



Criminal Justice Professionals' Attitudes Toward Mental Illness and Substance Use

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Abstract

Despite the high prevalence of behavioral health disorders in justice settings and prior research on the importance of attitudes in successful treatment outcomes for behavioral health populations, few studies have examined criminal justice professionals' attitudes toward mental illness and substance use. We conducted a state-wide survey of 610 criminal justice professionals using items adapted from the Drug and Drug Problems Perceptions Questionnaire (Albery et al. 2003) to examine attitudes toward mental illness and substance use as a function of criminal justice position and personal contact. For attitudes toward both mental illness and substance use, defense attorneys and community corrections officers reported more positive attitudes relative to jail correctional staff and prosecutors. For attitudes toward substance use, personal contact moderated the effect of position on attitudes. Findings underscore the importance of targeted training and other contact-based interventions to improve criminal justice professionals' attitudes toward behavioral health populations.

Keywords Attitudes · Personal contact · Criminal justice · Mental illness · Substance use

Introduction

Adults with behavioral health disorders are overrepresented in the U.S. correctional system relative to the general population. To demonstrate, 40–60% of inmates across correctional settings present with symptoms of a Diagnostic Statistical Manual—Version IV (DSM-IV) diagnosis (James and Glaze 2006) relative to 26.2% of the general population (Kessler et al. 2005). Further, nearly 26% of jail inmates present with symptoms of serious psychological distress (Bronson and Berzofsky 2017), resulting in high rates of diagnosable serious mental illness (i.e., major depressive disorder, bipolar, and schizophrenia spectrum disorders) in male (14.5%) and female (31%) inmates (Steadman et al. 2009). In comparison to the general population (3.2% and 4.9% for men and women, respectively), these rates are startling (Substance Abuse and Mental Health Services Administration 2013). Rates of substance use in correctional settings are even higher, with up to 80% of prison inmates

reporting prior illicit drug use (Mumola and Karberg 2006). Not surprisingly, up to 60% of prison and jail inmates meet DSM-IV criteria for drug dependence or abuse (Bronson and Berzofsky 2017), a rate grossly disproportional to that of the general population (7.8%; Bose et al. 2016).

Mental illness and substance use, alone and in combination, are linked to higher rates of criminal justice involvement (Baillargeon et al. 2009, 2010; Castillo and Alarid 2011; Constantine et al. 2010; Wilson et al. 2011) and greater expenses incurred by criminal justice agencies (Clark et al. 1999; Swanson et al. 2013; Van Dorn et al. 2013). It is not surprising, then, that the criminal justice system has become a primary point of intervention for justice-involved adults with behavioral health conditions (Chandler et al. 2009; Wilson and Draine 2006). Indeed, specialized interventions and other evidence-based practices for these populations are now widely used by criminal justice agencies across the U.S. (Friedmann et al. 2007; National Institute of Justice 2015; SAMHSA's GAINS Center 2015), resulting in increased contact between criminal justice professionals and justice-involved adults with behavioral health conditions.

A growing body of research suggests criminal justice professionals play a key role in ensuring the fair treatment of these populations and facilitating the success of behavioral health interventions in correctional settings. For example,

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during arrest, adults with mental illnesses report feelings of fear and vulnerability, largely attributable to police officers' handling of incidents (Watson et al. 2008). In jails and prisons, correctional officers support behavioral health treatment by providing regular observation of inmates to inform clinical assessments, encouraging attendance at treatment appointments, and ensuring behavioral compliance (Appelbaum et al. 2001; Dvoskin and Spiers 2004). Similarly, judges play an important role in specialty courts, promoting compliance with court conditions and developing therapeutic rapport with participants (Goldkamp et al. 2001; Wales et al. 2010). Although extant research suggests criminal justice professionals play an important role in the treatment of adults with behavioral health conditions, little is known about attitudes towards these populations and how they might vary by one's professional role. In addition, scholars have yet to fully explore how criminal justice professionals' own contact with persons with behavioral health disorders might shape their attitudes toward mental illness and substance use.

To fill this gap, we conducted a comparative examination of criminal justice professionals' attitudes toward mental illness and substance use disorders. Using data from a statewide survey of criminal justice practitioners, we investigate differences in attitudes across criminal justice positions—community corrections or probation officers, defense attorneys, prosecutors, jail correctional officers, and judges—using items adapted from the Drug and Drug Problems Perceptions Questionnaire (DDPPQ; Albery et al. 2003). In doing so, we look at attitudes towards mental health and substance use, separately, by professional status while also exploring personal contact as a moderator of attitude differences. Our findings inform criminal justice professionals' perceptions of mental illness and substance use disorders in the context of the criminal justice system.

Prior Attitudes Research

Prior research supports the pivotal role of attitudes in the success of treatment interventions in behavioral health contexts. For example, health professionals with negative attitudes toward adults with behavioral health disorders may provide poorer care (Kelleher 2007), while clients who perceive stigma toward their illness are more likely to avoid social interactions, self-isolate, and not seek out treatment (Gary 2005; Perlick et al. 2001). Conversely, clients who perceive that a health professional will be more helpful in addressing their illness are more likely to seek help for psychological issues (Komiti et al. 2006). Indeed, a recent meta-analytic review of 28 studies suggested poorer attitudes of health professionals toward patients with substance use may

lower patient empowerment and worsen treatment outcomes (van Boekel et al. 2013).

