1

Closure rates and counselor education: An exploration of why counselors with MRC degrees do not have better client outcomes than other master's-level counselors

Michael M. Mackay^{a,*}, Eric S. Suedmeyer^b, Chrisann Schiro-Geist^a, Steven L. West^a and Douglas C. Strohmer^a

Revised/Accepted May 2018

Abstract.

BACKGROUND: Research shows counselors with a master's degree in rehabilitation counseling (MRC) do not have different closure rates than counselors with other master's (OM) degrees that are in rehabilitation-related disciplines.

OBJECTIVE: To explore reasons for the lack of differences by comparing MRC and OM counselors on amount of preservice training in job-related areas (*Aim 1*), perceptions of preparedness for work (*Aim 2*), time spent performing job-related activities (*Aim 3*), and through open-ended responses regarding education and work environment (*Aim 4*).

METHODS: Counselors (53 MRC, 27 OM) completed an online survey assessing pre-service training, perceptions of preparedness, and time spent preforming job-related activities.

RESULTS: $Aim\ 1$: MRC counselors reported more training in five areas (p-values < 0.001), but not in nine others. $Aim\ 2$: MRC counselors felt more prepared for their jobs (p = 0.001). $Aim\ 3$: No differences were found regarding time spent performing job-related activities. $Aim\ 4$: Responses suggested similar closure rates might stem from high administrative work strain, low client motivation, unavailability of jobs, impact of on-the-job experience, and closure quota demands.

CONCLUSIONS: MRC-OM closure rate similarities are not due to inadequate MRC training, low feelings of preparedness for work, or MRC-OM differences in job-related activities; in fact, they may be due to factors unrelated to a counselor's education.

Keywords: Rehabilitation counseling, closure rate, counselor education, policy and training, vocational rehabilitation

1. Introduction

The work of a vocational rehabilitation counselor requires a blend of social acumen, entrepreneurship, and management skills (Zanskas & Strohmer, 2011), and is performed by individuals with various educational backgrounds. Research examining if a counselor's educational background predicts whether a client acquires employment suggests counselors who have a master's degree in rehabilitation counseling (MRC) do not have higher closure rates (i.e., percentage of clients who are placed in employment)

^aDepartment of Counseling, Educational Psychology and Research, The University of Memphis, Memphis, TN, USA

^bRaymond G. Murphy VA Hospital, Albuquerque, NM, USA

^{*}Address for correspondence: Michael M. Mackay, Ph.D., Department of Counseling, Educational Psychology and Research, Ball Hall 304A, The University of Memphis, Memphis, TN 38152, USA. Tel.: +1 901 678 2841; E-mail: mmmackay@memphis.edu.

than counselors with other master's (OM) degrees that are in rehabilitation-related disciplines, such as counseling, social work, special education. For example, Szymanski and Parker (1989a) reported that, in a sample of counselors from New York State, closure rates between MRC counselors and those with related master's degrees did not differ, regardless of the operationalization of closure rate (e.g., closure rate for all clients, closure rate for most-severely disabled clients). The only significant difference found was between counselors with MRC degrees and those with bachelor's or unrelated master's degrees, and then solely in closure rates of clients who had the most severe disabilities. It's notable that this difference also disappeared when counselor experience reached six years (Szymanski & Parker, 1989b).

Similar findings were reported by Abrams and Tucker (1989) using a sample of Florida counselors, Szymanski (1991) in a Wisconsin sample, Cook and Bolton (1992) using an Arkansas sample, and Szymanski and Danek (1992) in counselors from Maryland. In each study, no significant difference in closure rates was found between MRC counselors and counselors who had a master's degree in a related discipline. The only study suggesting potential differences, conducted by Wheaton and Berven (1994), used cluster analysis to determine whether a combination of variables predicted counselor performance. Although the authors reported that counselors in the highest performing clusters were more likely to have an MRC degree, the cluster analysis simultaneously combined a number of variables in addition to counselor education (e.g., funds spent on successful closures, time to successful closure, caseload size, speed of eligibility-ineligibility decision). The nature of the cluster analysis thus made it impossible to partial out the effects of education from the other variables because a specific comparison of closure rates by level of counselor education alone was not made.

Thus, across the body of literature the findings indicate that counselors who have an MRC degree are not more successful in placing clients in employment than counselors who have a master's degree in a related discipline. These results suggest that counselors may not need to specifically have an MRC degree to perform their jobs; in other words, other master's degrees related to rehabilitation may be equally adequate. This implication is potentially concerning given that currently there exist 78 accredited programs across the United States that offer the MRC degree (Council for Accreditation of Counseling &

Related Educational Programs, 2017) and many of these programs receive funding from the Rehabilitation Services Administration (RSA, 2017a), making the utility of this funding questionable.

Therefore, a need exists to investigate why MRC counselors do not have higher closure rates than their counterparts who do not have rehabilitation specific training. It is possible that the MRC degree contains deficiencies in training that need to be amended, that there exist on-the-job barriers that prevent the advantages of the MRC degree from being expressed, or that on-the-job training and work experience create a level playing field for counselors regardless of preservice training. As such, the aims of the present study are to explore potential explanations for the lack of closure rate differences between MRC and OM counselors.

