

Daubert/Frye-Reed Study

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Providing expert witness testimony and experiencing a courtroom challenge, such as a Daubert or Frye challenge, can make or break a professional counselor's career. This study aimed to look at demographic variables of the 124 practicing respondents in the counseling field and the likelihood of experiencing a challenge in court, as well as how stressful that experience was for those who indicated experiencing one or more during their career (n=73). This study also asked participants to share how this challenge arose, and how experiencing a challenge has changed their current work, including how they conduct evaluations. Based on the results of this current study, demographic information does impact the amount of stress experienced during a challenge providing testimony. Responses to the open-ended survey questions yielded the following themes: opposing counsel or questions about methodology bringing about the challenge, expecting another challenge in the future, using awareness and caution when writing reports submitted to the court, and utilizing consistency, standardization, and empirical support when conducting evaluations on clients and writing reports. The implications yielded by this study can act as a guide for best practice to practitioners who may find themselves providing expert testimony pertaining to their clients that could cause damage to the case or professional reputation.

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The use of rehabilitation counselors to provide expert testimony emerged in the mid 1980s and continues to expand quite significantly (Janikowski & Riggart, 1999). Presently, rehabilitation counselors working as vocational experts have become integral contributors and a primary source for expert information on earnings capacity in the courtroom (Johnston, 2005). Vocational experts were originally retained by the Social Security Administration (SSA), and have since extended into other areas such as disability determination (Johnston, 2003; Van de Bittner, 2003), personal injury cases (Dillman, 1998), medical malpractice, marital dissolution, and employment discrimination (Heitzman, 2000; Johnston & Growick, 2003). Thus, the expertise of rehabilitation counselors in a forensic capacity has become essential in a variety of public and private sectors to provide opinions on how disability effects an individual's earning capacity.

Expert witnesses are admitted to testify within a particular field based on their specialized knowledge, training, and experience. According to the CRCC Code of Ethics (2017), forensic vocational assessment professionals have an obligation to present to the Court with accurate information regarding the boundaries of their competence, the bases for their qualification as an expert, and the relevance to the specific matters at issue. Therefore, the witness should not claim to possess expertise greater than that demonstrated by their professional achievements, skill, education, clinical experience, and credentials nor should they give opinions outside those based on facts or data in the case that they have been made aware of or personally observed.

Unfortunately, the type of training regarding ethics for the role of expert witness is rarely discussed in most rehabilitation counseling programs (Reid & McReynolds, 2007). As many rehabilitation counselors may be called upon to provide expertise on how to define, evaluate, and opine particular cases that deal with vocational evaluation and rehabilitation (both voluntarily as an expert witness and also involuntarily via subpoena) it is essential for practitioners to develop a level of competency within the legal system and professional ethics and standards. This includes an understanding of the legal and professional requirements for expert testimony as well as an understanding that rehabilitation counselors may not opine on issues for which there is no scientific foundation (Ackerman & Gould, 2015). Forensic guidelines for providing testimony in legal matters states “that professional conduct is considered forensic from the time the practitioner reasonably expects to, agrees to, or is legally mandated to provide expertise on an explicitly psycholegal issue” (American Psychological Association, 2013). For rehabilitation counselors, guidelines surrounding forensics are found in the CRC Code of Ethics Section F: Forensic Services (CRCC, 2017), as familiarity with and adherence to Forensic Guidelines is essential in establishing professional competency before the court.

Given the nature of rehabilitation counseling involving a subjective component clinical judgments and assessments are never truly actuarial. To account for higher rates of vulnerability in court testimony, clinicians must base professional experiences and scholarly rationale on peer-reviewed research methodology and evidence-based practices (EBP). For court purposes, research is needed to quantify and/or qualify reliable clinical experiences that span assessment, intervention, consultation, supervision, and training (Woody, 2016), as the credibility of rehabilitation counselors is regularly examined during court. Additionally, a rehabilitation counselor’s credibility in a forensic environment is subjected to considerable scrutiny and there is a potential for malpractice claims, the counselor should consider reviewing previous court rulings to provide insight into ethical issues related to expert testimony in the field. For example, in *Fairchild v. United States* (1991), the court awarded a sum of \$150,000 instead of the \$1.74 million requested because the rehabilitation plan was not prepared by someone considered to be an “expert”. The rehabilitation counselor reportedly did not have the training or experience required to provide an “expert opinion”. It is not sufficient for only the methods and techniques to be reliable. The expert also needs to be qualified through training, education, and experience to be a competent representative of the techniques, methods, and theory (Weed, 2000), implicating the need for rehabilitation professionals to be prepared to demonstrate their qualifications to testify in court.

In the case of *Janczak v. Tulsa Winch, Inc.* (2016), the defendant argued that the vocational rehabilitation counselor’s testimony should be excluded because it “did not satisfy the reliability and relevance standards” and filed a Daubert motion. While the plaintiff asserted that the proposed expert satisfied the dictates of Daubert, it was ordered that the defendant’s Daubert motion was granted. Furthermore, in the case of *Elliott v. United States* (1992), the expert’s opinion was disregarded because they had only been a rehabilitation consultant for a short time, had only completed five rehabilitation plans, and had never implemented a plan for an individual with a disability. In additional rehabilitation counseling case examples, “expert” testimony was disregarded due to failure to appropriately evaluate the client. In *Elcock v. Kmart Corporation* (2000), the vocational rehabilitation expert opined that the plaintiff was 50-60% vocationally disabled. When the expert methodology was judged the technique was found lacking in reliability and it would have been impossible to repeat the subjective methods utilized. Additionally, the plaintiff did not introduce evidence that the expert’s methods were used by others in the field or referenced in vocational rehabilitation literature. In the case of *Luwisch v. American Marine Corporation* (2018), the expert failed to provide reliable data for his opinion on the long-term economic effects of the plaintiff’s disability. The testimony was therefore deemed flawed and was not admissible. It is evident that one must avoid providing expert opinions without considering the methodology and assessments used to reach their conclusions. These case examples demonstrate the risk to rehabilitation counselors in this adversarial practice setting to ethical dilemmas.

The need for rehabilitation counselors to be cognizant of the ethical dilemmas in the area of expert testimony is clear. Four particular Supreme Court cases create a framework for expert testimony and

offer guidance to rehabilitation counselors providing services in this established area of practice that continues to grow and evolve. This article reviews these seminal cases, defines the commitment to scientific testimony, and examines how these important cases impact rehabilitation counselors called for expert testimony. Also, the researchers will inquire on vocational expert's experience with Daubert and Frye-Reed challenges to their admissibility of opinions. The findings of the current study inform recommendations to help avoid the potential ethical dilemmas and challenges when providing forensic rehabilitation services and expert opinions on earning capacity.

The Frye Rule

The first attempt by the federal courts to establish a rule for admissibility of expert testimony was accomplished in *Frye vs. United States* (1923). The appellant (Frye) was convicted of the crime of murder. During the trial, Frye attempted to admit the testimony of an expert who has performed a "deception test" which was an early form of polygraph testing as evidence (Woody, 2016). As a result, the United States Court of Appeals for the District of Columbia established what is called the Frye rule. This standard states:

Just when a scientific principle or discovery crosses the line between the experimental and demonstrable stages is difficult to define. Somewhere in this twilight zone the evidential force of the principle must be recognized, and while courts will go a long way in admitting expert testimony deduced from a well-recognized scientific principle or discovery, the thing from which the deduction is made must be sufficiently established to have gained general acceptance in the particular field in which it belongs. [*Frye v. United States*, 293 F. 1013, 1014 (App. D.C. Dec. 03, 1923).]

