

Rehabilitation Counselor Utilization of Psychometric Instruments

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Outline

- Literature Review
- Purpose of the Study
- Methods
- Results
- Discussion
- Limitations
- Summary and Conclusions
- Questions?

History

- Rehabilitation counselors subscribe to a number of ethical codes (e.g., ACA, CRCC, LPC) that require continued training in psychometric assessment.
- Addressed in accredited programs, though can be somewhat limited (currently 1 class for CORE and CACREP accredited programs).
- Continuing education efforts do not appear to maintain with continued advances made in vocational evaluation methodology.

Literature Review

- Betty and Sligar (2015)- assessed the current tools used by state-federal rehabilitation programs
 - 433 identified, 197 psychometric assessments and 236 work samples
 - Current list continues to coincide with the “seminal works” of vocational evaluation
 - Tool use plays a significant role in rehabilitation counselor professional identity
 - Key ethical issues: competence of evaluator, selection of instrument, individual needs of the client, most current standards

- Limitations of available evidence-based practices (EBP) may also lead to potential ethical quandaries:
 - How to provide accurate and meaningful measurements? (Robinson & Drew 2014; Welfel 2010).
 - Especially for what measures are normed for specific populations. Norms can be outdated or not for a specific population being evaluated.
 - How to balance to justification of EBPs as a core component of rehabilitation counseling despite limited research? (Chan et al., 2010)
 - Also, the difference between the research setting in which EBPs are established (academia) compared with practical setting where they are applied (public, non-profit, private, forensic) can be very different.

- Limitations of available evidence-based practices may also lead to potential ethical quandaries:
 - How to account for the effect of EBPs across multiple systems for quality assurance? (Chan et al., 2009)
 - Further complicated by varying legal standards with which many rehabilitation counselors interact. Some counselors work in several states and across different systems (WCC, LTD, PI, VA).
 - How to provide quantitative data to justify outcomes of work with regard to employment gains and salary negotiation? (Rogers, Anthony, Lyass, & Penk, 2006)
 - Programs often dependent on funding and grants from outside sources (e.g., government).

- Lustig and Strauser (2009) - found discrepancy between graduate student expectations of the role of assessment in their career path with the actual clinical experience of working Vocational Rehabilitation (VR) counselors.
- Leah et al. (2009) - found self-reported gap in knowledge domain of interpretation of assessment data for rehabilitation planning purposes. How would this effect VR outcomes?

Purpose of this Study

- The primary purpose of this mixed-methods study was to determine what psychometric instruments rehabilitation counselors use for assessment.
- It also qualitatively investigates the perceived influence of psychometric instruments (or lack thereof) on how rehabilitation counselors consider vocational assessment, ethical concerns, and clinical judgment.

