

Original Article

Factors Associated with Consideration of Occupational Therapists Working in the Prison Setting

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Abstract

Background: To build capacity in forensic occupational therapy and make plans to bring occupational therapy to prison settings, it is important to increase the workforce and develop strategies to advocate the scope of occupational therapy practice in this setting. However, it is unknown what factors would encourage occupational therapists to pursue a career in prison settings.

Objective: This study aims to explore the likelihood of occupational therapists choosing to work in prison settings, and to identify factors associated with their willingness to consider working in such a setting.

Methodology: 172 occupational therapists in Alabama, United States, completed a survey questionnaire exploring the likelihood of choosing employment in prison settings.

Results: The mean rating of respondents on the possibility they would consider working in prison settings was 3 in a scale of 1 to 6, which suggested respondents were slightly less amenable to consider work prison settings. However, the final model derived from the stepwise regression procedure indicated that respondents' consideration of working in prison settings was significantly associated with (1) having an exposure to a therapist working in the prison setting, (2) support for rehabilitating inmates, (3) the perception occupational therapy has a role in prison settings, and (4) knowing someone who has been incarcerated.

Conclusions: Findings provide an initial direction to develop strategies that may increase occupational therapists' likelihood to consider working in prisons. Strategies may include an increase in practitioners' exposure to occupational therapists working in the prison setting through continuing education by encouraging occupational therapists who have worked or are currently working in the prison setting to share their experiences.

Key Words: forensic occupational therapy, institutional corrections, criminal justice, prison settings

Introduction

In the United States (US), the lack of community mental health services available to treat people with mental illness resulted in jails and prisons becoming the place to house many of these individuals (Torrey, 2013). This change occurred since the deinstitutionalization movement, which closed down large psychiatric hospitals, in the 1960s (Torrey, 2013). According to various sources (Al-Rousan et al., 2017, Sarteschi, 2013, Bronson and Berzofsky, 2017, Prins, 2014), about one third to half of inmates in the US have a history or a diagnosis of one or more mental illnesses. More than 30 percent of inmates with mental disorders are diagnosed with serious mental illness, such as major depressive disorders and psychosis (Al-Rousan et al., 2017, Prins, 2014, Bronson and Berzofsky, 2017, James and Glaze, 2006). In addition, about half of inmates with mental illness (48.5%) also have a history of substance use disorders (Al-Rousan et al., 2017, Taxy et al., 2015). The high prevalence (a quarter to one-third) of inmates with substance use disorders partly resulted from the implementation of stricter approaches and mandatory sentencing practices for offenders in drug-related charges throughout the country beginning in 1986 (Fazel et al., 2017, Al-Rousan et al., 2017).

In an effort to help prisoners transition back into the community, administrators in correctional facilities have set goals to improve the mental health services provided to prisoners (Tamburello et al., 2017). This offers occupational therapists a unique opportunity to establish a role of providing mental health rehabilitative services for prisoners (Munoz et al., 2016). With the recent health care reform (i.e., Patient Protection and Affordable Care Act) emphasizing improvements in mental health and substance use disorder services (Braveman and Metzler, 2012), occupational therapists have slowly begun to address the unmet mental health needs of prisoners. Munoz and associates (2016) attempted to capture the scope of practice among occupational therapists working in prison settings (Munoz et al., 2016); they found occupational therapists working in prisons addressed various needs of prisoners such as

coping and stress management skills, goal setting, and specific skills that will assist them in gaining employment or successful re-entry into the community.

It is expected that there will be an increasing need for occupational therapists to work in prison settings to meet the mental health needs of this population as the rates of mental illness in prisons continues to rise (Castaneda et al., 2013, Hitch et al., 2016). Muñoz and associates (2016) suggested that future directions should address the creation of a mechanism to boost the involvement of occupational therapists in prison settings (Munoz et al., 2016). To build capacity in forensic occupational therapy and make plans to bring occupational therapy to prison settings, it is important to increase the workforce and develop strategies to advocate the scope of occupational therapy practice in this setting.

