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Competing Values Among Criminal Justice Administrators: The Importance of Substance Abuse Treatment*

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Abstract

This study applied latent class analysis (LCA) to examine heterogeneity in criminal justice administrators' attitudes toward the importance of substance abuse treatment relative to other programs and services commonly offered in criminal justice settings. The study used data collected from wardens, probation and/or parole administrators, and other justice administrators as part of the National Criminal Justice Treatment Practices survey (NCJTP), and includes both adult criminal and juvenile justice samples. Results of the LCA suggested that administrators fell into four different latent classes: (1) those who place a high importance on substance abuse treatment relative to other programs and services, (2) those who place equal importance on substance abuse treatment and other programs and services, (3) those who value other programs and services moderately more than substance abuse treatment, and (4) those who value other programs and services much more than substance abuse treatment. Latent class membership was in turn associated with the extent to which evidence-based substance abuse treatment practices were being used in the facilities, the region of the country in which the administrator worked, and attitudes toward rehabilitating drug-using offenders. The findings have implications for future research focused on the impact that administrators' attitudes have on service provision as well as the effectiveness of knowledge dissemination and diffusion models.

Keywords

administrator values; substance abuse; criminal justice; evidence-based practice

1. Introduction

The criminal justice system has emerged as a primary service delivery system for nearly 9 million adults and adolescents facing challenges of drug and alcohol abuse, mental illness, and other service needs in the United States (National Institute of Justice, 2003; Taxman et al., 2007b; Young et al., 2007), and many other offenders worldwide. The overwhelming needs of

* Alternative graphical presentations of data from this study are available with the on-line version of this paper at <http://dx.doi.org> by entering doi:xxxxxxx.

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the population, compounded by accompanying public safety and health issues, has spurred a growing body of research focused on service delivery within the criminal and juvenile justice systems. Central to this research is an interest in characteristics of programs, services, and systems that address the goals of reducing crime and improving public health and social productivity. Increasingly, criminal justice administrators are required to stretch limited programming budgets to achieve each of these multifaceted goals. Decisions about where to allocate the scarce dollars available for service delivery are difficult for administrators to make (French et al., 2006).

One factor complicating service delivery is the scarcity of services relative to demand, a problem that is especially acute for offender populations (Belenko and Peugh, 2005; Duffee and Carlson, 1996). It is a well-known problem that the availability of treatment services in the community lags behind the need for such services (Office of Applied Studies, 2005). Current research demonstrates that the same problem is manifested in the criminal justice system in which the need for services is greater. For example, recent estimates indicate that approximately two-thirds of jail inmates were regular drug users and that more than half reported using drugs in the month prior to their incarceration (Karberg and James, 2005; Mumola, 1999 reports similar prevalence rates for prison inmates). Yet, in the United States, less than ten percent of the daily population can access substance abuse services, and the services tend to not be intensive enough for offenders' needs (Taxman et al., 2007b)¹. This same nationally representative survey of substance abuse treatment in the criminal justice system (the National Criminal Justice Treatment Practices Survey, NCJTP; Taxman et al., 2007a) demonstrated that in all segments of the correctional system—jail, prison, and probation/parole—approximately 50% offer basic drug treatment services (e.g., alcohol and drug education, substance abuse group counseling lasting 4 hours or less per week, relapse prevention groups). However, the percentage of offenders that actually receive the services is much lower (Taxman, et al., 2007b). Access rates are lower for individuals incarcerated in jail facilities or under community supervision as compared to prison. Young et al. (2007) report similar findings for youth in juvenile justice facilities.

Clearly, providing substance abuse services of sufficient coverage and intensity to meet offenders' need for treatment is an expensive proposition. First, in addition to the sheer size of the population, substance abusing offenders typically present with more complex clinical issues than nonoffenders (e.g., co-occurring disorders, risk for HIV and Hepatitis C contraction), complicating conventional treatment delivery (Chandler et al., 2004; Ditton, 1999) and increasing the cost (Green et al., 2004). Second, administrators in corrections environments are responsible for ensuring that their facilities/offices offer an array of services to offenders intended to fulfill various purposes—criminal deterrence, punishment, victim restitution, and rehabilitation. To be sure, the extent to which local administrators have control over their budgets and the services their facility offers certainly varies from state to state (as well as nation to nation), with some executives exercising more control than others. In the United States, funding mechanisms for substance abuse treatment vary from state to state, with some states providing funding through the Department of Corrections and others through state public health or substance abuse agencies. Regardless of these complications, however, the bottom line is the same: the more services facilities offer, the higher their costs.

One factor that should influence which services are offered is their effectiveness in reaching the goal of improving public safety, and addressing public health concerns, as well as increasing the prospects of improving the social productivity of the offenders themselves. A recent focus on evidence-based practices (EBPs) has provided a framework for understanding how

¹These data were collected from a nationally-representative sample in the United States. We are unaware of international surveys focused on the same issues, but we assume this is an international problem as well.

substance abuse treatment and other services may provide a means of protecting society by reducing the recidivism rates of offenders. The EBP movement in treatment identifies the services that are likely to improve the offender's prospects to live as a law-abiding citizen upon release back to the community. By contrast, in corrections EBPs are focused on identifying systems features that can maximize the results from delivery of treatment services and programs through the selection of offenders with criminogenic factors that are amenable to intervention. The more aware of EBPs, treatment interventions, and correctional system features administrators are, the more likely they are to implement them. And, as good public servants, the more likely that administrators are aware of EBPs, the more likely that they will allocate programming dollars towards their adoption and implementation (assuming that they have the control to do so; Chandler et al., 2004).

While several studies have reported that treatment staff interest in and attitudes toward treatment services, including EBPs, influence the extent to which they are adopted by treatment agencies (Fuller et al., 2007; Henggeler et al., 2007; Kirby et al., 2006; Simpson et al., 2007), the literature examining administrator attitudes is limited except for recent work by Fuller et al. (2007), Moore et al. (2004), Munoz-Plaza et al. (2006), and Willenbring et al. (2004). These studies tend to find that administrators support EBP adoption but also perceive that in order to effectively adopt EBPs, they would need to address barriers such as insufficient staff time and staff's lack of knowledge or skills in EBP use. To our knowledge, only two studies have focused on how corrections administrator attitudes are associated with the extent to which they report using EBPs. A nationally representative survey of adult corrections administrators (using data collected in the NCJTP) revealed that administrators that support offender rehabilitation are more likely to use EBPs (Friedmann et al., 2007; see also Henderson et al., 2008). A companion study of treatment directors in juvenile justice programs indicated that greater commitment by these individuals to their organizations was associated with more EBP use (Henderson et al., 2007). However, these studies did not consider the extent to which administrator attitudes influence decisions regarding which types of programs receive the greatest support.

