

Relationship between employment setting and job satisfaction among CRC personnel

Amy J. Armstrong^{a,*}, Carolyn E. Hawley^b, Allen N. Lewis^a, Charlene Blankenship^c and River A. Pugsley^a

^a*Virginia Commonwealth University, Richmond, VA, USA*

^b*West Virginia University, Morgantown, WV, USA*

^c*University of Texas Pan-American, Edinburg, TX, USA*

Abstract. The exploration of job satisfaction among rehabilitation counselors is not a new undertaking, but few studies have evaluated this construct across a full array of professional employment contexts. This investigation explores employment settings of rehabilitation counselors and their relationship to both job satisfaction and intentions to quit. The results revealed that employment setting does influence job satisfaction and retention for certified rehabilitation counselors. Overall, employees of the vocational rehabilitation system (the majority within this setting consisted of State vocational rehabilitation personnel $n = 662$, followed by Veteran's Administration, Community Rehabilitation Programs, One Stop Centers and Independent Living Centers, $n = 88$) reported the lowest amount of job satisfaction and a substantial degree of intention to quit.

Keywords: Job satisfaction, retention, rehabilitation counselors, vocational rehabilitation

1. Introduction

The profession of vocational rehabilitation (VR) is an established discipline with a history of promoting community inclusion of individuals with disabilities. Efforts to develop and sustain a qualified workforce within the profession have been bolstered in the last two decades by federal legislation such as the Rehabilitation Act Amendments of 1992, the Workforce Investment Act of 1998, and the Ticket to Work, Work Incentives Improvement Act of 1999. Accredited rehabilitation education programs have existed in universities and colleges across the nation, providing pre-service and in-service preparation to VR personnel for over 50 years. However, despite these efforts, rehabilitation counseling employment settings have experienced a persistent and pervasive shortage of qualified personnel throughout its history [2,7,8,26].

The 2006–2007 Occupational Outlook Handbook (OOH) states that the overall employment of rehabilitation counselors is expected to grow faster than the average for all counseling occupations (i.e., mental health, family, school) through 2014 [5]. The OOH indicates that in the coming years rehabilitation counselors should experience excellent prospects in terms of job openings as many counselors retire or leave the profession. The OOH also predicts that the number of job openings will exceed the number of graduates of counseling programs. Although this is a positive outlook from an employment opportunity perspective, it is also a staffing challenge that must be addressed by the profession.

Faced with high attrition and dwindling applicants, recruitment and retention of qualified rehabilitation counselors continues to be a national concern to the Rehabilitation Services Administration (RSA) [4,7]. Increasing counselor retirement rates, ongoing staff turnover, and fewer graduates of rehabilitation counseling education programs pursuing careers in the public VR system are among the issues affecting staff recruitment and retention [2,6,7,12,23]. This trend is evident

*Address for correspondence: Amy Armstrong, Ph.D., CRC, Rehabilitation Counseling Department, P.O. BOX 980330, Richmond, VA 23298, USA. Tel.: +1 804 827 0913; E-mail: ajarmstr@vcu.edu.

throughout the nation and is a significant challenge for the profession of rehabilitation counseling [21]. Chan and Ruedel, 2005 calculated that by 2007, State V.R. agencies would need to replace approximately 3,800 rehabilitation counselors. Acquiring and maintaining a strong workforce directly affects the ability to deliver comprehensive services to individuals with disabilities.

Studies exploring the recruitment and retention issues of rehabilitation counselors indicate patterns of high job turnover, high burnout and low job satisfaction [2,10,15]. Riggall et al. [28] examined the high attrition found within the state-federal VR system. Excluding retirement, the authors determined four reasons for employee departure to include: a lack of opportunity for advancement; stress and burnout; personality differences with management/supervisors; and little overall job satisfaction. Chan and Ruedel [7] report that younger counselors and minority counselors are more likely to leave their State V.R. positions, the authors also indicate salary as a reason why state VR personnel leave their position.

It is clear that individuals trained and certified as rehabilitation counselors work in a variety of settings and positions besides the state/federal VR system. Chan [6] estimated the post graduate employment setting of academic year (AY) 2001-2002 graduates as only 31.2% entering state VR agencies; with the majority of graduates (43.8%) entering community non-profit service providers; 17.5% entering for-profit service providers and 2.4% other related settings. However, staffing issues are occurring in these settings as well. For instance, Barrett et al. [2] has indicated that rehabilitation personnel turnover is a persistent problem for community rehabilitation programs (CRPs). Job satisfaction was found to be an important factor in why individuals left those settings [30].

Not only do recruitment and retention issues (e.g., in the form of high personnel turnover) impact the ability to provide comprehensive services, but such issues are quite costly to an organization. As stated by Barrett, 1997 (p. 3): "Constantly competing, recruiting, selecting, orienting and training new employees continues to maintain [perpetuate] or increase the already high turnover costs; funds not addressing consumer needs." The need for qualified rehabilitation personnel to provide services is a relevant issue for community rehabilitation programs, private employment and counseling organizations, insurance companies, mental health and substance abuse programs, transition/education systems, correctional systems as well as the state/federal VR system.

2. Purpose

Several studies have explored job satisfaction of rehabilitation counselors related to organizational commitment and conflict, leadership style, rural and urban settings, work motivation and job performance, and self-reported perceptions [3,13,14,16,25,32,33]. However, little research exists to address job satisfaction across the spectrum of employment settings of the rehabilitation professional.

The intent of this study is to explore employment setting as it relates to job satisfaction and intentions to quit. Specifically, the research questions are:

1. What is the relationship of employment setting to the job satisfaction of CRC personnel?
2. What is the relationship between employment setting and job retention, as measured by intentions to quit, of CRC personnel?
3. Is job satisfaction related to job retention in CRCs' across employment settings?

3. Method

The goal of this study is to assess whether employment setting is related to job satisfaction and the intentions to quit of CRCs. The specific objective is to determine the relationship between employment setting and satisfaction and intentions to quit as measured by the three instruments that are the industry standards, the Abridged Job Descriptive Index (aJDI); The Abridged Job in General Instrument (aJIG); and the Intention to Quit Instrument (ITQ).