Despite knowledge that criminal justice professionals are important to the successful treatment of adults with behavioral health conditions in justice settings, surprisingly few studies have examined attitudes of professionals toward these populations. An early survey of correctional officers in a maximum security facility found that, relative to all prisoners, prisoners with mental illness were perceived less favorably overall and judged as less predictable, rational, and understandable. The majority of officers also expressed a desire for training to interact with the population, but indicated that interactions with the population increased job-related stress (Kropp et al. 1989). A replication of this study decades later found that correctional officers' attitudes were more positive on average toward prisoners with mental illnesses. Additionally, being emotionally exhausted was associated with poorer perceptions of the population whereas specialized training in mental illness was associated with more positive perceptions (Lavoie et al. 2006). Another more recent study found that correctional officers and police were more supportive of treatment and intervention for offenders presenting with serious mental illness (Callahan 2004; Watson et al. 2004) relative to offenders generally.

It is worth noting that these studies focused on attitudes within specific groups of criminal justice professionals rather than exploring variation between roles. One exception to this was an early survey of criminal justice professionals in New York, which found that police officers reported more negative attitudes toward the treatment of substance users relative to district attorneys (i.e., prosecutors) and probation officers (Fernz 1975). To our knowledge, there have been few recent investigations of attitudes across professional positions, despite knowledge that diverse groups of criminal justice professionals are responsible for the delivery of behavioral health interventions to these populations. Further, prior studies have focused overwhelmingly on attitudes toward justice-involved adults with mental illnesses to the neglect of adults with substance use. However, substance use is both more prevalent in justice settings and a greater risk factor for further justice involvement relative to mental illness alone (Baillargeon et al. 2010).

Moreover, attitudes among criminal justice professionals towards mental illness and substance use are likely shaped by experiences with these populations. Yet, research has not examined whether the frequency of personal contact with special offender populations is associated with differing attitudes. In the general population, personal experience or contact with people with mental illness is related to more positive attitudes (Pattyn et al. 2013; Reinke et al. 2004) and lower negative perceptions of social distance (Corrigan et al. 2001). Across meta-analytic investigations, social contact has been associated with lower inter-group

prejudice (Pettigrew and Tropp 2006), more positive attitudes toward ex-offenders (Rade et al. 2016), and a moderate improvement in attitudes towards people with mental illness (Kolodziej and Johnson 1996). Based on this research, it is possible that contact with stigmatized groups may elucidate differences in attitudes among criminal justice professionals as well.

Finally, prior studies have focused on assessing attitude valence (i.e., general positive or negative perceptions) rather than attitudes potentially more relevant to working with special populations. For example, perceived self-efficacy is a known predictor of job performance and job satisfaction (Judge and Bono 2001) and can be enhanced by behavioral health training for criminal justice professionals (Bahora et al. 2008). Thus, perceived self-efficacy for working with adults with behavioral health problems may be an important dimension of attitudes for criminal justice professionals. Although specific instruments have been developed to measure attitudes related to working with special populations (e.g., Alcohol and Alcohol Problems Questionnaire [AAPPQ]; Shaw et al. 1978), these instruments have not been adapted for use among criminal justice professionals.

The Current Study

To address these limitations, the present study examined attitudes of criminal justice professionals toward offenders with mental illness and substance use, separately. For the purposes of this investigation, we use the terms substance use and substance use disorder interchangeably to refer to disordered substance use consistent with a clinical diagnosis. Our specific objectives were to investigate differences in attitudes across criminal justice positions using items adapted from the DDPPQ (Albery et al. 2003) and explore personal contact as a moderator of attitude differences across positions.

Method

Participants

Participants included 610 criminal justice professionals who were employed as community corrections or probation officers (45.7%, $n = 279$), defense attorneys (27.9%, $n = 170$), jail correctional officers (10.2%, $n = 62$), prosecutors (9.8%, $n = 60$), judges (2.8%, $n = 17$), or in other administrative capacities (3.6%, $n = 22$). Slightly over half of participants identified as male (52.1%, $n = 318$); participants were primarily Caucasian (91.6%, $n = 559$) with few identifying as African American (3.0%, $n = 18$). A small proportion of participants additionally identified

as Hispanic (2.6%, $n = 16$). Educational background varied widely by profession, with jail correctional staff being least likely to have attained a bachelor's degree or higher (32.3%, $n = 20$). Community corrections or probation officers, in contrast, were more likely to receive a bachelor's (76.0%, $n = 212$) or master's (18.6%, $n = 52$) degree. Most participants were employed in the field of criminal justice for over 10 years (74.6%, $n = 455$) and only 12.3% of participants ($n = 75$) had been employed in the field for fewer than five years. Participants were employed in urban (46.6%, $n = 284$), rural (32.8%, $n = 200$), and mixed (19.7%, $n = 120$) counties.

