

# State Differences in Knowledge and Application of Evidence-Based Practice by Vocational Rehabilitation Agency Staff

April 2014

The Knowledge Translation for Employment Research (KTER) Center at SEDL ([www.kter.org](http://www.kter.org)), and its partner, Virginia Commonwealth University ([www.worksupport.com](http://www.worksupport.com)), conducted an online survey of staff in state vocational rehabilitation (VR) agencies regarding their knowledge and use of evidence-based practice (EBP). Initial findings from the survey were reported in KTER Technical Brief #3, which can be found online at [www.kter.org/ktactivities/dissemination#tb](http://www.kter.org/ktactivities/dissemination#tb). This technical brief reports our findings, increasing the sample size from 355 VR Staff to 535, including three additional states in the analysis, reporting state differences concerning the use of research, and discussing EBP in employment services for individuals with disabilities.

## Sample

The sample for this analysis consisted of 535 VR staff in six states representing the Mid-Atlantic, South, Southwest, and West (see Table 1). Because of missing values and “Does not apply” responses, not all observations were used for all analyses. The majority of participants were VR counselors (51%,  $n = 273$ ) or senior VR counselors (24.9%,  $n = 133$ ). Unit and area supervisors were 8.8% ( $n = 47$ ) of the sample. Other VR personnel represented in the sample identified themselves as VR technicians, unit supervisors, area supervisors, area directors, program administration staff, VR consultants, VR evaluators, VR specialists, support staff, and consumer case coordinators. The majority of the participants had a Master’s degree (86.7%,  $n = 464$ ) or Bachelor’s degree (8.4%,  $n = 45$ ). Other respondents’ educational levels ranged from doctorates and professional degrees (2.2%,  $n = 12$ ) to some college (1.3%,  $n = 7$ ), and high school diplomas (0.2%,  $n = 1$ ). Gender composition was 67.9% female, 27.7% male, and 4.5% preferred not to say. The mean length of time as a VR employee was 12.62 years (median = 10; mode = 5), with a large standard deviation of 10.05 and range from 0.25 to 45.25 years. Almost 30% (29.5%;  $n = 158$ ) had been at the agency less than 5 years.

**TABLE 1: SAMPLE DISTRIBUTION**

State Region	<i>n</i>	%
Southwest	212	39.6%
Mid-Atlantic 1	103	19.3%
South 2	100	18.7%
West	72	13.5%
South 1	40	7.5%
Mid-Atlantic 2	8	1.5%
TOTAL	535	

(Rounded to one decimal point)

## Understanding Evidence-Based Practice (EBP)

Participants were requested to provide a definition of EBP. VCU staff coded these definitions into categories (see Table 2). The majority of the participants defined EBP in ways that were categorized using the labels “Research-based” (41.7%), “Documented Evidence” (19.8%), “Proven Effective” (16.4%) and “Practice or Experience,” (6.5%). Most definitions categorized as “research-based” had to do with systematic data collection, testing hypotheses, and/or statistics; a few also defined EBP in terms of randomized

**TABLE 2: DEFINING EBP**

Categories	<i>n</i>	%
Research-based	223	41.7%
Documented Evidence	106	19.8%
Proven Effective	88	16.4%
Practice or Experience	35	6.5%
Don't Know	13	2.4%
Other	45	8.4%
Missing	25	4.7%

controlled trials, experimental design, or double-blind trials. Responses labeled “documented evidence” indicated that data had been collected from some source and there was evidence available to support conclusions, but no indication that the EBP was systematic or research-oriented. “Proven effective” consisted of responses where the participant perceived a practice as being used effectively. Similar to “documented evidence,” there was not an indication of a systematic process or any research used to support the perception that the practice was effective. A few respondents based their idea of “evidence” on their own “practice or experience.”

The “Other” category consisted of 45 responses in small *n* categories that ranged from decision-based, situational, standards and guidelines, “research – it is useless,” “Yes, Take me to the survey,” and other single response categories. All of the responses from Mid-Atlantic 2 fell into the “Other” category. One respondent defined EBP as situational while the other seven respondents responded in the same manner, “Yes, Take me to the survey.” Only one of these respondents entered a response in the comment section of the survey. The quantitative survey responses varied within and between respondents. Table 3 below provides the breakdown of EBP meaning by state.