A potential explanation for the lack of closure rate differences is that pre-service training received by MRC counselors is not considerably different from the training received by OM counselors, and this lack of differentiated training is reflected in the similar closure rates. An MRC degree provides training in a variety of content areas based on the multifaceted nature of job, including disability management, assessment, vocational consultation, counseling theory and interventions, human development, and case management (Leahy, 2003). A lot of these content areas are also taught in master's degree programs attended by OM counselors (e.g., mental health counseling, social work, counseling psychology). Thus, although OM counselors may not receive the same amount of pre-service training in rehabilitation-specific content, they may obtain the same or even more training in content that is common across MRC and OM degrees, such as assessment, counseling theories, and case management. If these content areas are important predictors of whether clients acquire employment, then the lack of closure rate differences between MRC and OM counselors may be rooted in the fact that both groups of counselors receive similar levels of training in these areas.

Unfortunately, no studies exist examining specifically how MRC and OM counselors differ with respect to pre-service training. Studies have examined the required knowledge areas of rehabilitation counselors (Leahy et al., 1993, 2003), and have compared how these knowledge areas differ by licensure type (Leahy et al., 2012), but none have specifically examined if MRC and OM counselors differ in the

amount of training received in these areas. Therefore, as the first step in an exploration of the reasons for the similar closure rates, it is important to examine precisely how the pre-service training experiences of these counselors differ to determine the unique skillset MRC counselors possess. As such, the first aim of the present study is:

Aim 1: To assess how the pre-service training of MRC counselors differs from the training of OM counselors who do not receive rehabilitation-specific training.

Specifically, differences will be assessed on 14 knowledge domains derived from the test content areas for the CRC exam (Commission on Rehabilitation Counselor Certification, 2017). A list of these content areas is provided in the Table 2.

A second explanation for the similar closure rates between MRC and OM counselors may be that, regardless of any pre-service training differences, counselors with both types of degrees may feel equally prepared to work as rehabilitation counselors upon graduation. Put another way, even though counselors with OM degrees may not receive the same amount of rehabilitation-specific training, they may enter the job feeling well equipped and confident in their ability to work as rehabilitation counselors. The similar closure rates reported in the literature may therefore be linked to overall feelings of preparedness for the job.

Although several studies have examined how prepared rehabilitation counselors feel to conduct various job functions (e.g., Leahy, Chang, Sung, & Kim, 2012; Plotner, Trach, & Strauser, 2012), to date only a study by Szymanski, Leahy and Linkowski (1993) specifically contrasted perceptions of preparedness by counselor degree type. The authors asked counselors with various types of degrees to rate feelings of preparedness across ten knowledge subscales, finding mixed results: in comparison to counselors who had a master's degree in a nonrehabilitation discipline, MRC counselors reported higher levels of preparedness on five (i.e., half) of the ten knowledge domains. Unfortunately, the study's results are unclear, at least with respect to differences between MRC and OM counselors, for two reasons. First, the authors separated MRC degrees into two categories, Council on Rehabilitation Education (CORE) master's degrees and other rehabilitation master's degrees (i.e., non-CORE), and did not perform an analysis comparing all

MRC counselors to counselors with other degrees. Second, the authors conducted non-parametric rankbased analyses on the data, making the results unclear because using ranks ignored the fact that raw score differences in preparedness were minute. For example, the CORE group ranked first on the Case Management knowledge domain; however, this group's raw score was 2.32 whereas counselors with a non-rehabilitation master's degree scored 2.25, and it is unlikely the 0.07 difference would be statistically significant. Similarly, counselors with non-rehabilitation master's degrees had the highest preparedness ranking on the Vocational Services knowledge domain, but their raw score was 2.21 and only 0.01 above the CORE group's raw score of 2.20. The results thus leave uncertainty about actual differences in feelings of preparedness between MRC and OM counselors.

Feelings of preparedness are important to explore because they may help explain the lack of differences in closure rates. If MRC counselors are found to feel more prepared to work as rehabilitation counselors, this will suggest the similar closure rates are not attributable to a training-related reason, but instead are probably due to factors that counselors encounter once they start working. On the other hand, if perceptions of preparedness are found to be similar in the two groups of counselors, this will suggest the explanation for the lack of closure differences originates in counselors' pre-service training. Thus, the second aim of the study will explore whether perceptions of preparedness differ by degree type:

Aim 2: To assess whether MRC and OM counselors differ in their perceptions of how well their degree prepared them for the work of a rehabilitation counselor.

Whereas the first two aims of the study will examine factors that exist before counselors begin working (i.e., initial differences in knowledge content areas and perceptions of preparedness), the third aim will examine counselors' behavior at work, assessing whether MRC and OM counselors differ in the percentage of time they spend on various job-related activities. It is possible that similar closure rates exists because, despite any differences in pre-service training, counselors have enough autonomy in their jobs to tailor services in a way that minimizes the pre-existing differences, subsequently leading to the closure rate similarities. For example, one possibility is that OM counselors are not as proficient in

providing vocational counseling as MRC counselors, but they compensate for this by spending more time providing personal counseling or therapy. Another possibility is that OM counselors take more time to provide accurate initial assessments of clients, which ends up translating to higher client success in finding employment. Both of these explanations are of course speculative and empirical evidence is needed to determine whether closure rate similarities exist because MRC and OM counselors spend different amounts of time on specific job-related activities.