3.1. Participants

The sample consists of the entire population of CRCs' ($n = 3,698$) within the Southern region (as stipulated by the US Census Bureau) of the United States. This region is comprised of sixteen states representing three Rehabilitation Service Regions (RSA), including Alabama, Arkansas, Delaware, Florida, Georgia, Kentucky, Louisiana, Maryland, Mississippi, North Carolina, Oklahoma, South Carolina, Tennessee, Texas, Virginia and West Virginia. Participants were identified through the Commission on Rehabilitation Counselor Certification (CRCC), which is the certification body for rehabilitation counselors.

Of the original mailing list of 3,698 individuals, 101 surveys were returned uncompleted due to a change in address or because the individual was no longer work-

ing in the field. Thus, the potential number of respondents was 3,597, of which a total of 1,802 surveys were returned. Of those, 51 were not included due to incomplete data, leaving a total of 1,751 survey responses (a response rate of 50.09%), used in this investigation.

3.2. Instrument

In the fall of 2006, a survey instrument was mailed to each potential study participant accompanied by a cover letter that introduced the study, assured confidentiality and requested the voluntary participation of the individual. A follow-up reminder postcard was subsequently mailed to all participants to further increase the response rate.

The survey is comprised of two parts. Part A includes the individual demographic and employment variables of the respondent including: Age (4 categories); Educational level (4 categories); Gender (2 categories); Ethnicity (3 categories); Disability type served (5 categories); Salary range (5 categories); Years in position (4 categories); Functioning level of caseload (6 categories); Size of caseload (7 categories); Employment setting (5 categories); and Employment position (4 categories).

Part B includes three pre-existing scales that measure the constructs of job satisfaction (aJDI); overall job satisfaction (aJIG); and intentions to quit (ITQ). These instruments were selected due to their extensive use within the fields of industrial and organizational psychology, as well as having been applied across a variety of professions and organizations. To date, they constitute an industry standard in measuring these constructs.

The aJDI was developed in 2000 and is based upon the Job Descriptive Index (JDI), which is one of the most pervasive measures of job satisfaction [11,34]. Job satisfaction is defined as: the feelings a worker has about his or her job or job experiences in relation to previous experiences, current expectations, or available alternatives [1]. The aJDI is a facet scale that contains five subscales: Work on Present Job, Pay, Opportunities for Promotion, Supervision, and People at Work. Each of these subscales contains a set of evaluative adjectives or phrases that further describe each subscale for a total of 25 items [31]. The response format is either “yes,” “no,” or a “?” if the respondent is uncertain. The range of scores is 0–54, with 54 being a high level of satisfaction. The reliability of the aJDI subscales is above the recommended 0.70 threshold [31].

The second scale, the aJIG, is administered in conjunction with the aJDI. The aJIG contains 8 items,

scored similarly to the aJDI, that evaluate the overall satisfaction with a job [19] with a range of 0–54. Overall satisfaction refers to an integrative feeling of satisfaction when all aspects of a job are considered [19]. The reliability, as per the coefficient alpha, of the aJIG is above 0.85 [29]. Additionally, the aJIG has shown a strong predictive capability of intention to quit [29,31].

Finally, the ITQ uses a seven-point Likert scale (strongly disagree to strongly agree), and consists of eight statements designed to capture an individual's intentions to quit their present employment. Keeping in mind that intention to quit often serves as an indicator of staff turnover [1].

3.3. Data analysis

Cross-tabulations for each independent demographic (age, gender, ethnicity, education) and employment (salary, size of caseload, and years in position) variable were conducted by employment setting. Frequencies and percentages were also calculated by category. Likelihood ratio chi-square tests were then used to assess the relationship between each variable and employment setting. For better interpretability some demographic and employment variables were collapsed into fewer categories.

Finally, univariate logistic regression analyses were conducted to calculate crude odds ratios (OR) and accompanying 95% confidence intervals (95% CI), for each dependent variable (the aJDI, aJIG, and ITQ scores), by employment setting. The aJIG scores, aJDI facet scores, and ITQ scores were dichotomized into a high and low score (using the midpoint of each as the cutoff). Adjusted odds ratios were also determined using logistic regression models. SPSS version 15.0 was used for all analyses.

4. Results

A total of 1,751 survey responses were included in this data analysis. A summary of the demographic and employment variables is provided in Table 1. The majority of respondents were female (71.8%) and Caucasian (83.4%). The majority, 43.1%, worked within the state/federal VR employment setting, followed by private rehabilitation (30.0%), and health and social services (HSS) (11.2%). For employment position, 61.1% worked as a direct service or field worker, and had worked in their current position for 5 years or less (41.6%). Overall, in terms of salary range, the largest percentage of respondents (29%), were earning \$58,000 and over.