However, in terms of preparing future occupational therapists to work in prisons, few occupational therapy academic programs include specific courses related to the criminal justice system (Eggers et al., 2006). Also, it is unknown what factors would encourage occupational therapists to pursue a career in prisons. Therefore, the purpose of this study was to explore the possibility that occupational therapists might choose to work in prisons, and to identify factors associated with this career setting. This information will assist in the development of strategies to expand employment opportunities in forensic occupational therapy, and advocate for the value of occupational therapy in prisons.

Method

Design

This descriptive study involved a cross-sectional survey research design.

Ethical approval

The study was approved by the Institutional Review Board of the XXX with the study protocol (150708008). Completion and submission of the survey questionnaire indicated consent for participation in this study.

Participants

Participants eligible for study inclusion were occupational therapists currently holding a license to practice in the State of Alabama.

Instrument

A survey questionnaire with 11 questions was developed to identify whether occupational therapists would consider working in prison settings. In addition to demographic information (age, gender, and race), years in practice, and type of setting, respondents were asked whether they had worked with incarcerated persons as a therapist, whether they knew someone who has been incarcerated, whether they had exposure (from formal education, continuing education, self-reading, or observation) to a therapist working in prisons, their perception of occupational therapists' role in prison settings, their willingness to consider working in prison settings, and their level of support for rehabilitating inmates.

Two university occupational therapy faculty members, one with 6 years of volunteer experience in the prison setting, another with expertise in research methodology and statistics designed the survey questions. The survey was pilot-tested on two occupational therapists.

Procedures

A cover letter explaining the purpose of the study with the survey instrument Uniform Resource Locator was e-mailed to all 1374 occupational therapists licensed to practice in the State of Alabama. The survey was posted on Survey Monkey (SurveyMonkey.com, Portland, Oregon). E-mail addresses of occupational therapists were obtained from the Alabama State Board of Occupational Therapy. Fifteen e-mails to the occupational therapists were undelivered because of invalid addresses.

Participation in completing the survey was voluntary with no incentive other than contributing to general knowledge. Data were collected between early September and late November 2015, with a follow-up reminder e-mail sent around mid-October to the occupational therapists to help increase the response rate.

Data analysis

The response variable was the likelihood of the respondents to consider employment in prison settings, which was rated on a 6-point Likert-type scale with highly unlikely = 1 and highly likely = 6. Potential explanatory variables included age, gender (female = 1 vs. male = 2), race (Caucasian = 1 vs. non-Caucasian = 2), had worked with incarcerated persons as a clinician (no = 0, or yes = 1), years of practice experience (≤ 3 years = 1, >3 years to 10 years = 2, or >10 years = 3), had an exposure to a therapist working in the prison setting (no = 0, or yes = 1), whether respondents know someone who has been incarcerated (no = 0, or yes = 1), and perceived opinion about whether or not occupational therapy has a role in the prison setting (yes, not sure, or no). We recoded the "not sure" response to "no" for the sake of easier interpretation (no = 0, or yes = 1). In addition, level of support for rehabilitating inmates was assessed using the Rehabilitation Orientation Scale (ROS) (Cullen et al., 1989).

The ROS had nine items and was used to measure one's attitude toward rehabilitating inmates. The response of the ROS items was rated on a 7-point scale with 1 = very strongly agree to 7 = very strongly disagree. A high composite score of all nine items indicated high positive attitude toward and support for rehabilitating inmates. The ROS, which demonstrates satisfactory psychometric properties, has been used to measure attitudes toward punishment and rehabilitation of inmates among staff working in the prison setting (Burton et al., 1991, Robinson et al., 1996, Cullen et al., 1989). The internal consistency reliability of the ROS estimated by Cronbach's alpha for this study was .85, which is considered to be good (George and Mallery, 2003).

