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Incentive-Related Human Resource Practices for Substance Use Disorder Counselors: Salaries, Benefits, and Training

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Abstract

Understanding factors associated with incentive-related human resource practices for substance use disorder counselors can help promote a stable workforce in this occupation. We examined three counselor incentives—salaries, benefits, training—and the link with organizational, counselor, and patient characteristics. Data were collected in 2007/08 via face-to-face interviews with 345 administrators/clinical directors in private treatment centers. Centers paid counselors an average of \$38,800 annually and provided a mean of 2.83 benefits and 1.61 training (0-4 scales). Characteristics differed based on the incentive. Centers' managements need to be aware of different incentives that can help attract and retain counselors.

Keywords

counselor incentives; salaries; benefits; training; workforce development

Introduction

According to the Bureau of Labor Statistics (BLS, 2010), 86,100 counselors worked in the substance abuse and behavioral disorder field in 2008. Estimates suggest that the substance use disorder (SUD) counselor workforce will grow 21% between 2008 and 2018, which is much faster than the average for all occupations (BLS). Much of the increased need for counselors is associated with growth in the number of people with SUDs, projected greater acceptance of seeking treatment for SUDs, and increased use of treatment as an alternative to incarceration (Alcoholism & Drug Abuse Weekly, 2008; BLS; Substance Abuse and Mental Health Administration/SAMHSA, 2009a). In addition, the current SUD workforce is aging—60% of SUD professionals are between 40-55 years of age (Mulvey, Hubbard, & Hayashi, 2003)—ensuring that retirement will open even more opportunities for SUD counselors in the future.

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At the same time that there is an increasing need, turnover among SUD counselors is higher than the national average for all occupations (BLS, 2010; Knudsen, Johnson & Roman, 2003). Annual turnover estimates range from 18% - 25% (Gallon, Gabriel, & Knudsen, 2003; Johnson, Knudsen, & Roman, 2002; Knudsen et al.; McNulty, Oser, Johnson, Knudsen, & Roman, 2007) compared to the national workforce average of 11%. A stable workforce as well as competent and knowledgeable SUD counselors is vital for effective patient treatment and organizational outcomes (Mulvey et al., 2003). Researchers have noted better outcomes for SUD patients who have a consistent affiliation with a counselor and in centers with lower counselor turnover rates (Ball, Lange, Myers, & Friedman, 1988).

When dealing with a workforce such as SUD counselors that is characterized by high turnover (Knudsen et al., 2003), managers are challenged to maximize attraction and retention (Libretto, Weil, Nemes, Linder, & Johansson, 2004; Olmstead, Johnson, Roman, & Sindelar, 2007), particularly during economic downturns. Counselor incentives, such as salary, formal benefits, and opportunities for additional training are an important consideration in recruiting and maintaining commitment among SUD counselors (Bond & Galinsky, 2006; Knudsen et al.). However, very little is known about counselor incentive-related human resource practices in the substance use disorder treatment industry. As such, the purpose of the current study is to examine administrator/clinical director reports on counselor incentives—salaries, benefits, training—within a framework of organizational, counselor, and patient factors.

The Human Resources Function

Within formal organizations, the administration of employee incentives rests with the human resources function. Found in all except the smallest of workplaces, this function has evolved from foremen hiring and firing members of their workgroups up until first separation of this organizational need in the early 20th-Century (Kaufman, 2008). By the mid-20th-Century, “personnel” specialists used a variety of identities and approaches but became held together by a desire for organizational legitimacy (Herman, 1968). This is still in process, but “strategic human resources” is clearly emerging as a recognized profession (Baron & Kreps, 1999; Kochan, 2007) as well as an institutionalized function in most workplaces.

With this evolution, the use of human resource strategies has become a means of enhancing organizational performance and competitive advantage (Pfeffer, 1994). Further, unlike the demography of the available workforce or the constraints on patterns of work organization defined by an organization's core technology, the administration of incentives is movable and under managerial control. Thus, an understanding of the factors associated with different levels and patterns of incentives is an important area of study, and indeed has attracted a number of researchers, most of whom have focused on family and gender issues.