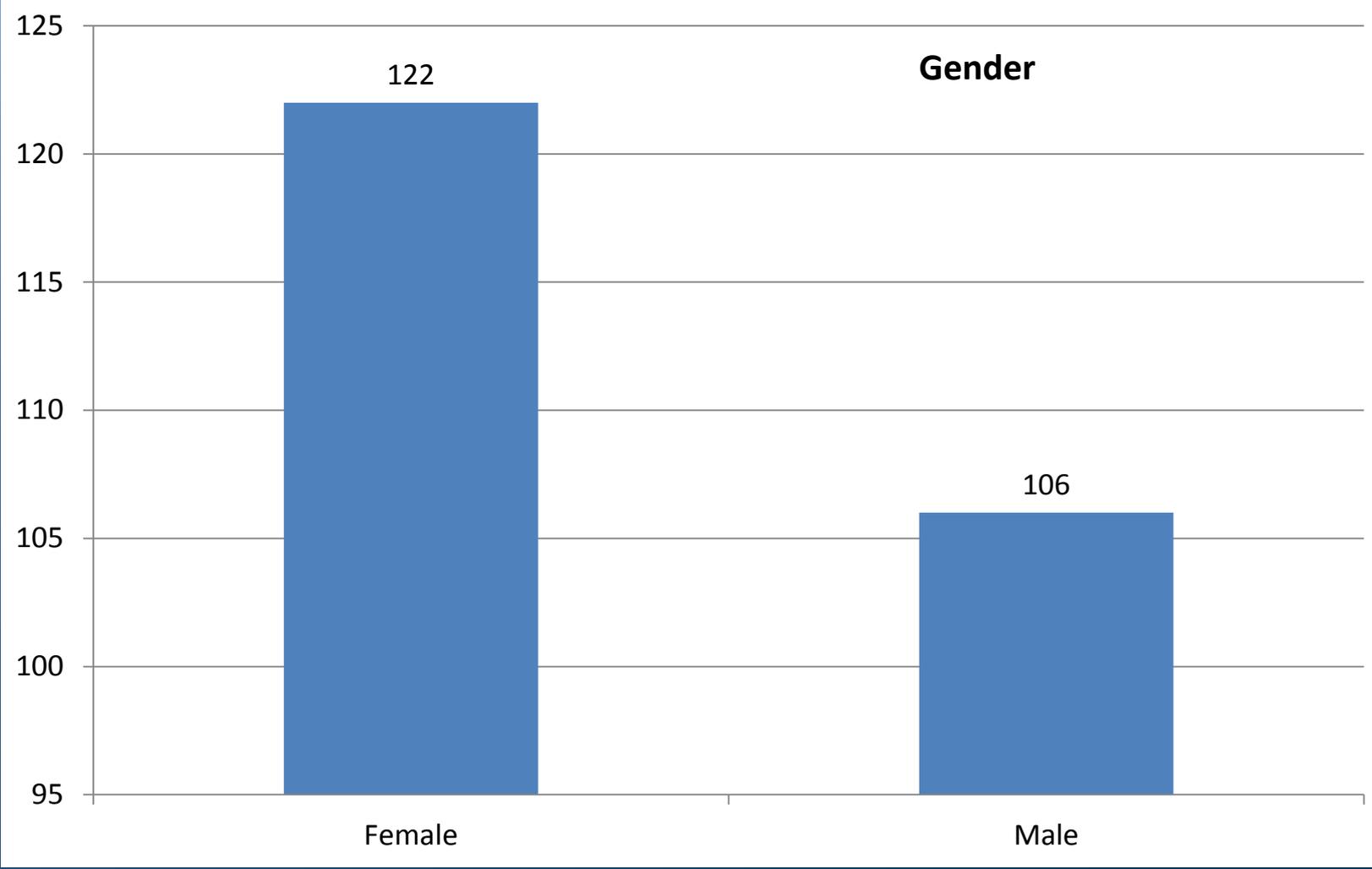
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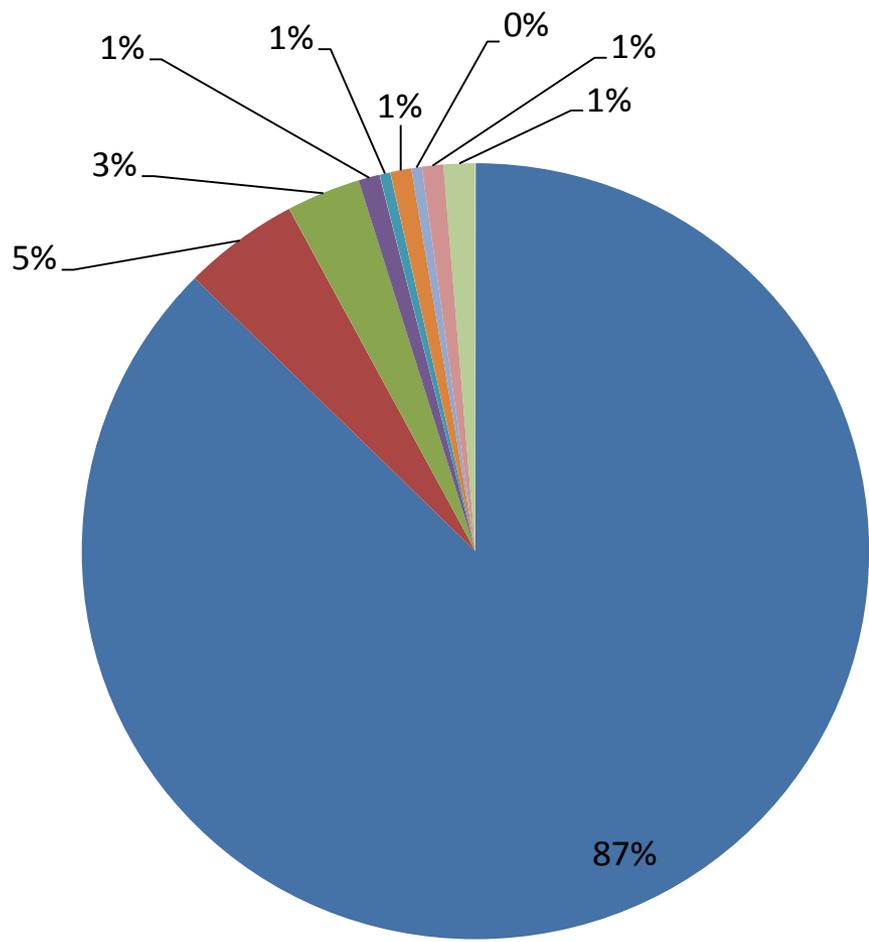
Methods