Lustig and Strauser (2008) provide the only study to date examining this issue. The authors asked counselors to estimate the percentage of time spent in various job-related activities, and compared responses across different educational degrees. The results showed that MRC counselors spent less time in counseling activities than counselors who had a general master's degree in counseling, suggesting that counselors who lack rehabilitation-specific training may indeed focus on their strengths as a way of minimizing pre-existing training differences. However, the effect size of this result was small ($\eta_p^2 = 0.017$), making it unclear whether the difference was strong enough to actually impact closure rates. Furthermore, no differences were found between counselors on the other job-related activities. Given that the Lustig and Strauser (2008) study is the only one to date examining this topic, a replication is needed to garner more confidence in whether counselors differ in the time they spend on various work tasks. As such, the third aim of the study is:

Aim 3: To examine whether MRC counselors report spending different amounts of time on various job-related activities than OM counselors.

Specifically, counselors will be asked to estimate the percentage of time they spend on the following activities during a typical work week: providing vocational counseling (including initial assessments), offering personal counseling/therapy, finding job placements and communicating with employers, checking-in and following-up with clients, and doing administrative work not directly related to clients.

Aims 1 through 3 of the study will explicitly examine differences between MRC and OM counselors regarding pre-service training (Aim 1), perceptions of preparedness for the job (Aim 2), and percentages of time spent on various job-related activities (Aim 3). Although the results of these aims will be helpful in narrowing-down potential explanations for the similar closure rates, there exists a myriad of other factors

that may offer potential explanations. An effective method of exploring the presence of these other factors is to elicit answers to an open-ended item asking counselors to provide general comments about their education and work environment (Creswell & Poth, 2017; Friborg & Rosenvinge, 2013).

There are two advantages to using an open-ended item. First, such an item is non-leading and counselors are not primed to offer a response to a researcher-chosen topic. This increases the likelihood of participants providing answers that may offer novel explanations for the similar closure rates not previously considered by researchers. Second, an open-ended item may be especially effective in identifying barriers that prevent closure rate differences from being expressed. Aims 1 through 3 explore whether MRC and OM counselors differ on a variety of variables; however, it is conceivable that there exist factors affecting all counselors alike, and that these factors have an equalizing effect on closure rates. For example, it is plausible that MRC counselors possess a higher ability to place clients in jobs, but they do not have a chance to demonstrate this ability due to the lack of jobs in the local economy. Alternatively, high caseloads and amounts of administrative work may not give MRC counselors the opportunity to fully utilize their training, lowering their closure rates to those of OM counselors. Attempting to find an explanation for the similar closure rates by solely searching for differences between counselors, as in Aims 1 through 3, may never be fruitful if meaningful barriers exist that affect all counselors. Thus, the fourth research aim is:

Aim 4: To explore other potential explanations for the lack of closure rate differences by eliciting counselors' responses to an open-ended item about their education and work environment.

2. Method

2.1. Participants

Counselors employed by the State Office of Rehabilitation of a state in the Southwestern United States (N=129) were invited to participate in an online survey. The study was approved by the authors' institutional review board (IRB) for the protection of human subjects prior to survey implementation. Counselors received no compensation for participating. One-hundred two opened the survey; of those,

Table 1
Demographic Variables of Counselors

Variable	n (%)	M(SD)
Age		27.95 (9.55)
Years of experience		8.18 (5.62)
Sex		
Male	40 (50.00)	
Female	40 (50.00)	
Education		
Master's with specific training in rehabilitation (MRC)	53 (66.25)	
Master's in other disciplines (OM)	27 (33.75)	
Counseling	7 (8.75)	
Social work	5 (6.25)	
Education	3 (3.75)	
Clinical or counseling psychology	3 (3.75)	
Special education	3 (3.75)	
Other psychology	2 (2.50)	
Educational psychology	1 (1.25)	
Educational counseling	1 (1.25)	
Public administration	1 (1.25)	
Mental health counseling	1 (1.25)	

13 did not provide any data, two had a bachelor's degree, and seven were currently enrolled in a master's program. Given that the present study examines differences solely between MRC and OM counselors, counselors without a completed master's degree were not included in the study, resulting in a final sample size of 80 (62% response rate). Table 1 presents demographic variables of the counselors. Forty were female (50.00%), average age was 27.95 (SD = 9.55) and average number of years working as a rehabilitation counselor was 8.18 (SD = 5.62). Fifty-three (66.25%) counselors had an MRC degree and 27 (33.75%) had an OM degree. The specific OM degrees and their frequencies are presented in Table 1.

2.2. Measures and procedures

The Office of Rehabilitation of a state in the Southwestern United States sent an email to counselors describing the study and providing a link to an online survey that assessed variables relevant to the study's aims. Relating to Aim 1, counselors were asked to rate the extent to which their master's degree offered training and coursework in 14 content areas that appear on the CRC certification exam (see Table 2 for list of content areas). Counselors rated each content area on a 4-point Likert-type scale, with response options ranging from *None at all* to *A lot*. Relating to Aim 2, counselors responded to the following question, "Overall, how well did your master's degree prepare you for your work as a vocational rehabilitation

counselor?" Answers were provided using a 5-point Likert-type scale ranging from *Not well at all* to *Extremely well*.

Relating to Aim 3, counselors rated the percentage of time they spent on five job-related activities: 1, providing vocational counseling and initial assessments; 2, offering personal counseling/therapy; 3, finding job placements and communicating with employers; 4, checking-in and following-up with clients; and 5, doing administrative work. Counselors entered the estimated percentage of time for each activity, with the total required to sum to 100%. Relating to Aim 4, counselors used a text box to provide responses the following item, "Please share with us any comments you have regarding your job, the educational preparation you received, or your work environment."