Therefore, courts determine if witnesses qualify as experts deducing if the information they are to provide is sufficiently established to have gained "general acceptance" in the particular field. Criticism of the Frye standard ranges from a lack of adequate objectivity to the opinion that it is a conservative rule leaving little to no room for new ideas that have not reached the level of acceptance of older establish theories (Woody, 2016). For approximately seven decades, the Frye "general acceptance" test provided the controlling standard for the admissibility of expert testimony and presently in a minority of state courts, Frye or its equivalent still applies (Niehoff, 1993), indicating its enduring and pertinent nature for rehabilitation professionals.

The Daubert Rule

In 1993, the first redefinition of the Frye rule was established by the United States Supreme Court in *Daubert v. Merrell Dow Pharmaceuticals, Inc.*, which essentially added more scientific criteria to *Frye*. The case adopted a reliability test in lieu of the prior "general acceptance" standard (Giannelli, 2009). The plaintiffs sought recovery for congenital disabilities allegedly suffered because the mothers had used the defendant's (Merrell Dow) prescription anti-nausea medication, Benedectin. Merrell Dow claimed that the Daubert's had no evidence and the case should be dismissed. Merrell Dow attempted to submit expert testimony from a physician who had reviewed published studies on the drug in question and found no evidence of harmful effects. The Daubert's submitted reports from eight different experts of their own who claimed differently, citing animal studies, biochemical studies, and re-examination of previous human experimentation data. The trial court granted summary judgment and The United States Court of Appeals for the Ninth Circuit affirmed this ruling, holding that Merrell Dow's experts had relied upon established scientific method under the Frye rule (Field, 1993).

The plaintiffs appealed stating that the Federal Rules of Evidence overturned the Frye standard. The Supreme Court agreed stating:

If scientific, technical, or other specialized knowledge will assist the trier of fact to understand the evidence or to determine a fact in issue, a witness qualified as an expert by knowledge, skill,

experience, training, or education, may testify thereto in the form of an opinion or otherwise. [Federal Rules of Evidence Rule 702, 28 U.S.C.A.]

Of significance is the reliability of the evidence to be submitted by the expert. The trial judge must ensure that all scientific testimony is not only relevant but also reliable and valid. According to the court, science is never certain but can be accurate within a certain margin of error, which is determined by examining the validity of the methods used. To assist in assessing reliability and validity, the Supreme Court set forth a list of five factors: (a) the testability of the theory, can it be subjected to the empirical testing?; (b) peer review of such testing, have the results been published in appropriate scientific literature that deal with testing and set forth the underlying data so they can be verified by other scientists?; and (c) error rate, does the technique have an acceptable rate of error?; (d) maintenance of standards; do these control the technique's operation? and (e) general acceptance, is the technique or theory generally accepted in the scientific community? (Giannelli, 2009). Many experts have been successfully prevented from testifying under the Daubert ruling because their foundation for opinions had not been scrutinized through peer review nor based on proven valid principles and therefore, (Feldbaum, 1997), underscoring a crucial reason why rehabilitation counselor testimony is at times not considered to be admissible.

The Joiner Rule

This standard comes from *General Electric Company v. Joiner* (1997). In this case, Joiner, a cigarette smoker, had been employed as an electrician serving transformers. Part of his job required him to drain the transformers' fluid, which contained polychlorinated biphenyls (PCBs). During these repairs, he would need to place his hands and arms in the fluid often splashing himself in the eyes and mouth. Joiner sued General Electric after being diagnosed with small-cell lung cancer at age thirty-seven. He claimed that exposure to PCB's furans and dioxins "promoted" his illness. The petitioner, General Electric, claimed that Joiner had not been exposed to the substances and that there was no evidence demonstrating that the substances contributed to Joiner's diagnosis. Joiner submitted expert testimony contrary, from two experts, each opining that both the cigarette smoking and PCB exposure contributed to the cancer. The court rejected the testimony as unreliable under Daubert, as the expert testimony failed to show that there was a link between exposure to PCB's and small-cell lung cancer and therefore was nothing more than a subjective belief or unsupported speculation. The appeals court overturned, concluding that the District Court had erred in excluding the expert testimony holding that appellate courts should not overturn the admissibility decision of a trial court unless the trial court has abused its discretion. The Supreme Court conceded that the studies cited by Joiner's experts were reliable and held that the admission of expert testimony was at the discretion of the trial judge (Redemann, 1999). Therefore, experts should take care that they are providing proper opinion based on acceptable science and refrain from significant leaps of reasoning (Berger, 2000, p. 13), indicating the importance of rehabilitation professionals utilizing evidence-based opinions in court.

The Kumho Rule

The final case to highlight is *Kumho Tire Company v. Carmichael*, (1999). This case extended the Daubert reliability requirement to nonscientific testimony by questioning the applicability of Daubert to information what is based upon or specialized knowledge, rather than scientific knowledge. In this product liability case, Carmichael had been involved in an automobile accident in which a tire manufactured by Kumho had blown out resulting in one death and injuries to several persons. The plaintiffs decided to sue Kumho Tire heavily relying on evidence submitted by an expert in tire failures whom concluded that manufacturing error had caused the defects in the tire that led to the blowout. Kumho argued that the Daubert test should apply to this testimony with the trial court initially agreeing. However, based upon motion by Carmichael claiming that the Daubert factors were

merely instructive rather than canonical the court reconsidered. The appeals court then reversed this ruling (Redemann, 1999), followed by the trial being brought to the Supreme Court.

Through the Supreme Court, it was ultimately made clear that Rule 702 and the Daubert test apply to both technical and specialized knowledge. In addition, the Court established important distinctions in regard to the determination of the reliability of the three categories of expert testimony – scientific, technical, or specialized knowledge. Thus, within the scope of the rule are not only experts in the strictest sense of the word, but also the large group sometimes called “skilled” witnesses (Alley, 2000). The Court also confirmed that although the *Daubert* factors provide examples of issues that judges should consider in evaluating reliability, they are neither mandatory nor exhaustive (Berger, 2000, p. 16). The standards set forth in the amendment affirm the trial court’s role as gatekeeper and provide some general guidelines that the Court must use to assess the reliability and helpfulness of proffered expert testimony. The trial judge must accept that it is grounded in a recognized body of learning or experience, well-reasoned, and not speculative (LII / Legal Information Institute, 2011), as some types of expert testimony will not rely on a scientific method.

Federal Rules of Evidence

The Federal Rules of Evidence is a body of law that governs the admissibility of evidence in United States federal courts as well as in the states that have adopted the rules. Article VII of the Federal Rules of Evidence is comprised of six rules that cover the admissibility of expert witness testimony.

Rule 701 in Article VII covers lay witness testimony. It states:

If a witness is not testifying as an expert, opinion testimony must be: a) rationally based on the witness’s perception; b) helpful to clearly understanding the witness’s testimony or to determining a fact in issue; and c) not based on scientific, technical, or other specialized knowledge within the scope of Rule 702. [Federal Rules of Evidence Rule 701, 28 U.S.C.A.]