Using data from the National Organizations Study, Perry-Smith and Blum (2000) found associations between organizational performance and the adoption of a “bundle” of work family human resource practices. The relationship was strengthened by the age of the organization and the proportion of women employees. Harel, Tzafrir and Baruch (2003) studied 102 Israeli organizations and found a significant association between “high quality” human resource practices and gender equity. Firm size, percentage of female employees, and high-commitment management practices were associated with the adoption of family friendly practices in a sample of 131 Spanish firms (Poelmans, Chinchilla, & Cardona, 2003). A study of 661 organizations revealed that the adoption of different human resource “bundles” were significantly linked with organizational-level values and aspects of organizational structure (Toh, Morgeson, & Campion, 2008). Finally, a study in a sample of organizations in Hong Kong revealed significant associations between adoption of family-friendly human resource practices and organizational climate (Ngo, Foley, & Loi, 2009).

Incentive-Related Human Resource Practices: Counselor Salaries, Benefits, & Training

According to the BLS (2010), the annual median salary for full-time substance abuse and behavioral disorder counselors was \$37,030 in 2008; the middle 50% had annual earnings between \$29,410 and \$47,290. Although salaries are an important consideration in attracting and retaining SUD counselors (Knudsen et al., 2003), other incentives like formal benefits (e.g., health care, retirement plan) and formal training in a variety of counseling techniques (e.g., motivational incentives) can promote a dedicated and satisfied workforce (Bond & Galinsky, 2006). Benefits can make up one third of employees' overall compensation and are often as valuable as salaries. Costs to the individual for health, dental, and life insurance are generally lower via employer-sponsored coverage versus an individual policy. Moreover, retirement plans, especially those with employer contributions, ensure employees' future securities. Galfano (2004), however, has noted that 30% of SUD counselors lacked medical coverage, 40% were without dental coverage, and 55% had no covered substance use/mental health services.

Employer-provided training may be seen as an indirect incentive for SUD counselors and has been shown to benefit organizations. Organizations that are training employees benefit from a better qualified workforce and greater productivity (Bishop, 1994). In addition, Bond and Galinsky (2006), based on 2002 data from a large sample of entry level, hourly workers, have found positive associations between employer-provided training and job satisfaction, likelihood of retention, mental health, and life satisfaction among employees. One limitation of their study was their measure of training, which was assessed with only a single question (yes/no) and did not capture the type, extent, and content of training.

Factors Linked to Incentive-Related Human Resource Practices

Organizational Factors—Olmstead and colleagues (2005) examined correlates of SUD treatment counselor salaries and organizational characteristics (controlling for multiple patient characteristics) using national data from counselors working in both public and private treatment centers. They found positive associations between salaries and organizational size, accreditation, and hospital ownership. Data from the BLS (2010) indicate that salaries also differ based on the organizational setting. For example, median salaries for full-time SUD counselors in residential mental retardation, mental health and substance facilities were \$31,300 in 2008 compared to \$44,130 for SUD counselors working in general medical and surgical hospitals in 2008.

Counselor Factors—Olmstead and colleagues (2005) also examined correlates of SUD treatment counselor salaries and counselor characteristics (controlling for multiple patient characteristics) using national data from counselors working in both public and private treatment centers. They found positive associations between salaries and counselors' level of education, experience in the field, licensure, racial/ethnic background (White counselors earned more), and gender (men earned more).

Patient Factors—Due to the constant flow of new developments in treatment techniques, regulation, and reimbursement, counselors need to be trained regularly to effectively work with the myriad of issues faced by patients in SUD treatment (Abbott, Walker, & Otero, 1995). Many patients are diagnosed with co-occurring psychiatric illnesses and/or require ancillary services that necessitate training in evidence-based behavioral and psychosocial therapies. Counselors have to acquire extensive knowledge and expertise to meet patients' diverse and complex needs (Alcoholism & Drug Abuse Weekly, 2002). Thus, programs with a high percentage of patients requiring specialized skills (e.g., treatment for offenders, opiate users), may provide more training to counselors.