Table 1
Demographic summary of all 1,751 survey respondents

Variable	Frequency	%	Valid %	Variable	Frequency	%	Valid
<i>AGE</i>				<i>SALARY</i>			
Less than 25 years	13	0.7	0.7	Below \$20,000 /year	38	2.2	2.2
26–35 years	381	21.8	21.8	21,000 to 27,000 /year	48	2.7	2.8
36–44 years	358	20.4	20.5	28,000 to 35,000 /year	271	15.5	15.8
45–54 years	538	30.7	30.8	36,000 to 42,000 /year	346	19.8	20.2
55–64 years	414	23.6	23.7	43,000 to 50,000 /year	291	16.6	17.0
Over 64 years	43	2.5	2.5	51,000 to 57,000 /year	214	12.2	12.5
Missing	4	0.2		Over \$58,000 /year	507	29.0	29.6
<i>EDUCATION</i>				Missing	36	2.1	
Associate Degree	2	0.1	0.1	<i>YEARS IN POSITION</i>			
BA/BS Degree	29	1.7	1.7	Less than 5 years	728	41.6	41.7
MA/MS Degree	1,577	90.1	90.4	6–10 years	421	24.0	24.1
PhD	136	7.8	7.8	11–15 years	222	12.7	12.7
Missing	7	0.4		16–20 years	148	8.5	8.5
<i>GENDER</i>				21–25 years	100	5.7	5.7
Female	1,257	71.8	72.0	26–30 years	69	3.9	4.0
Male	489	27.9	28.0	Over 30 years	56	3.2	3.2
Missing	5	0.3		Missing	7	0.4	
<i>ETHNICITY</i>				<i>PRIMARY DISABILITY CASELOAD</i>			
African American	194	11.1	11.1	Physical	400	22.8	23.4
Asian	16	0.9	0.9	Cognitive	104	5.9	6.1
Caucasian	1,461	83.4	84.0	Psychiatric	191	10.9	11.2
Hispanic/Latino	52	3.0	3.0	Varied	773	44.1	45.1
Native American	8	0.5	0.5	None or N/A	245	14.0	14.3
Bi-racial	9	0.5	0.5	Missing	38	2.2	
Missing	11	0.6		<i>FUNCTIONING LEVEL OF CASELOAD</i>			
<i>EMPLOYMENT SETTING</i>				Mild	131	7.5	7.6
VR System	753	43.0	43.1	Moderate	242	13.8	14.1
Private Rehab	524	29.9	30.0	Significant	254	14.5	14.8
College/University	118	6.7	6.8	Varied	799	45.6	46.5
HSS	195	11.1	11.2	N/A	293	16.7	17.0
Related Rehab	156	8.9	8.9	Missing	32	1.8	
Missing	5	0.3		<i>SIZE OF CASELOAD</i>			
<i>POSITION</i>				20 or fewer cases	343	19.6	19.8
Direct Service/Field Worker	1,068	61.0	61.1	21–40 cases	291	16.6	16.8
Management/Supervisor	536	30.6	30.7	41–75 cases	195	11.1	11.3
Educator	114	6.5	6.5	76–100 cases	167	9.5	9.6
Other	30	1.7	1.7	101–130 cases	137	7.8	7.9
Missing	3	0.2		Over 130 cases	211	12.1	12.2
				N/A	387	22.1	22.4
				Missing	20	1.1	

4.1. Employment setting

For parsimony participants' employment sites were collapsed into 5 categories: State/Federal VR system; private rehabilitation, colleges and universities, human and social services (HSS), and related rehabilitation. Thus, individuals' ($N = 88$, 12%) working in programs that are mandated partners of VR (i.e., Independent Living Center; Veteran's Administration; Community Rehab Program; and One Stop Centers) were merged into the VR category. While 88% ($N = 651$)

of participants in this category, work directly within the State/Federal VR system. Table 2 provides a detailed description of the occupational groupings.

The frequencies and percentages of each independent demographic/employment variable across the five levels of employment setting are presented in Table 3. Likelihood ratio chi-square tests indicated that there were significant relationships between each independent variable and employment setting.

Table 2
Employment categories

Employment Category	Occupation
VR System	State/Federal VR including RSA; Independent Living Center; Veteran's Administration; Community Rehab Program; One Stop Center
Private Rehabilitation	Insurance; Worker's Compensation; Employment Provider; Self-Employed; Vocational Expert; Forensic Expert
College/University	Faculty, Rehabilitation Continuing Education Programs (RCEPs), Rehabilitation Research and Training Centers (RRTC's)
Health and Human Services	Mental Health; Substance Abuse; Residential; Community Service Board; Medical/Hospital; Faith-Based Organization
Related Rehabilitation	Education/Transition; Correctional/Judicial; Corporate; Law Firm; Social Security Administration; Government; Military

4.2. Age

The respondent's age had a significant relationship with employment setting, [$\chi^2(1, N = 1742) = 26.37, p < 0.01$]. For instance, across employment setting the majority of respondents were within the 45–54 age range. However, this pattern changes within the college/university category where the majority (33.1%) of employees were 55 years and older. Additionally, notable differences exist within the youngest and oldest age groups. Such as, for individuals less than 36 years of age, only 16.9% were working in the VR system, while nearly double that (30.1%), were working in HSS. Additionally, for individuals 55 years and older, only 16.7% were working in related rehabilitation settings, as compared to twice that number (33.1%), in colleges and universities.

4.3. Gender

Women exhibit greater representation than men across employment setting, constituting 72.0% in VR; 70.1% in private rehabilitation; 78.5% in HSS; and 78.8% in related rehabilitation. However, the proportion of women working in college/university settings was significantly less (62.7%) than the other employment categories, [$\chi^2(1, N = 1741) = 13.76, p < 0.05$].

4.4. Ethnicity

The relationship between ethnicity and employment setting was significantly observed among African Americans and the Other (Asian, Hispanic/Latino, Native American, Bi-racial), category, [$\chi^2(1, N = 1735) = 34.16, p < 0.001$]. For African Americans, the majority of individuals were employed in the VR System (14.8%), while lower proportions were employed in private rehabilitation and HSS settings (6.5%

and 7.7%, respectively). However, among the population classified as being of other ethnicity, only 3.6% were employed in the VR system, while 10.2% were employed in the college/university setting.

4.5. Education

Although the majority (90.1%) of all respondents had a master's degree, differences in educational level were observed by specific employment setting [$\chi^2(1, N = 1739) = 222.18, p < 0.001$]. For instance, a higher proportion of individuals with Associates or BA/BS degrees were employed in private rehabilitation (3.3%). Furthermore, among those individuals with a master's degree, the proportion employed in the VR system was 96.7% compared to 88.7% in private rehabilitation. Individuals with a doctorate were also less likely to be employed in the VR system or related rehabilitation settings (2.0% and 4.5%, respectively). Instead, individuals with a doctorate were significantly more likely to be employed in the college/university setting, accounting for over half (52.1%) of all such individuals.