Lay opinion testimony must provide the court with information establishing the witness’ personal knowledge and facts personally observed as well as show that the opinion is rationally related to those facts and is helpful to the jury.

Rule 702 guides the court’s analysis in determining admissibility of expert testimony stating:

A witness who is qualified as an expert may testify in the form of an opinion or otherwise if: (a) the expert’s scientific, technical, or other specialized knowledge will help the trier of fact to understand the evidence or to determine a fact in issue; (b) the testimony is based on sufficient facts or data; (c) the testimony is the product of reliable principles and methods; and (d) the expert has reliably applied the principles and methods to the facts of the case. [Federal Rules of Evidence Rule 702, 28 U.S.C.A.]

As noted above, Rule 702 was amended in response to the seminal Supreme Court decision, *Daubert v. Merrell Dow Pharmaceuticals, Inc.*, which outlines a non-exhaustive list of factors for the courts to consider when evaluating reliability and determining admissibility of expert testimony.

Rule 703 establishes the bases on which experts may form their opinions in order to be admissible in court. The expert is required to ground opinions on facts or data in the case that they have been made aware of or personally observed. This rule also addresses expert opinions based on inadmissible evidence allowing such information to be disclosed if it is deemed reasonable to rely upon, helpful in aiding the jury’s understanding, and its probative value substantially outweighs any prejudicial effect.

Rule 704 covers witness testimony on “ultimate issues”. Expert’s opinions are to be admitted when helpful to the trier of fact and are not objectionable just because it embraces an ultimate issue. Rule 705 states that an expert can provide an opinion but may be required to disclose those facts or data on which the opinion is based. Rule 706 governs court-appointed expert witnesses and permits courts to unilaterally choose an expert on its own. Although rarely invoked, the court-appointed expert is re-

quired to advise all parties of its findings. They may be deposed, cross-examined, and called to testify by any party. This rule does not limit a party in calling its own experts.

Application of Rules of Evidence for Rehabilitation Counselors

Rehabilitation counseling and vocational expert testimony falls within the purview of The Federal Rules of Evidence, Daubert, Frye-Reed, and subsequent rulings in that the profession includes scientific, technical, and specialized knowledge. Vocational evaluations, assessments, work samples, clinical interviews, psychometric testing, and other measures rehabilitation counselors utilize in daily practice to evaluate individual abilities/capacities are distinctly scientific in that they have reliability, validity and error rates (Stein, 2002). Social scientists have less control over variables than hard sciences would have but nevertheless, measurement of critical rehabilitation counseling and vocational variables such as IQ, educational attainment, temperament, skills, employability, and earning capacity is part and parcel of a clinical evaluation and constitutes scientific method (Williams, 1998). However, more individualized and specialized knowledge such as job analyses, rehabilitation planning, life care planning, assistive technology, labor market data, and reasonable accommodations do not have a theoretical basis or known error rate since they are based on the specific individual case (N=1).

Therefore, this aspect of rehabilitation counseling is open to questions regarding reliability and validity. Thus, this increases the need to utilize peer-reviewed methodology and evidence-based practices when completing a vocational evaluation and providing expert testimony on an individual's earning capacity and employability. Although quantitative research methods have dominated the rehabilitation counseling profession, it would be remiss to minimize the work of qualitative researchers in the field. These contributions address the emergence and impacts of otherwise more complex variables that challenge researchers with a more quantitative framework (Stein, 2002). The acknowledged limitations of mainstream research are being addressed by researchers who are exploring more effective ways to meld research design with subjectivity of human experience.

Research Questions

This study sought to investigate how these seminal cases have influenced the way in which rehabilitation counselors approach expert testimony, how this has affected their work and ways in which they conduct evaluations. The goal was to seek major details in how practicing rehabilitation counselors experience Daubert and Frye-Reed challenges and the impact this has on their career. It has become necessary for the vocational expert to have a rather large and general knowledge of the law and regulations that can vary from state to state and by type of case. Thus, the current study's findings inform recommendations to help avoid the potential ethical dilemmas and challenges when providing forensic rehabilitation services; as well as ways in which experts can protect themselves from a successful Daubert challenge that could result in dismissal of the case and permanent damage to their reputation.

By examining perceptions of a sample of rehabilitation counselors who have participated in expert testimony and forensic rehabilitation services, the field would gain a more informed understanding of necessary directions in developing research on the roles of rehabilitation counseling in a forensic capacity. As a result, the study aimed to explore the following research questions:

Quantitative Research Questions

1. Is there a relationship between demographic variables (gender, race, education, clinical experience, type of practice, geographic location, credentials, and licensure) and the chances of a Daubert or Frye-Reed challenge?
2. If you have gone through a Daubert or Frye-Reed challenge, how stressful was your experience? (Likert scale)

Qualitative Research Questions

3. If you experienced a Daubert or Frye-Reed challenge how did this occur?
4. Describe the effect of the Daubert/ Frye-Reed challenges on your work presently? How might you anticipate the effect on your work in the future?
5. Are there any differences in the way you conduct evaluations (utilization of psychometric instruments, etc.) due to the Daubert/Frye-Reed challenges?

Methodology

In order to address a broad topic that is lacking in research, the researchers utilized a mixed-methods research design with a goal of obtaining both quantitative and qualitative data simultaneously. A descriptive, convergent parallel mixed-methods research design was implemented for this study. In this design, both sets of data (quantitative and qualitative) were analyzed separately for possible themes and findings.

The quantitative component of the design sought to determine if there were any statistically significant differences (at the .05 or .01 level) on whether demographic information affected the chances of a Daubert or Frye-Reed challenge as well as the stressfulness of such an event. The qualitative component provided context on how clinicians view outcomes, ethics, and influences of forensic testimony under a Daubert or Frye-Reed challenge. After the data was analyzed independently through quantitative and qualitative specific techniques, the interpretation of data followed an integration through narrative strategy with both a contiguous approach where data is presented in distinct sections as well as a weaving approach where integration of data sources frames a thematic exploration of central constructs (Fetters, Curry, & Creswell, 2013). The emergent nature of qualitative findings provides an indication for the possible social context in which the quantitative results function and builds a foundation upon which to begin considering underlying issues.

Participants

All participants were recruited as part of the International Association for Rehabilitation Professionals (IARP) and American Board of Vocational Experts (ABVE), requesting the participation of rehabilitation counselors within these memberships. In order to recruit participants, individuals from IARP and ABVE were sent a secure e-mail invitation program through Survey Gizmo, a major web-based survey provider. The researchers sought Institutional Review Board (IRB) approval from The George Washington University Office of Human Research before conducting all communication and participant recruitment.

The sample for the study consisted of 124 participants who completed the entire survey (see Table 1). The final sample included 62 males (50 %), 60 females (48.4%) and 2 whom chose to not disclose their gender (1.6%). The mean age of the participants was 59.8 years ($SD = 12.15$). The majority of the sample reported their ethnicity as Caucasian (112; 90.3%). Approximately 15% of participants ($n = 19$) identified as having a disability and 39.5% ($n = 49$) identified as having a temporary disability.