Human Resources in the Substance Use Disorder Treatment Field

Close to nothing is known about the variations in incentive-related human resource practices in the SUD treatment industry. This is a relatively new sector of the economy, but it is not without significance. In 2001, the most recent year for which data have been compiled, \$18 billion was spent for the organizational-level delivery of SUD treatment (SAMHSA, 2009b). To demonstrate the continuing emergence of this economic sector, this figure has increased from \$11 billion in 1991.

Purpose of the Study

It is within this framework that we focus our attention on the correlates of incentives for counseling staff within a national sample of SUD treatment programs. Specifically, we examine three counselor incentives—annual salaries, formal benefits, and formal training in behavioral and psychosocial therapies—as reported by administrators/clinical directors working in 345 private SUD treatment centers across the United States. In addition, we identify the link between the three incentives and four organizational characteristics (profit status, accreditation, hospital-based ownership, and total number of counselors); six counselor characteristics (percentage of females, racial/ethnic minorities, master's and bachelor degree holders, certified addiction counselors, and counselors in recovery); and eight patient characteristics (percentage of racial/ethnic minorities, referrals from the criminal justice system, and patients dependent on alcohol, cocaine, heroin, opiates, marijuana, and methamphetamine).

Methods

Sample and Study Design

The national data analyzed for this study were derived from the National Treatment Center Study (NTCS), conducted by the University of Georgia's Institute for Behavioral Research. The NTCS is a family of longitudinal NIH-funded projects designed to assess specific segments of the U.S. addiction treatment system. The study identifies changes in service delivery within SUD treatment centers across the United States. Data for the current study were collected via face-to-face interviews with administrators and/or clinical directors from 345 private sector treatment programs between February 2007 and July 2008.

Programs were defined as “private sector” if they received at least 50% of their annual operating revenues from commercial insurance, patient fees, and income sources other than government grants or contracts. Medicaid and Medicare, which are reimbursements that must be actively sought by patients on an individual basis, were defined as private funding. Programs were required to offer alcohol and drug treatment at a level of intensity at least equivalent to structured programming as defined by the American Society of Addiction Medicine (ASAM) patient placement criteria (Mee-Lee, Gartner, Miller, & Shulman, 1996). Centers not located within the community, based in correctional facilities, court-ordered driver education (DUI) classes, or operated by the Veteran's Administration were also excluded, as were those offering only detoxification or methadone maintenance. All procedures were approved by the University of Georgia's Institutional Review Board.

Participating organizations were selected via a two-stage random sampling approach. First, all U.S. counties were assigned to 1 of 10 strata based on population and then randomly sampled within strata to ensure the inclusion of urban, suburban, and rural areas. Second, using national and state directories, all SUD treatment facilities in the sampled counties were enumerated. Treatment programs were then proportionately sampled across strata, with telephone screening used to establish eligibility for the study. Facilities screened as

ineligible were replaced by random selection of alternative treatment programs from the same geographic stratum. The 345 centers that provided data represent a 67% response rate.

Measures

Dependent variables—We investigated three counselor incentive-related human resource practices reported by administrators and/or clinical directors: Annual salaries, formal benefits, and formal training in behavioral and psychosocial therapies (see Table 1 for descriptive statistics). Counselors' average salaries were measured as a continuous variable based on the question, "Approximately what is the average annual pay for counselors at this center" (defined as 100% counseling position not clinical supervision or other role)?

Four variables each were considered for measuring formal benefits and training provided by the center. Separate exploratory factor analyses with promax rotation were conducted for benefits and training, using the method of iterated factor analysis, in an attempt to condense information. The variables for each dependent variable loaded on 1 factor according to the minimum eigenvalues criterion of greater than 1. Thus, counselor benefits were created by summing the four no/yes (0/1) responses to questions about the availability of health insurance; retirement plans that include employer contributions; a formal Employee Assistance Program (EAP); and a wellness/health promotion program including such elements as smoking cessation, exercise, weight loss, alcohol consumption reductions, and stress management.

Formal training in behavioral and psychosocial therapies for counselors was created by summing the four no/yes (0/1) responses to questions regarding training in the use of cognitive-behavioral therapy, motivational incentives, motivational interviewing, and motivational enhancement therapy. Responses were coded 1 if a center both used a particular therapy and provided formal training. Responses were coded 0 if a center offered a specific therapy but did not provide training or if a center neither offered the therapy nor provided training.