- Mixed-method study with a convergent design and parallel data collection.
 - Quantitative component analyzed potentially significant differences on the relationship between demographic information and instrument use.
 - Qualitative component used content analysis from open-ended response prompts.
- After initial independent techniques, interpretation of data through narrative strategy weaving data sources within thematic exploration.

Participants

- Participants consisted of 228 current VR counselors working across the United States and Canada.
- All participants were members of the International Association of Rehabilitation Professionals (IARP), and American Board of Vocational Experts (ABVE).
- 122 Female (53%), 106 Male (47%); Age Range: 24-81.
- 88.2% Caucasian, 81.6% Masters Degree or Higher (PhD's, post-masters certificates).

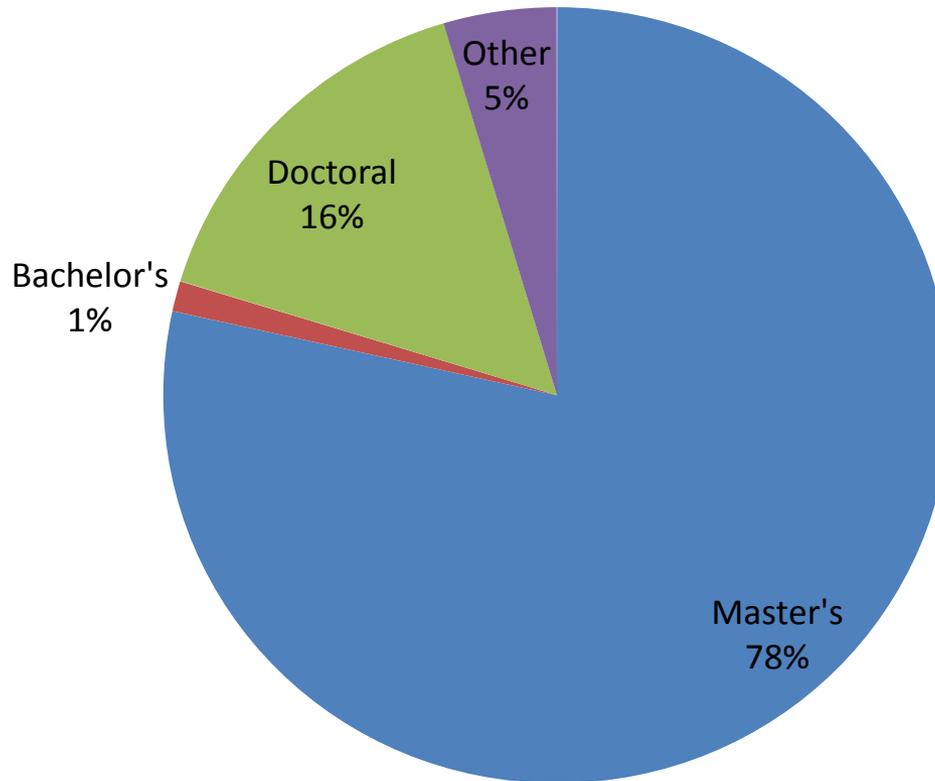




Ethnicity

- Caucasian
- African American/Black
- Hispanic/Latino
- American Indian
- Asian Indian
- Arab/Middle Eastern
- Asian American
- Multiracial
- Other