4.6. Salary

The relationship between salary and employment setting varied across salary ranges, but discernable differences were noted among employees of the VR system and HSS as compared to employees within private rehabilitation, and colleges and universities, [$\chi^2(1, N = 1710) = 300.92, p < 0.001$]. For individuals earning less than \$36,000 a year (the lowest salary category), the majority were employed in HSS (31.6%), and VR (26.2%), as compared to only 16.3% employed in related rehabilitation settings, 13.8% in college/universities, and 12.0% in private rehabilitation. Conversely, the majority of employees in private rehabilitation (50.8%), colleges/universities (45.7%), and related rehabilitation (35.9%) were in the highest salary category earning \$58,000 and over a year, contrasted by just 19.5% in HSS and 13.7% in VR.

Table 3
Employment setting by demographic variables

Variable	Total N	VR System		Private Rehab		College/ University		HSS		Related Rehab		Likelihood ratio		
		N	%	N	%	N	%	N	%	N	%	chi-square	df	p-value
<i>Age</i>												26.366	12	0.010
< 36 years	394	177	23.5	95	18.2	21	17.8	58	30.1	43	27.6			
36–44 years	358	153	20.3	109	20.8	21	17.8	41	21.2	34	21.8			
45–54 years	537	228	30.3	166	31.7	37	31.4	53	27.5	53	34.0			
Over 54 years	453	194	25.8	153	29.3	39	33.1	41	21.2	26	16.7			
<i>Gender</i>												13.758	4	0.008
Female	1,256	540	72.0	366	70.1	74	62.7	153	78.5	123	78.8			
Male	485	210	28.0	156	29.9	44	37.3	42	21.5	33	21.2			
<i>Ethnicity</i>												34.161	8	< 0.001
African American	194	111	14.8	34	6.5	12	10.2	15	7.7	22	14.3			
Caucasian	1,456	611	81.6	457	87.9	94	79.7	170	87.6	124	80.5			
Other	85	27	3.6	29	5.6	12	10.2	9	4.6	8	5.2			
<i>Education</i>												222.175	8	< 0.001
Associates or BA/BS Degree	30	10	1.3	17	3.3	1	0.9	1	0.5	1	0.6			
MA/MS Degree	1,573	726	96.7	464	88.7	55	47.0	182	93.8	146	94.8			
PhD	136	15	2.0	42	8.0	61	52.1	11	5.7	7	4.5			
<i>Salary Range</i>												300.918	16	< 0.001
< \$36,000 /year	357	195	26.2	61	12.0	16	13.8	60	31.6	25	16.3			
36,000 to 42,000 /year	343	210	28.3	41	8.1	19	16.4	40	21.1	33	21.6			
43,000 to 50,000 /year	291	156	21.0	64	12.6	18	15.5	28	14.7	25	16.3			
51,000 to 57,000 /year	214	80	10.8	84	16.5	10	8.6	25	13.2	15	9.8			
Over \$58,000 /year	505	102	13.7	258	50.8	53	45.7	37	19.5	55	35.9			
<i>Size of Caseload</i>												727.425	24	< 0.001
≤ 20 cases	342	40	5.4	196	37.8	13	11.1	69	35.9	24	15.4			
21–40 cases	290	54	7.3	163	31.5	6	5.1	44	22.9	23	14.7			
41–75 cases	195	100	13.5	49	9.5	6	5.1	21	10.9	19	12.2			
76–100 cases	167	138	18.6	10	1.9	4	3.4	7	3.6	8	5.1			
101–130 cases	136	113	15.2	6	1.2	4	3.4	5	2.6	8	5.1			
> 130 cases	209	148	19.9	15	2.9	10	8.5	10	5.2	26	16.7			
N/A	387	150	20.2	79	15.3	74	63.2	36	18.8	48	30.8			
<i>Years in Position</i>												169.164	12	< 0.001
< 5 years	728	313	41.8	145	27.8	51	43.2	119	61.0	100	64.1			
6–10 years	421	190	25.4	112	21.5	31	26.3	49	25.1	39	25.0			
11–15 years	222	105	14.0	93	17.8	11	9.3	9	4.6	4	2.6			
Over 15 years	368	140	18.7	172	33.0	25	21.2	18	9.2	13	8.3			

4.7. Size of caseload

How caseload size relates to employment setting was varied and significant [$\chi^2(1, N = 1726) = 727.43, p < 0.001$]. The typical size of a respondent's caseload contrasted between the lowest and highest ranges across employment setting. For instance, the majority of people in private rehabilitation and HSS had small caseloads of 40 people or less (69.3% and 51.3%, respectively), compared to only 12.7% in VR. Conversely, the majority of people in VR (19.9%) had large caseload sizes of over 130 clients, compared to a meager 2.9% in private rehabilitation and 6.2% in HSS. A pattern for caseload size was less detectable in related rehabilitation settings.

4.8. Years in position

In terms of the relationship between years in position and employment setting, the differences were again concentrated among the lowest and highest categories, [$\chi^2(1, N = 1739) = 169.16, p < 0.001$]. For the group with less than 5 years in their current position, the proportions among the related rehabilitation, HSS and VR groups were significantly higher (64.1%, 61.0%, and 41.8%, respectively) than the 27.8% in private rehabilitation. This pattern was reversed for the 11–15 years group, with a higher proportion among the private rehabilitation (17.8%), and lower proportions among the HSS (9.2%) and related rehabilitation (8.3%) settings. Among those in their position more than 15 years, a significantly higher proportion (33.0%), were employed