Independent variables—Descriptive statistics for all independent variables are displayed in Table 1. Organizational characteristics included the centers' operational status (0 = *Non-Profit*, 1 = *For-Profit*); accreditation (0 = *No*, 1 = *Yes*) by either the Joint Commission on Accreditation of Health Care Organizations (JCAHO) or Commission on Accreditation of Rehabilitation Facilities (CARF); total number of counselors working at the center; and hospital-based ownership where 0 = *No* (freestanding unit not on a hospital campus) and 1 = *Yes* (freestanding unit on a hospital campus, unit/department within a psychiatric hospital, and unit/department within a general or other hospital).

Counselor characteristics were measured as continuous variables and included the number of counselors that are women, racial/ethnic minorities, certified in alcohol and/or drug abuse counseling, recovering from SUD, holding a master's degree, and holding a bachelor's degree. Percentages were created by dividing the number of total counselors by the number of counselors reported in each subgroup (e.g., number of women).

Patient characteristics included eight continuous measures of the mean percentage of the caseload that is racial/ethnic minorities; involved with the criminal justice system; and abusing or dependent on alcohol, cocaine, heroin, opiates, marijuana, and methamphetamine. The minority variable was created by calculating the mean across four items—proportion of the caseload that is African American, Hispanic, American Indian, and Asian American.

Analyses

Inter-correlations and examinations of statistical tests did not show multicollinearity issues. Ordinary least square (OLS) regression was conducted to assess the link between administrator and/or clinical director reported counselor annual salaries and organizational, counselor, and patient characteristics (see Table 2, left column). Poisson regressions were run to identify the relationship between administrator and/or clinical director reports of the two count dependent variables—benefits and training—and organizational, counselor, and patient characteristics (see Table 2, middle and right column, respectively). Dispersion concerns were managed with the dscale option in proc genmod, which scales the standard errors of the regression coefficients using the deviance residuals. All analyses were conducted using SAS 9.2.

Results

Counselor Salaries

Centers paid counselors mean annual salaries of \$38,800 (Table 1). In addition, as shown in the left column in Table 2, four characteristics were related to salaries. Administrators/clinical directors working in centers that were hospital- versus non-hospital based reported higher counselor salaries. Centers with a higher mean percentage of patients dependent on cocaine, a lower mean percentage of patients dependent on methamphetamine, and a lower mean percentage of patients referred to by the criminal justice system paid higher counselor salaries, according to administrators/clinical directors.

Counselor Benefits

As shown in Table 1, centers offered a mean of 2.83 benefits (0-4 scale). Eighty-eight percent of centers reported that they offered health insurance, 70% had retirement with contribution, 65% had an EAP, and 61% provided a wellness program. Looking at the breakdown of the composite benefits score (not shown), 8% of centers provided none of the four benefits (health insurance, retirement, EAP, wellness program), 10% offered 1 benefit, 14% had 2 benefits, 26% noted 3 benefits, and 42% offered all 4 benefits.

As shown in the middle column in Table 2, centers that operated as for-profit were less likely than non-profit organizations to offer counselor benefits. In contrast, centers that were accredited and hospital-based were more likely to offer counselor benefits compared to non-accredited and non-hospital-based centers.

Counselor Training

Table 1 shows that centers provided a mean of 1.61 training in behavioral and psychosocial therapies (0-4 scale). Fifty-eight percent of centers offered CBT training, 16% offered motivational incentive training, 43% trained counselors in motivational interviewing, and 43% offered training in MET. Looking at the breakdown of the composite score (not shown), 24% of centers provided no training at all, 26% offered training in 1 type of therapy, 22% had 2 trainings, 19% noted 3 trainings, and 8% offered all 4 types of therapy training.

As presented in the right column in Table 2, for-profit and hospital-based programs were less likely to provide counselor training than non-profit and non-hospital-based centers. In addition, those with a greater number of counselors were more likely to provide counselor training than centers with fewer counselors.