Procedures

Participants were recruited via a state-wide survey that was distributed electronically to leaders of several Indiana criminal justice agencies (i.e., public defenders and prosecutors, probation and community corrections, courts, and sheriff's offices and county jail), who forwarded the survey link to personnel. The survey was created and distributed using Qualtrics software (Qualtrics 2015), which employs a secure server to protect personally identifiable information. Qualtrics has been employed successfully in previous research with criminal justice practitioners (Ward and Merlo 2016). Survey items were screened by local criminal justice professionals and graduate research assistants for overall comprehension and relevance. The link became available in October 2016 and a reminder email was sent to all original survey recipients approximately once a month until March 2017. Participation in the survey was voluntary and all participants consented prior to participation. All study procedures were reviewed and approved by the Institutional Review Board of the University, and American Psychological Association (APA) ethical standards and guidelines were followed in the conduct of the study. There are no known conflicts of interest and all authors certify responsibility for the manuscript.

Measures

Predictors

Predictors included *criminal justice position* (community corrections or probation officer, prosecutor, defense attorney, jail correctional staff, judge, or other administrative position), *contact with offenders with a mental illness* (never, less than once a month, once a month, 2–3 times a month, once a week, 2–3 times a week, daily), and *contact with offenders with substance use* (never, less than once a month, once a month, 2–3 times a month, once a week, 2–3 times a week, daily).

Attitudes Toward Mental Illness and Substance Use

Items assessing criminal justice professionals' attitudes towards mental illness and substance use were adapted from the Drug and Drug Problems Perceptions Questionnaire (DDPPQ; Albery et al. 2003). The DDPPQ is an adapted version of the Alcohol and Alcohol Problems Perceptions Questionnaire (Shaw et al. 1978) and designed to assess practitioners' attitudes toward working with drug users along seven dimensions: willingness to work with drug users, satisfaction with working with drug users, task-specific self-efficacy, role adequacy, role legitimacy, role support, and situational constraints. Survey items were adapted in consultation with criminal justice professionals to capture relevant facets of attitudes toward working with offenders with mental illnesses and substance use disorders. A total of 25 items were created and adapted for mental illness and substance use, separately. Each item was coded on a five-point Likert-scale ranging from strongly disagree to strongly agree. Because items were adapted and not all were included in the original DDPPQ and AAPPQ scales, we conducted a principal components factor analysis to identify an underlying factor structure across adapted items. Additionally, we sought evidence of a similar factor structure across both substance use and mental health items. Items were reverse-coded prior to analysis, as necessary. Principal components analysis was conducted in SPSS 24 using Promax rotation for substance use and mental illness items, separately. We replicated analyses using oblique rotation; however, orthogonal rotation yielded more parsimonious and consistent factor structures across substance use and mental health items. Review of variance explained, eigenvalues, and scree plots together suggested a three-factor solution for each set of items. However, we additionally conducted a parallel analysis using Monte Carlo simulation to confirm the factor structure (O'Connor 2000). Parallel analysis is a more objective way to determine factor structure relative to other factor retention procedures (Franklin et al. 1995). In this approach, eigenvalues from simulated data are compared to observed data; original eigenvalues greater than those from simulated data are retained. Results of the parallel analysis confirmed a three-factor solution with 95% confidence.

Together, the rotated three-factor solution explained 32.3% of variability in responses on mental illness items and 38.4% of variability in responses on substance use items. Given our large sample size, we retained items with a .40 item loading cutoff, based on published recommendations (Hair et al. 1998; Stevens 2009). A total of 16 items on each scale were retained; items and factor loadings are presented in Table 1. Factors were named in consultation with the adapted DDPPQ and original AAPPQ subscales. Factor 1 captured items relating to knowledge about mental illness and substance use disorders as well as the importance of

public funding and efforts to address such conditions. We labeled this factor "Knowledge and Importance." Factor 2 captured items regarding acceptability of personal contact or social proximity to offenders with mental illnesses or substance use disorders; we labeled this factor "Social Distance." Factor 3 captured items regarding willingness to work with offenders with mental illnesses and substance use disorders and overall self-confidence in this regard. We labeled this factor "Self-Efficacy."

We conducted reliability analysis to examine the internal consistency of retained items overall and at the subscale level. For mental illness perceptions, subscale reliabilities ranged from .62 (knowledge and importance) to .78 (Social Distance). However, the overall scale reliability was good (Cronbach's $\alpha = .79$). For substance use disorder perceptions, subscale reliabilities ranged from .64 (Knowledge and Importance) to .81 (Social Distance; Self-Efficacy). The overall reliability was similarly good (Cronbach's $\alpha = .84$). Mental illness subscales showed significant inter-correlations ($r = .17-.40$) and correlations with total scores ($r = .65-.82$), $ps < .001$. Similarly, substance use subscales showed significant inter-correlations ($r = .35-.44$) and correlations with total scores ($r = .69-.85$), $ps < .001$. Finally, prior to analysis, we computed mean scores for each subscale, allowing up to 25% of missing item responses for each subscale. Resulting subscale values were then averaged to form a total score. For all subscales and total scores, higher scores indicate more positive attitudes.