Table 4
Mean aJIG, aJDI and ITQ scores by employment setting and employment position

	aJIG			aJDI Work Sub-Scale			aJDI Pay Sub-Scale		
Variable	N	Mean	Std. Deviation	N	Mean	Std. Deviation	N	Mean	Std. Deviation
<i>Employment Setting</i>									
VR System	739	41.26	13.48	729	47.88	11.87	730	21.80	8.44
Private Rehab	509	44.03	12.36	511	47.63	12.06	502	36.40	7.83
College/University	117	46.33	11.29	115	47.96	12.17	115	33.18	8.13
HSS	192	43.90	13.48	193	49.50	10.52	190	28.10	9.28
Related Rehab	153	44.21	13.52	152	48.51	11.87	149	35.30	8.37
	aJDI Promotion Sub-Scale			aJDI Supervision Sub-Scale			aJDI Coworker Sub-Scale		
Variable	N	Mean	Std. Deviation	N	Mean	Std. Deviation	N	Mean	Std. Deviation
<i>Employment Setting</i>									
VR System	734	23.60	10.19	740	40.99	16.29	740	47.00	11.86
Private Rehab	483	23.96	9.60	4,981	37.84	16.84	508	46.47	12.52
College/University	113	30.58	10.19	114	41.24	16.06	116	48.41	9.79
HSS	191	24.40	10.43	189	43.12	14.29	191	48.18	12.06
Related Rehab	151	26.28	10.60	151	40.98	16.87	152	46.99	12.19
	ITQ Score								
Variable	N	Mean	Std. Deviation						
<i>Employment Setting</i>									
VR System	712	10.74	6.27						
Private Rehab	477	8.89	5.99						
College/University	113	10.04	6.54						
HSS	184	10.39	6.42						
Related Rehab	144	9.73	6.17						

in the private rehabilitation setting, while lower proportions were observed for those in the VR System, HSS, and related rehabilitation settings (18.7%, 9.2%, 8.3%, respectively).

4.9. Job satisfaction and intentions to quit

Table 4 presents the means and standard deviations for the aJIG, the five sub-scales of the aJDI, as well as the ITQ scores categorized by employment setting and position. The mean overall aJIG score was 42.97 (SD = 13.10). For the five facets of the aJDI score, the means were as follows: the mean work score was 48.02 (SD = 11.83); mean pay score was 28.78 (SD = 8.96); mean promotion score was 24.48 (SD = 10.11); mean supervision score was 40.36 (SD = 16.34); and mean coworker score was 47.06 (SD = 12.00). Finally, the mean ITQ score was 10.03 (SD = 6.26). Because of the strong skew present in these score data, and the resulting non-normal distribution, all scales were converted into dichotomous variables for subsequent analyses.

The relationship between employment settings and the dichotomized job satisfaction and retention scales (aJIG, aJDI, and ITQ) are presented in Table 5. The crude and adjusted odds ratios for each association are also presented.

4.10. aJIG

Taken as a whole, the majority of respondents were satisfied with their employment as measured by a high aJIG score. However, individuals working within the college/university setting were the most satisfied (91.4%). The crude odds of having a high aJIG score among individuals who worked in a college or university was 1.93 times that of individuals in the VR system (95% CI = 0.98–3.81). Conversely, 15.2% of individuals in the VR system reported having low job satisfaction.

4.11. aJDI subscales

Descriptive statistics and univariate logistic regression analyses for the employment settings were run for each of the aJDI subscales. The odds ratios and 95% confidence intervals obtained from the univariate and stepwise logistic regression analyses are provided in Table 5.

4.11.1. Work

Overall, individuals working within HSS were the most satisfied with the work they do (93.7%) as compared to employees within related rehabilitation settings and colleges and universities (89.4% and 89.5%, respectively).

Table 5
Employment setting by dichotomized aJIG, aJDI and ITQ scores

Setting	Low aJIG (< 28)			High aJIG (\geq 28)		Crude Odds Ratio*			Adjusted Odds Ratio**		
	N	N	%	N	%	OR	95% CI	p-value	OR	95% CI	p-value
VR System	739	113	15.29	626	84.71	referent			referent		
Private Rehab	509	68	13.36	441	86.64	1.17	(0.85–1.62)	0.341	0.72	(0.46–1.14)	0.159
College/University	117	10	8.55	107	91.45	1.93	(0.98–3.81)	0.057	1.62	(0.74–3.57)	0.229
HSS	192	23	11.98	169	88.02	1.33	(0.32–2.14)	0.248	1.13	(0.65–1.96)	0.677
Related Rehab	153	20	13.07	133	86.93	1.20	(0.72–2.00)	0.484	0.95	(0.53–1.68)	0.853

Setting	Low Work (< 28)			High Work (\geq 28)		Crude Odds Ratio*			Adjusted Odds Ratio**		
	N	N	%	N	%	OR	95% CI	p-value	OR	95% CI	p-value
VR System	729	69	9.47	660	90.53	referent			referent		
Private Rehab	511	51	9.98	460	90.02	0.94	(0.64–1.38)	0.763	0.76	(0.45–1.26)	0.286
College/University	115	12	10.43	103	89.57	0.90	(0.47–1.71)	0.743	0.79	(0.36–1.72)	0.555
HSS	193	12	6.22	181	93.78	1.58	(0.84–2.98)	0.160	1.64	(0.79–3.43)	0.185
Related Rehab	152	16	10.53	136	89.47	0.89	(0.50–1.58)	0.687	0.77	(0.41–1.45)	0.418

Setting	Low Pay (< 15)			High Pay (\geq 15)		Crude Odds Ratio*			Adjusted Odds Ratio**		
	N	N	%	N	%	OR	95% CI	p-value	OR	95% CI	p-value
VR System	730	507	69.45	223	30.55	referent			referent		
Private Rehab	502	155	30.88	347	69.12	5.09	(3.98–6.51)	< 0.001	2.65	(1.86–3.76)	< 0.001
College/University	115	45	39.13	70	60.87	3.54	(2.36–5.31)	< 0.001	2.37	(1.42–3.96)	0.001
HSS	190	106	55.79	84	44.21	1.80	(1.30–2.50)	< 0.001	1.42	(0.95–2.13)	0.087
Related Rehab	149	54	36.24	95	63.76	4.00	(2.77–5.79)	< 0.001	2.69	(1.75–4.14)	< 0.001