The current study uses advanced latent variable modeling techniques (specifically latent class analysis, LCA) to examine administrators' ratings of the importance of a variety of services relative to substance abuse treatment. Specifically, administrators were asked to rate the importance of a given service relative to substance abuse treatment on a scale of 1 (much less important) to 5 (much more important). Duffee and Carlson (1996) conceptualize such decisions as necessarily resolving competing value premises regarding substance abuse treatment services for offenders. Specifically, these authors regard "treatment on demand" as a worthwhile policy ideal, but assert that, ultimately, it does not realistically consider the resource allocation decisions that many administrators confront. Administrators are often required to resolve conflicts between value premises on two dimensions: 1) who should receive services, and 2) what services should be provided, although it is likely that most administrators will have more control over the former. These are practical dilemmas in drug abuse policy and practice. We argue that corrections administrators must implicitly resolve similar conflicts between value premises when determining which services are prioritized in their agencies.

LCA allows us to derive subtypes of administrators' value orientations with respect to the importance of substance abuse treatment. We assumed that at least three classes of value orientations would emerge, one suggesting that all services are equally important, a second suggesting that substance abuse treatment is more important than other services, and a third suggesting that other services are more important than substance abuse treatment. However, given the limited research on administrator value orientations, we propose this as an exploratory research question.

Our second goal was to examine to what extent group membership would predict the degree to which administrators report their organization using EBPs, and to examine correlates of group membership, specifically administrators' attitudes toward offender rehabilitation, and facility type (adult versus juvenile and state versus county). We hypothesized: (1) that the facilities having administrators reporting that substance abuse treatment has high importance would be using more EBPs; (2) that administrator attitudes consistent with crime reduction through offender rehabilitation would be more likely to rate substance abuse treatment with high importance than administrators that did not (consistent with previous research, Friedmann et al., 2007); (3) that administrators of juvenile justice agencies would be more likely to rate substance abuse treatment as high importance given the underlying child-saving premise of the juvenile justice system (Nissen and Kraft, 2007); and (4) that administrators working in state prisons would be more likely to rate substance abuse treatment with high importance than administrators working in jails or probation and parole facilities (consistent with previous research; Friedmann et al., 2007). Finally, we explored whether administrators' attitudes regarding the importance of substance abuse treatment varied depending on the region of the country in which they are located and the extent to which corrections and substance abuse treatment agencies carried out joint activities focused on providing substance abuse treatment to offenders.

2. Methods

The National Criminal Justice Treatment Practices (NCJTP) survey is a multilevel survey designed to assess state and local adult and juvenile justice systems in the United States. The primary goals of the survey are to examine organizational factors that affect substance abuse treatment practices in correctional settings as well as to describe available programs and services. The NCJTP survey solicited information from diverse sources ranging from executives of state criminal justice and substance abuse agencies to staff working in correctional facilities and drug treatment programs. Details of the study samples and survey methodology are provided in Taxman et al. (2007a). The present study analyzes findings on the importance of an array of services commonly available in criminal justice settings relative to substance abuse treatment. Survey respondents consist of administrators of adult and juvenile correctional facilities.

2.1 Sample and Procedure

The survey obtained representative samples of adult prisons, juvenile residential facilities, and community corrections agencies using a two-stage stratification scheme (first counties then facilities located within counties) that utilizes region of the country and size of the facility (or jurisdictions in the case of the community corrections sample) as stratification variables. We report sample sizes and response rates for two targeted populations: (1) a sample of corrections administrators in the adult criminal justice system ($n = 302$, response rate = 70%), and (2) a sample of corrections administrators in the juvenile justice system ($n = 141$, response rate = 65%). The response rates exceed those typically found for mailed, self-administered organizational surveys (Baruch, 1999), and an analysis of response bias indicated no systematic differences between responders and non-responders (Taxman 2007a).

2.2 Instrumentation

Survey respondents were asked to rate the importance of 10 programs that are commonly offered to offenders in correctional settings relative to the importance of substance abuse treatment. The programs/services consisted of: (1) Education/GED training, (2) HIV/AIDS counseling and/or treatment, (3) Mental health counseling, (4) Vocational training, (5) Life skills training, (6) Transitional housing, (7) Work assignments or work release, (8) Community service, (9) Criminal thinking therapy, and (10) Job placement. Participants rated the

importance of these services on a five point rating scale consisting of the following options: (1) Much less important, (2) Slightly less important, (3) Same as substance abuse treatment, (4) Slightly more important, and (5) Much more important. Latent class analysis (see description below) was performed on these importance ratings.

After we derived the latent classes, we examined correlates of group membership. Our measure of EBP use was an item response theory (IRT)-derived measure of the extent to which programs were using 15 specific practices supported either by meta-analyses (cf. Farrington and Welsh, 2005) or recommendations of consensus panels charged with developing recommendations on treatment practices with the best empirical and clinical support (Drug Strategies, 2005; National Institute on Drug Abuse, 2006). Henderson et al. (2008) used Rasch modeling to derive a continuous, intervally-scaled measure of EBP adoption weighting the use of specific practices by the frequency that programs were using them, which we incorporate in the current study as our measure of EBP use. The specific EBPs comprising this measure consist of: (1) specific treatment orientations that have been successful (e.g., cognitive-behavioral, therapeutic community, and family-based treatments); (2) effective re-entry services designed to build upon initial treatment gains as well as integrated services provided by the justice and treatment systems; (3) the use of sanctions and incentives to improve program retention; (4) interventions to engage the offender in treatment services and motivate him/her for change; (5) treatment of sufficient duration and intensity to produce change (typically defined as 90 days or longer, Simpson et al., 1999); (6) quality review designed to monitor treatment progress and outcomes; (7) family involvement in treatment; (8) assessment practices, particularly the use of standardized substance abuse screening tools; (9) comprehensive services that address co-occurring medical and psychiatric disorders; and (10) qualified staff delivering treatment (Brannigan et al., 2004; Knudsen and Roman, 2004; Landenberger and Lipsey, 2006; Mark et al., 2006; National Institute on Drug Abuse, 2006; Taxman, 1998). See Henderson et al. (2008) for more information on this measure and the advantages of using IRT to develop it.

Systems integration was assessed by the extent to which the institution had working relationships with justice agencies, mental health programs, health clinics, housing services, vocational support agencies, and victim and faith-based organizations, as well as the extent to which the executives communicated with substance abuse treatment and other programming staff located in the same agency. Please see Fletcher et al. (this volume) for more information on our conceptualization of systems integration and how it is measured.

Other correlates of group membership included scales reflecting administrators' attitudes about crime reduction (rehabilitation, punishment, deterrence); these measures were adapted from previous similar surveys of public opinion and justice system stakeholders (Cullen et al., 2000). Finally, survey items indicating the corrections setting in which the individual worked (State Prison=0, County Jail or Probation/Parole Facility=1), whether the respondent oversaw a facility in the adult criminal or juvenile justice system (0=Adult, 1=Juvenile), and the region of the country in which the facility was located (three dummy coded variables in which Southern states served as the reference category) were also examined as correlates as group membership.