Discussion

Knowledgeable and capable SUD counselors are fundamental to the treatment of SUDs. Attracting and retaining qualified SUD counselors, especially during times of economic hardships when many centers are faced with budget restrictions, is challenging in an industry that is characterized by high turnover (Knudsen et al., 2003). Little is known about incentive-related human resource practices regarding counselors in the SUD treatment field. The purpose of this study was to examine three counselor incentives— salaries, benefits, and training—and identify the link between these three incentives and four organizational, six counselor, and eight patient characteristics. Significant findings differed based on the type of counselor incentive.

Counselor Salaries

We found that centers paid SUD counselors an average of \$38,800 annually, which is slightly higher than the \$37,030 median earnings reported by the BLS (2010). This discrepancy may be associated with a couple of factors. First, our study focused on earnings in private centers whereas the BLS reports on earnings in both private and public sectors. Olmstead and colleagues (2005) found that salaries were higher in private for-profit programs compared to public programs, which may partially explain the higher salaries in our study. Second, we reported on the *mean* salaries and the BLS noted *median* salaries. An examination of our data shows that counselors' median earning was \$38,000, which is closer to, albeit still higher than, the salaries reported by the BLS.

We found four significant correlates of counselor salaries including one organization and three patient characteristics. Hospital-based ownership was positively related to salaries. This is not surprising considering that hospitals have more access to greater financial resources that may enable them to pay more competitive salaries compared to other treatment facilities. Further, a greater percentage of patients referred by the criminal justice system and dependent on methamphetamine was related to lower salaries whereas a higher percentage of patients dependent on cocaine was linked to higher salaries. It is possible that a higher methamphetamine caseload is a proxy for rurality, since this drug problem is more common in rural areas, where salaries would be expected to be lower. Likewise, cocaine use and, thus, perhaps, a greater caseload of patients seeking treatment for cocaine dependence, tends to be higher in urban areas (SAMHSA, 2002) where salaries are generally higher than in other areas.

Counselor Benefits

Findings on employer-sponsored benefits can be interpreted in multiple ways. Overall mean scores suggest that centers provide close to three out of the four counselor benefits. The descriptive statistics of the individual items that made up the benefits variable also indicate that the majority (61% - 89%) of centers provide health insurance, retirement contributions, EAPs, and wellness programs. However, examination of the count variable shows that less than half of centers offered all four benefits, one-quarter offered three of the four benefits, and 8% of centers offered no benefits at all. Considering that benefits can supplement salaries, one way for centers to attract and retain qualified counselors could be by adding benefits and/or highlighting the availability of benefits to potential counselors.

Correlates of benefits were limited to organizational characteristics. Centers that operated as not-for-profit, were accredited, and hospital-based offered more formal benefits than other centers. One explanation for these findings could be the nature and status of their operation, making it more feasible and affordable for them to offer a variety of benefits to all employees. Thus, counselors for whom benefits are an important employment consideration

can use these organizational characteristics as guidelines when interviewing with and for selecting an employer.

Counselor Training

Overall mean scores for training in behavioral and psychosocial therapies propose that centers on average provided 1.61 of four training opportunities. Approximately ¼ of centers offered no training, one training, and two training opportunities. Only 8% of centers trained counselors in all four types of therapies. These findings are somewhat surprising given the important role that counselors play in patients' recovery process. Co-occurring psychiatric disorders are common among patients seeking treatment for substance use disorder. Counselors need to be trained in the use of evidence-based practices and stay informed about new counseling techniques. Training provided by centers is an indirect incentive for counselors and benefits the organization, patients, and counselors (Bishop, 2006; Bond & Galinsky, 2006).

Correlates of counselor training differed slightly from counselor benefits. Hospital-based ownership was an indicator of both benefits and training incentives. However, unlike benefits that were positively associated, training was negatively related to hospital-based status. It may be that higher salaries in hospital-based centers are linked to more stringent hiring requirements regarding training. Thus, counselors may have more formal training in behavioral and psychosocial therapies entering hospital-based programs and are subsequently less in need of additional training than counselors working in non-hospital programs. For-profit organizations also provided less training than non-profit organizations, which is similar to findings on counselor benefits. In addition, more training was provided in centers with a greater number of counselors. It may be financially more efficient and feasible to provide in-house training when an organization has more counselors on the payroll.