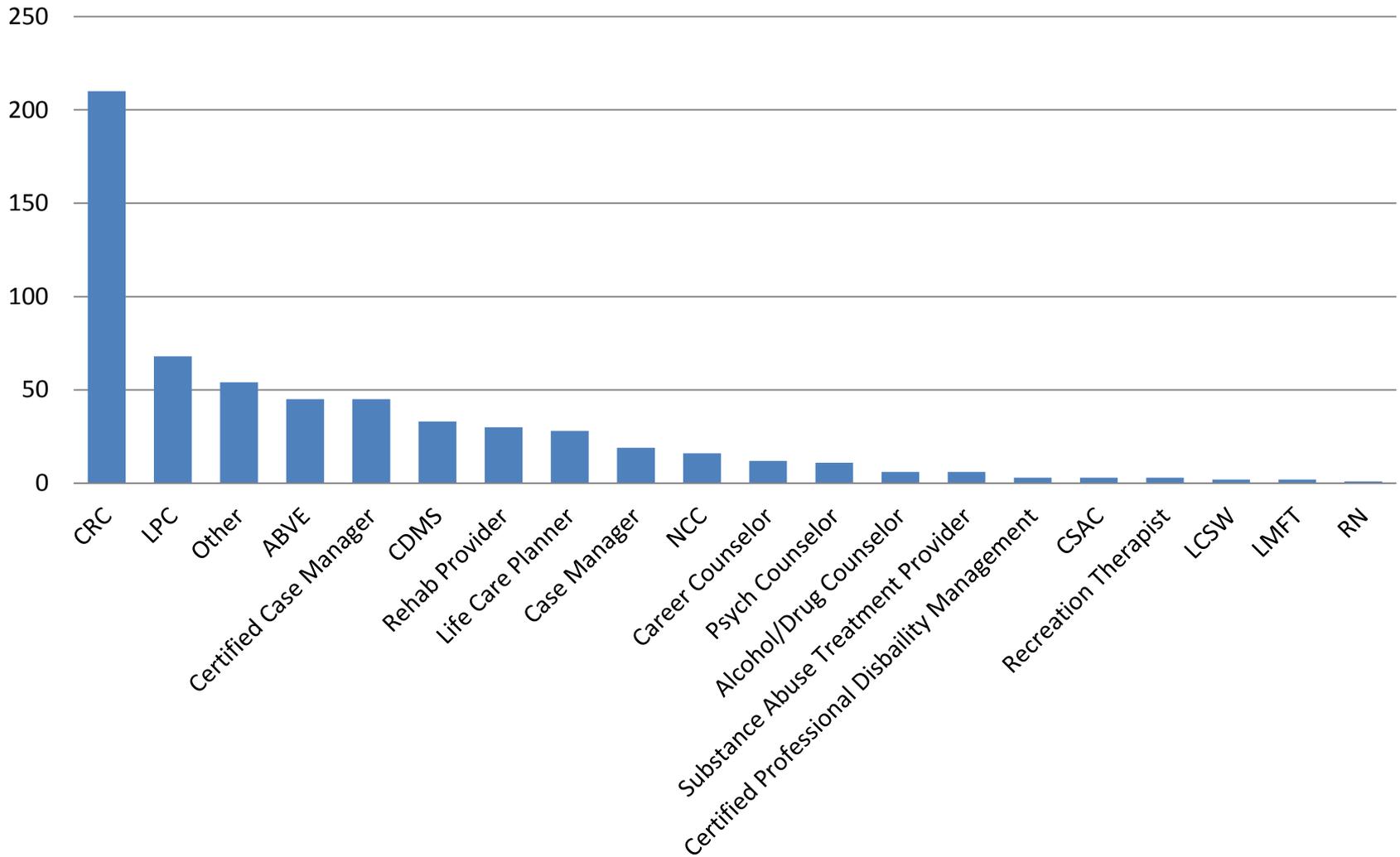
Education



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