2.3 Data Analysis

Latent class analysis seeks to sort individuals into similar groups (latent classes) with respect to a set of observed (manifest) categorical variables (e.g., item response options) as measures of an underlying (latent) categorical variable. The LCA model assumes that individuals' observed responses to a set of categorical items (the response patterns) arise from a mixture of subpopulations (the latent classes). The model estimates response probabilities for each possible option in a set of categorical items. For example, as we describe more fully below, our manifest variables consisted of 5-category importance ratings (1=Much less important to

5=Much more important) for 10 programs or services commonly available in corrections environments. Therefore, the LCA model estimated five response probabilities for each of the 10 programs/services. The objective of the analysis is to determine the number and nature of the latent classes through maximizing the likelihood of the observed data across a series of models varying in the number of classes the models estimate (Lanza et al., 2003).

LCA has several advantages also shared with other latent variable modeling approaches including: (a) maximum likelihood estimation to obtain the estimated probabilities of class membership to account for the probabilistic nature of class assignment (i.e., all individuals have an estimated probability of belonging in each class); (b) ability to employ structural models that include contextual variables; (c) capacity to include all available data from participants even if it is incomplete (Schafer and Graham, 2002); and (d) a model-based approach to estimating heterogeneity in subscale scores (i.e., model-based approaches have the advantage that more rigorous methods can be used in selecting the optimal number of latent classes; Lubke and Muthén, 2005; Nylund et al., in press).

There are several decision points in selecting the final LCA model. First, the model with the optimal number of latent classes must be selected. This decision is typically made on the basis of a convergence of model fit criteria, along with substantive considerations, as the traditional likelihood ratio test (LRT; which assumes a chi-square sampling distribution for the statistic) for comparing nested models cannot be used to statistically determine the optimal number of classes (Muthén, 2003; Nylund et al., in press). Instead, other non-inferential criteria such as the Bayesian information criterion (BIC; Schwartz, 1978) and entropy (Ramaswamy et al., 1993) are used to guide this decision. In the results reported below, we compared the BIC values across the models with varying numbers of latent classes, with lower values indicating a preferred model. Entropy is a standardized summary measure of the classification accuracy of placing participants into classes based on their model-estimated (i.e., posterior) probabilities of class membership with higher values indicating better classification. Although we could not use the traditional LRT to guide model selection, there are some inferential alternatives (namely the Lo-Mendell-Rubin Likelihood Ratio Test [L-M-R LRT] and the bootstrap LRT [BLRT]), which are appropriate to use in this context. The L-M-R LRT (Lo et al., 2001) compares the improvement in fit between neighboring class models (i.e., comparing $c-1$ and the c -class models) and provides a statistical test that can be used to determine if there is a significant improvement in fit for the inclusion of one more class. Finally, the BLRT (McLachlan and Peel, 2000; Nylund et al., 2007) is similar to the L-M-R LRT, but uses bootstrap samples to empirically derive the distribution of the log likelihood difference test comparing $c-1$ and c -class models.

Data analysis started with a latent class enumeration phase, in which we estimated a series of LCA models, starting with a one-class model with each successive model including one additional latent class. The optimal number of latent classes was selected on the basis of the BIC and L-M-R LRT and BLRT difference tests; we sought a model with a lower BIC, higher entropy, and significant L-M-R LRT and BLRT difference tests. After selecting the model with the optimal number of latent classes, we included correlates of the latent class variable in the best-fitting model. The IRT-derived measure of the extent to which programs were using EBPs, the measures assessing administrators' attitudes about crime reduction, the systems integration measure, and the items indicating facility setting, whether the facility served adult or juvenile offenders, and region of the United States served as correlates of the latent class variable. We included region as a covariate for two reasons. First, given recent research suggesting that punishment politics vary by region of the United States (Barker, 2006, 2007; Beckett, 1994, 1997), we were interested in assessing whether these regional differences corresponded with different attitudes toward service delivery. Second, we included region to control for effects of using region as a stratum in sample selection (Asparouhov, 2005), as we have done in

previous studies using the same data source (Friedmann et al., 2007; Henderson et al., 2007, 2008)². All of the models presented in this paper were estimated using Mplus, Version 5 (Muthén and Muthén, 1998–2008).

3. Results

3.1 Descriptive Statistics

Respondents were primarily wardens of adult (67.2%) prisons (59.3%) located in the Southern United States (38.1%; Western, Northeastern, and Midwestern States 26.3%, 18.8%, and 16.7% respectively). The average value of EBP use was -0.45 ($SD = 1.02$), which indicates that facilities were using slightly less than half of the 15 EBPs we assessed in Henderson et al. (2008). As a group, the administrators tended to report stronger punishment ($M = 4.54$, $SD = 0.49$) than rehabilitative attitudes ($M = 2.46$, $SD = 0.87$), and shared on average 3.64 activities ($SD = 3.60$) with substance abuse treatment agencies, which translates to a low level of interagency structure (see Fletcher et al., this volume).

Table 1 provides the number and percentage of respondents reporting whether a given service was much less important (scored as 1) to much more important (scored as 5) for the following clinical services: (1) educational/GED training, (2) HIV/AIDS treatment, (3) mental health counseling, (4) vocational training, (5) life skills training, (6) transitional housing, (7) work assignment, (8) community service, (9) criminal thinking therapy, and (10) job placement. Examination of Table 1 reveals that the modal response category was “same importance,” with the majority of participants rating almost all services as being the same importance as substance abuse treatment (the exceptions were work release and community service, which the majority of participants rated as “somewhat less important” than substance abuse treatment).

3.2 Latent Class Analysis

3.2.1 Model Specification and Estimation—LCA was performed using the relative-to-substance-abuse-treatment-importance ratings (hereafter referred to as importance ratings) of 430 individuals. As shown in Table 2 the 4-class LPA model provided the best fit to the importance ratings. Examination of Table 2 indicates that relative to the models with fewer classes, the 4-class model had higher entropy and significant L-M-R LRT and BLRT tests. Although the BIC was technically smaller for the 3-class model, the difference was negligible. Average individual posterior assignment probabilities for this solution revealed high values along the diagonal (range: .93–.96) and low values off the diagonal (range: <.001–.042), both indicating good model classification. A 5-class model was also fit, but the BIC was higher, the L-M-R LRT was not significant, and the BLRT did not converge. Taken together, a confluence of evidence suggested that the 4-class model provided the best representation of the data.

3.2.2 Evaluating the Validity of the Four-Class Model—The face validity of the model is demonstrated by examining the response patterns of the importance ratings within each of the latent classes shown in Table 3³. For the most part, the 4 latent classes were separated by response patterns indicating varying perceptions of the importance of substance abuse treatment relative to all other services (as opposed to a more nuanced view in which substance abuse treatment was assumed to be more important than some services and less important than others). One class (High Substance Abuse Treatment Importance) consisted of 37% of

²We also analyzed the data incorporating the sampling weights Taxman et al. (2007) generated to compensate for unequal probability of sampling due to the stratified sampling design. The results were similar to the results we report below. We have chosen not to report those results here to be consistent with previous studies using NCJTP data and so that we could validly interpret the regional effects, but they are available from the first author by request.