Analyses

First, we conducted descriptive statistics on all study variables. There was a very small proportion of missing data across study variables (0.04%). Small amounts of missing data are unlikely to bias findings (Bennett 2001; Schafer 1999). As a result, and as described previously, we allowed for a small amount of missing item responses (up to 25%) from each participant in computing mean subscale scores. Additionally, we employed casewise deletion in multivariable models. Second, we conducted bivariate comparisons (i.e., one-way ANOVAs) of attitude measures (i.e., subscales and overall) by criminal justice position and contact variables, separately. We measured effect size using eta-squared (η^2), which indicates the proportion of variance in a dependent variable explained by a categorical independent variable and is the preferred effect size for one-way ANOVA (Richardson 2011). For post-hoc comparisons, we employed Tukey's honestly significant difference (HSD) test, which minimizes familywise error while maximizing power (Emeritus and Wickens 2004). Third, to examine interactive effects of criminal justice position and contact variables on attitudes measures, we conducted a sensitivity analysis to establish thresholds of contact associated with the largest differences in attitudes. Point-biserial correlations were

Table 1 Item Loadings for Mental Illness and Substance Use Attitudes Items

Item	Mental illness items	Loadings		
		Factor 1	Factor 2	Factor 3
1.	Mental illness and substance use disorder are related conditions.	.55		
2.	Progress is possible after mental illness setbacks.	.59		
3.	Addressing mental illness should be a goal of the criminal justice system.	.68		
4.	Public funding should be increased to address mental illness services for ex-offenders.	.72		
5.	I am willing to have a person with a mental illness marry into my family.		.47	
6.	I am willing to have a person with a mental illness start working closely with me on a job.		.54	
7.	Employers should be allowed to deny employment to a person with a mental illness. (R)		.85	
8.	Landlords should be able to deny housing to a person with a mental illness. (R)		.84	
9.	I feel there is little I can do to help offenders with a mental illness. (R)			.43
10.	I feel I am able to work with offenders with a mental illness as well as others.			.43
11.	All in all I am inclined to feel I am a failure with offenders with a mental illness. (R)			.72
12.	In general, I have less respect for those offenders with a mental illness than most others I work with. (R)			.44
13.	At times I feel I am no good at all with offenders with a mental illness. (R)			.69
14.	I feel I do not have much to be proud of when serving offenders with a mental illness. (R)			.71
15.	On the whole, I am satisfied with the way I work with persons with a mental illness.			.49
16.	I often feel uncomfortable serving those with a mental illness. (R)			.61
	Substance use items	Factor 1	Factor 2	Factor 3
1.	Substance use is a chronic disease.	.59		
2.	Progress is possible after substance use relapses.	.43		
3.	Addressing substance use disorder should be a goal of the criminal justice system.	.73		
4.	Public funding should be increased to address substance use disorder services for ex-offenders.	.73		
5.	I am willing to have a person with a substance use disorder marry into my family.		.65	
6.	I am willing to have a person with a substance use disorder start working closely with me on a job.		.73	
7.	Employers should be allowed to deny employment to a person with a substance use disorder. (R)		.83	
8.	Landlords should be able to deny housing to a person with a substance use disorder. (R)		.78	
9.	I feel there is little I can do to help offenders with a substance use disorder. (R)			.57
10.	I feel I am able to work with offenders with a substance use disorder as well as others.			.53
11.	All in all I am inclined to feel I am a failure with offenders with a substance use disorder. (R)			.75
12.	In general, I have less respect for those offenders with a substance use disorder than most others I work with. (R)			.45
13.	At times I feel I am no good at all with offenders with a substance use disorder. (R)			.69
14.	I feel I do not have much to be proud of when serving offenders with a substance use disorder. (R)			.69
15.	On the whole, I am satisfied with the way I work with persons with a substance use disorder.			.60
16.	I often feel uncomfortable serving those with a substance use disorder. (R)			.56

conducted between each attitudes measure and dichotomous measures of contact with varying cutoff values. Fourth, we conducted a series of factorial ANOVAs to examine interaction of criminal justice position and contact on attitudes. All multivariable analyses were conducted for mental illness and substance use, separately.

Results

Descriptive

Total scores for mental illness attitudes averaged 3.86 ($SD = 0.45$). Knowledge and Importance subscale scores were on average higher ($M = 4.26$, $SD = 0.56$) than Self-Efficacy ($M = 3.77$, $SD = 0.57$) and Social Distance ($M = 3.56$, $SD = 0.56$) scores. Although substance use

total ($M = 3.82, SD = 0.49$) and Knowledge and Importance subscale ($M = 4.30, SD = 0.55$) scores were comparable to mental illness scores, Self-Efficacy scores ($M = 4.00, SD = 0.52$) were on average higher, and Social Distance scores ($M = 3.15, SD = 0.82$) on average lower, for substance use attitudes.

Bivariate Comparisons

Attitudes Toward Mental Illness

One-way ANOVA results are presented in Table 2. Findings showed significant variation by criminal justice position and contact (with offenders with mental illnesses) across all attitude measures ($ps < .001$). Although the magnitude of effect sizes varied across comparisons, criminal justice position and contact explained 15% and 8% of the variability in total scores, respectively. Among subscale scores, effect sizes were largest for the effect of position on Knowledge and Importance (11%) and Social Distance (14%) attitudes (see eta-squared values in Table 2). For position, prosecutors reported less positive attitudes relative to both defense attorneys ($ps < .001$) and community corrections or probation officers ($ps \leq .043$) across all measures. Similarly, jail correctional staff reported less positive attitudes relative to community corrections or

probation officers on Social Distance ($p < .001$), Self-Efficacy ($p = .032$), and total scores ($p < .001$). Jail correctional staff additionally reported less positive attitudes relative to defense attorneys on Knowledge and Importance, Social Distance, and total scores ($ps < .001$).