2.3. Data analyses

For Aims 1 and 3, multivariate analyses of variance (MANOVAs) were performed in which counselor education (MRC vs. OM) served as the between-subjects variable and the 14 knowledge content areas (for Aim 1) or the five job-related activities (for Aim 3) served as the dependent variables. A discriminant analysis was performed to interpret the linear combination of variables behind any significant multivariate effect (Field, 2012; Grice & Iwasaki, 2007) and follow-up univariate analyses of variance (ANOVAs) were conducted to determine whether MRC and OM counselors differ on individual dependent variables.

Dependent Variable M(SD)F η^2 Group p Assessment and vocational evaluation MRC 3.31 (0.67) 3.69 0.058 0.046 OM 2.96 (0.89) Career development and job placement MRC 3.40 (0.66) 18.35 < 0.001* 0.192 OM 2.67 (0.16) Vocational consultation and services for employers MRC 2.65 (0.95) 13.92 0.153 <0.001* OM 1.85 (0.82) Case management and use of community resources MRC 3.25 (0.79) 0.79 0.377 0.010 OM 3.07 (0.92) Foundations and theories of counseling MRC 3.75 (0.44) 0.800 0.001 0.06 OM 3.78 (0.51) 0.045 Ethical issues relating to practice MRC 3.87 (0.40) 4.14 0.051 OM 3.63 (0.63) MRC 3.73 (0.49) 2.94 0.090 0.037 Social and cultural issues relating to counseling OM 3.52 (0.58) 3.00 (0.89) 0.052 Human growth and development MRC 3.88 0.048 OM 3.41 (0.84) Group and family counseling MRC 3.06 (0.98) 2.35 0.130 0.030 OM 3.41 (0.93) Mental health counseling MRC 3.12 (0.86) 5.79 0.019 0.070 OM 3.59 (0.80) Medical and physical aspects of disabilities MRC 3.77 (0.43) 40.35 <0.001* 0.344 OM 2.67 (1.11) Psychosocial and interpersonal aspects of disabilities MRC 3.71 (0.54) 28.86 < 0.001* 0.273

Table 2
MRC and OM Counselor Differences in Knowledge Content Areas

Note. *Indicates significance at p < 0.004. Given the large number of tests performed, a Bonferroni correction was used to control for Type I error inflation; thus, alpha was set at 0.004; MRC = master's in rehabilitation counseling; OM = master's in other disciplines.

OM

OM

OM

MRC

MRC

A Bonferroni correction was made to control for Type I error inflation in order to account for the large number of univariate tests; thus, the univariate ANOVAs for Aim 1 employed an alpha of 0.004 and those for Aim 2 employed an alpha of 0.01.

Disability management

Research and evidenced-based practice

For Aim 2, an ANOVA was conducted in which counselor education (MRC vs. OM) served as the between-subjects variable and ratings of preparedness served as the dependent variable. Lastly, for Aim 4, counselors' answers to the open-ended question were coded by the lead author and another researcher to find common themes that could shed further light on the lack of closure rate differences between MRC and OM counselors. Coders used an iterative procedure in which potential themes were identified by each coder separately, coders then shared the discovered themes with each other via discussion, and the data were once again coded separately with a focus on the identified themes. Lastly, coders met one final time to discuss any coding discrepancies.

3. Results

2.78 (1.01)

3.33 (0.83)

2.15 (1.14)

3.50 (0.67)

3.52 (0.64)

3.1. Aim 1: MRC and OM differences in knowledge content areas

27.62

0.01

< 0.001*

0.906

0.264

< 0.001

The first aim of the study was to examine the extent to which MRC and OM counselors report having different amounts of pre-service training across 14 knowledge content areas. The MANOVA showed a significant multivariate effect for counselor education, Pillai's Trace = 0.56, F(14, 64) = 5.70, p < 0.001, $\eta_p^2 = 0.56$. A follow-up analysis revealed a significant discriminant function that explained 56% of variance in counselor education, $\wedge = 0.45$, $\chi^2(14) = 56.66$, p < 0.001. The following knowledge content areas had the highest loadings onto the discriminant function: disability management ($\beta = 0.47$), medical and physical aspects of disabilities ($\beta = 0.47$), career development and job placement ($\beta = 0.41$), and mental health counseling ($\beta = -0.72$). The results of the

discriminant analysis showed that MRC and OM counselors can be distinguished using the knowledge content areas; however, to determine whether the individual variables are able to distinguish between the groups of counselors, follow-up ANOVAs were conducted.

The results of the follow-up ANOVAs, presented in Table 2, revealed results similar to the discriminant analysis: MRC counselors reported significantly more training in five of the 14 knowledge content areas: disability management (p < 0.001, $\eta_p^2 = 0.26$), medical and physical aspects of disabilities $(p < 0.001, \eta_p^2 = 0.34)$, career development and job placement (p < 0.001, $\eta_p^2 = 0.19$), psychosocial and interpersonal aspects of disabilities (p < 0.001, $\eta_p^2 = 0.27$), vocational consultation and services for employers (p < 0.001, $\eta_p^2 = 0.15$). All effect sizes were strong by conventional standards (Cohen, 1988). Of note, no significant differences between MRC and OM counselors were found on the other nine knowledge content areas, including assessment and vocational evaluation (p = 0.058, $\eta_p^2 = 0.05$), case management and use of community resources $(p=0.377, \eta_p^2=0.01)$, foundations and theories of counseling $(p = 0.800, \eta_p^2 = 0.00)$, and group and family counseling $(p = 0.130, \eta_p^2 = 0.03)$.

