KTER Center Technical Brief -- #3 Knowledge and Application of Evidence-Based Practice by State Vocational Rehabilitation Agency Staff

What do state vocational rehabilitation (VR) counselors and other professional staff know about evidence-based practice (EBP) in VR, and how do they use such information in their jobs? The Knowledge Translation for Employment Research (KTER) Center at SEDL (www.kter.org), and its partner, Virginia Commonwealth University (www.worksupport.com), conducted an online survey of staff in state VR agencies regarding their knowledge and use of evidence-based practice. This technical brief presents VCU's initial data analysis of findings as part of the KTER Center's research agenda focusing on the translation of research findings related to employment services for individuals with disabilities. The interim results presented are based on results from three states. Additional states are providing data that may alter the results presented here.

Sample

The sample consisted of 355 VR staff in three states representing the Southwest, South, and Mid-Atlantic regions. Forty (11.3%) observations were obtained from the South state, 212 (59.7%) were obtained from the Southwestern state, and 103 (29.0%) from the Mid-Atlantic state. Because of missing values and "Does not apply" responses, not all observations were used for all analyses.

The majority of participants (n = 293, 82.5%) were VR counselors (n = 219, 61.7%) or senior VR counselors (n = 74, 20.8%). 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 (87.8%) or Bachelor's degree (7.9%). Other respondents' educational levels ranged from doctorates (1.1%) and professional degrees (0.8%) to some college (2.0%), and high school diplomas (0.3%). Gender composition was 72.1% (n = 256) female, 23.9% (n = 85) male, and 3.9% (n = 14) preferred not to say. The mean length of time as a VR employee was 11.57 years, with a high standard deviation of 9.54 due to the variation in tenure respondents held. About a third (36.6%) were new to the field and had worked in their jobs for 5 years or less, while the experience of a quarter of respondents (26.4%) ranged from 16 to 42 years.

Understanding and Defining EBP

Participants were requested to provide a definition of EBP. VCU staff coded these definitions into categories seen in Table 1. The majority of the participants defined EBP in ways that were categorized using the labels "Research-based" (45.6%), "Documented Evidence" (18.3%), "Proven Effective" (15.2%) and "Practice or Experience" (8.5%). 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 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 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."

Table 1: Defining EBP		
Categories	***n***	**%**
Research-based	162	45.6
Documented Evidence	65	18.3
Proven Effective	54	15.2
Practice or Experience	30	8.5
Don't Know	14	3.9
Other	13	3.7
Missing	17	4.8

Application of EBP

The majority of VR staff (84.2%) reported that they value research for practice and 76.3% indicated they understood how to interpret research literature and apply the information in their job. Further, 68.5% reported understanding how to evaluate research quality, 62.5% indicated they understood research results, 57.5% considered themselves skilled in using research in their job, and 52.9% considered available research as representative of their consumers. Over two-thirds (68.2%)

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of participants reported independently seeking out research literature and over half (53.8%) indicated that they put the latest research into practice. However, 40.5% of VR participants reported academic articles did not clearly describe how to implement EBP.

Most (92.4%) participants were willing to try new ideas based on research, but only 40.3% consistently used research to guide the development of Individualized Plans for Employment (IPEs). The majority (68.5%) of participants reported not having time to read available research. Results did indicate that VR participants who consistently used research to guide IPEs were more likely to try new ideas ($r = .13$, $p = .014$); to seek out research independently ($r = .31$, $p = .000$); to understand how to interpret research ($r = .22$, $p = .000$); to know how to evaluate research ($r = .29$, $p = .000$); to understand research results ($r = .41$, $p = .000$); to be skilled in using research ($r = .47$, $p = .000$); to know how to apply research ($r = .38$, $p = .000$); and believed that academic articles describe how to implement EBP ($r = .37$, $p = .000$).