For contact, we found that daily contact was associated with significantly more positive attitudes toward mental illness relative to monthly contact, $ps \leq .014$. We conducted a series of point-biserial correlations to examine threshold levels of contact associated with the greatest differences in attitudes. Having contact with offenders with mental illnesses at least multiple times per week was associated with the largest differences in knowledge and importance ($r [604] = .18, p < .001$), Social Distance ($r [604] = .185, p < .001$), and total scores ($r [604] = .253, p < .001$), relative to having contact once a week or less. Further, weekly or more contact with offenders with mental illnesses was associated with the greatest difference in Self-Efficacy scores relative to contact multiple times a month or less, $r (604) = .258, p < .001$.

Attitudes Toward Substance Use

One-way ANOVA results are presented in Table 3. Again we found significant variation by criminal justice position across all of the attitude measures ($ps < .001$); however,

Table 2 Comparisons of mental illness attitudes subscale and total scores by position and personal contact

Predictor	Mental illness attitudes subscale scores							
	Knowledge and importance		Social distance		Self-efficacy		Total score	
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>
Position								
Community corrections	4.22	0.54	3.72	0.62	3.89	0.54	3.94	0.41
Prosecutor	4.00	0.51	3.09	0.63	3.36	0.59	3.49	0.38
Defense attorney	4.52	0.50	3.70	0.73	3.73	0.57	3.98	0.42
Jail correctional staff	4.05	0.52	2.96	0.77	3.66	0.49	3.56	0.44
Judge	4.25	0.60	3.44	0.74	3.85	0.41	3.85	0.48
Administrative	4.26	0.66	3.60	0.65	3.86	0.56	3.83	0.51
<i>Comparison</i>	$F(5, 602) = 14.312, p < .001, \eta^2 = .11$		$F(5, 601) = 20.15, p < .001, \eta^2 = .14$		$F(5, 602) = 21.04, p < .001, \eta^2 = .08$		$F(5, 602) = 13.16, p < .001, \eta^2 = .15$	
Contact								
Never	4.12	0.70	3.17	0.44	3.40	0.60	3.56	0.44
Less than once a month	4.18	0.50	3.31	0.64	3.53	0.47	3.67	0.41
Once a month	4.11	0.64	3.34	0.75	3.50	0.45	3.65	0.42
2–3 times a month	4.19	0.58	3.60	0.71	3.60	0.64	3.80	0.48
Once a week	4.12	0.53	3.34	0.71	3.86	0.46	3.77	0.40
2–3 times a week	4.30	0.55	3.67	0.70	3.82	0.60	3.93	0.44
Daily	4.40	0.52	3.70	0.75	3.91	0.54	4.00	0.44
<i>Comparison</i>	$F(6, 599) = 3.97, p = .001, \eta^2 = .04$		$F(6, 599) = 5.06, p < .001, \eta^2 = .05$		$F(6, 62.07)^+ = 8.56, p < .001, \eta^2 = .07$		$F(6, 599) = 8.36, p < .001, \eta^2 = .08$	

⁺Reflects welch correction for violation of homogeneity of variance

Table 3 Comparisons of substance use attitudes subscale and total scores by position and personal contact

Predictor	Substance use attitudes subscale scores						Total score	
	Knowledge and importance		Social distance		Self-efficacy		<i>M</i>	<i>SD</i>
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>		
Position								
Community corrections	4.34	0.51	3.26	0.80	4.15	0.48	3.92	0.45
Prosecutor	4.00	0.57	2.60	0.77	3.76	0.54	3.45	0.42
Defense attorney	4.48	0.49	3.36	0.74	3.94	0.50	3.92	0.43
Jail correctional staff	3.97	0.55	2.68	0.79	3.69	0.47	3.45	0.46
Judge	4.26	0.70	3.15	0.86	3.95	0.60	3.79	0.65
Administrative	4.25	0.56	3.03	0.75	3.99	0.60	3.76	0.54
<i>Comparison</i>	$F(5, 602) = 13.16, p < .001, \eta^2 = .10$		$F(5, 601) = 14.31, p < .001, \eta^2 = .11$		$F(5, 601) = 13.32, p < .001, \eta^2 = .10$		$F(5, 602) = 21.04, p < .001, \eta^2 = .15$	
Contact								
Never	3.92	0.61	2.79	0.51	3.46	0.38	3.39	0.44
Less than once a month	4.27	0.54	3.00	0.76	3.41	0.56	3.56	0.47
Once a month	3.73	0.57	2.77	0.96	3.41	0.42	3.30	0.46
2–3 times a month	4.22	0.56	3.24	0.85	3.81	0.57	3.76	0.49
Once a week	4.26	0.48	3.15	0.67	3.94	0.45	3.78	0.38
2–3 times a week	4.31	0.55	3.02	0.76	3.96	0.51	3.76	0.46
Daily	4.35	0.54	3.22	0.85	4.10	0.48	3.89	0.49
<i>Comparison</i>	$F(6, 599) = 3.27, p = .004, \eta^2 = .03$		$F(6, 599) = 1.76, p = .105, \eta^2 = .02$		$F(6, 599) = 11.82, p < .001, \eta^2 = .11$		$F(6, 599) = 5.55, p < .001, \eta^2 = .05$	