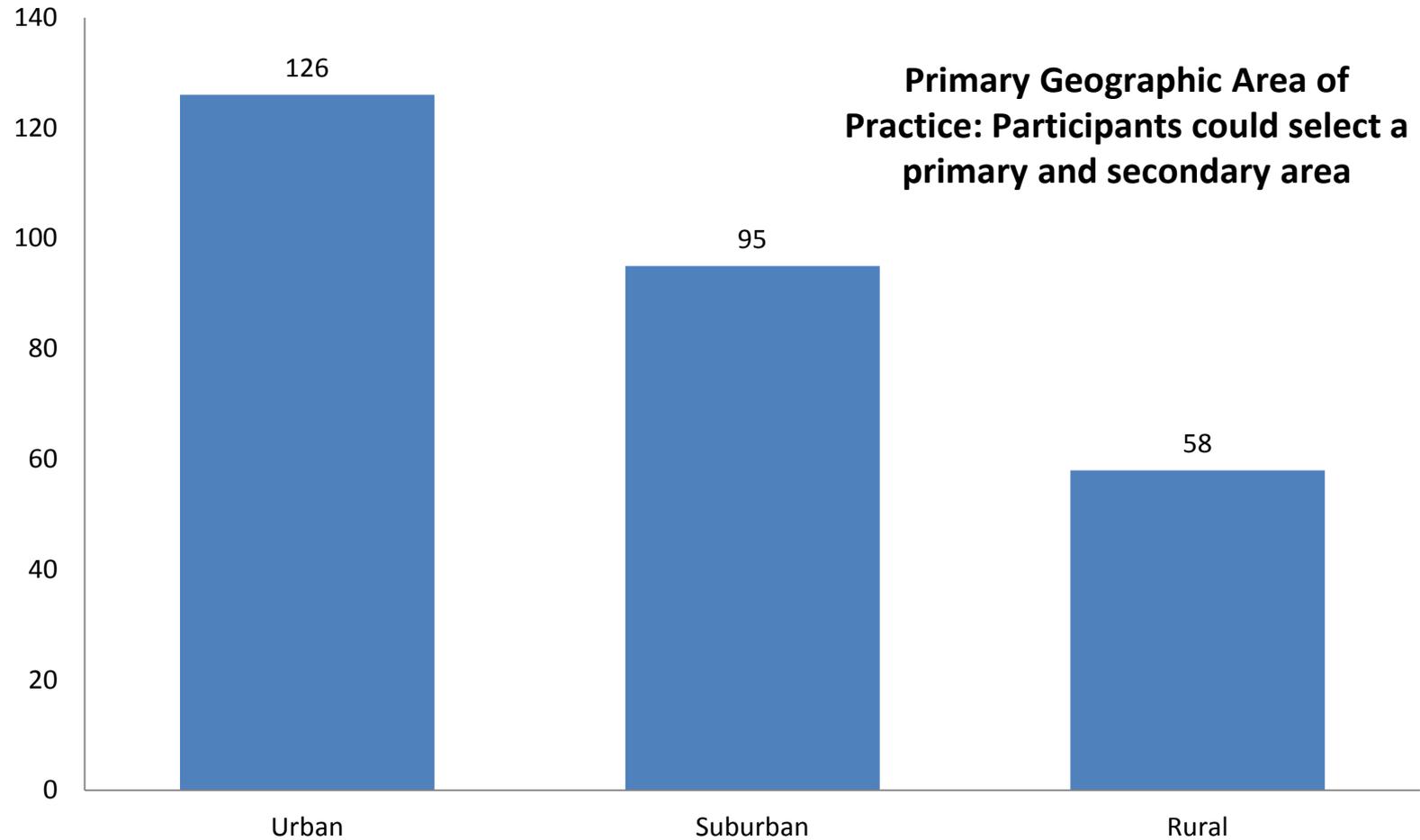
Certification/Licensure