³Figures depicting proportions of responses to each of the five item categories by latent class for each item are available as supplementary material in the on-line version of this manuscript.

corrections administrators who reported that substance abuse treatment tended to be slightly more important than the array of other services we assessed. In particular, these respondents viewed substance abuse treatment as much more important than community service and work release. The second class (Very Low Substance Abuse Treatment Importance) consisted of 11% of individuals who viewed the other services as either slightly more or much more important than substance abuse treatment. These individuals tended to perceive education/GED training, vocational training, and life skills training as much more important than substance abuse treatment. The third class (Equal Importance; 27% of respondents) tended to view all services as equally important, with the exception of work release and community service, which tended to be rated as slightly less important than substance abuse treatment. The final class (Moderate Low Substance Abuse Treatment Importance; 25% of respondents) tended to view other services as being either the same importance or slightly more important than substance abuse treatment.

3.2.3 Correlates of the Latent Classes—Given the high emphasis placed on EBP use in the recent substance abuse treatment literature (e.g., Miller et al., 2005) and reports issued by the National Institute on Drug Abuse (2006) and substance abuse treatment policy groups (Drug Strategies, 2005) we believed that latent class membership—specifically those classes placing high importance on substance abuse treatment—may be associated with the extent to which the facilities were using EBPs. Further, we also believed that subgroup membership may also be predicted by their attitudes toward punishment and rehabilitation, whether the respondent worked in a state prison or county jail or probation/parole agency, whether they oversaw an adult or juvenile facility, and the region of the country in which the respondent worked. We used multinomial logistic regression to examine the extent to which use of EBPs, punishment and rehabilitation attitudes, facility setting and type, and region of the country were associated with latent class membership.

Following Table 4, we first present results contrasting the Moderate Low Substance Abuse Treatment Importance class (Class 1) with the High Substance Abuse Treatment Importance class (Class 2), the Very Low Substance Abuse Treatment Class (Class 3), and the Equal Importance Class (Class 4). Then, progressing through the classes in order, we present any significant results contrasting Class 2 with Class 3 and 4, ending with contrasts between Classes 3 and 4. In each case, the lower-numbered class was used as the reference category. Results (see Table 4) indicated that administrators in Class 1 (the Moderate Low Substance Abuse Treatment Class) reported that their facilities were using fewer EBPs than those in Class 2 (the High Substance Abuse Treatment Importance Class; *pseudo z* = 2.01, *p* < .05). Class 1 administrators were also more likely to work in prisons than Class 2 administrators, who were more likely to work in county correctional programs such as jails and probation and parole offices (*pseudo z* = 2.09, *p* < .05)⁴. Compared to Class 3 (Very Low Substance Abuse Treatment Importance) administrators, Class 1 administrators were marginally more likely to be located in Western regions of the United States (*pseudo z* = -1.85, *p* < .10). Finally, Class 1 administrators reported that their facilities used marginally fewer EBPs than Class 4 (Same Importance) administrators (*pseudo z* = 1.79, *p* < .10). They were also more likely to be located in Southern States (*pseudo z* = -2.33, *p* < .05) and had more favorable attitudes toward offender rehabilitation than Class 4 administrators (*pseudo z* = 1.83, *p* < .10).

Moving to the Class 2 (High Substance Abuse Treatment Importance) administrators, Table 4 shows that these administrators were more likely than Class 3 (Very Low Substance Abuse Treatment Importance) administrators to oversee facilities in Midwestern (*pseudo z* = -2.53, *p* < .05) and Northeastern States (*pseudo z* = -2.29, *p* < .05). They had lower rehabilitative

⁴We conducted the analyses separating jails and probation and parole departments using dummy coding procedures with prisons as the reference group, but the results were not statistically significant.

attitudes than Class 4 (Equal Importance) administrators (*pseudo* $z = 2.95, p < .01$), and relative to Class 4 administrators were more likely to be located in Midwestern (*pseudo* $z = -2.58, p < .05$) and Northeastern states (*pseudo* $z = -2.49, p < .05$). As shown in Table 4, there were no significant covariate effects for the analysis contrasting Class 3 and Class 4 administrators.

4. Discussion

When examining administrators' ratings of the importance of programs/services over the entire sample, it appears that with a few exceptions (e.g., community service, transitional housing, work release) approximately half of the administrators rated the programs and services as equally important as substance abuse treatment. The relative ambiguity that is expressed over the importance of substance abuse treatment is most likely due to the inherent tension involved in resolving goals related to correctional and rehabilitative outcomes. Correctional administrators, and correctional programs themselves, must be multifaceted to serve the various purposes of sentencing, and this generally creates conflicts in the organizational goals, culture, and climate that administrators must resolve in the delivery of correctional services. In theory, this gets resolved in the provision of a myriad of services and through mechanisms that allocate offenders to programs and services based on their criminogenic needs along with the purposes of their sentencing. In practice, administrators must confront the limitations of what they can do as a correctional agency with the paucity of funding available for educational, vocational, mental health, substance abuse, and medical services. And, given that programming is perceived by the public (at least in the United States) as a secondary goal, administrators must balance punishment and rehabilitation-related programming in a context where public opinion shifts regarding the overall value of drug treatment for offenders (Cullen et al., 2000). As we have indicated previously, the latitude that administrators have in making such programming decisions will certainly vary across states, with some states establishing programming mandates at the state level. Please see the Henderson et al. and Young et al. papers in this volume for research examining the influence of state executive organizational characteristics on local facility service delivery for substance abusing offenders. The results we cite here are consistent with a much broader literature on the way in which administrator values and broader organizational systemic issues interact to shape organizational behavior and change (or lack thereof) (Hasenfeld & Powell, 2004; Meyer, 2003; Pfeffer & Fong, 2005).

A closer examination of the data using LCA methods reveals that these overall trends capture a great deal of heterogeneity that may be masked when observing the frequency distributions for the entire sample. Our findings here suggest that administrators' attitudes about the importance of different services can be reliably differentiated, and that these discriminations can be made on the basis of the importance they place on substance abuse treatment. That is, the endorsement patterns suggest that one group of administrators placed a high value on substance abuse treatment relative to other services, another group rated other services as equally important as substance abuse treatment, and two groups rated other services as more important than substance abuse treatment, one of these two latter groups rating substance abuse treatment as very low in importance and one rating it moderately low. Although these endorsement patterns are interesting, it is perhaps of more substantive value to examine the correlates of group membership. Administrators who placed higher importance on substance abuse treatment oversaw facilities that were using more EBPs. Further, their facilities tended to be located in the Northeast or Midwest regions of the United States. Regional differences at some level must reflect sociohistorical trends and political climates of the region in general (i.e., it is not surprising that the less politically conservative Northeast region would have a high concentration of administrators that viewed substance abuse treatment as highly important or that Southern and Western states are more likely to favor punishment-oriented programming). Also, as we have argued here, service delivery will also be largely determined