3.2. Aim 2: MRC and OM differences in perceptions of preparedness

The study's second aim was to determine whether MRC and OM counselors differ in their perceptions of how well their degree prepared them for the job of a rehabilitation counselor. The ANOVA revealed that MRC counselors (M = 4.25, SD = 0.81) reported feeling more prepared to work as a rehabilitation counselor than OM counselors (M = 3.56,

SD = 0.85), F(1, 78) = 12.65, p = 0.001, $\eta_p^2 = 0.14$. The effect size of the difference was strong by conventional standards, with degree type accounting for 14% of variance in perceptions of preparedness.

3.3. Aim 3: MRC and OM differences in job-related activities

These analyses examined whether MRC and OM counselors report spending different amounts of time performing various job-related activities. The MANOVA revealed no significant multivariate effect for counselor education, $\wedge = 0.93$, F(5, 72) = 1.06, p = 0.389, $\eta_p^2 = 0.07$. Given that the multivariate effect was not significant, a follow-up discriminant analysis was not performed. Subsequent univariate ANOVAs corroborated the multivariate results, showing that there were no differences between MRC and OM counselors on the percentage of time counselors spent on any of the job-related activities, with *p*-values ranging from 0.129 to 0.689, and four of the effect sizes explaining less than 1% of variance (see Table 3).

3.4. Aim 4: Exploration of open-ended answers

The fourth aim of the study was to find other potential explanations for the lack of closure rate differences by examining answers to an open-ended item eliciting comments about counselors' education and work environment. Counselors provided 44 comments, 22 of which provided potential explanations for the similar closure rates (see Table 4). The five themes that emerged from a content analysis of these responses are summarized below.

The most common theme, found in eight responses, suggested that a counselor's ability to

Table 3 MRC and OM Counselor Differences in Time Spent on Job-Related Activities

Dependent Variable	Group	M(SD)	F	p	η^2
Vocational counseling and initial assessment	MRC OM	30.19 (16.30) 33.38 (20.74)	0.57	0.453	0.007
Personal counseling and therapy	MRC OM	11.53 (10.68) 7.65 (9.66)	2.35	0.129	0.030
Finding job placements communicating with employers	MRC OM	7.09 (5.61) 8.00 (7.75)	0.35	0.554	0.005
Checking-in and following up with clients	MRC OM	19.52 (11.67) 17.77 (11.60)	0.39	0.534	0.005
Administrative work	MRC OM	24.33 (20.15) 22.35 (21.22)	0.16	0.689	0.002

Note. MRC = master's in rehabilitation counseling; OM = master's in other disciplines.

Table 4 Counselors' Responses to Open-Ended Item Regarding Education and Work Environment

1. Outcomes are impacted by administrative work $(n = 8)$	1. Care should be given to find ways to reduce paperwork requirements and allow counselors to
administrative work (n = 0)	focus more on client support and rehabilitation.
	2. Clerical work is becoming a larger part of the job.
	3. I am always taken back by the amount of paperwork a V.R. counselor must engage in. It seems counselors are doing less and less vocational counseling and guidance and instead are entering data.
	4. In recent years, my position has added a lot more caseload management and caseload auditing responsibilities. It has been a long time since there was a focus on the counseling aspect of my profession
	5. It is difficult when the case management systems and processes slow down the art of counseling. It is a necessary evil- I just wish that there were more time for vocational counseling
	6. It seems as though most of my time is spent in record keeping, not working directly with clients.
	7My clients aren't able to receive the complete benefit of what I can help them with because of the other administrative and case management tasks I have to do.
	8. The current priority for our agency is onpaperwork not counseling and guidance with clients.
2. Outcomes are outside counselors' control (n = 6)	1. Counselors do not have control over whether or not a client ultimately wants to go to work, keeps their job, is fired/kept by an employer, etc. despite best counseling efforts and solid, appropriate service provision.
	2. The success of my clients in regards to employment largely depends on their active involvement and participation in the program and VR activities.
	3. I serve clients in a still somewhat economically depressed area and find it difficulty to help some people break free to experience their vocational goals.
	4. One of drawbackis working very hard to help clients access employment while they are working to get on SSA disability benefits. Once benefits are awarded then the motivation for finding employment drops down to almost nothing.
	5. It is a tough population because they have barriers that are not related to their disability such as transportation, housing and legal issues/criminal history.
	6. Nature of profession has significantly changed due to the nature of clients with most significant disabilities, changing economy and focus on transition.
3. Outcomes are due to non-educational factors (<i>n</i> = 3)	1. I have a degree in mental health counseling. I have noticed that even though others have a degree in rehab counseling this does not seem to change if someone knows how to do this job or not. To me it seems that if you know how to work with people with disabilities is the main thing.
	2. The best preparation for this job is really on the job experience.
	3. I believe that without the actual hands-on experience of my work every day, my education would have been sub par.
4. Outcomes are due to mental health counseling (<i>n</i> = 3)	1. My clients do not come to vocational rehabilitation in a sound mental and/or physical state. Counseling is needed to bring about change the client can use to create the life they are meant to have.
	2. Mental health disabilities are numerous in my caseload. It is imperative to know and understand the different counseling theories and how to apply them with clients.
	3. I often use concepts and theories related to [marriage and family therapy] to see the individual within the system they are in. By using this education and theory I am better equipped to help the individual navigate through barriers and find independence and empowerment.
5. Outcomes affected by pressure to obtain quotas $(n = 2)$	1Supervisors are always on counselors about making sure the numbers are metIt seems that time is spent more on meeting numbers and such and just not relaxing and really working with clients.
	2The pressure of obtaining quotas or numbers for successful closures often drastically impacts the outcome of cases when the push for closures happens.