Out of 124 participants, 73 participants (58.9%) indicated having experienced a Daubert or Frye-Reed challenge ("Yes" Group), and 49 participants (40%) indicated not having experienced a Daubert or Frye-Reed challenge ("No" Group). Out of the "Yes" Group, 14 (11.3%) indicated having a disability status, while 5 participants (4%) in the "No" Group, indicated having a disability status. Out of the "Yes" Group, 32 (25.8%) indicated ever having a temporary disability status, while 17 participants (13.7%) in the "No" Group, indicated ever having a temporary disability status. There were no notable differences in ethnicity or between "Yes" and "No" groups. Notably, in terms of education level, out of the 23 participants (18.5%) who reported having a doctoral degree, 18 participants (14.5%) were in the "Yes" Group and 5 participants (4%) were in the "No" Group (see Table 2).

Regarding education, the participants in the sample reported a large proportion with Master's degrees (95; 76.6%) followed by Doctorate degrees (23; 18.5%). The sample also reported the number of

years practicing as a rehabilitation counselor from a range of 1 to 54 years with a mean number of years in practice of 29.9. For licensure and certifications, the participants indicated a variety of credentials (see Table 3). The majority of participants held a Commission on Rehabilitation Counselor Certification (CRC; 101; 81.5%).

Approximately 87.9% of participants worked in private practice. Regarding primary geographic location, most participants indicated that they practice in an Urban setting (69; 55.6%). These indicators were also followed by practice in Suburban (53; 42.7%) and Rural settings (19; 15.3%). Participants were allowed to select a primary and a secondary geographic area of practice, which is why the total does not equal 100%. For state licensure (Table 4) according to regions as defined by the US Census, the participants indicated licensure in the Northeast (18.5 %), Midwest (43.6 %), South (17.7 %), and West (19.4 %). Additionally, 8 respondents specified a national level licensure, which may be a misunderstanding as there is no national licensure available at this time. Finally, 15% of the participants in the sample indicated that they did not possess any current license or certifications.

Measures and Data Collection

In order to collect the data for this study, an online survey was sent from Survey Gizmo to individuals within IARP and ABVE membership via the organizations' listserv. In order to protect confidentiality of participants, the researchers revised the Survey Gizmo application to refrain from storing or collecting Internet protocol (IP) addresses, e-mail addresses, or any identifying information. To further this protection, the researchers ensured that SSL encryption protected all electronic transmissions between the participants and Survey Gizmo servers. The online survey consisted of 16 questions and three open-ended questions. All quantitative data was exported into SPSS 25.0 for statistical analysis.

The text for the three open-ended questions was as follows: "If you experienced a Daubert or Frye-Reed challenge how did this occur?", "Describe the effect of the Daubert and Frye-Reed challenges on your work presently? How might you anticipate the effect on your work in the future?", and "Are there any difference in the way you conduct evaluations psychometric instruments, clinical interview, etc.) due to the Daubert and Frye-Reed challenges?" All qualitative data was exported into SPSS for analysis.

Data Analysis

The current study utilized a descriptive, convergent parallel mixed-methods research design. This approach utilized quantitative and qualitative approaches to develop the model that would drive the research questions. In this design, the researchers aimed to collect both the quantitative and qualitative data from participants simultaneously. Both sets of data were then analyzed separately for possible themes and findings.

Responses were downloaded from Survey Gizmo into Microsoft Excel and then imported into SPSS 25.0 for further analysis. Both descriptive and inferential analyses were performed on the collected data. The descriptive findings from the qualitative data were compared with the findings from the quantitative data. For quantitative analyses, an independent-samples t-test and descriptive analyses were conducted. Also, using crosstab analysis, the relationships between the descriptive variables and stress levels among participants that had undergone a Daubert or Frye-Reed challenge were examined.

The coding process for the qualitative data occurred over four rounds of data review by three coders who are doctoral candidates at the George Washington University. Initially, open coding efforts followed a structural coding approach with an emphasis on maintaining as much of a respondent's direct language as possible (Saldana, 2009). Data were organized based on open-ended questions independent of one another. The three coders reviewed responses left blank or answered with "n/a" were not included in the response count. Subsequently, structural codes were organized into themes with interpretive convergence serving as a feedback mechanism on reliability.

Results

Quantitative

To address research question 1, an independent-samples t-test was conducted to compare demographic variables (gender, race, education, clinical experience, type of practice, geographic location, credentials, and licensure) in Group 1, consisting of participants who reported facing a Daubert or Frye-Reed challenge and Group 2, consisting of participants who reported not having faced a Daubert or Frye-Reed challenge. There was a significant difference in the scores in Group 1 ($M=0.24$, $SD=0.43$) and Group 2 ($M=0.10$, $SD=0.30$) of participants with respect to reporting the highest level of education attained as doctoral (PhD, EdD, etc.); $t(122)=2.030$, $p < .00$. This indicated that individuals who faced a Daubert or Frye-Reed challenge had significantly higher education level (doctoral) than individuals who had not faced a Daubert or Frye-Reed challenge. There was also a significant difference in the scores in Group 1 ($M=0.20$, $SD=0.41$) and Group 2 ($M=0.06$, $SD=0.24$) of participants with respect to reporting identification as a Rehabilitation Provider; $t(122)=2.240$, $p < .001$, indicating that individuals who faced a Daubert or Frye-Reed challenge identified as being a Rehabilitation Provider significantly more than individuals who had not faced a Daubert or Frye-Reed challenge.

To address research question 2, a crosstab analysis was performed to further investigate the relationship between demographic variables and stress levels in experiencing a Daubert or Frye-Reed challenge. Of the participants that did go through a Daubert or Frye-Reed challenge 12.2% ($n=9$) found the experience to be extremely stressful, 33.8% ($n=25$) found the experience stressful, 29.7% ($n=22$) were neutral, 16.2% ($n=12$) felt minimally stressed, and 8.1% ($n=6$) were not stressed by the experience with the mean stress score of 2.74 ($SD=1.15$) on a Likert scale of 1-5. In exploring demographic variables as they relate to stress levels in a Daubert or Frye-Reed challenge, findings indicated that female participants were slightly more likely to experience stress (51.5%, $n=17$, $M=2.55$, $SD=1.15$) than male participants (41.7%, $n=17$, $M=2.90$, $SD=1.09$). Participants with a doctorate degree were more likely to report higher stress levels in experiencing a Daubert or Frye-Reed (39%, $n=7$) than participants with a master's degree (18.1%, $n=26$). However, mean scores were similar with results indicating a mean score of 3.00 on the Likert scale ($SD=1.19$) for participants holding a doctorate degree and a mean score of 2.67 on the Likert scale for participants with a master's degree ($SD=1.11$). Those practicing in rural (66.7%, $n=8$, $M=2.50$, $SD=1.45$) and suburban (51.9%, $n=14$, $M=2.44$, $SD=1.09$) setting were more likely to report higher stress levels than participants practicing in urban environments (15%, $n=18$, $M=2.89$, $SD=1.07$).

Qualitative

Occurrence. Of the 124 respondents included in the quantitative analyses, 64 (51.6%) answered the first open-ended question; "If you experienced a Daubert or Frye-Reed challenge how did this occur?" Participants described a range of personal experiences with receiving a Daubert or Frye-Reed challenge. Participant responses were reviewed and analyzed for each research question, yielding two general content themes related to the opposing counsel and methodology. (see Figure 1). Each theme is described below with exemplar quotes that illustrate the substance of material presented.

