to distinguish Taiwanese children with ASD from typical controls as well as from individuals with other psychiatric diagnoses.
- Cultural Considerations:
 - Differences in parent expectations of children.



Findings from Scoping Review

- In a Korean study, the optimal cut-off score of SRS was 55, which was substantially lower than the original U.S. cut-off score of 60.
- Original cut-off score of K-CARS was 30, but the optimal cutoff score based on Korean data was 28.5 for all participants.
- Cultural Considerations:
 - Lower recognition of ASD symptoms
 - Positive reporting by parent



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Findings from Scoping Review

- Iranian study conducted amongst school children without previous psychiatric concerns
- The total raw score means of the Farsi translation of the SRS were 48.47 by parent rating and 53.17 for teacher rating
- Cultural Considerations:
 - Differences in social values



Findings from Scoping Review

- In a Finnish sample, a cut-off score of 46 was determined.
- This is considerably lower than the original raw cut-off score for primary screening reported in the SRS manual and also lower than the cut-off scores derived from German and Mexican validation.
- Closer to the suggested cut off in Japan and the Netherlands.
- Cultural considerations:
 - Interpretations of answer options
 - Differences in child expectations



Product

- Formal publication of findings from scoping review and data analysis
- Presentations to inform both NBCS team members as well as ECHO wide team members who work with Native populations elsewhere
- Present to clinicians who work with Native populations



Dissemination

- Through a presentation to clinicians involved in the NBCS project as well as offering the presentation to other ECHO wide clinicians who work within the Native American population in other regions. Further dissemination of information to wider audience with future submission of findings in a formal paper to an appropriate journal.
- Submit findings for publication in appropriate journal
- Present research findings at conferences
- Present findings to the NBCS/ECHO team to guide the team in the continued use of these measures over the course of this study

Next Steps

- Use the scoping review to inform the literature review section for publication.
- Continue gathering SRS and CARS data from participants in the NBCS project.
- Analyze the data collected to determine reliability of autism screeners in this population by comparing our rate to that of the general population and examine the internal reliability of these measures.

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