place clients in jobs is stymied by administrative and clerical requirements. For example, one counselor stated, "Care should be given to find ways to reduce paperwork requirements and allow counselors to focus more on client support and rehabilitation." Another wrote, "I am always taken back by the

amount of paperwork a [vocational rehabilitation] counselor must engage in. It seems...counselors are doing less and less vocational counseling and guidance and instead are entering data."

The second most common theme, represented by six comments, indicated that client outcomes are ulti-

mately outside of a counselor's control because other factors determine whether a client acquires employment. Two comments within this theme specifically alluded to low client motivation to find work; for example, one stated, "One drawback...is working very hard to help clients access employment while they are working to get on [social security] disability benefits. Once benefits are awarded then the motivation for finding employment drops down to almost nothing." Another two comments in this theme mentioned that the strength of the local economy was a barrier to placing clients in jobs, with one counselor writing, "I serve clients in a still somewhat economically depressed area and find it difficult to help some people break free to experience their vocational goals." Another comment in this theme discussed the presence of various barriers to employment, such as transportation, housing, or criminal history.

The third theme, represented by three responses, indicated that a counselor's pre-service training is not as important in determining client outcomes as other factors. Two of these responses declared the value of counselor experience (e.g., "The best preparation for this job is really on the job experience."), whereas the third stated that a crucial predictor of counselor success is a counselor's ability to effectively work with clients who are disabled: "I have a degree in mental health counseling. I have noticed that even though others have a degree in [rehabilitation] counseling this does not seem to change if someone knows how to do this job or not. To me it seems that if you know how to work with people with disabilities is the main thing."

Theme four emerged from three comments, which suggested that the key to working with clients with disabilities lies not in rehabilitation-specific training but in a counselor's ability to provide mental health counseling. One counselor commented, "My clients do not come to vocational rehabilitation in a sound mental and/or physical state. Counseling is needed to bring about change the client can use to create the life they are meant to have." Another wrote, "Mental health disabilities are numerous in my caseload. It is imperative to know and understand the different counseling theories and how to apply them with clients." The last theme, represented by two comments, suggested that counselors are under pressure to meet closure quotas; one of these stated, "... Supervisors are always on counselors about making sure the numbers are met...It seems that time is spent more on meeting numbers and such and just not relaxing and really working with clients".

4. Discussion

The study's aims explored potential explanations for the lack of differences in closure rates between MRC and OM counselors reported in literature (e.g., Abrams & Tucker, 1989; Cook & Bolton, 1992; Szymanski and Parker, 1989a). The first aim examined differences in pre-service training in order to identify the unique skillset MRC counselors possess when beginning work as rehabilitation counselors. A lack of differences would suggest closure rate similarities are rooted in training inadequacies. The results showed that MRC counselors receive more training in five knowledge content areas; three of these were related to disability issues (e.g., medical and physical aspects of disabilities) and two were related to vocational counseling (e.g., career development and job placement). No differences were found on the other nine areas, which included case management, assessment, theories of counseling, and mental health counseling. It therefore appears MRC counselors possess some unique skills, but much of their pre-service training overlaps with that received by OM counselors. The implication of this result is that specialized training in vocational counseling and disabilities (i.e., rehabilitation-specific subjects) may not be sufficient enough to produce higher closure rates in MRC counselors. Put another way, training in these areas may not be crucial because other skills, which MRC and OM counselors share, are more important in determining client outcomes.

Support for this conclusion is provided by literature regarding working alliance, defined as the quality of the counselor-client relationship and their mutual commitment to the goals of counseling (Bordin, 1979). Studies show a strong working alliance correlates with clients' enthusiasm about finding a job in the future, and that clients who end up finding employment retrospectively rate their working alliance more positively than clients who don't acquire a job (Donnell, Lustig & Strauser, 2004; Lustig, Strauser, Rice & Rucker, 2002). According to this literature, a crucial predictor of client success is counselors' ability to establish a close, trusting relationship with clients. Arguably, this ability is acquired when counselors receive pre-service training regarding counseling theories and mental health counseling, which these MRC and OM counselors report receiving in equal amounts. Thus, similarities in closure rates may exist because, despite the rehabilitation-specific training received by the MRC group, both groups of counselors possess the skills necessary to establish a strong working alliance. The potential of working alliance serving as an explanation for closure rate similarities is discussed further below.

Aim 2 of the study examined whether counselors differ in their perceptions of how well their degrees prepared them to work as rehabilitation counselors. The results showed that MRC counselors did indeed feel more prepared than their OM counterparts. The findings are in contrast to those of Szymanski and coauthors (1993), who found negligible raw score (i.e., non-ranked) differences. In fact, the difference we found had a large effect size by conventional standards, suggesting that the MRC-OM distinction explains 14% of variance in feelings of preparedness. A potential explanation for the contradicting results is that the present study used a single item to compare overall perceptions of preparedness whereas Szymanski and coauthors (1993) compared preparedness across ten individual job-related areas.