Opposing Counsel. When examining responses describing the opposing counsel, participants noted differences in opposing counsels reasoning behind the challenge. There was a clear emphasis on individual "expert standing" being questioned. Participants often noted feeling "targeted" or "attacked" based on this speculation. One participant stated:

I was involved in two separate personal injury litigation cases in which the same law firm on the defense, one of the largest in the state, overtly targeted me to prevent me from testifying as to vocational loss on both of these cases and any future cases. This was actually part of the attorneys opening statement.

Participants also indicated a review of their educational background, professional credentials and clinical expertise due to speculation by opposing counsel. Several participants noted that the challenge was stopped by the judge in pre-trial. One participant stated:

The defense firm made a lengthy Daubert challenge after my deposition but before trial. It was unsuccessful. A judge ruled that the defense could ask me their questions at trial.

Methodology. Methodology utilized to formulate opinions or conclusions emerged as a frequent concern for participants, which was often associated with the reliability and validity of psychological and vocational tests administered. One participant stated:

It was mostly regarding explaining the methodology in relation to a vocational assessment during a deposition. I recognized that opposing counsel wanted to ensure that my method was valid."

Several participants cited challenges based off of their methodology for vocational evaluation or assessment, acknowledging a relation to minimal training and/or knowledge on how to approach testifying in a deposition or court. One participant stated:

I had a limited assignment case that was if someone could return to their specific employment. I did not do testing as I was not asked to evaluate the full labor market for wage earning capacity. The attorney challenged that vocational testing was not conducted."

Another participant expanded on how holding minimal expertise and subsequently receiving a Daubert challenge lead to increased insight on the need for use of peer-reviewed methodology and obtaining additional knowledge of testimony stating:

I was working on lead paint cases in Baltimore for the plaintiff side. I had rudimentary to no training in crafting my opinions using accepted theories/testifying etc. After doing 20 or so cases my inexperience and lack of training caught up to me. In one particular case, the defense drafted a Daubert challenge, which they thankfully never submitted to the court. The plaintiff firm removed all traces of my involvement in the case and I assume they had to settle for little to no money. From that moment on I realized that I am responsible for getting trained properly. Had that challenge been submitted to the court, my nascent expert career would have been over.

Impact

Out of the 124 respondents included in the quantitative analyses, 69 (55.6%) responded to the second open-ended prompt, "Describe the effect of the Daubert and Frye-Reed challenges on your work presently? How might you anticipate the effect on your work in the future?" Participants identified a number of ways in which the experience of a Daubert or Frye-Reed challenge has affected their current work. In addition, participants described ways that the experience of a Daubert and Frye-Reed challenge might impact their work in the future. Participant responses were reviewed and analyzed for each research question, resulting in three general content themes of acceptance, increased diligence, and no effect (see Figure 2). These themes are illustrated below with exemplary quotes.

Acceptance. Acceptance emerged as a successive response participants reported experiencing after facing a Daubert or Frye-Reed challenge. Participants described that they now "expect" challenges in their forensic cases after experiencing a challenge and described facing a Daubert or Frye-Reed challenge as "part of the job." One participant stated:

[In] any case there is the potential of a Daubert and Frye-Reed motion to be filed. [Vocational] experts must stay within our field of expertise, follow consistent methodology and apply our clinical judgment when needed."

Also, several participants noted that facing a Daubert and Frye-Reed challenge is an aspect of working in a litigated environment that they have accepted as part of their practice. They also indicated what they have gained from accepting this aspect of the vocational profession. One participant stated:

It is annoying, but comes with the territory. Having survived one, it has helped assure attorneys that I can be qualified to testify in court when challenged.

Increased diligence. Increased diligence in preparing for testimony also emerged as a frequent theme for participants. This theme was often associated with an increased attentiveness to documenting support for vocational opinions and an increased commitment to providing empirical support for their conclusions. Overall, there was a focus of participants describing themselves as more “aware” and “cautious” since facing a Daubert or Frye-Reed challenge and making changes to approach their work with more diligence. Since facing a Daubert and Frye-Reed challenge, one participant stated:

I always include references, and I try to reference throughout my report so that it is clear that my opinion is backed up by scientific evidence.

Participants also highlighted the importance of utilizing and thoroughly documenting empirically supported peer-reviewed methodology in their work. One participant stated:

It reinforced the need to have a strong, peer-reviewed, published methodology to support my opinions.

Participants also indicated they exercised increased diligence through relying more on professional organizations (e.g., IARP, ABVE) since being challenged, focusing mainly on organizations that promote best practices for the vocational rehabilitation profession.

One participant stated:

My staff and I are very careful to remain current with the literature, methods, ethics, and best practices of our profession. We also are very active in our state and national associations. I (we) feel confident to answer any challenges in the future.

No effect. When examining responses, there was also a theme of participants describing the experience of a Daubert or Frye-Reed challenge having no effect on their current or future work due to the challenges they faced being “overruled,” “unsuccessful,” or “not upheld” in court. One participant stated:

It doesn’t have any effect since the challenges were unsuccessful. My testimony has never been excluded. During depositions, it is helpful, I think, to be able to say that the challenges have all been unsuccessful.

Participants also indicated reliance on extensive “preparation” and the use of “clinical judgment” as reasons facing a Daubert or Frye-Reed challenge had no effect on their current or future work. One participant stated:

I was able to effectively provide information to sustain the challenge. We must use clinical judgment, there was no need to do testing for the assignment.

Other participants expanded on this theme, indicating that they participated in trainings following a Daubert or Frye-Reed challenge that have offered them a sense of feeling better prepared for such situations in the future. One participant stated:

[The challenge has] very little effect now. I have schooled myself on SkillTrans methodology and am prepared for challenges. I keep a short and long explanation on my laptop to use.

Changes to Evaluation Method

Out of the 124 respondents included in the quantitative analyses, 69 (55.6%) responded to the third open-ended prompt, “Are there any differences in the way you conduct evaluations (psychometric instruments, etc.) due to the Daubert/ Frye-Reed challenges?” When contemplating how experiencing a Daubert or Frye-Reed Challenge has impacted any clinical implications, such as testing measures, a majority of respondents indicated no changes in the way they completed evaluations or prepared reports (of the participants who answered the open ended question about changing evaluation methods, nearly 80% indicated that there has not been a change in the way they conduct evaluations). Of those who did respond to the open-ended question indicating they have changed aspects of preparing testimony, several key components did arise: Consistency and standardized approaches for conducting as-

assessments, increased reliance on empirical support to stay up to date on assessment, assessment approaches, and current trends to provide empirical support.

Consistency and standardization. Participants reported using a specific peer-reviewed framework within using standardized assessments and describing methodology, as having experienced a challenge has prompted or reinforced the importance of consistency in how each is approached. One participant noted, "Although every situation is different, I try to follow the same assessment method." Another acknowledged that because of the challenge, they also report the raw data, and that the questions they have experienced during testimony have impacted how they shape their clinical interview to better respond to questions in court in the future. One final participant stated:

I have always been very focused on basing my opinions on a standardized method of evaluation with a basis in education, training and authoritative research and sources of information. I really have not changed this based on the challenge.