Limitations, Suggestions for Future Research, and Conclusion

Several limitations need to be taken into consideration when interpreting our findings. We relied on administrator/clinical director reports on all independent and dependent variables. Report bias may be an issue considering that people tend to over-report behaviors that they deem socially desirable and under-report behaviors that they deem socially undesirable (Moorman & Podsakoff, 1992). It is possible that administrators and clinical directors could have inflated salaries, benefits, and training. However, there is some support that their reports may be fairly accurate, at least pertaining to income. Salaries, for example, were similar to those noted by the BLS (2010).

Other limitations of our study were the measures of formal benefits and formal training in behavioral and psychosocial therapies. We created one variable each for benefits and training that was based on four benefit and four training domains. It is advisable for researchers to consider additional domains that were not included in this study but can be characterized by counselors as valuable incentives. For instance, counselors may find greater value in training related to pharmacotherapy, additional behavioral/psychosocial therapies, computer technology, wrap-around services, and other patient-oriented needs. Further, our measures did not reflect the monetary value of each benefit and training. Thus, we could not ascertain the overall annual financial incentives (i.e., base salary + cost of benefits + cost of training) that were paid to counselors, which would be interesting to examine in further research.

Moreover, the cross-sectional design of this study allowed us to only assess organizational, counselor, and patient characteristics associated with counselor incentives; but we could not

identify causal relationships among variables. Further research in this area would benefit from longitudinal analyses to determine causal relationships between and changes across time in salaries, formal benefits, formal training and organizational, counselor, and patient characteristics. Longitudinal analyses could also provide insights into the causality of various effects such as economic changes and counselor supply and demand on counselors' incentive-related human resource practices.

Also, our sampling design was limited to private centers and our results may not generalize to public centers. However, because private centers are under greater pressure to remain competitive without compromising profits, research focusing on private centers compared to public centers provides perhaps greater insights into correlates of financial incentives to a workforce that is diverse, unstable, and associated with patient outcomes.

In conclusion, our study adds to the SUD literature through our examination of the association between multiple measures of counselor incentives and organizational, counselor, and patient characteristics. Hospital-based ownership and the percentage of patients referred by the criminal justice system, dependent on cocaine, and dependent on methamphetamine was related to salaries. For benefits, correlates were profit status, accreditation, and hospital-based ownership. Finally, profit status, hospital-based ownership, and number of counselors was linked to counselor training.

If one considers formal benefits and training as possible tools for luring and maintaining qualified counselors, programs that already provide ample benefits and training should make certain that potential employees are aware of these incentives. Programs with strong incentives can convey the message that they value their employees, are invested in them, and are highly competitive. It is also important to point out the advantages to counselors that are associated with employer-sponsored benefits (e.g., benefits add monetary increase to base salaries, are more cost efficient than individual premiums, ensure employee well-being in the face of illness and upon retirement) and training (e.g., greater qualifications, socio-economic upward mobility). Demands for qualified counselors suggest that they have employment choices and likely will have even greater choices in the future. SUD treatment centers need to be aware of incentive-related human resource practices that can help them stay competitive to ensure quality hiring and low turnover, which in turn should be related to optimal patient and center outcomes.