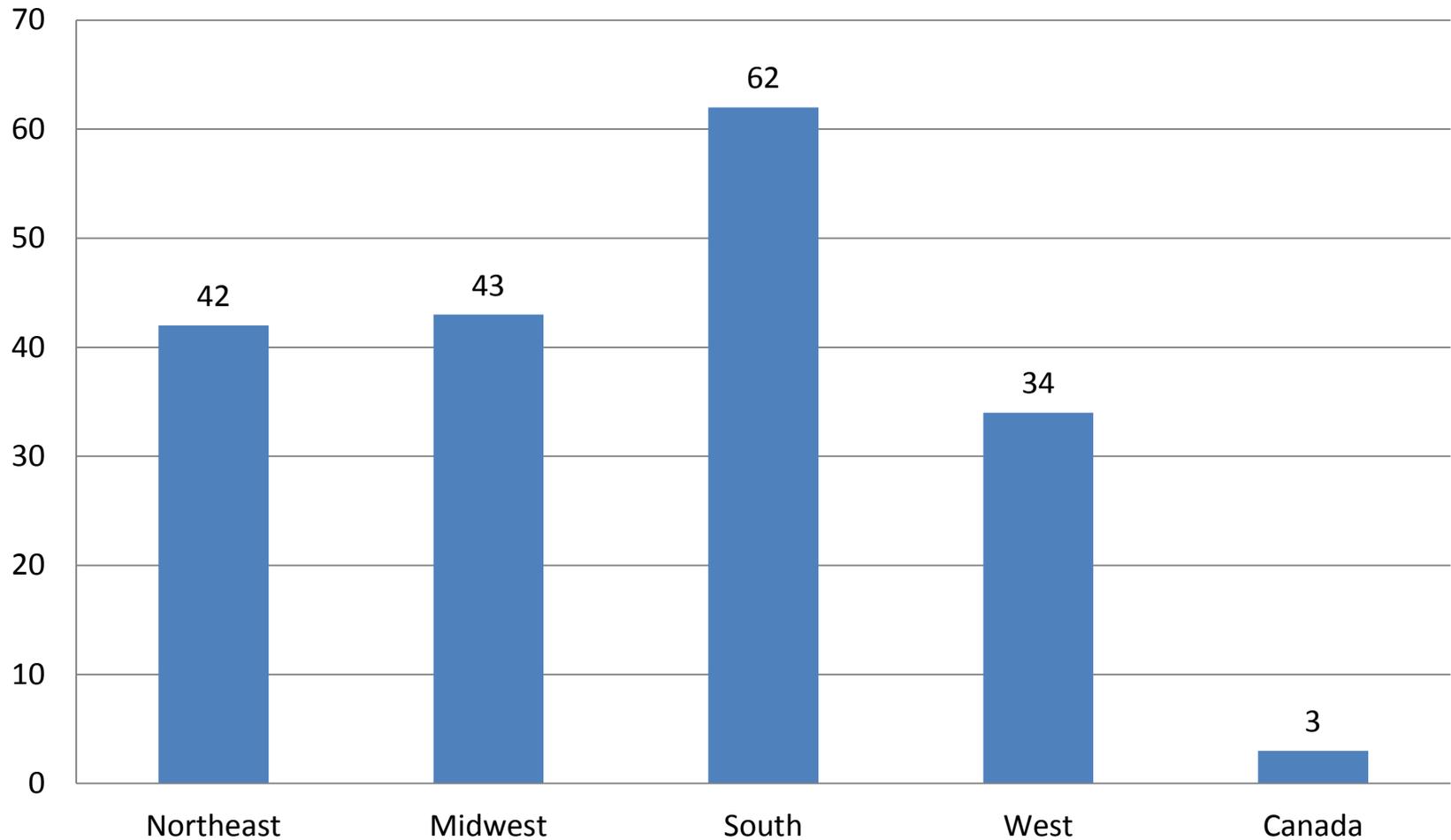
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Primary Geographic Area of Practice: Participants could select a primary and secondary area