by funding, and it is likely that some regions of the United States provide more funding for service delivery than other regions. However, even considering these issues, perhaps it is also noteworthy that national substance abuse treatment dissemination centers (e.g., Addiction Technology Transfer Centers [headquarters located in Kansas City, MO], Clinical Trials Network nodes, NIATx implementation sites, and Research Centers for the Criminal Justice Drug Abuse Treatment Studies)⁵ are heavily concentrated in the Northeast and then the Midwest. Because these organizations and centers are leading the dissemination of model programs and EBPs in the substance abuse treatment field, the presence and activities of these organizations may be influencing the value placed on substance abuse treatment programs in the public eye. Their presence may have an impact on the attitudes of criminal justice administrators working in these local areas by providing the public support for substance abuse treatment even for the offender population. A finding consistent with this knowledge-transfer interpretation is that rehabilitative attitudes were higher among administrators in the Equal Importance class than the High Substance Abuse Treatment Importance class. One may assume that the regional political climate may influence differences in rehabilitative attitudes as well as attitudes toward substance abuse treatment. Therefore, the fact that we found that region of the country was associated with individuals who rated substance abuse treatment high in importance, but rehabilitative attitudes were not, suggests that something other than regional politics is influencing these results. We suggest that it may be that these national organizations are effectively disseminating information on substance abuse treatment effectiveness to criminal justice administrators in their local communities. We understand that these results and interpretations must be confined to the United States; however, we hope that these findings may spur further international research examining similar issues.

On the other hand, further exploration is needed to understand historical developments surrounding the attitudes towards SA treatment and those of rehabilitation. They have had historically different trajectories and often refer to different operating principles. For example, in recent years substance abuse treatment has been discussed as a crime control strategy (see Taxman, 1998) and not as rehabilitation. The concept of rehabilitation has been diminished as a tool in corrections since the 1970's when just deserts, incapacitation, and deterrence overtook sentencing philosophies. More exploration is needed to examine these sociocultural issues.

As suggested above, latent substance abuse treatment importance classes were also associated with rehabilitative attitudes, but not necessarily in hypothesized directions. It was the Equal Importance class that tended to report higher rehabilitative attitudes than either the Moderate Low Substance Abuse Treatment Importance class (as we expected) and the High Substance Abuse Treatment Importance class (which we did not expect). Individuals in the Equal Importance class tended to rate substance abuse treatment as important as the majority of the other services/programs we assessed. Perhaps these results reflect the plurality in the system—administrators are trying to serve various sentencing goals and to offer services that are likely to influence the social productivity of offenders such as education, work/job placement, and mental health. These administrators recognize the need to address individuals' multidimensional needs to increase their ability to be contributing members of society. With respect to services for offenders, the majority of studies over the last thirty years have been devoted to measuring the effectiveness of substance abuse programs, and little is known about the effectiveness of other programs. However administrators may intuitively recognize that the prevalence of illiteracy and poor work histories impairs offenders' abilities to become law-abiding citizens.

⁵The interested reader may view websites graphing the location of these centers against a map of the United States at: <http://www.nattc.org/regCenters.html>, <http://www.nida.nih.gov/CTN/node.html>, and <http://www.cjdates.org/ka/index.cfm>.

With one exception, facility characteristics were not associated with class membership. The exception was that individuals in the High Substance Abuse Treatment Importance Class were more likely to oversee jails/detention centers and probation/parole agencies than state prisons. While this finding is somewhat inconsistent with our previous research (Friedmann et al., 2007), which suggests that individuals in prison facilities reported using more EBPs than those in jail and probation/parole facilities, this may be a product of jail/detention and probation/parole administrators working with offenders transitioning to and from the community and therefore may be more acutely aware of the relationship between substance abuse and recidivism. Unfortunately, federal initiatives like the Residential Substance Abuse Treatment block grant program that focus on prison-based treatment programming do not exist for jails and/or probation/parole agencies, although states and counties may provide some funding.

4.1 Limitations

The current study is limited in certain respects. First, the data are cross-sectional, limiting the ability to draw causal inferences. From these data, we are unable to make directional interpretations regarding associations between substance abuse treatment importance ratings, EBP use, and rehabilitative attitudes. Some unmeasured “third variable” may be causing each of the associations we observe here such as state sentencing laws. Second, although the response rates exceed those reported by other mail surveys, the proportion of program administrators declining to participate limits the generalizability of the findings. The response rate, especially among juvenile justice administrators, illustrated the instability in leadership in the field in that 20% of the nonrespondents indicated that they were acting administrators and therefore did not feel that they could complete the survey. Third, the data are limited to self-reports of criminal and juvenile justice administrators, and therefore, there is no way of verifying that the respondents’ attitudes regarding substance abuse treatment importance translate to behaviors in areas such as the availability of substance abuse treatment services or improving offenders’ access to them. In fact, other studies of the same data source suggest that the availability of services of sufficient intensity or duration to make a lasting impact on offenders’ drug use rates, as well as the number of offenders that access the services are both low (Taxman, et al., 2007b; Young et al., 2007). Fourth, we elected to control for our stratified sampling design by incorporating region as a covariate in our latent class analyses rather than incorporating sampling weights. We also analyzed the data incorporating the sampling weights and obtained very similar results; however, we did not incorporate region in these analyses, as it is confounded with the weights. It is possible that the regional differences we report here emerge partially from our sampling design. That said, the results are consistent with regional differences in punishment politics, which indicate that Southern regions of the United States are more punishment oriented than other regions of the United States (Barker, 2006, 2007; Beckett, 1994, 1997). Fifth, latent class membership was not consistently associated with covariates in the direction we expected. For instance, the High Substance Abuse Treatment Importance class was not using more EBPs than the Very Low Substance Abuse Treatment Importance, and the only two classes that significantly differed in rehabilitative attitudes were the High Substance Abuse Treatment Importance Class and the Equal Importance Class. The lack of consistency may be driven by fairly small sample sizes in the Very Low and Moderately Low Substance Abuse Treatment Classes. Finally, the modeling procedure we implemented treated the items as ordinal data. Researchers have also treated five-point rating scales as continuous data, which leads to a simpler, more parsimonious model. We could have done the same but elected not to because recent studies have indicated that doing so can lead to substantial bias in parameter estimates (cf., DiStefano, 2002), and when we analyzed the data as continuous some of the parameter estimates bordered on implausible values.

4.2 Conclusion

Despite these limitations, the current study provides a better understanding of the issues related to competing values regarding the importance of substance abuse treatment and other correctional programming. Foremost among the strengths of this study is that it obtained nationally representative estimates of attitudes toward various services and programs offered in juvenile and adult correctional and community settings in the United States (Taxman, et al., 2007a). Second, we apply advanced data analytic methods to examine an issue with practical implications. In most jurisdictions, administrators have at least some discretionary control over their budget (although we expect that the amount of control may vary from jurisdiction to jurisdiction), and the importance they place on substance abuse treatment will likely affect the extent to which treatment is supported financially. Further, our findings suggest that administrators that place a high value on substance abuse treatment also are likely to adopt EBPs to strengthen the quality of the services that are provided. Finally, they indicate that administrators' attitudes and region of the country in which facilities are located should be considered when implementing processes intended to disseminate and/or diffuse effective substance abuse treatment practices. We hope that similar efforts are conducted internationally to determine whether the regional differences we found in the United States can be replicated in other nations. We cannot speculate at this time to what extent administrators' attitudes toward substance abuse treatment are malleable, the methods that are most effective in influencing administrator attitudes, and whether these methods ultimately impact the types of services that are offered. These issues remain extremely important areas for future research.