For the preliminary analysis related to the multivariable linear regression modeling, explanatory variables were initially screened for consideration in the model using bivariate association between each explanatory variable and the response variable. For the adjusted analysis, we fit a multivariable linear regression model with the likelihood to consider working in the prison setting as the response variable. We considered explanatory variables as candidates for inclusion in

the multivariable linear regression analysis if they were significantly associated with the response variable ($P < .05$) in the univariate analyses (Harrell, 2001). Stepwise method, supplemented with all-possible (or best) subsets method, was used to obtain the most parsimonious set of explanatory variables for the respondents' likelihood to consider working in the prison setting.

The Automatic Linear Modeling used the all-possible-subsets method to compute the statistical relationship between all possible combinations of the explanatory variables and the response variable, and compared several model selection criteria across all the models to determine which model best fit the data (Yang, 2013). Even though linear regression modeling is appropriate to analyze

Likert-type scale response variables (Sullivan and Artino, 2013), we also conducted a sensitivity analysis using an ordinal logistic regression analysis to validate the findings.

Multicollinearity was assessed using tolerance and the variance inflation factor; no multicollinearity was found among explanatory variables. Explanatory variables whose regression coefficients had p-values less than .05 were retained in the multivariable linear regression models. All data analysis was conducted using the Statistics Package for Social Sciences (SPSS) for Windows, version 23 (www.spss.com).

Results

We received 172 completed surveys, with an estimated response rate of 12.7% (172/1359) response rate for the occupational therapists as 15 e-mails to the occupational therapists were undelivered. Table 1 displays the background characteristics and variable responses (frequency or mean value) of the respondents. The mean scores of the likelihood to consider working in the prison setting was three.

Factors associated with the respondents' likelihood to consider working in the prison setting

From the results of the univariable analyses, variables with a p-value of less than .05 included in

the multivariable linear regression model were: exposure to a therapist working in the prison setting, ROS, perception that occupational therapy has a role in prison settings, knowing someone who has been incarcerated, years of practice experience, and gender. The final model derived from the stepwise regression procedure was: likelihood of the respondents' consideration of working in prison settings = $.35 + .88$ (had an exposure to a therapist working in the prison setting) + $.03$ (ROS) + 1.26 (perceived occupational therapy has a role in the prison setting) + $.56$ (knowing someone who has been incarcerated). The model was supported by the all-possible subsets regression analysis. The multiple linear regression model with all four explanatory variables produced $R^2 = .28$, adjusted $R^2 = .26$; $F(4, 167) = 16.26$, $P < .001$, with 28% of the variability of likelihood to consider working in prison settings explained by these four explanatory variables. The coefficient of each explanatory variable with significant effect on the respondents' likelihood to consider working in prison settings is shown in Table 2.

Results were interpreted as follows: Compared to the respondents without an exposure to a therapist working in prison settings, had an exposure (from formal education, continuing education, self-reading, or observation) to a therapist working in the prison setting would increase by .88 unit the possibility of respondents' consideration of working in prison settings. An increase in one unit in the ROS would increase .03 unit in this likelihood. In addition, a change from "no" to "yes" in the perception that occupational therapy has a role in prisons would also increase by 1.26 unit the willingness of respondents' consideration of working in prison settings. Knowing someone who has been incarcerated would increase more than half a unit in this same likelihood.

Sensitivity analysis

Results from the ordinal logistic regression analysis were consistent with that of the multivariable linear regression model indicating the same four variables were significantly associated with the respondents' likelihood to consider working in prison settings. Specifically, an increase in ROS score was associated with an

increase in the odds for the respondents consideration of working in prisons, with an odd ratio of 1.03 (95% CI, 1.00 to 1.06), Wald χ^2 (1) = 4.95, P = .03. The odds for the respondents who had exposure to a therapist working in a prison setting to consider working in the prison setting was 2.77 (95% CI, 2.12 to 3.42) times that of the respondents who had no such exposure, Wald χ^2 (1) = 9.56, P = .002.

Discussion

The final multivariable linear regression models indicated that, among the respondents, having an exposure to a therapist working in the prison setting, support for rehabilitating inmates as measured by the ROS, the perception occupational therapy has a role in prisons, and knowing someone who has been incarcerated were the factors significantly associated with the willingness to consider working in prison settings.