Region by US Census



Measure

- Data was collected via Survey Gizmo a commercial survey distribution website where no information that could identify the participants was obtained.
- Consisted on 8 demographic questions
- 53 items on 5 point Likert scale on which instruments are used (never, rarely, sometimes, often, always).

3 Open-ended questions

- “Please describe any ethical concerns related to the use of psychometric instruments in vocational assessment.”
- “How do you incorporate your clinical judgment when using psychometric instruments in your vocational assessment?”
- “Please list any instruments that you use but were not mentioned in this survey.”

Results

- Descriptive statistics:
 - Average Assessment use for overall sample was low at .66 (between “never” and sometimes”) but use increased with level of education.

Assessment Subgroup	M	s
Ability Measures	.62	.48
Personality Measures	.79	.64
Interest Measures	.99	.64
Intelligence Measures	.65	.66
Body System Function Measures	.37	.48
Overall	.66	.44

Highest reported instruments

- Wide Range Achievement Test 4 (M=2.07)
- Self Directed Search (M=1.61)
- Career Ability Placement Survey (M=1.54)
- COPS Interest Inventory (M=1.46)
- O*Net Ability Profiler (M=1.30)
- Myers Briggs Type Inventory (M=1.29)
- Career Assessment Inventory (M=1.21)

Quantitative Methodology

- Use of SPSS v 19.0 for analysis
- Categorical demographic variables dummy coded for regression analyses.
- Linear regression analyses for overall assessment use & for each of the 5 subgroups (Ability, Personality, Interests, Intelligence, Body System Functions).

- Significant effect for education on overall assessment use $F(1) = 8.82, p = .003, R^2 = .039$
 - Higher level of education predicted increased use of psychometric instruments. This makes sense since certain instruments require advanced training and access is becoming more restricted by publishers (e.g., PAR).
- No other demographic variables significantly predicted overall assessment use.

- Personality measures

- Significant effects for education, $F(1) = 10.69$, $p = .001$, $R^2 = .047$.

- Significant effects for clinical experience, $F(1) = 9.52$, $p = .002$, $R^2 = .043$.

- With increased years of practice, use of personality measures decreased. This is very interesting. Does anyone have an idea why this would occur? Future article on use of personality instruments (or lack of utility) for vocational assessment?

- Interest Measures

- Significant effect for experience, $F(1) = 3.88$, $p = .05$, $R^2 = .018$ such that increased clinical experience led to a decrease in interest measure utilization.

- However, this significance decreased in presence of other demographics, $F(7) = 1.32$, $p = .096$, $R^2 = .043$

- Intelligence Measures

- No demographic variables statistically significantly predicted use of this type of instrument.

- Body System Function Measures
 - Significant effect for education, $F(1) = 7.07$, $p = .008$, $R^2 = .032$. This is a very high level of statistical significance.
- Ability measures
 - Significant effect for education, $F(1) = 5.62$, $p = .02$, $R^2 = .025$. Again, this finding indicates a level of statistical significance.

Qualitative Methodology

- The qualitative coding process was completed in multiple steps with independent coders and review by interpretive community. Cohen's Kappa levels were calculated for inter-rater agreements and were all above .85.
- All qualitative data was entered into a software package called Atlas.ti for qualitative analyses.