for the contact measure, there was variation by Knowledge and Importance and Self-Efficacy but not Social Distance ($p = .105$) subscale scores. Criminal justice position explained 15% of variability in total scores, whereas contact explained only 5% of total score variability. Among subscale scores, effect sizes were largest for criminal justice position (10–11% of variability; see eta-squared values in Table 3). On all four measures, prosecutors reported less positive attitudes relative to community corrections or probation officers ($ps < .001$) and defense attorneys, $ps < .001$. Similarly, jail correctional staff reported less positive attitudes on all measures relative to both community corrections officers ($ps < .001$) and defense attorneys ($ps \leq .011$).

Further, across attitude measures (i.e., Knowledge and Importance, Self-Efficacy, and total scores) with significant between-group differences in contact, monthly contact was associated with more negative attitudes relative to weekly ($ps \leq .047$), multiple weekly ($ps \leq .035$), and daily ($ps < .004$) contact. Point-biserial correlations showed contact at least multiple times per month was associated with the largest difference in Knowledge and Importance ($r [604] = .124, p = .002$), Self-efficacy ($r [604] = .267, p < .001$) and total scores ($r [604] = .185, p < .001$) relative to contact once a month or less. However, for Social Distance attitudes, daily contact was associated with the greatest differences in attitudes ($r [604] = .089, p = .029$) relative to contact multiple times per week or less.

Interaction Effects

To examine whether contact moderated the effects of criminal justice position on attitudes, we employed dichotomous measures of contact based on findings from sensitivity analyses (i.e., point-biserial correlations), specific to each attitude outcome and contact measure. Further, because the largest differences in attitudes existed primarily between four positions (i.e., community corrections staff, prosecutors, defense attorneys, and jail correctional staff), we restricted our analyses to these four groups. For mental illness, although findings showed significant main effects of position ($ps < .001$) and contact with offenders with mental illness ($ps \leq .003$), we found no evidence of interaction effects on any measure of attitudes toward mental illness ($ps \geq .106$).

However, for substance use, findings showed significant interaction effects of position by contact on three of four attitude measures: Social Distance ($p = .047$), Knowledge and Importance ($p = .012$), and total scores ($p = .022$) (see Fig. 1). For total scores, there were few differences between low and high contact conditions among defense attorneys ($M = 3.90, SE = 0.18$ and $M = 3.92, SE = 0.03$, respectively) and prosecutors ($M = 3.43, SE = 0.18$ and $M = 3.46, SE = 0.46$). However, high contact was associated with more positive attitudes relative to low contact for both community corrections staff ($M = 3.94, SE = 0.03$ and $M = 3.48, SE = 0.13$, respectively) and jail correctional

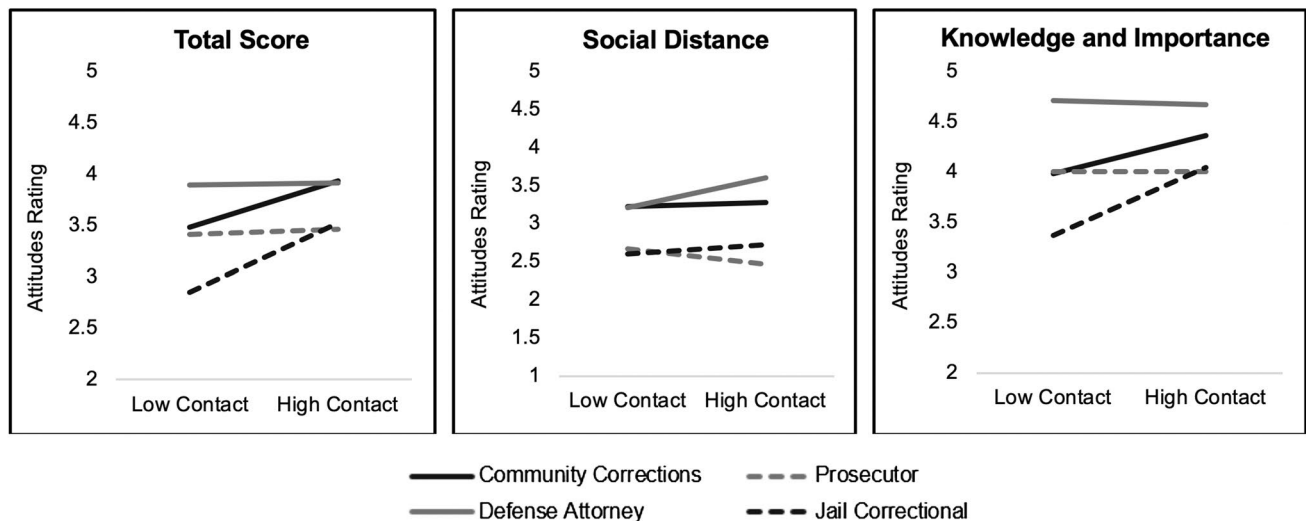


Fig. 1 Interactions between criminal justice position and personal contact on substance use attitudes