Table 1. Background characteristics and variable responses of the respondents (n=172)

Variable	Frequency (percentage) or mean \pm standard deviation
Age (yr)	39.91 \pm 10.76
Female	153 (89.1%)
Caucasian	149 (86.6%)
Had worked with an incarcerated individual	65 (37.8%)
Practice experience (yr)	
\leq 3 yr	34 (19.8%)
>3 - 10 yr	39 (22.7%)
> 10 yr	99 (57.6%)
Practice area	
Rehabilitation & Disability	119 (69.2%)
Children & Youth	60 (34.9%)
Productive Aging	50 (29.1%)
Likelihood to consider working in the prison setting	2.98 \pm 1.70
Rehabilitation Orientation Scale	44.05 \pm 9.42

Had exposure to a therapist working in the prison setting	41 (23.8%)
Knowing someone who has been incarcerated	85 (49.4%)
Perceived occupational therapy has a role in the prison system	120 (69.8%)

Table 2. Multivariable linear regression analyses examining factors associated with the likelihood of the respondents to consider working in the prison setting

Explanatory Variable	Unstandardized		P-value
	Coefficient	Standard Error	
Had an exposure to a therapist working in the prison setting	.88	.26	.001
Rehabilitation Orientation Scale scores	.03	.01	.018
Perceived occupational therapy has a role in the prison setting	1.26	.25	<.001
Knowing someone who has been incarcerated	.56	.23	.015

Scores on the ROS indicated that attitude of the respondents showed positive support for rehabilitating inmates with an average of 5 in a 7 point scale.

Compared to the respondents without an exposure to a therapist working in prisons, having such an exposure, including formal education, continuing education, self-reading, or observation, would increase by .88 unit for respondents consideration of working in prisons while controlling for other explanatory variables. These findings were consistent with the literature that exposing therapists to positive mentorship experiences would have a strong influential effect on their

choice of practice area (Hussey et al., 2017)The mean rating of respondents willingness to consider working in prison settings was 3 in a scale of 1 to 6, which suggested respondents were slightly less likely to consider working in the prisons. However, based on the current findings, exposing occupational therapists to a therapist working in prisons may change their thinking regarding work in this setting (by increasing .88 point in the six-point Likert-type scale). With an increase in the number of occupational therapists considering work in prison settings and providing rehabilitative services such as teaching vocational and life-management skills to prisoners, it may facilitate prisoners' success in community reintegration and

participation and mitigating recidivism upon release (Eggers et al., 2006).

Limitations and Recommendations

Even though the response rate of occupational therapists in this study was only 12.7%, it was slightly higher than a recent online survey for physical therapists using the membership database, which was 9.4% (Hussey et al., 2017). Given concerns about the low response rate, we acknowledge that the sample in this study may or may not represent the occupational therapists in Alabama; therefore, caution should be exercised regarding generalization of study results. However, as expected, the majority of the respondents came from several major cities/counties. The geographic distribution of the respondents mirrored the population density in those cities, and more than half of the respondents (54.4%) came from the top 5 populated counties.

In addition, due to potential selection and nonresponse biases, our study may have drawn more respondents who were likely to choose work in prisons. Findings may overestimate the respondents' level of consideration of working in prison settings. Finally, given that consideration of working in the prison setting, as a cognitive process, is not the same as the actual behavior of seeking employment in the prison setting, explanatory variables in the final model might not be fully associated with employment-seeking behavior. However, as an initial step toward better understanding the likelihood of occupational therapists' amenability to work in prison settings, the use of therapists' consideration of work in a prison setting as a measurement tool for predicting actual employment-seeking behavior seems appropriate. Future study is needed to determine the relationship between consideration of working in prison settings and the actual behavior of applying for a position in a prison among the occupational therapists.

Based on the findings, strategies can be developed to increase the likelihood of occupational therapists to consider working in the prison setting. These may include an increase practitioners' exposure to occupational therapists working in prisons through continuing education by encouraging occupational

therapists who have worked or are currently working in the prison setting to disseminate their experience through publications and presentation in various means and forums.

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