TABLE 3: DEFINITION OF EBP BY STATE						
	Mid-Atlantic 1	Mid-Atlantic 2	South 1	South 2	Southwest	West
Research-based	52.4%	0	47.5%	33.0%	42.0%	38.9%
Documented Evidence	12.6%	0	20.0%	25.0%	20.8%	22.2%
Proven Effective	18.4%	0	10.0%	19.0%	14.6%	20.8%
Practice or Experience	4.9%	0	12.5%	4.0%	9.4%	1.4%
Don't Know	3.9%	0	0.0%	2.0%	2.8%	1.4%
Other	3.9%	100%	7.5%	10.0%	4.7%	13.9%
Missing	3.9%	0	2.5%	7.0%	5.7%	1.4%
TOTAL	100%	100%	100%	100%	100%	100%

## Is Research Valued by VR Professionals?

Over the entire sample of VR professionals, 82.6% (*n* = 442) of all VR professionals valued research. VR Supervisors, Senior (SR) VR Counselors, and VR Counselors were examined separately from other VR professionals. Below is the percentage that agreed that research is valued, by group:

- 91.5% of VR Supervisors valued research
- 78.8% of SR VR Counselors valued research
- 83.5% of VR Counselors valued research

The groups were compared on the degree of agreement that they value research. VR Supervisors (*M* = 4.17, *SD* = 0.637) agreed more than VR Counselors (*M* = 3.82, *SD* = 0.806) that they valued research (*p* < 0.05). No differences were found between SR VR Counselors (*M* = 3.88, *SD* = 0.830) and VR Supervisors or VR Counselors. Further, VR professionals in the Western and the two Southern states valued research more than VR professionals in the other four states (*p* < 0.05). See Table 4 on the following page.

<b>TABLE 4: DEFINITIONS GIVEN BY SUPERVISORS, VR COUNSELORS &amp; SR VR COUNSELORS</b>			
	<b>Supervisor</b>	<b>VR Counselor</b>	<b>SR VR Counselor</b>
Research-based	36.2%	44.0%	42.1%
Documented Evidence	31.9%	19.8%	18.0%
Proven Effective	17.0%	15.4%	18.0%
Practice or Experience	4.3%	6.6%	7.5%
Don't Know	0.0%	1.8%	3.0%
Other	9.0%	7.3%	7.6%
Missing	2.1%	5.1%	3.8%
<b>TOTAL</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>

### **Do State Agencies Value EBP?**

Over the entire sample of VR professionals, 52.7% of VR respondents reported that their agencies valued EBP. Further, the Mid-Atlantic 2 and West VR agencies valued EBP more than the other state agencies ( $p < 0.05$ ). More VR Supervisors (76.6%) reported that their agency valued research than SR VR Counselors (47.7%) and VR Counselors (51.5%) ( $p < 0.05$ ).

### **Do VR Professionals Use EBP in Practice?**

Thirty-nine percent of the respondents over the entire sample of VR professionals indicated that they consistently use research to guide development of Individualized Plans for Employment (IPEs). The VR professionals from the Mid-Atlantic 2 and West states reported that they consistently used research to guide IPEs more than the other states. VR Supervisors, SR VR Counselors, and VR Counselors were examined separately in the following findings.

For those in which the question applied, there were no differences among VR Supervisors (55.0%), SR VR Counselors (39.8%), and VR Counselors (41.8%) in the reporting of consistent use of research in guiding the development of IPEs ( $p > 0.05$ ). VR and SR VR Counselors in the Western state consistently used research to guide IPEs more than the Mid-Atlantic 1 and the two Southern states.

Two separate multiple regression models were run: one for VR Counselors and another for SR VR Counselors. Although the regression models were not compared, the factors in each regression model were different. In other words, the regression models indicated that the factors that influenced VR Counselors' consistent use of research to guide the development of IPEs were different than the factors that were in the regression model and influenced SR VR Counselors' consistent use of research in developing IPEs.