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Table 1

Descriptive Statistics for All Variables

Variable	<i>M</i>	<i>SD</i>	Range/Coding
Annual Counselor Salaries in \$/1,000 (<i>N</i> = 330)	38.80	9.85	10,000 – 83,200
Available Counselor Benefits (<i>N</i> = 345)	2.83	1.29	0 – 4
Health Insurance (<i>f</i> , %)	303	87.83	0 = no, 1 = yes
Retirement w/contribution (<i>f</i> , %)	241	69.86	0 = no, 1 = yes
Employee Assistance Program (<i>f</i> , %)	223	64.64	0 = no, 1 = yes
Wellness Program (<i>f</i> , %)	211	61.16	0 = no, 1 = yes
Counselor Training (<i>N</i> = 345)	1.61	1.26	0 – 4
Cognitive-Behavioral Therapy (<i>f</i> , %)	201	58.26	0 = no, 1 = yes
Motivational Incentives (<i>f</i> , %)	56	16.23	0 = no, 1 = yes
Motivational Interviewing (<i>f</i> , %)	149	43.19	0 = no, 1 = yes
Motivational Enhancement Therapy (<i>f</i> , %)	148	42.90	0 = no, 1 = yes
Organizational Characteristics			
For-Profit Status (<i>f</i> , %)	126	36.95	0 = no, 1 = yes
Accredited (<i>f</i> , %)	196	56.81	0 = no, 1 = yes
Hospital-Based (<i>f</i> , %)	102	29.74	0 = no, 1 = yes
Total # of Counselors	10.77	13.56	0 – 40
Counselor Characteristics			
% Female	1.89	2.32	0 – 31
% Racial/Ethnic Minority	3.01	4.73	0 – 33
% Master's Degree	2.42	4.65	0 – 52
% Bachelor Degree	2.73	3.75	0 – 28
% Certified SUD Counselor	2.54	4.37	0 – 66
% In Recovery	2.16	2.59	0 – 20
Patient Characteristics			
% Racial/Ethnic Minority	8.12	6.64	0 – 28.25
% Criminal Justice System Involvement	47.35	31.27	0 – 100
% Alcohol Dependent	69.34	23.27	2 – 100
% Cocaine Dependent	26.71	20.25	0 – 100
% Heroin Dependent	15.07	18.75	0 – 90
% Opiate Dependent	23.86	19.64	0 – 90
% Marijuana Dependent	42.14	26.73	0 – 100
% Methamphetamine Dependent	16.98	20.17	0 – 100

Regression Models: Correlates of Counselors' Annual Salaries, Formal Benefits, and Formal Training as Reported by Administrators/Clinical Directors

Table 2

Variables	Salaries ^a			Benefits ^b			Training ^b		
	B	SE	β	B	SE	RR	B	SE	RR
Organizational Characteristics									
For-Profit Status	-503.55	1172.22	-.02	-.30	.07	***	-.22	.11	***
Accreditation	1657.35	1296.43	.08	.32	.07	***	-.13	.12	.88
Hospital-Based	3710.43	1318.11	.17***	.15	.06	***	-.27	.13	.76*
# of Counselors	31.11	51.65	.04	.00	.00	1.00	.01	.00	1.01**
Counselor Characteristics									
% Female Counselors	92.72	238.50	.02	-.00	.01	1.00	.02	.02	1.02
% Minorities	-131.97	162.68	-.06	-.00	.01	1.00	-.00	.01	1.00
% Master's Degree	-56.33	116.68	-.03	.00	.01	1.00	-.01	.01	.99
% Bachelor Degree	-179.20	160.51	-.07	.01	.01	1.01	-.02	.02	.98
% Certified SUD Counselor	-47.51	216.07	-.01	.01	.01	1.01	-.00	.02	1.00
% In Recovery	109.75	214.12	.03	-.00	.01	1.00	.03	.02	1.03
Patient Characteristics									
% Minority	-174.66	90.49	-.12	-.00	.00	1.00	-.00	.01	1.00
% Criminal system referral	-58.31	20.35	-.18**	-.00	.00	1.00	.00	.00	1.00
% Alcohol dependence	-17.89	27.71	-.04	-.00	.00	1.00	-.00	.00	1.00
% Cocaine dependence	66.02	33.38	.14*	.00	.00	1.00	.00	.00	1.00
% Heroin dependence	-18.84	37.82	-.04	.00	.00	1.00	.00	.00	1.00
% Opiate dependence	-2.88	32.37	-.01	-.00	.00	1.00	-.00	.00	1.00
% Marijuana dependence	-26.76	24.32	-.07	-.00	.00	1.00	-.00	.00	1.00
% Methamphetamine depend.	-70.94	27.68	-.14*	.00	.00	1.00	.00	.00	1.00
N	299			312			312		
F or Scaled Deviance (df)	3.99***			293 (293)			293 (293)		

Note.

^aOrdinary Least Square Regression

b Poisson Regression

* $p < .05$
** $p < .01$
*** $p < .001$.