Setting	Low Promotion (< 15)			High Promotion (\geq 15)		Crude Odds Ratio*			Adjusted Odds Ratio**		
	N	N	%	N	%	OR	95% CI	p-value	OR	95% CI	p-value
VR System	734	469	63.90	265	36.10	referent			referent		
Private Rehab	483	326	67.49	157	32.51	0.85	(0.67–1.09)	0.197	0.69	(0.49–0.96)	0.028
College/University	113	57	50.44	56	49.56	1.74	(1.17–2.59)	0.006	1.32	(0.81–2.16)	0.267
HSS	191	120	62.83	71	37.17	1.05	(0.75–1.46)	0.784	0.98	(0.67–1.43)	0.898
Related Rehab	151	86	56.95	65	43.05	1.34	(0.94–1.91)	0.109	0.93	(0.63–1.38)	0.720

Setting	Low Supervision (< 28)			High Supervision (\geq 28)		Crude Odds Ratio*			Adjusted Odds Ratio**		
	N	N	%	N	%	OR	95% CI	p-value	OR	95% CI	p-value
VR System	740	164	22.16	576	77.84	referent			referent		
Private Rehab	481	184	38.25	297	61.75	0.46	(0.36–0.59)	< 0.001	0.44	(0.30–0.62)	< 0.001
College/University	114	21	18.42	93	81.58	1.26	(0.76–2.09)	0.368	2.09	(1.11–3.91)	0.022
HSS	189	34	17.99	155	82.01	1.30	(0.86–1.96)	0.212	1.25	(0.79–1.99)	0.343
Related Rehab	151	33	21.85	118	78.15	1.02	(0.67–1.55)	0.934	0.97	(0.61–1.56)	0.908

Setting	Low Coworker (< 28)			High Coworker (\geq 28)		Crude Odds Ratio*			Adjusted Odds Ratio**		
	N	N	%	N	%	OR	95% CI	p-value	OR	95% CI	p-value
VR System	740	72	9.73	668	90.27	referent			referent		
Private Rehab	508	65	12.80	443	87.20	0.74	(0.51–1.05)	0.090	0.70	(0.43–1.15)	0.157
College/University	116	10	8.62	106	91.38	1.14	(0.57–2.28)	0.706	1.19	(0.53–2.71)	0.675
HSS	191	17	8.90	174	91.10	1.10	(0.63–1.92)	0.728	1.07	(0.57–2.01)	0.827
Related Rehab	152	17	11.18	135	88.82	0.86	(0.49–1.50)	0.586	0.82	(0.44–1.54)	0.544

Setting	Low ITQ (< 15)			High ITQ (\geq 15)		Crude Odds Ratio*			Adjusted Odds Ratio**		
	N	N	%	N	%	OR	95% CI	p-value	OR	95% CI	p-value
VR System	712	512	71.91	200	28.09	referent			referent		
Private Rehab	477	394	82.60	83	17.40	0.54	(0.40–0.72)	< 0.001	0.82	(0.56–1.20)	0.305
College/University	113	82	72.57	31	27.43	0.97	(0.62–1.51)	0.885	1.03	(0.60–1.77)	0.912
HSS	184	141	76.63	43	23.37	0.78	(0.54–1.14)	0.200	0.86	(0.56–1.32)	0.493
Related Rehab	144	112	77.78	32	22.22	0.73	(0.48–1.12)	0.150	0.89	(0.56–1.42)	0.633

*Odds of having a high score compared to a low score.

**Adjusted for age, gender, education, ethnicity, salary, size of caseload, and years in position.

Table 6
Job satisfaction (aJIG) and job retention (ITQ) across employment settings

Employment Setting		Total N	Low ITQ (< 15)		High ITQ (≥ 15)		Crude Odds Ratio*		
			N	%	N	%t	OR	95% CI	p-value
VR System	Low aJIG (< 28)	100	44	44.0	56	56.0	4.18	(2.70–6.47)	< 0.001
	High aJIG (≥ 28)	604	463	76.7	141	23.3	referent		
Private Rehab	Low aJIG (< 28)	59	34	57.6	25	42.4	4.62	(2.57–3.32)	< 0.001
	High aJIG (≥ 28)	408	352	86.3	56	13.7	referent		
College/ University	Low aJIG (< 28)	9	2	22.2	7	77.8	12.17	(2.37–62.66)	0.003
	High aJIG (≥ 28)	103	80	77.7	2	22.3	referent		
HSS	Low aJIG (< 28)	22	7	31.8	15	68.2	10.64	(3.96–28.56)	< 0.001
	High aJIG (≥ 28)	161	134	83.2	27	16.8	referent		
Related Rehab	Low aJIG (< 28)	15	6	40.0	9	60.0	7.57	(2.44–23.54)	< 0.001
	High aJIG (≥ 28)	127	106	83.5	21	16.5	referent		

*Odds of having a high ITQ score compared to a low ITQ score.

4.11.2. Pay

Significant differences in satisfaction with pay were observable across employment setting. While 69.1% of individual's in private rehabilitation, 63.7% in related rehabilitation and 60.8% in colleges and universities were reportedly satisfied with their salary, only 44.2% in HSS, and a minimal 30.5% in VR were satisfied. Results indicate that employees in private rehabilitation were over five times more likely to be satisfied with their salaries than individuals in VR settings (OR = 5.09, 95% CI = 3.98–6.51).

4.11.3. Promotion

Regardless of employment setting, the majority of individuals were not satisfied with the promotion capabilities in their employment. The least satisfaction regarding promotion opportunities was found in private rehabilitation (67.4%) as compared to a low of 50.4% of respondents working in colleges and universities. That is, 67.4% working in private rehabilitation and 50.4% of respondents working in colleges/universities were not satisfied with the opportunity for promotion.

4.11.4. Supervision

There was significant variability by employment setting concerning satisfaction with supervision. Employees working in HSS (82.0%) or college/university (81.5%) settings were the most satisfied with the supervision they received. However, individuals in private rehabilitation were the least satisfied at 61.7% (OR = 0.46, 95% CI = 0.36–0.59).

4.11.5. Coworkers

On the whole, the majority of respondents were satisfied with their coworkers regardless of their employment setting. High satisfaction ranged from 91.3% of employees within colleges and universities to a low of 87.2% in private rehabilitation.