Supplementary Material

Refer to Web version on PubMed Central for supplementary material.

References

- Asparouhov T. Sampling weights in latent variable modeling. *Structural Equation Modeling* 2005;12:411–434.
- Barker V. Politics of punishing: Building a state governance theory of American imprisonment variation. *Punishment & Society* 2006;8:5–32.
- Barker V. The politics of pain: A political institutionalist analysis of crime victim's moral protests. *Law and Society Review* 2007;41:619–664.
- Baruch Y. Response rate in academic studies: A comparative analysis. *Human Relations* 1999;52:421–438.
- Beckett K. Setting the public agenda: "Street crime" and drug use in American politics. *Social Problems* 1994;41:425–447.
- Beckett, K. *Making crime pay: Law and order in contemporary American politics*. New York: Oxford University Press; 1997.
- Belenko S, Peugh J. Estimating drug treatment needs among state prison inmates. *Drug Alcohol Depend* 2005;77:269–281. [PubMed: 15734227]
- Brannigan R, Schackman BR, Falco M, Millman RB. The quality of highly regarded adolescent substance abuse treatment programs: Results of an in-depth national survey. *Arch Pediatr Adolesc Med* 2004;158:904–909. [PubMed: 15351757]
- Chandler RK, Peters RH, Field G, Juiano-Bult D. Challenges in implementing evidence-based treatment practices for co-occurring disorders in the criminal justice system. *Behav Sci Law* 2004;22:431–448. [PubMed: 15282833]
- Cullen, FT.; Fisher, BS.; Applegate, BK. Public opinion about punishment and corrections. In: Tonry, Michael, editor. *Crime and justice: a review of research*. Vol. 27. Chicago: University of Chicago Press; 2000. p. 1-79.
- DiStefano C. The impact of categorization with confirmatory factor analysis. *Structural Equation Modeling* 2002;9:327–346.

- Ditton, PM. Bureau of Justice Statistics, special report, mental health and treatment of inmates and probationers. Washington, DC: U.S. Department of Justice (NCJ Publication No. 174469); 1999.
- Drug Strategies. Bridging the gap: A guide to drug treatment in the juvenile justice system. Drug Strategies; Washington, DC: 2005.
- Duffee DE, Carlson BE. Competing value premises for the provision of drug treatment to probationers. *Crime and Delinquency* 1996;42:574–592.
- Farrington DP, Welsh BC. Randomized experiments in criminology: What have we learned in the last two decades? *Journal of Experimental Criminology* 2005;1:9–38.
- French MT, Homer JF, Nielsen AL. Does America spend enough on addiction treatment? Results from public opinion surveys. *J Subst Abuse Treat* 2006;31:245–254. [PubMed: 16996387]
- Friedmann PD, Taxman FS, Henderson CE. Evidence-based treatment practices for drug-involved adults in the criminal justice system. *J Subst Abuse Treat* 2007;32:267–277. [PubMed: 17383551]
- Fuller BE, Guydish J, Tsoh J, Reid MS, Resnick M, Zammarelli L, Ziedonis DM, Sears C, McCarty D. Attitudes toward the integration of smoking cessation into drug abuse clinics. *J Subst Abuse Treat* 2007;32:53–60. [PubMed: 17175398]
- Green CA, Lynch FL, Pollen MR, McFarland BH, Dickinson DM, Freeborn DK. Talk about costs: Health care professionals' views about expenses related to substance abuse treatment. *Adm Policy Ment Health* 2004;31:483–494. [PubMed: 15478877]
- Hasenfeld Y, Powell LE. The role of non-profit agencies in the provision of welfare-to-work services. *Social Service Review* 2004;78:304–319.
- Henderson CE, Taxman FS, Young DW. A Rasch model analysis of evidence-based treatment practices used in the criminal justice system. *Drug Alcohol Depend* 2008;93:163–175. [PubMed: 18029116]
- Henderson CE, Young DW, Jainchill N, Hawke J, Farkas S, Davis RM. Adoption of evidence-based drug abuse treatment practices for juvenile offenders. *J Subst Abuse Treat* 2007;32:279–290. [PubMed: 17383552]
- Henggeler SW, Chapman JE, Rowland MD, Randall J, Shakelford J, Schoenwald SK. If you build it, they will come: Statewide practitioner interest in contingency management for youths. *J Subst Abuse Treat* 2007;32:121–131. [PubMed: 17306721]
- Karberg, JC.; James, DJ. Substance dependence, abuse, and treatment of jail inmates, 2002. Washington, DC: U.S. Department of Justice (NCJ Publication No. 209588); 2005.
- Kirby KC, Benishek LA, Dugosh KL, Kerwin ME. Substance abuse treatment providers' beliefs and objections regarding contingency management: Implications for dissemination. *Drug Alcohol Depend* 2006;85:19–27. [PubMed: 16650657]
- Knudsen HK, Roman PM. Modeling the use of innovations in private treatment organizations: the role of absorptive capacity. *J Subst Abuse Treat* 2004;26:353–361. [PubMed: 14698799]
- Landenberger N, Lipsey MW. The positive effects of cognitive-behavioral programs for offenders: A meta-analysis of factors associated with effective treatment. *Journal of Experimental Criminology* 2005;1:451–476.
- Lanza, ST.; Flaherty, BP.; Collins, LM. Latent class and latent transition analysis. In: Schinka, JA.; Velicer, WF., editors. *Handbook of psychology: Research methods in psychology*. Vol. 2. Hoboken, NJ: John Wiley and Sons; 2003. p. 663–685.
- Lo Y, Mendell N, Rubin DB. Testing the number of components in a normal mixture. *Biometrika* 2001;88:767–778.
- Lubke G, Muthén BO. Investigating population heterogeneity with factor mixture models. *Psychological Methods* 2005;10:21–39. [PubMed: 15810867]
- Mark TL, Song X, Vandivort R, Duffy S, Butler J, Coffey R, Schabert VF. Characterizing substance abuse programs that treat adolescents. *J Subst Abuse Treat* 2006;31:59–65. [PubMed: 16814011]
- McLachlan, G.; Peel, P. *Finite mixture models*. New York: Wiley; 2000.
- Meyer JP. Four territories of experience: A developmental action inquiry approach to outdoor-adventure experiential learning. *Academy of Management Learning and Education* 2003;2:352–263.
- Miller WR, Sorensen JL, Selzer JA, Brigham GS. Disseminating evidence-based practices in substance abuse treatment: A review with suggestions. *J Subst Abuse Treat* 2006;31:25–39. [PubMed: 16814008]