Agency Encouragement of EBP

A series of items requested participants to rate the degree to which their state VR agency values and encourages use of EBP when serving clients. Responses indicated that EBP was not widely encouraged with 48.2% of participants reporting that their agency valued EBP. Only 38% of the participants indicated that their supervisor expected them to use EBP in service delivery, and 36.1% in making planning decisions. Specifically, 38.6% of VR counselors, 23% of senior VR counselors, 33.3% of unit supervisors, and 71.2% of area supervisors reported that their supervisors expected them to use research in program planning. When asked whether EBP was discussed in meetings, 46.2% of participants reported that their offices were open to discussing EBP in meetings, 44.8% said there were opportunities in their unit/office to discuss EBP, 39.7% reported that there were in-service opportunities in their unit/office to discuss the latest EBP, and 43.9% reported that their agency allows them time to find and read the latest EBP information.

One factor that may be related to the low response in the use of EBP is that only 46.8% of participants reported that their agency had sufficient resources to implement EBP. Further analysis indicated a positive relationship between the agency having sufficient funds and the following items:

- Being open to EBP ($r = .27$, $p = .001$),
- Agency allowing time to read EBP literature ($r = .35$, $p = .001$),
- Agency providing technology to access EBP information ($r = .38$, $p = .001$),
- Agency values EBP ($r = .40$, $p = .001$),
- Supervisor expects participant to use EBP ($r = .33$, $p = .001$),
- Supervisor encourages participant to keep up with EBP literature ($r = .45$, $p = .001$), and
- Supervisor expects participant to use EBP in program planning ($r = .48$, $p = .001$).

One-way ANOVA found no significant differences among the states on encouragement of EBP, $F(2, 350) = 0.439$. $p = 0.645$. However, both senior VR counselors ($p = 0.0049$) and VR supervisors ($p = 0.0041$) tended to feel more strongly that the agency facilitates EBP than did VR counselors.

Sources of Job-Related Information

Interaction .... When asked whether "the following interactions offer information that you can use to do your job better," participants reported that collaborating with other professionals (95.5%), meeting with consumers (91.3%), informal conversations at their offices (87%), consumers' families (84.6%), attending formal agency-wide meetings (83.1%), attending unit/office meetings (80.3%), and one-on-one meetings with their supervisor (77.1%) were helpful.

Training .... When asked which "training activities" provided helpful information for their work, VR respondents indicated face-to-face training/workshops located outside the agency (92.7%), in-service training/workshops within the office or agency

(90.7%), training conferences (85.1%), university training education (84.9%), university course work (78.5%), online training courses (73.5%), and training webinars (70.4%) offered usable information.

Resources .... Respondents reported a variety of resources offered job-related information, including internet search sources (95.8%), job websites for opportunities for consumers (90.7%), online policies and procedures manuals (85.4%), electronic case management systems (79%), academic journals (76.9%), clinical practice guidelines (76.4%), print polices and manuals (75.8%), textbooks (75.7%), government databases (75.2%), computerized assessment resources (74.2%), and library resources (62.3%). VR participants accessed online (58.9%) and print (58.3%) trade association publications, online discussion boards (56.1%), and bulletin board resources (50.7%). Resources that few VR participants found to be job-related were social media such as YouTube (27.4%), Facebook (23%), LinkedIn (23%), and Twitter (12.8%).

Professional Networking .... VR counselors and senior VR counselors agreed that the following types of people and entities provided professionally-related support: the VR state agency (94.2%), information from unit/office (92.8%), third-party community partners (82.1%), job placement specialists within the community (81%), job placement specialist within VR agency (75%), researchers (73.3%), counselors in other state VR agencies (70%), Rehabilitation Services Administration (63.4%), and Social Security Administration employees (52.2%).

Significant Differences .... Two gender differences were found related to use of informational resources. First, female VR staff tended to agree more that online resources offered useful information than did male VR staff ($p = 0.0031$). Female VR staff also feel more strongly that they gain information from interactions with consumers and their families than do male VR staff ($p < 0.0001$).