From these analyses, we found that VR Counselors report they are more likely to use research consistently to guide IPEs when they:

- (a) are skilled in using research in their jobs,
- (b) report that implementation of EBP is clearly described in academic articles,
- (c) know how to put into practice the latest research, and
- (d) see value in EBP.

Another finding was that SR VR Counselors who are skilled at using research in their job and report that VR research is relevant to the consumers that they serve are more likely to use research consistently to guide IPEs.

## Discussion

This research brief provides additional analysis of the online survey for staff in state VR agencies regarding their knowledge and use of evidence-based practices. Limitations of the study include that the sample was a convenience sample at the state level and self-selected in that individual agency staff could choose to complete the survey or not. Nonetheless, this analysis provides additional information into the use of EBPs, including how VR staff define them.

With the addition of three states to the sample, data analysis revealed that knowledge, value, and use of EBP vary by state. Further research should examine state level factors that may contribute to this variance. For instance, does this variance correlate with efforts by the state agency to emphasize the use of EBP by its staff?

Previous findings from the data analysis from three states revealed that 48.2% of the participants reported that their agencies valued EBP. The findings from this analysis show that 52.7% of VR professionals report that their agencies valued EBP. The Mid-Atlantic 2 and West VR agencies valued EBP more than the other state agencies. More VR Supervisors reported that their agency valued research than VR Counselors. This finding potentially reflects on the degree of in-service training and information dissemination efforts by VR manager and supervisors with counseling staff in communicating the value of utilizing EBPs.

In the previous analysis, 40.3% of the participants reported consistently using research to guide the development of Individualized Plans for Employment (IPEs). The increase in the sample size for this analysis did not impact this finding, with 39% of the respondents in the expanded sample saying that they used EBP to develop IPEs. VR Counselors who report (1) that they are skilled in using research in their job, (2) that implementation of EBP is clearly described in academic articles, (3) know how to put into practice the latest research, and (4) see value in EBP, are more likely to use research consistently to guide IPEs. In addition, Senior VR Counselors who are skilled at using research in their jobs and report that VR research is relevant to the consumers they serve are more likely to use research consistently to guide IPEs.

In general, VR staff report that they value research. Previous findings indicated that the majority of the respondents (84.2%) reported that they value research for practice. Current findings showed a slight decrease, 82.6% ( $n = 442$ ), over the entire sample of 535 VR professionals. While VR staff as a group value research and are open to trying new strategies based on research findings, translating the research into usable information presents a challenge as well as an opportunity.

The Dartmouth Individual Placement and Support (IPS) Supported Employment Center reports on the systematic application of the IPS model of supported employment, an EBP, in a number of states in the U.S. and the positive outcomes being achieved in these states with employment outcomes for people with severe mental illness. This “research to practice” application of an EBP demonstrates that systematic efforts at the state, community, and practitioner level can substantially improve employment outcomes for individuals with disabilities. A potential implication for knowledge translation efforts with EBP is the importance of disseminating information on the actual application within the VR system to VR practitioners and the importance of communicating clearly to practitioners the value placed on EBP by VR administrators, managers, and senior VR counselors.

**The authors acknowledge and appreciate the contribution to this work made by Dr. Carole A. Estabrooks through permission to access the Alberta Context Tool.**

**About the KTER Center:** The Center on Knowledge Translation for Employment Research (KTER Center) aims to identify the best available evidence related to the employment of Americans with disabilities and investigate why and how individuals use (or do not use) research evidence. The KTER Center contributes to a better understanding of how research evidence can most effectively be translated into new or improved policies, employment opportunities, and support systems. [Learn more about the KTER Center: www.kter.org](http://www.kter.org)

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This is a product developed by the Center on Knowledge Translation for Employment Research through grant #H133A100026 to SEDL from the National Institute on Disability and Rehabilitation Research (NIDRR) in the U.S. Department of Education's Office of Special Education and Rehabilitative Services. However, these contents do not necessarily represent the policy of the U.S. Department of Education, and you should not assume endorsement by the Federal Government.

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