Empirical support. Pertaining to the clinical report of the results of the evaluation, clinicians indicated they have found it to be beneficial to include peer-reviewed support and methodology. One wrote they have changed their report to "Provide documentation for statements that involve opinion evidence." Another participant wrote:

I rely more heavily now on peer reviewed literature. I think I have incorporated this aspect much more in the cases. In a recent wage loss case, I incorporated 7 peer reviewed articles specific to my opinions. I simplified my methodology because my previous methodology from years ago was too complex and it was even hard for me to follow . . . I am careful and as time has gone by my testimony has become more conservative. . . . It is interesting that simplifying makes testimony hold up well.

While consistency and standardization are important, by providing peer-reviewed support in their opinions and conclusions, participants are ensuring they maintain updated references and do stay current on recent literature to better support their opinions.

Discussion

The present study provides a preliminary investigation into the experiences of Daubert and/or Frye-Reed challenges among practicing rehabilitation counselors. This study is an initial attempt to fill the gap on the how these seminal cases influence the way in which rehabilitation counselors and vocational experts approach expert testimony and how this has affected their work. Findings highlight the perceptions of rehabilitation counselors who have participated in expert testimony and provide insight into the necessary directions in developing research and education on the roles of rehabilitation counseling in a forensic capacity.

Findings revealed that individuals who faced a Daubert or Frye-Reed challenge had significantly higher education level, specifically a doctoral degree, than individuals who had not faced a Daubert or Frye-Reed challenge. Given this finding, educational implications are noted, as attention is called to the importance of, perhaps, integrating education surrounding Daubert or Frye-Reed challenges into rehabilitation counseling curriculum more deliberately at the doctoral level. It was also revealed that individuals who faced a Daubert or Frye-Reed challenge identified as being a Rehabilitation Provider significantly more than individuals who had not faced a Daubert or Frye-Reed challenge. This may be suggestive of an increased need for Rehabilitation Providers to be educated on practical steps taken following a Daubert or Frye-Reed challenge.

Of the participants that did experience a Daubert or Frye-Reed challenge, 46% found the experience stressful. As participants holding a higher education level (doctoral) were significantly more likely to face a Daubert or Frye-Reed challenge, it is interesting to note that these individuals reported higher stress levels. This may be suggestive that higher education does not necessarily indicate an emphasis on the potential ethical dilemmas and challenges when providing forensic rehabilitation services through academia. It may also reflect the fact that in cases where the economic value of the case is

high, attorneys seek to retain vocational experts with advanced training, publications and experience. In addition, the researchers did not explore the frequency in which individuals have experienced these challenges as preparedness may stem from actively going through a challenge and learning from the case itself.

The first quantitative research question also examined other demographic variables to determine if they had any effect on the chances of experiencing a Daubert or Frye-Reed challenge. Participants who identified as being a Rehabilitation Provider (N=18) were much more likely to experience a challenge than participants who did not have this certification (15 out of 18 or 83.3%). It appears that geographical location of the practitioner also influenced this finding, as certification as a Rehabilitation Provider is more common in the eastern part of the United States than the west coast where Daubert and Frye-Reed challenges are less frequent. Refer to table 2 for region of practice information for the participants.

The first qualitative research question examined the effect of Daubert or Frye-Reed challenges on participants' present work. It also examined how participants might anticipate the effect on their work in the future (see Figure 1). Participants indicated acceptance that Daubert and Frye-Reed challenges are part of their forensic work. This is congruent with scholarship surrounding rehabilitation counselors' role as working as vocational experts, as rehabilitation counselors have become integral contributors and a primary source for expert information on earnings capacity in the courtroom (Johnston, 2005). Participants also indicated increased diligence toward preparing for a possible Daubert or Frye-Reed challenge. It is imperative that practitioners work to possess the legal and professional requirements for expert testimony as well as an understanding that rehabilitation counselors may not opine on issues for which there is no scientific foundation (Ackerman & Gould, 2015). It is essential for practitioners to develop a level of competency within the legal system and knowledge of professional ethics and standards.

Participants also indicated that Daubert or Frye-Reed challenges have had no significant effect on their forensic evaluations and practice. However, it is important to note that participants converged to attribute this to deliberate actions they had taken, like advanced trainings, conferences and education. According to the CRCC Code of Ethics (2017), forensic vocational assessment professionals have an obligation to present to the Court with accurate information regarding the boundaries of their competence, the bases for their qualification as an expert, and the relevance to the specific matters at issue. As a result, this presents a professional obligation for rehabilitation counselors to work toward ensuring they have obtained appropriate training and education surrounding Daubert and Frye-Reed challenges.

The second qualitative research question examined occurrence among those participants who had experienced a Daubert or Frye-Reed challenge (see Figure 1). Participants indicated opposing counsel questioning their expert standing. Prior research has emphasized that the fact that rehabilitation counseling involves a subjective component, clinical judgments and vocational evaluations or assessments are never truly actuarial (Woody, 2016). This provides an opportunity for opposing counsel to initiate a Daubert or Frye-Reed challenge which participants often perceived as an attack on the expert's testimony based on "speculation." To account for higher rates of vulnerability in court testimony, clinicians must have an understanding that rehabilitation counselors may not opine on issues for which there is no scientific foundation, they should base professional experiences (assessment, intervention, consultation, supervision, and training) and scholarly rationale on peer-reviewed research methodology and evidence based practices (Ackerman & Gould, 2015; Woody, 2016). In addition, this study found that the expert's methodology (or lack thereof) often came into question. While some assessments, psychometric instruments, and other measures utilized to evaluate individual abilities and capacities are distinctly scientific in that they have reliability, validity and error rates (Stein, 2002), others are more technical and specialized such as job analyses, rehabilitation planning, life care planning, and therefore do not have a theoretical basis or known error rates (Williams, 1998). Therefore, this aspect of rehabilitation counseling is open to questions regarding reliability and validity. This presents vocational experts with the unique challenge of exploring more effective ways to meld research design with subjectivity of human experience. It also highlights the need for rehabilita-

tion counselors and educators to complete additional research on the above activities (e.g., life care planning) to develop evidenced based practices to complete these services in a more scientific manor.

The final qualitative research question explored how clinicians changed the way they conducted evaluations following the experience of a Daubert or Frye-Reed Challenge; a majority of respondents indicated that there was no change in the way they conducted their vocational evaluations with some indicating that experiencing a challenge just reinforced the way they were already completing their evaluations. Participants validated the existing literature emphasizing the importance of conducting evaluations based on empirical evidence and peer-reviewed guidelines, as to not provide opinions that are not based outside of a scientific foundation (Ackerman & Gould, 2015; Woody, 2016). This study indicated that some professionals did change the way they describe their methodology to allow for a standardized and easier to follow approach, which has been able to provide reinforcement to the delivery of their opinions in court.