staff ($M = 3.52$, $SE = 0.06$ and $M = 2.85$, $SE = 0.18$). Similar trends were observed for Knowledge and Importance subscale attitudes. Prosecutors had identical attitudes in both low and high contact conditions ($M = 4.00$, $SE = 0.21$ and $M = 4.00$, $SE = 0.04$, respectively) and defense attorneys had slightly more positive attitudes in the low contact condition versus high ($M = 4.71$, $SE = 0.21$ and $M = 4.47$, $SE = 0.04$). In contrast, community corrections ($M = 3.98$, $SE = 0.15$ and $M = 4.36$, $SE = 0.04$) and jail correctional staff ($M = 3.37$, $SE = 0.21$ and $M = 4.05$, $SE = 0.07$) reported more negative attitudes in the low contact and more positive attitudes in the high contact condition. Finally, for Social Distance, defense attorneys showed the largest difference in attitudes in low ($M = 3.21$, $SE = 0.07$) and high ($M = 3.61$, $SE = 0.10$) contact conditions. High contact additionally was associated with more positive attitudes relative to low contact among community corrections ($M = 3.28$, $SE = 0.06$ and $M = 3.22$, $SE = 0.08$, respectively) and jail correctional ($M = 2.73$, $SE = 0.13$ and $M = 2.60$, $SE = 0.15$, respectively) staff. Further, prosecutors showed more negative attitudes in the high contact condition ($M = 2.47$, $SE = 0.16$) relative to the low contact condition ($M = 2.67$, $SE = 0.12$).

Discussion

We examined differences in mental illness and substance use attitudes across criminal justice positions using items adapted from the DDPPQ (Albery et al. 2003) and explored the role of personal contact as a moderator of attitude differences across positions. We found criminal justice professionals reported the most positive attitudes with respect to

knowledge of mental illness and substance use conditions as well as importance of public funding and efforts to treat behavioral health conditions in justice settings. In contrast, attitudes were most negative toward social distance, which measured willingness to be in close social proximity to adults with behavioral health disorders. Across measures, community corrections and defense attorneys generally reported more positive attitudes whereas jail correctional staff and prosecutors reported more negative attitudes, particularly with respect to social distance. Level of contact—ranging from never to daily—also affected attitude ratings, such that more frequent contact was associated with better attitudes. However, when examining moderating effects of position and contact, frequency of contact was more important for substance use attitudes than attitudes toward mental illness. Specifically, attorneys (defense and prosecuting) generally had stable levels of attitudes toward substance use regardless of the level of contact. In contrast, correctional staff working in jails and in community corrections were more likely to show more positive attitudes toward substance use with higher levels of contact.

Together, findings have several implications for criminal justice practice and policy. First, our findings suggest opportunities to improve the quality of training around mental illness and substance use for criminal justice professionals. Specifically, jail correctional staff seem the ideal target for training around mental illness and substance use. Correctional settings not only exacerbate symptoms of mental illness (Steadman et al. 1994; Torrey et al. 1998), but also contribute to perceived stigma (Moore et al. 2013). Correctional staff may have a role to play in reducing structural stigma related to incarceration, mental illness, and substance use. In particular, contact-based interventions targeting substance

use stigma in professionals may be especially effective in reducing structural stigma of organizations like correctional agencies, which often unwittingly perpetuate stigma toward marginalized groups (Livingston et al. 2012).

In contrast, our results raise a broader question regarding the obligation of prosecutors to be familiar with issues of substance use and mental illness in justice contexts. Although many attorneys are engaged in diversion programming, such as pre-trial diversion and problem-solving courts, most are likely to encounter justice-involved adults with behavioral health conditions in more traditional courtroom settings. These settings often entail an adversarial relationship between the prosecutors and defense council which may be considered necessary for adjudication in criminal proceedings. Consequently, as our findings suggest, personal contact with these populations may have a much weaker effect on attitudes, likely attributable to the formal, adversarial, and limited extent of contact. Indeed, in other domains, more quality contact with a stigmatized group (e.g., from personal relationships) is a more robust predictor of attitudes relative to any contact, regardless of quality (e.g., Chonody et al. 2016). Thus, jurisdictions interested in promoting attitude change in criminal justice professionals should focus on facilitating quality, personal contact with adults with behavioral health disorders.

Second, our study suggests incorporating contact-based interventions into correctional training may help improve attitudes toward special populations. Both in-person and videotaped exposure to people with mental illnesses have been found to be equally efficacious in changing attitudes. The most important element of contact is the degree to which it disconfirms previously held stereotypes about the population, which is especially relevant for changing perceptions of social distance (Reinke et al. 2004). More broadly, Corrigan (2012) outlines several components of contact-based interventions, including being targeted toward a specific group and locally designed, or matched to the sociodemographic and cultural characteristics of a community. Moreover, interventions should promote continuous contact with special populations. In the criminal justice system, where contact occurs frequently, training should impart to professionals that ongoing and intentional engagement with behavioral health populations will allow them to do their jobs more effectively. Crisis intervention training (CIT) is one intervention designed not only to better equip police officers and other first responders to respond to mental health crisis events, but also to improve understanding and attitudes toward mental illness. The intervention emphasizes personal contact with persons of lived experiences and has shown success in reducing stigmatizing attitudes (Mulay et al. 2016), underscoring its potential use for other criminal justice professionals who interact with adults with behavioral health disorders.