- Moore KA, Peters RH, Hills HA, LeVasseur JB, Rich AR, Hunt WM, Young MS, Valente TW. Characteristics of opinion leaders in substance abuse treatment agencies. *American Journal of Drug and Alcohol Abuse* 2004;30:187–203. [PubMed: 15083561]
- Mumola, CJ. Substance abuse and treatment of adults on probation, 1995. Washington, DC: U.S. Department of Justice (NCJ Publication No. 172871); 1999.
- Munoz-Plaza CE, Strauss SM, Astone-Twerwell JM, Des Jarlais DC, Hagan H. Staff perspectives on facilitating the implementation of Hepatitis C services at drug treatment programs. *J Psychoactive Drugs* 2006;38:233–241. [PubMed: 17165366]
- Muthén B. Statistical and substantive checking in growth mixture modeling: Comment on Bauer and Curran (2003). *Psychological Methods* 2003;8:369–377. [PubMed: 14596497]
- Muthén, L.; Muthén, B. *Mplus user's guide*. 4. Los Angeles: Muthén & Muthén; 1998–2007.
- National Institute on Drug Abuse. Principles of Drug Abuse Treatment for Criminal Justice Populations (NIH Publication No. 06-5316). National Institute on Drug Abuse; Rockville, MD: 2006.
- National Institute of Justice, 2003. Arrestee drug abuse monitoring: Annual report (NIJ 193013). 2000. <accessed on March 6, 2006, from <http://www.ncjrs.gov/pdffiles1/nij/193013.pdf>
- Nissen LB, Kraft MK. The evolution of substance abuse treatment for youth in the juvenile justice system. *Journal of Social Work Practice in the Addictions*. in press.
- Nylund KL, Asparouhov T, Muthén B. Deciding on the number of classes in latent class analysis and growth mixture modeling: A Monte Carlo simulation study. *Structural Equation Modeling* 2007;14:535–569.
- Office of Applied Studies. ICPSR version. Arlington, VA: Synectics for Management Decisions, Inc. [producer]; Ann Arbor, MI: Inter-university Consortium for Political and Social Research [distributor]; 2005. National survey of substance abuse treatment services (N-SSATS): [United States] [computer file].
- Pfeffer J, Fong CT. Building organization theory from first principles: The self-enhancement motive and understanding power and influence. *Organization Science* 2005;16:372–388.
- Ramaswamy V, DeSarbo W, Reibstein D, Robinson W. An empirical pooling approach for estimating marketing mix elasticities with PIMS data. *Marketing Science* 1993;12:103–124.
- Schafer JL, Graham JW. Missing data: Our view of the state of the art. *Psychological Methods* 2002;7:147–177. [PubMed: 12090408]
- Schwartz G. Estimating the dimension of a model. *The Annals of Statistics* 1978;6:461–464.
- Simpson DD, Joe GW, Fletcher BW, Hubbard RL, Anglin MD. A national evaluation of treatment outcomes for cocaine dependence. *Arch Gen Psychiatry* 1999;56:507–514. [PubMed: 10359464]
- Simpson DD, Joe GW, Rowan-Szal GA. Linking the elements of change: Program and client response to innovation. *J Subst Abuse Treat* 2007;33:201–209. [PubMed: 17433862]
- Taxman, FS. Reducing recidivism through a seamless system of care: Components of effective treatment, supervision, and transition services in the community. Paper presented at the Office of National Drug Control Policy Treatment and Criminal Justice System Conference; Washington, DC. Feb. 1998
- Taxman FS, Perdoni M, Harrison LD. Drug treatment services for adult offenders: The state of the state. *J Subst Abuse Treat* 2007b;32:239–254. [PubMed: 17383549]
- Taxman FS, Young D, Wiersema B, Mitchell S, Rhodes AG. The National Criminal Justice Treatment Practices Survey: Multi-level survey methods and procedures. *J Subst Abuse Treat* 2007a;32:225–238. [PubMed: 17383548]
- Willenbring ML, Kivlahan D, Kenny M, Grillo M, Hagedorn H, Postier A. Beliefs about evidence-based practices in addiction treatment: A survey of Veterans Administration program leaders. *J Subst Abuse Treat* 2004;26:79–85. [PubMed: 15050084]
- Young DW, Dembo R, Henderson CE. A national survey of substance abuse treatment for juvenile offenders. *J Subst Abuse Treat* 2007;32:255–266. [PubMed: 17383550]

Observed Frequencies and Percentages of Administrators Ratings of the Importance of Clinical and Justice Services Relative to Substance Abuse Treatment

Table 1

Service	Much Less Important n (%)	Somewhat Less Important n (%)	Same Importance n (%)	Somewhat More Important n (%)	Much More Important n (%)
Education/GED Training	12 (1.2)	53 (12.3)	199 (46.3)	91 (21.2)	70 (16.3)
HIV/AIDS Treatment	27 (6.3)	84 (19.5)	217 (50.5)	59 (13.7)	35 (8.1)
Mental Health Counseling	2 (.5)	27 (6.3)	226 (52.6)	111 (25.8)	61 (14.2)
Vocational Training	16 (3.7)	114 (26.5)	188 (43.7)	72 (16.7)	31 (7.2)
Life Skills Training	17 (4.0)	87 (20.2)	220 (51.2)	65 (15.1)	37 (8.6)
Transitional Housing	44 (10.2)	127 (29.5)	171 (39.8)	57 (13.3)	18 (4.2)
Work Release	73 (17.0)	164 (38.1)	131 (30.5)	37 (8.6)	10 (2.3)
Community Service	97 (22.6)	162 (37.7)	119 (27.7)	27 (6.3)	13 (3.0)
Criminal Thinking Therapy	41 (9.5)	84 (19.5)	199 (46.3)	62 (14.4)	29 (6.7)
Job Placement	28 (6.5)	109 (25.3)	173 (40.2)	72 (16.7)	38 (8.8)

Table 2

Model Fit Criteria for One- to Five-Class Latent Class Analysis Models

Model	Loglikelihood	Number of Parameters	Bayesian Information Criterion (BIC)	Entropy	L-M-R LRT (<i>p</i>)	Bootstrap LRT (<i>p</i>)	n (%) of smallest class
1 Class LCA	−5160.085	40	10,558.611	N/A	N/A	N/A	430 (100)
2 Class LCA	−4774.610	81	10,032.061	.901	.001	<.001	100 (26)
3 Class LCA	−4516.109	122	9759.460	.863	.008	<.001	90 (23)
4 Class LCA	−4395.779	163	9763.201	.887	.007	<.001	43 (11)
5 Class LCA	−4282.441	204	9780.928	.902	.959	No Convergence	39 (10)

Conditional Response Probabilities of Importance of Services Available in the Criminal Justice System Relative to Substance Abuse Treatment on Five-Point Rating Scale Ranging from Much Less Important to Much More Important^a