Implications for Practice

This study's findings have a number of implications for rehabilitation counseling practice. The overall illustration of how participants experienced Daubert and Frye-Reed challenges may provide a framework for practitioners to make informed decisions on how to best approach expert testimony. Factors including selection of particular psychometric instruments for evaluation, utilization of peer-reviewed methodology, citing prior peer-reviewed research, continued education and professional development training, and a general knowledge of the law must be considered when practicing in a forensic capacity. Thus, the study's findings inform recommendations to help avoid the potential ethical dilemmas and challenges when providing forensic rehabilitation services; as well as ways in which experts can protect themselves from a successful Daubert or Frye-Reed challenge that could result in dismissal of the case, potential liability as a result from dismissal of a case or exclusion of their opinion and permanent damage to their professional reputation.

Limitations

Despite its strengths, the current study has several limitations that should be discussed in the context of generalization of findings and future research. One limitation is the sampling method utilized. Sampling through online sources do not account for self-selection bias, limiting the research sample and the study's external validity. The qualitative portion of this study was a single interview data method. As such, this prevents further exploration of answers that could provide new insight and rich data. Deeper examination of responses with follow-ups could have proven to be helpful. However, greater flexibility to allow in-depth exploration may come with challenges such as limited availability among participants and increased subjectivity. These restrictions underscore the necessity of developing and utilizing innovative recruitment strategies and sampling designs in this type of research.

In addition, the sample size (N=124), with only approximately 60% of whom (N=74) experienced a Daubert or Frye-Reed challenge, limits the statistical power and generalizability of results. Moreover, the study largely reached non-Hispanic White individuals (91%) practicing on the private sector. Future research should attempt to increase the number of practitioners of rehabilitation counseling from diverse backgrounds and include rehabilitation counselors from the public sector (e.g., State VR Agency's, Veterans Administration, non-profits) to increase generalizability of results. In addition, a larger sample size would also increase the external validity of the findings.

Conclusions

Forensic vocational rehabilitation counseling professionals have an obligation to present to the Court with accurate information regarding the boundaries of their competence, the bases for their qualification as an expert, and the relevance to the specific matters at issue (CRCC Code of Ethics, 2017). Un-

fortunately, the type of training regarding ethics for the role of expert witness is rarely discussed in most masters and doctoral level rehabilitation counseling programs (Reid & McReynolds, 2007). Findings from the current study reveal that Daubert and Frye-Reed challenges are experienced as stressful events that rehabilitation professionals expect to experience in their line of work and work diligently to prepare for. Rehabilitation counselors working as vocational experts have become integral contributors and a primary source for expert information in the courtroom (Johnston, 2005). This study's findings converge with this, underscoring rehabilitation professionals as integral contributors to testimony in the courtroom, giving credence to the need for increased education about Daubert and Frye-Reed challenges in both professional organizations conferences and in-service trainings and formal academic rehabilitation counseling training programs.

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Table 1
Sociodemographic Characteristics of Participants

	<i>n</i>	<i>%</i>	<i>M</i>	<i>SD</i>	<i>Challenge*</i>	<i>% Yes</i>	<i>M</i>	<i>SD</i>	<i>Challenge**</i>	<i>% No</i>	<i>M</i>	<i>SD</i>
Age	122	98.4	59.8	12.2	73	58.9	60.4	12.5	49	40	59	11.7
Disability Status	19	15.3	0.8	0.4	14	11.3	0.8	0.4	5	4	1	0.5
Temporary Disability-Ever	49	39.5	0.7	0.6	32	25.8	0.6	0.6	17	13.7	0.7	0.7
Ethnicity												
African American/Black	2	1.6	0	0.1	2	1.6	0	0.2	0	0	0	0.0
Native American	2	1.6	0	0.1	2	1.6	0	0.2	0	0	0	0.0
Caucasian	111	89.5	0.9	0.3	67	54	0.9	0.3	44	35.5	0.9	0.3
Hispanic/Latino	2	1.6	0	0.1	0	0	0	0	2	1.6	0	0.2
Multiracial	1	1	0	0.1	1	0.8	0	0	0	0	0	0.0
Did not disclose	2	1.6	0	0.1	1	0.8	0	0	1	0.8	0	0.1
Other	2	1.6	0	0.1	0	0	0	0	2	1.6	0	0.1
Education Level												
Bachelors	2	1.6	0	0.1	0	0	0	0	2	1.6	0	0.2
Masters	97	78.2	0.8	0.4	55	44.4	0.7	0.4	42	33.9	0.8	0.4
JD	1	0.8	0	0.1	1	0.1	0	0.1	0	0	0	0
PhD, EdD	23	18.5	0.2	0.4	18	14.5	0.2	0.4	5	4	0.1	0.3
MD	1	0.8	0	0.1	1	0.8	0	0.1	0	0	0	0
Other	4	3.2	0	0.2	2	1.6	0	0.2	2	1.6	0	0.2

*Note: Represents experts that have experienced a Daubert or Frye Challenge.

**Note: Represents experts that have not experienced a Daubert or Frye Challenge

Table 2
Participant Practice Information

	<i>n</i>	<i>%</i>	<i>Challenge*</i>	<i>% Yes</i>	<i>Challenge**</i>	<i>%No</i>
Years Practicing	124	100	74	0.6	50	0.4
Mean	29.9		30.9		28.3	
SD	12.9		12.6		13.2	
Geographic Area						
Rural	19	15.3	12	9.7	7	5.6
Urban	69	55.6	45	36.3	24	19.6
Suburban	53	42.7	27	21.8	26	21
Practice Setting						
Private Non-Profit Rehabilitation Company	4	3.2	3	2.4	1	0.8
Private Practice	109	87.9	65	52.1	44	35.5
Public Non-Profit	1	0.8	1	0.8	0	0
Insurance Company	1	0.8	1	0.8	0	0
Other	7	5.6	3	2.4	4	3.2
Missing	2	1.6				
Region of Practice						
New England	4	3.2	1	0.8	3	2.4
Middle Atlantic	19	15.3	11	8.9	8	6.5
East North Central	14	11.3	11	8.9	3	2.4
West North Central	7	5.6	4	3.2	3	2.4
South Atlantic	22	17.7	14	11.3	8	6.5
East South Central	9	7.3	6	4.8	3	2.4
West South Central	11	8.9	8	6.5	3	2.4
Mountain	13	10.5	6	4.8	7	5.6
Pacific	24	19.4	13	10.5	11	8.9
Missing	1	.8				

Note: Regions include the following states: New England (CT, ME, MA, NH, RI, VT), Middle Atlantic (NJ, NY, PA), East North Central (IN, IL, MI, OH, WI), West North Central (IA, NE, KS, ND, MN, SD, MO), South Atlantic (DE/DC, FL, GA, MD, NC, SC, VA, WV), East South Central (AL, KY, MS, TN), West South Central (AR, LA, OK, TX), Mountain (AZ, CO, ID, NM, UT, NV, WY), Pacific (AK, CA, HI, OR, WA).

*Note: Represents experts that have experienced a Daubert or Frye Challenge.