4.11.6. ITQ

Univariate logistic regression was used to measure employees' intentions to quit by job setting. The VR system had the highest percentage of employees reporting an intention to quit (28.0%), followed by college/university employees (27.4%). However, private rehabilitation had significantly fewer individuals reporting an intention to quit (17.4%).

4.12. Job satisfaction and job retention

The relationship between job satisfaction (as measured by the aJIG scale) and job retention (ITQ) across employment settings is presented in Table 6. In this table, the odds ratios represent the likelihood of having high or low ITQ scores among those with low or high aJIG scores. Indeed, across employment settings, the lower the aJIG score (lower job satisfaction), the higher the ITQ (intentions to quit). For example, looking at the VR system setting, the odds of having a high ITQ score for individuals with a lower aJIG score were 4.18 (95% CI = 2.70–6.47). Thus, individuals who were less satisfied with their employment were significantly more likely to report an intention to leave it. However, although all the associations were significant, the confidence intervals for some were wide due to small numbers for comparison, thus a larger sample size may yield more reliable results.

5. Discussion

The results of this study indicate that employment setting does influence job satisfaction and retention for CRCs. While the majority of all respondents across job setting reported that they were generally satisfied with their employment, some unique findings are worth not-

ing. Overall, employees of the VR system reported the least amount of job satisfaction (15.29%), while over a quarter of respondents reported an intention to quit (28.09%). However, employees of colleges and universities were the most satisfied (91.45%) and still, 27.3% of respondents reported an intention to quit. For both of these settings age could be a factor in job retention as people approach retirement. For instance, the majority (33.1%), of employees in colleges and universities were aged 55 years and over, as were 28.0% of VR employees. It has been documented that as our population ages, many rehabilitation agencies have been struggling with how to replace aging baby boomers reaching retirement [6,7,23].

However, factors beyond just age and retirement may be operating. For instance, differences occurred in the private rehabilitation setting where a large percentage of people (29.3%), were also in the 55 years and over age category, and yet only 17.4% report an intention to quit.

When analyzing the specific constructs of job satisfaction as measured by the aJDI, despite the job setting, the majority of CRCs liked the work they do, and the people they worked with. However, more variability occurred across employment settings when the features of pay and promotion were assessed. When evaluating pay, employees of the VR system (69.5%) and HSS (55.79%) were the least satisfied with their salaries. Not surprisingly, these two employment settings also had the majority of their employees (54.5% and 52.7%, respectively), earning below \$42,000 a year. Conversely, the two employment settings (50.8% private rehabilitation and 45.7% colleges/universities) in the uppermost salary category, \$58,000 and over were the most satisfied with income (69.12% and 60.87%, respectively). VR personnel have identified poor salary as a motivator for quitting their employment [6,7].

Despite the employment setting, CRCs' were also dissatisfied with their promotion capabilities. Limited potential for advancement can lead to staff turnover. In a study of the state VR system, the lack of advancement was a reason for employees leaving their jobs [28]. Indeed, 63.9% of respondents in the VR system were unsatisfied with their promotion abilities. Yet, individuals in private rehabilitation (67.4%) had the lowest satisfaction. Even so, this may account for why the majority of these employees (33%) had the greatest longevity within their current positions (i.e., over 15 years). They may not have had opportunities to advance to. The influence of pay and promotion on job retention warrants further study.

Finally, while younger generation employees have been more difficult to retain across all professions [9], it is striking that almost twice the numbers of CRC's under the age of 36 were employed within HSS (30.1%) than the VR system (16.9%). Whether that is due to job demand and availability, or recruitment efforts, is not known.

However, several features of the data set may affect the generalizability of the findings. For one, this investigation relies on self-report data. Thus, the accuracy of respondents' information cannot be verified. Additionally, this study includes only rehabilitation counselors and related professionals who have their rehabilitation counseling certification. Furthermore, while employment characteristics such as salary, caseload size and type are provided, additional job characteristics that may account for a greater degree of the variance affecting job satisfaction and intention to quit need to be explored, such as benefit structure. Also to be considered, this study provides a mostly univariate perspective in its examination of the variables, allowing for a basic understanding of the factors. A multivariate examination of these data would allow for a fuller understanding of the relative contribution of the variables in affecting job satisfaction and intention to quit.

On the whole, the profession of rehabilitation counseling continues to make positive gains. Rehabilitation counselors and related personnel find their work fulfilling and like the people they work with. Additionally, many intend to maintain their current employment. However, recruitment efforts need to be addressed to better attract younger workers to continue strong labor force participation. Furthermore, in regards to long term retention, pay and promotion are areas of concern in many settings where rehabilitation counselors are employed. As a profession, the continued development of a strong identity and the establishment of the field as a thriving and valued career within the labor market must be fostered. While this study enhances our understanding of overall job satisfaction, identifying variables that are known to attract and maintain qualified employees is critically important to sustaining a viable professional rehabilitation workforce over time.

References

- [1] W.K. Balzer, J.A. Kihm, P.C. Smith, J.L. Irwin, P.D. Bachiochi, C. Robie, E.F. Sinar and L.F. Parra, User's manual for the Job Descriptive Index (JDI; 1997 version) and the Job in General scales, in: *Electronic Resources for the JDI and JIB*, J.M. Stanton and C.D. Crossley, eds, Bowling Green, OH: Bowling Green State University, 2000.