Table 3

Latent Class	Education	AIDS Treatment	Mental Health	Voc. Training	Life Skills	Housing	Work Assign.	Comm. Service	Criminal Thinking	Job Placement
Class 1										
1. Much Less Important	.006	.023	.001	.010	.001	.017	.019	.053	.072	.012
2. Somewhat Less Important	.041	.214	.064	.121	.092	.191	.387	.377	.212	.120
3. Same Importance	.312	.550	.330	.380	.457	.408	.391	.421	.393	.332
4. Somewhat More Important	.459	.163	.459	.474	.395	.333	.203	.148	.256	.449
5. Much More Important	.182	.049	.146	.015	.055	.050	.001	.001	.068	.088
Class 2										
1. Much Less Important	.079	.125	.001	.098	.104	.241	.386	.509	.193	.158
2. Somewhat Less Important	.310	.313	.112	.609	.507	.479	.510	.422	.312	.534
3. Same Importance	.386	.389	.555	.248	.331	.226	.095	.062	.368	.242
4. Somewhat More Important	.160	.138	.227	.045	.044	.055	.010	.007	.113	.049
5. Much More Important	.065	.036	.105	.001	.014	.001	.001	.001	.014	.016
Class 3										
1. Much Less Important	.001	.020	.023	.001	.001	.131	.221	.201	.064	.067
2. Somewhat Less Important	.001	.014	.017	.001	.028	.089	.116	.215	.093	.001
3. Same Importance	.024	.188	.196	.027	.025	.337	.170	.053	.206	.113
4. Somewhat More Important	.182	.286	.229	.350	.344	.181	.306	.250	.182	.277
5. Much More Important	.793	.402	.535	.624	.603	.261	.188	.281	.455	.543
Class 4										
1. Much Less Important	.001	.019	.001	.001	.001	.011	.041	.068	.016	.012
2. Somewhat Less Important	.014	.085	.028	.083	.019	.256	.374	.417	.112	.111
3. Same Importance	.887	.817	.855	.917	.981	.711	.584	.516	.783	.849
4. Somewhat More Important	.057	.050	.098	.001	.001	.023	.001	.001	.089	.018
5. Much More Important	.042	.028	.019	.001	.001	.001	.001	.001	.001	.010

^a Please note that we have included bar graphs visually displaying this same information as supplementary material.

Note. The numbers 1–5 in the table rows correspond to the response categories for the survey items, with 1 corresponding to Much Less Important, 2 Somewhat Less Important, etc. Class 1 = Moderate Low Substance Abuse Treatment Importance, Class 2 = High Substance Abuse Treatment Importance, Class 3 = Very Low Substance abuse Treatment Importance, Class 4 = Equal Importance, Voc. Training = Vocational Training, Housing = Transitional Housing, Work Assign. = Work Assignment.

Table 4

Coefficients, Standard Errors, and Pseudo Z Statistics for Correlates of Latent Class Membership

Class Contrast	Coefficient	Standard Error	Pseudo z Value
Class 1 vs Class 2			
EBP Use	0.43	0.21	2.01*
Rehabilitation Attitudes	-0.28	0.41	-0.67
Punishment/Deterrence Attitudes	-0.21	0.24	-0.88
Adult or Juvenile Facility	0.07	0.39	0.18
State vs. County Facility	0.80	0.38	2.09*
Southern, Midwestern, and Northeastern States vs. Western States	-0.60	0.43	-1.39
Southern, Western, and Northeastern States vs. Midwestern States	0.85	0.66	1.28
Southern, Western, and Midwestern States vs. Northeastern States	0.39	0.49	0.80
Class 1 vs Class 3			
EBP Use	0.13	0.26	0.50
Rehabilitation Attitudes	1.01	0.66	1.55
Punishment/Deterrence Attitudes	0.32	0.37	0.87
Adult or Juvenile Facility	0.54	0.53	1.02
State vs. County Facility	0.24	0.51	0.47
Southern, Midwestern, and Northeastern States vs. Western States	-1.23	0.67	-1.85
Southern, Western, and Northeastern States vs. Midwestern States	-0.76	0.82	-0.93
Southern, Western, and Midwestern States vs. Northeastern States	-1.11	0.77	-1.44
Class 1 vs Class 4			
EBP Use	0.44	0.25	1.79
Rehabilitation Attitudes	0.80	0.44	1.83
Punishment/Deterrence Attitudes	0.07	0.24	0.28
Adult or Juvenile Facility	-0.03	0.41	-0.07
State vs. County Facility	0.49	0.40	1.23
Southern, Midwestern, and Northeastern States vs. Western States	-1.11	0.48	-2.33*
Southern, Western, and Northeastern States vs. Midwestern States	-0.48	0.86	-0.56
Southern, Western, and Midwestern States vs. Northeastern States	-0.67	0.52	-1.28
Class 2 vs Class 3			
EBP Use	-0.30	0.21	-1.43
Rehabilitation Attitudes	1.29	0.68	1.90
Punishment/Deterrence Attitudes	0.53	0.40	1.33
Adult or Juvenile Facility	0.48	0.49	0.97
State vs. County Facility	-0.56	0.48	-1.16
Southern, Midwestern, and Northeastern States vs. Western States	-0.63	0.63	-1.00
Southern, Western, and Northeastern States vs. Midwestern States	-1.61	0.64	-2.53*
Southern, Western, and Midwestern States vs. Northeastern States	-1.50	0.66	-2.29*
Class 2 vs Class 4			
EBP Use	0.02	0.19	0.08
Rehabilitation Attitudes	1.07	0.37	2.95**

Class Contrast	Coefficient	Standard Error	Pseudo z Value
Punishment/Deterrence Attitudes	0.28	0.20	1.37
Adult or Juvenile Facility	-0.10	0.37	-0.27
State vs. County Facility	-0.31	0.38	-0.80
Southern, Midwestern, and Northeastern States vs. Western States	-0.51	0.47	-1.09
Southern, Western, and Northeastern States vs. Midwestern States	-1.32	0.51	-2.58**
Southern, Western, and Midwestern States vs. Northeastern States	-1.06	0.42	-2.49**
Class 3 vs Class 4			
EBP Use	0.32	0.22	1.44
Rehabilitation Attitudes	-0.21	0.63	-0.33
Punishment/Deterrence Attitudes	-0.25	0.35	-0.72
Adult or Juvenile Facility	-0.58	0.47	-1.21
State vs. County Facility	0.25	0.46	0.55
Southern, Midwestern, and Northeastern States vs. Western States	0.12	0.57	0.21
Southern, Western, and Northeastern States vs. Midwestern States	0.28	0.71	0.40
Southern, Western, and Midwestern States vs. Northeastern States	0.44	0.68	0.65

Note. Class 1 = Moderate Low Substance Abuse Treatment Importance, Class 2 = High Substance Abuse Treatment Importance, Class 3 = Very Low Substance abuse Treatment Importance, Class 4 = Equal Importance.

*
 $p < .05$,

**
 $p < .01$