**Note: Represents experts that have not experienced a Daubert or Frye Challenge.

Table 3
Certification and Licensure by Expert

	n	Challenge*	Challenge**		n	Challenge*	Challenge**
Commission on Rehabilitation Counselor Certification	102	60	41	AALNC	3	0	2
Rehabilitation Provider	18	15	3	Physical Therapist	1	1	0
Licensed Professional Counselor (LCP, LCPC)	34	21	12	Psychologist	4	3	1
American Board of Vocational Experts	56	34	22	Certified Life Care Planner	3	0	3
Certified Disability Management Specialist	26	13	13	Certified Vocational Evaluator	7	3	4
Certified Professional Disability Management	3	2	1	Qualified Rehabilitation Consultant	2	0	2
Certified Case Manager	34	22	12	American Board of Disability Analysts	1	1	0
National Board-Certified Counselor	12	7	5	Certified Athletic Trainer	1	0	1
Career Counselor	6	5	1	CET- Ergonomics	1	0	1
Life-care Planner	40	26	14	MSCC	1	1	0
Case Manager	17	12	5	DOL/OWCPP	1	1	0
Psychological Counselor	3	2	1	EDNPA	1	1	0
Licensed Clinical Social Worker	3	3	0	Guidance Counselor	1	0	1
Licensed Marriage and Family Therapist	2	0	2	IPEC	3	2	1
Alcohol/Drug Counselor	1	1	0	Medicare Set Aside Allocator	1	1	0
Certified Substance Abuse Counselor	1	1	0	Psychological Associate	1	0	1
Registered Nurse	9	4	5	Licensed Interpreter for the Deaf	1	0	1
Recreation Therapist	1	1	0	Professional Vocational Educator	1	0	1
Licensed Rehabilitation Counselor	8	3	4	Washington Bar Association	1	1	0

*Note: Represents experts that have experienced a Daubert or Frye Challenge.

**Note: Represents experts that have not experienced a Daubert or Frye Challenge.

Table 4
Jurisdictions where participants licensure and certifications are held

	n	Challenge*	Challenge**		n	Challenge*	Challenge**
Alabama	2	2	0	Nebraska	0	0	0
Alaska	0	0	0	Nevada	0	0	0
Arizona	1	1	0	New Hampshire	0	0	0
Arkansas	2	1	1	New Jersey	1	1	0
California	6	2	4	New Mexico	0	0	0
Colorado	3	3	0	New York	0	0	0
Connecticut	1	0	1	North Carolina	6	3	3
Delaware	0	0	0	North Dakota	0	0	0
Florida	3	2	1	Ohio	4	3	1
Georgia	2	1	1	Oklahoma	0	0	0
Hawaii	2	1	1	Oregon	0	0	0
Idaho	1	0	1	Pennsylvania	10	6	4
Illinois	7	4	3	Rhode Island	1	0	1
Indiana	2	1	1	South Carolina	4	2	2
Iowa	0	0	0	South Dakota	1	1	0
Kansas	1	1	0	Tennessee	3	2	1
Kentucky	0	0	0	Texas	1	0	1
Louisiana	4	3	1	Utah	0	0	0
Maine	0	0	0	Vermont	0	0	0
Maryland	1	1	0	Virginia	3	3	0
Massachusetts	2	0	2	Washington	5	3	2
Michigan	3	3	0	West Virginia	0	0	0
Minnesota	3	2	1	Wisconsin	1	1	0
Mississippi	0	0	0	Wyoming	0	0	0
Missouri	1	0	1	LRC, N/A, none	19	12	7
Montana	1	0	1	National	8	6	2

*Note: Represents experts that have experienced a Daubert or Frye Challenge.

**Note: Represents experts that have not experienced a Daubert or Frye Challenge.

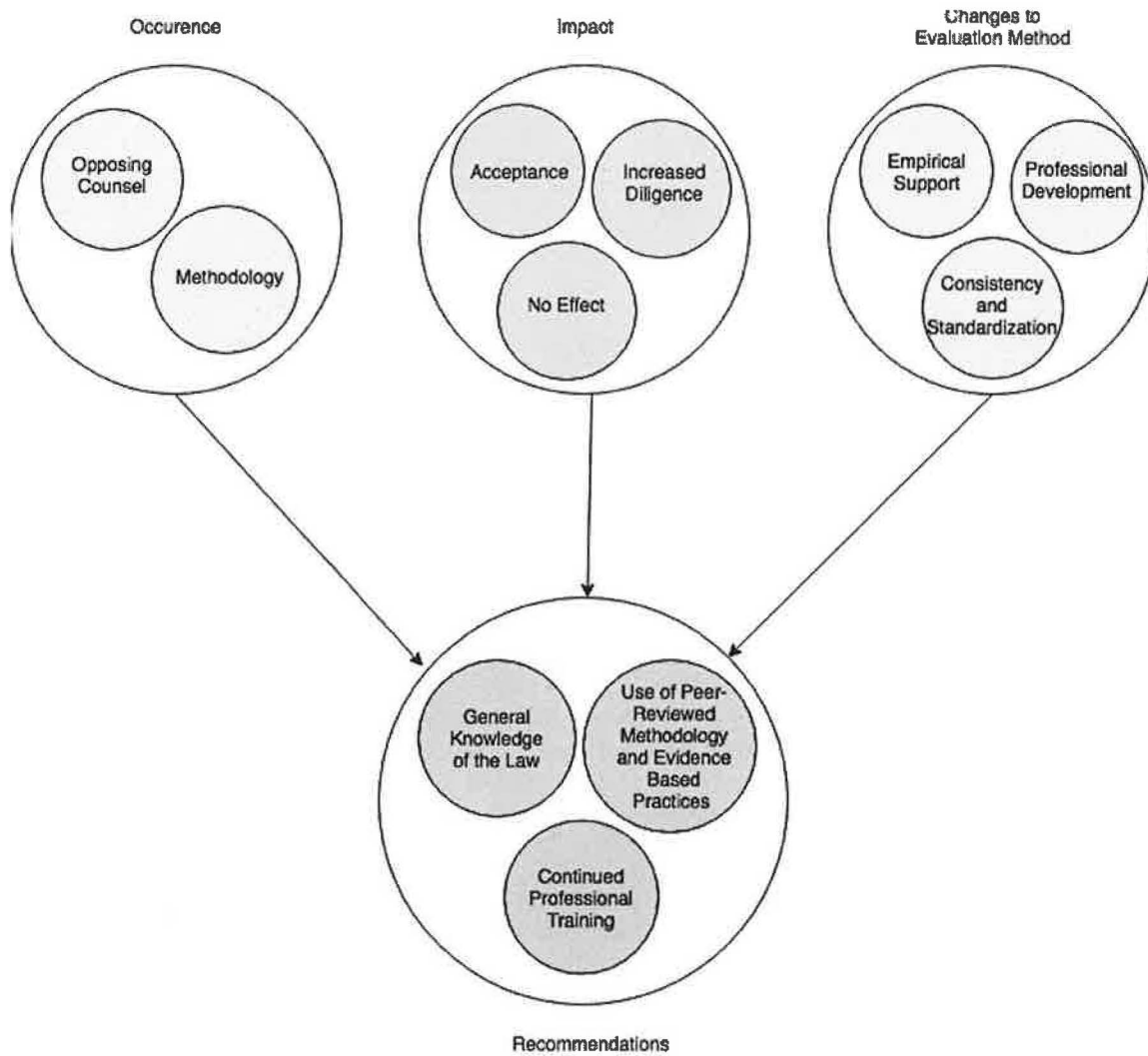


Figure 1. Themes and recommendations regarding the experiencing a Daubert or Frye-Reed challenge among rehabilitation counselors