Nevertheless, it is interesting our results show differences regarding feelings of preparedness, but that these differences do not translate to eventual differences in closure rates. An explanation for this may be that MRC counselors believe their training in rehabilitation-specific content areas is necessary to place clients in jobs, but in reality other skills, those that MRC and OM counselors share, are more important. This explanation is in line with the working alliance literature discussed above.

Another explanation may be that feelings of preparedness have little consequence on subsequent closure rates because OM counselors can tailor their behavior at work in a way that focuses on their strengths and minimizes pre-service training differences. We examined the plausibility of this explanation in Aim 3, and the results revealed that MRC and OM counselors spend the same amount of time performing various job-related activities. These findings are in line with those of Lustig and Strauser (2008) and suggest it is unlikely that OM counselors compensate for any pre-existing differences by focusing on other activities such as personal counseling or therapy. The similarities in closure rates cannot therefore be explained by counselors' behavior at work.

Taken as a whole, the results of Aims 1 through 3 set up a dilemma. Closure rate similarities exist even though MRC and OM counselors have different amounts of training in rehabilitation-specific content (found in Aim 1), different feelings of preparedness (found in Aim 2), and OM counselors do

not appear to overcome these differences by altering their work behavior. Ultimately, it is possible closure rate similarities are not due any difference between the counselors whatsoever. Instead, the similarities may be caused by the presence of certain factors that impact all counselors and have an equating effect on closure rates. The potential existence of these factors was explored in Aim 4.

Aim 4 used an open-ended item requesting counselors to provide comments about their education and work environment. Of the five themes we uncovered, the most common suggested counselors have excessive administrative duties that impact counselors' ability to effectively work with clients. Other comments indicated that closure rates are influenced by factors outside of counselors' control, such as the strength of the local economy, low client motivation, or clients' barriers to transportation or housing.

One theme alluded to the importance of counselors being able to provide mental health counseling, suggesting these skills are instrumental in ensuring client success. This theme is particularly relevant considering the results of the univariate tests conducted in Aim 1 (see Table 2), which showed that MRC and OM counselors do not report significantly different pre-service training in mental health counseling. This suggests closure rate similarities between the two groups of counselors may be due to the fact that they receive similar levels of training in this domain.

Another theme indicated that counselor experience is crucial, which is in line with the results of Szymanski and Parker (1989b), who found that counselors are equally effective regardless of education once counselor experience reaches six years. Lastly, a couple comments mentioned that counselors are under a lot of pressure to obtain closure quotas, which suggests that some clients may end up being placed in jobs that are not ideal simply because a counselor is focused on achieving a case closure.

As a whole, the results of Aim 4 suggest numerous other factors impact closure rates. The findings imply that even if MRC counselors possess a higher ability to place clients in jobs, these factors may prevent this ability from being actualized, consequently leading to similar closure rates among MRC and OM counselors. Each of these factors presents a viable direction for future research, discussed next.

4.1. Limitations and future directions

The present study has several limitations that suggest directions for future research. First, our sample

comprised counselors from a single state and it is unclear if the findings would be replicated in using samples from other states. Furthermore, although the response rate itself was impressive (62% of all eligible counselors completed the survey), the raw number of participants was not large (N = 80), and it is possible some of the non-significant effects are a reflection of low statistical power and thereby a Type-II error. For example, the five analyses relating to Aim 3 returned non-significant results even though one of them had a small-to-medium effect size ($\eta_p^2 = 0.03$). Although we cannot convincingly rule out the possibility that the results are due to low statistical power, we believe sample size cannot be the sole explanation given that the same sample produced strong significant effects for Aims 1 and 2 (p-values 0.001 or lower). Furthermore, our results for Aim 3 also match those of other studies examining the percent of time counselors spend on job-related activities (Lustig & Strauser, 2008). That said, this limitation extends to Aim 4, in which several themes generated from counselors' responses to the open-ended question had low frequencies. Conclusions derived from these themes should be interpreted cautiously. It would be valuable to conduct similar analyses with a larger and more geographically representative sample in the future.

Future studies should also continue to explore the importance of the counselor-client working alliance, as it continues to be a potential explanation for the lack of closure rate differences. Had the results of the present study showed that MRC and OM counselors have essentially the same pre-service training, or that there are no differences in counselors' perceptions of preparedness for their jobs, the results would suggest that closure rate similarities are attributable to a training-related issue. Our results, however, do indeed show differences: MRC counselors report receiving more training in disability-related content areas and feel more prepared to work as rehabilitation counselors, suggesting the lack of differences in closure rates must be attributed to some other reason. The working alliance gains potential as a plausible explanation for the closure rate similarities given our findings. It would be of value for future research to measure the strength of the working alliance from the perspective of both the client and counselor (vs. just client), and to measure it during counseling (vs. retrospectively), to ensure ratings of working alliance contain the least amount of error.