- [2] K. Barrett, T.F. Riggat, C.R. Flowers, W. Crimando and T. Bailey, The turnover dilemma: A disease with solutions, *The Journal of Rehabilitation* **63**(2) (1997), 36–47.
- [3] H. Biggs, R. Flett, K. Voges and F. Alpass, Job satisfaction and distress in rehabilitation professionals: The role of organizational commitment and conflict, *Journal of Applied Rehabilitation Counseling* **26**(1) (1995), 41–46.
- [4] M. Bishop, R.M. Crystal and K. Sheppard-Jones, Rehabilitation Counselor Recruitment and Retention: Implications from a Study of Current Counselors, *Journal of Rehabilitation Administration* **27**(1) (2003), 3–14.
- [5] Bureau of Labor Statistics, US Department of Labor, *Occupational Outlook Handbook, 2006–2007 Edition*, Counselors, on the Internet at <http://www.bls.gov/oco/ocos067.htm> (visited March 12, 2007).
- [6] T. Chan, *Recruiting and retaining professional staff in state VR agencies: Some preliminary findings from the RSA evaluation study*. American Institutes for Research, Washington, DC, 2003.
- [7] T. Chan and K. Ruedel, *A national report: The Demand for and the Supply of Qualified State Rehabilitation Counselors*, American Institutes for Research, Washington, DC, 2005.
- [8] N.C. Carney, Seventy years of hope, seventy years of success, *Journal of Rehabilitation* **56**(4) (1990), 6–7.
- [9] Conference Board (2005). Managing the Mature Workforce, Research Report. Retrieved May 10 2007 from <http://www.conference-board.org/>.
- [10] W. Crimando, T.F. Riggat and G. Hansen, Personnel turnover: The plague of rehabilitation facilities, *Journal of Applied Rehabilitation Counseling* **17** (1986), 17–20.
- [11] K.P. DeMeuse, A compendium of frequently used measures in industrial/ organizational psychology, *The Industrial-Organizational Psychologist* **23** (1985), 53–59.
- [12] D.D. Dew and S. Peters, Survey of master's level rehabilitation counselor programs; Relationship to public vocational rehabilitation recruitment and retention of state vocational rehabilitation counselors, *Rehabilitation Education* **16** (2002), 61–65.
- [13] C.W. Faubion, J.D. Andrew and C.E. Palmer, Rural/urban differences in counselor satisfaction and extrinsic job factors, *The Journal of Rehabilitation* **67**(4) (2001), 4–12.
- [14] G.G. Garske, Self-reported levels of job satisfaction of vocational rehabilitation professionals: A descriptive study, *Journal of Rehabilitation Administration* **19** (1995), 215–224.
- [15] G.G. Garske, Rehabilitation counselor job satisfaction: Self reported rating and recommendations, *Journal of Rehabilitation Administration* **23** (1999), 21–29.
- [16] G.G. Garske, Rehabilitation counselor self-reported levels of job satisfaction, self-esteem, and attitudes toward persons with disabilities, *Journal of Applied Rehabilitation Counseling* **31** (2002), 10–13.
- [17] R.W. Griffith, P.W. Hom and S. Gaertner, A meta-analysis of antecedents and correlates of employee turnover: Update, moderator tests, and research implications for the next millennium, *Journal of Management* **26** (2000), 463–488.
- [18] R.D. Hackett and R.M. Guion, A reevaluation of the absenteeism-job satisfaction relationship, *Organizational Behavior and Human Decision Processes* **35**(3) (1985), 340–381.
- [19] G.H. Ironson, P.C. Smith, M.T. Brannick, W.M. Gibson and K.B. Paul, Constitution of a job in general scale: A comparison of global, composite, and specific measures, *Journal of Applied Psychology* **74** (1989), 193–200.
- [20] C.M. Layne, T.H. Hohenshil and K. Singh, The relationship of occupational stress, psychological strain, and coping resources to the turnover intentions of rehabilitation counselors, *Rehabilitation Counseling Bulletin* **48**(1) (2004), 19–20.
- [21] K. Mallik and G.S. Lemaire, Assessing departing employee's perceptions may lead to organizational change to reduce staff turnover, *Journal of Rehabilitation Administration* **27**(1) (2003), 23–32.
- [22] W.H. Mobley, Intermediate linkages in the relationship between job satisfaction and employee turnover, *Journal of Applied Psychology* **62** (1977), 237–240.
- [23] T. Muzzio, Undergraduate rehabilitation education: The need for graduates from the perspective of the public rehabilitation program, *Rehabilitation Education* **14**(1) (2000), 89–95.
- [24] C. Ostroff, The relationship between satisfaction, attitudes, and performance: An organizational level analysis, *Journal of Applied Psychology* **77** (1992), 963–974.
- [25] S.H. Packard and D.R. Kauppi, Rehabilitation agency leadership style: impact on subordinates' job satisfaction, *Rehabilitation Counseling Bulletin* **43**(1) (1999), 5–11.
- [26] D. Pelavin, S. Pelavin and C. Celebuski, National assessment of personnel shortages and training needs in vocational rehabilitation, *Journal of Rehabilitation* **55**(2) (1987), 31–37.
- [27] J.L. Price, *The Study of Turnover*, Ames: The Iowa State University Press, 1977.
- [28] T.F. Riggat, G. Hansen and W. Crimando, Rehabilitation employee organizational withdrawal behavior, *Rehabilitation Psychology* **32** (1987), 121–124.
- [29] S.S. Russell, C. Spitzmuller, L.F. Lin, J.M. Stanton, P.C. Smith and G.H. Ironson, Shorter can also be better: The abridged job in general scale, *Educational and Psychological Measurement* **64**(5) (2004), 878–893.
- [30] N. Sonpal-Valia, Staff turnover in rehabilitation counseling services in Alberta for 2001, *Rehabilitation Review* **13**(5) (2001), 1.
- [31] J.M. Stanton, E.F. Sinar, W.K. Balzer, A.L. Julian, P. Thoresen, S. Aziz, G.G. Fisher and P.C. Smith, Development of a compact measure of job satisfaction: The abridged job descriptive index, *Educational and Psychological Measurement* **6**(6) (2001), 1104–1122.
- [32] E.M. Szymanski and R.M. Parker, Rehabilitation counselor work motivation, job performance, and job satisfaction: An exploratory study, *Journal of Rehabilitation Administration* **19** (1995), 51–64.
- [33] A.D. Wilkenson and R.M. Wagner, Supervisory leadership styles and state vocational rehabilitation counselor satisfaction and productivity, *Rehabilitation Counseling Bulletin* **37**(1) (1993), 15–25.
- [34] S. Zedeck, *Satisfaction in Union Members and Their Spouses*. Paper presented at the Job Satisfaction: Advances in Research and Practice Conference, Bowling Green, Ohio, October 1987.