Between State Differences

A Kruskal-Wallis test was used to determine if any of the survey variables were different between the three different sites. A Pearson's Chi-Square test was used to find if there was any relationship between states and any categorical variables. Only the survey variables that were found to be different between the sites are summarized. Additionally, two other variables were created by summing the scores of the individual survey variables to create measures that are reflective of the resources and training that are available at each site.

Overall, 10 differences ($p < 0.05$) were found between the sites, with 3 others suggestive (p between 0.05 and 0.06) of a difference. Differences were not found between any of the sites for the resource and training variables.

Mid-Atlantic State:
- Respondents were found to have **more** experience in the VR field than those from the Southern state ($p < 0.001$);
- **More** respondents reported that job specialists in the community and within the VR agency offered job-related information than in the other two states ($p < .05$);
- Vendors were reported to support the agency's use of EPB **more** than in the other two states ($p = .001$)
- Research in VR is **more** likely to be done with populations similar to the consumers that are served than in the Southwest state (suggestive at $p = .057$).

Southwest State:
- Online courses were **less** often reported to offer job-related information than in the other two states ($p = 0.22$);
- **More** respondents had advanced degrees (Masters or above) than the Mid-Atlantic state ($p = 0.27$);
- Supervisors were **more** encouraging of employees to participate in training than in the Mid-Atlantic state ($p = .047$); and
- Electronic case management systems were **more** often reported to offer job-related information than in the Southern state (suggestive at $p = 0.54$).

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Southern State:	● Respondents were **more** likely to find job-related information in academic journals than the other two states ($p = 0.45$);
	● Respondents valued research about evidence-based practice **less** than the other two states ($p = .015$);
	● Respondents had **less** expectation to use research evidence in program planning decisions ($p = .007$); and
	● Face-to-face training and workshops outside of VR were **less** often reported to offer job-related information than in the other two states (suggestive at $p = 0.51$).

Conclusions

Like all studies, this research has some limitations. First, the sample was self-selected in that VR agency staff chose to either complete or not complete the survey resulting in relatively low response rates. Only 40 surveys were returned from the Southern state. The response rate from the Southwestern state was 16.3% and from the Mid-Atlantic state was 20.6%. Secondly, the sample only included three state VR agencies. Caution is encouraged in making assumptions about EBP in other state VR agencies. Nonetheless, the study yielded findings that can guide the KTER Center as it pursues its research agenda. The majority of respondents understood the fundamentals of what constitutes "evidence" in EBP. The three most commonly cited definition components, i.e., "research-based," "documented evidence," and "proven effective," were used by over 87% of respondents. Moreover, over half indicated comfort in being able to locate, read, and comprehend research findings.

However, far fewer respondents indicated that they actually used research findings and EBP in performance of their duties with clients, such as developing IPEs. In addition, many reported that they had too little time available to search and review the research on VR practices and found that academic research was difficult to translate into effective practices. Thus, the primary modes for obtaining job-related information were non-academic and informal, such as workshops, in-service training, online web courses and webinars, and communications with other professionals, consumers, family members, and others.

The majority of respondents consistently indicated that their state VR agency as a service entity did not value EBP, nor were there institutional expectations (and presumably no policy directives) that EBP would be utilized in service delivery. VR agencies were generally portrayed as passive regarding EBP, rather than actively encouraging, monitoring, and enforcing the use of EBP with their program clients. Funding and resource availability appear to be critical in driving agency values, expectations, and practices related to EBP. Interestingly, senior VR counselors and supervisors were more likely to report that the agency facilitated EBP than did VR counselors, suggesting possible disconnection or miscommunication across staff levels.

VR counselors have large client caseloads in most, if not all, state VR systems. They have little time for activities outside of direct client contact, such as seeking out and reviewing research on VR practices. The findings from this study also indicate that state VR agencies tend not to expect that counselors will review and use EBP in their duties, and have limited incentives for them to do so. 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, accessible products, and efficient delivery strategies (and promoting use of EBP at the state policy level as well) will present major challenges.

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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**

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