- Research Question #1: How have psychometric instruments assisted the rehabilitation counselor in vocational assessment?
 - Most frequent qualitative themes reported:
 - No additional assessments (17%)
 - Informal testing (9%)
 - No other test reported with a significant frequency of use greater than 10% of the participants using the instrument. The next slide will review the instruments that were mentioned (4% to 7% of the time by participants).

Other psychometric assessment instruments reported with a frequency count greater than or equal to five participants

Test	Freq.	%
Beck Depression Inventory	9	7.38%
Kaufman Brief Intelligence Test	8	6.56%
CareerScope	7	5.74%
Adult Basic Learning Exam	7	5.74%
Beck Anxiety Inventory	6	4.92%
Endorsement	5	4.10%
Test of Nonverbal Intelligence	5	4.10%

- Research Question #2: What are the ethical concerns related to utilization of psychometric assessments in vocational assessment?
 - Most frequent themes reported:
 - Administrator qualifications (22%)
 - No ethical concerns (21%)
 - Cultural bias (15%)
 - Lack of attention to individual needs (14%)

- Research Question #3: How have psychometric instruments influenced clinical judgment of rehabilitation counselors?
 - Most frequent themes reported:
 - Synthesis of results (18%)
 - Knowledge of assessments (14%)
 - Observation during testing (14%)
 - Handling discrepancies in information (10%)
 - Best utilization of results (10%)
 - Accommodating individual client needs (10%)

Discussion

- Average overall assessment use is low in this sample (N=228).
 - Wide variation among specific measures may suggest that participants tend to stick with the assessments with which they are most familiar.
 - Interesting to consider low assessment use in the context of rehabilitation counselor professional identity?
 - Are market forces (e.g., insurance coverage, costs) influencing the use of testing for vocational assessment?
 - For example, a study I just recently completed examined Ohio's Outcome Based Fee Schedule and its effect on VR practitioners.

- Higher educational levels led to increased utilization of psychometric instruments for rehabilitation counselors.
- This makes sense since publishers are making it more difficult to obtain certain testing instruments.
 - Also speaks to a key ethical concern regarding administrator qualifications (e.g., CORE/CACREP)
- Increased years of clinical experience led to decreased in personality and interest assessment. This is very interesting. Why do you think this occurs? Your clinical experience?
 - Perhaps this represents increased confidence in intuition or clinical judgment or are personality tests poor predictors for Vocational Rehabilitation Outcomes? What is your opinion?

- Demographics were not linked to Intelligence measure utilization. In most vocational assessments or examinations IQ testing is a very important component of an evaluation.
 - I believe that intelligence testing is such a core feature of rehabilitation counseling evaluation. Perhaps the lack of clinicians who test for IQ's receive such results from external sources (e.g., neuropsychological evaluations) and do not have to complete this psychometric testing in their office or testing site? What do you think?

- Most frequent ethical concern expressed was qualifications of the administrator:
 - 78% of participants reported master's degree as highest education and accredited programs (CORE/CACREP) mandate limited training in assessment (currently only 1 class). Is this enough to be proficient in testing?
 - What is the role of continued education efforts?
 - How many people completed a tests & measurements class as part of their MA program?
- High frequency of “no ethical concerns” reported. This is interesting. I wonder why?
 - Perhaps due to participant fatigue as it was the last open-ended question on the survey?

Limitations

- The first limitation of the current study relates to the research sample and the study's external validity. Although the sample size of this study ($N=228$) was appropriate for the statistical analyses completed, a larger sample would increase the generalizability of the findings (RC's from ABVE & IARP only).
- A second potential limitation related to the sample is self-selection bias. The rehabilitation counseling professionals who did not respond to the survey may have different opinions as compared to those reported in the present sample of IARP & ABVE members.
- The final limitation is the lack of generalizability inherent in the nature of qualitative research.

Questions?

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Thank you!

- Thank you very much for your time today!
- If you have any questions please contact the Principal Investigator of this study, Dr. Scott Beveridge at George Washington University.
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- (202) 994-2473 is my on campus number at GWU.