Lastly, a promising direction for future research is an in-depth exploration of the themes revealed in clients' answers to the open-ended item about their education and work environment (i.e., Aim 4). Each of the five identified themes suggests a potential explanation for the closure rate similarities. Ultimately, there is no reason to expect there to be only one explanation for the similar closure rates. It is conceivable that a counselor's ability to place clients in jobs is affected by a number of variables, including those identified in Aim 4, as well as the strength of the counselor-client working alliance. It is possible that these factors, when combined, overshadow any differences between MRC and OM counselors; thus, future research is needed to determine how strongly these variables affect closure rates in comparison to the variable of counselor education.

Conflict of interest

The authors declare that they have no conflicts of interest.

Ethics statement

The study was conducted in accordance with the ethical standards approved by the institutional review board of the The University of Memphis.

References

- Abrams, J. M. & Tucker, C. M. (1989). Counselor variables that predict job performance among state-employed vocational rehabilitation counselors. *Rehabilitation Education*, 3, 193-199.
- Bordin, H. (1994). Theory and research on the therapeutic working alliance: New directions. In A. Horvath and L. Greenberg (Eds.), *The Working Alliance: Theory, Research and Practice* (pp. 13 37). New York: John Wiley and Sons.
- Cohen, J. (1988). Statistical power analysis for the behavioral sciences (2nd ed.). Hillsdale, NJ: Erlbaum.
- Commission on Rehabilitation Counselor Certification (2017).
 CRC Certification Guide. Schaumburg, IL: Author.
 Retrieved from https://www.crccertification.com/filebin/pdf/certification/CRCCertificationGuide102017.pdf.
- Cook, D. W., & Bolton, B. (1992). Rehabilitation counselor education and case performance: An independent replication. Rehabilitation Counseling Bulletin, 36, 37-43.
- Council for Accreditation of Counseling & Related Educational Programs. (2017). CACREP Directory. Retrieved January 01, 2018, from http://www.cacrep.org/directory/
- Creswell, J. W., & Poth, C. N. (2017). Qualitative inquiry & research design: Choosing among five approaches (4th ed.). Thousand Oaks, CA: Sage.

- Donnell, C. M., Lustig, D. C., & Strauser D. R. (2004). The working alliance: Rehabilitation outcomes for persons with severe mental illness. *Journal of Rehabilitation*, 70(2), 12-18.
- Field, A. P. (2013). Discovering statistics using IBM SPSS statistics: and sex and drugs and rock 'n' roll. (4th ed.) Los Angeles: Sage.
- Friborg, O., & Rosenvinge, J. H. (2013). A comparison of openended and closed questions in the prediction of mental health. *Quality & Quantity: International Journal of Methodology*, 47, 1397-1411.
- Grice, J., & Iwasaki, M. (2007). A truly multivariate approach to MANOVA. Applied Multivariate Research, 12, 199-226.
- Leahy, M., Chan, F., & Saunders, J. (2003). Job functions and knowledge requirements of certified rehabilitation counselors in the 21st century. *Rehabilitation Counseling Bulletin*, 46(2), 66-128.
- Leahy, M. J., Chan, F., Sung, C., & Kim, M. (2012). Empirically derived test specifications for the Certified Rehabilitation Counselor Examination. *Rehabilitation Counseling Bulletin*, 56(4), 199-214.
- Leahy, M. J., Syzmanski, E. M., & Linkowski, D. C. (1993). Knowledge importance in rehabilitation counseling. *Rehabilitation Counseling Bulletin*, 37(2), 130-145.
- Lustig, D., Strauser, D., Rice, N., & Rucker, T. (2002). The relationship between working alliance and rehabilitation outcomes. *Rehabilitation Counseling Bulletin*, 46(1), 25-63.
- Plotner, A. J., Trach, J. S., & Strauser, D. R. (2012). Vocational rehabilitation counselors' identified transition competencies: Perceived importance, frequency, and preparedness. *Rehabilitation Counseling Bulletin*, *55*(3), 135-143.

- Rehabilitation Services Administration (2017). Retrieved from https://www2.ed.gov/about/offices/list/osers/rsa/index. html
- Szymanski, E. M. (1991). Relationship of level of rehabilitation counselor education to rehabilitation client outcome in the Wisconsin Division of Vocational Rehabilitation. *Rehabilitation Counseling Bulletin*, 35(1), 23-37.
- Szymanski, E. M., & Danek, M. (1992). The relationship of rehabilitation counselor education to rehabilitation client outcome: A replication and extension. *Journal of Rehabilitation*, 58(1), 49-56.
- Syzmanski, E. M., Leahy, M. J., & Linkowski, D. C. (1993). Reported preparedness of certified counselors in rehabilitation counseling knowledge areas. *Journal Of Applied Rehabilita*tion Counseling, 24(4), 46-57.
- Szymanski, E. M., & Parker, R. M. (1989a). Relationship of rehabilitation client outcome to level of rehabilitation counselor education. *Journal of Rehabilitation*, 55, 32-36.
- Szymanski, E. M., & Parker, R. M. (1989b). Competitive closure rate of rehabilitation clients with severe disabilities as a function of counselor education and experience. *Rehabilitation Counseling Bulletin*, 32, 292-299.
- Wheaton, J. E., & Berven, N. L. (1994). Education, experience, and caseload management practices of counselors in a state vocational rehabilitation agency. *Rehabilitation Counseling Bulletin*, 38(1), 44-5.
- Zanskas, S., & Strohmer, D. C. (2010). Rehabilitation counselor work environment: Examining congruence with prototypic work personality. *Rehabilitation Counseling Bulletin*, 53, 143-152