Finally, our results highlight the need for targeted efforts to improve substance use attitudes among criminal justice professionals. Substance use is more prevalent compared to mental illness in correctional populations; however, fewer interventions and strategies exist to connect this population to treatment, despite the importance of treatment in rehabilitating this population (Chandler et al. 2009). Interventions delivered in correctional settings or upon release have the potential to prevent relapse and fatal overdose (Beletsky et al. 2012), the risk of which is highest after release from correctional settings (Binswanger et al. 2007; Merrall et al. 2010). Yet, less than half of criminal justice professionals believe substance use treatment is of high importance relative to other services (e.g. life skills, education; Henderson and Taxman 2009). Our findings suggest substance use attitudes may be most likely to change with higher levels of contact, particularly for community corrections and jail correctional officers.

Limitations

Our findings should be considered together with several limitations, which may inform future research directions. First, other factors may explain associations between contact with offenders and attitudes, such as willingness or desire to supervise or interact with these populations. At least one prior meta-analytic investigation attempted to identify a mechanism for how contact might affect attitudes, finding that contact was most likely to reduce anxiety and promote empathy, in turn reducing prejudice (Pettigrew and Tropp 2008). However, to our knowledge, this is among the first studies to examine social contact as a moderator of attitudes in criminal justice professionals, and further efforts are needed to establish potential mechanisms through which contact may improve attitudes. Second, contact was measured in quantity, not quality. As a result, certain criminal justice professionals may have been more likely to have quality contact with offenders depending on the role and nature of interaction (e.g., case managing vs. discrete episodes of contact). Further investigation into the nature of contact as well as potential mechanisms may improve our understanding of how contact influences attitudes in this criminal justice professionals. Third, participants were drawn from a single Midwestern state, which may affect generalizability to other jurisdictions. Similarly, we employed a targeted snowball sampling strategy whereby surveys were distributed to heads of agencies for forwarding, resulting in an unknown response rate. Replication in other jurisdictions—and potentially more nationally representative samples—is needed. Fourth and finally, our modified instrument captures specific domains of attitudes, namely dimensions of knowledge and importance, self-efficacy, and social distance. Thus,

generalizability of findings to other facets of attitudes toward offender populations is unknown.

Conclusion

In the United States, adults with behavioral health conditions remain overrepresented in correctional settings, attributable in large part to dwindling resources and inaccessibility of public treatment options. As a result, the justice system has become a primary point of intervention for persons with mental illnesses and substance use disorders. Criminal justice professionals—ranging from law enforcement to court employees and correctional officers—engage in routine contact with persons afflicted with behavioral health disorders and play pivotal roles in the administration of their treatment. However, few studies have examined attitudes towards these populations among criminal justice professionals. In addressing this limitation, our findings suggest that criminal justice attitudes towards these populations vary in important and observable ways. Specifically, attitudes differ between mental illness and substance abuse, as a function of one's role in the criminal justice system, and by level of personal contact with these populations. Further research is needed to understand how attitudes impact criminal justice decision-making related to behavioral health populations, including decisions to adjudicate offenders via traditional criminal processing or otherwise divert offenders into treatment and support services. Targeted training to improve criminal justice professionals' attitudes toward mental illness and substance use may support efforts to rehabilitate the large number of adults with behavioral health disorders in justice settings.

References

- Albery, I. P., Heuston, J., Ward, J., Groves, P., Durand, M. A., Gossop, M., & Strang, J. (2003). Drug and drug problems perceptions questionnaire. *PsychTESTS*. <https://doi.org/10.1037/t18235-000>.
- Appelbaum, K. L., Hickey, J. M., & Packer, I. (2001). The role of correctional officers in multidisciplinary mental health care in prisons. *Psychiatric Services*, 52(10), 1343–1347. <https://doi.org/10.1176/appi.ps.52.10.1343>.
- Bahora, M., Hanafi, S., Chien, V. H., & Compton, M. T. (2008). Preliminary evidence of effects of crisis intervention team training on self-efficacy and social distance. *Administration and Policy in Mental Health and Mental Health Services Research*, 35(3), 159–167. <https://doi.org/10.1007/s10488-007-0153-8>.
- Baillargeon, J., Binswanger, I. A., Penn, J. V., Williams, B. A., & Murray, O. J. (2009). Psychiatric disorders and repeat incarcerations: The revolving prison door. *The American Journal of Psychiatry*, 166(1), 103–109. <https://doi.org/10.1176/appi.ajp.2008.08030416>.
- Baillargeon, J., Penn, J. V., Knight, K., Harzke, A. J., Baillargeon, G., & Becker, E. A. (2010). Risk of reincarceration among prisoners with co-occurring severe mental illness and substance use disorders. *Administration and Policy in Mental Health and Mental Health Services Research*, 37(4), 367–374. <https://doi.org/10.1007/s10488-009-0252-9>.
- Beletsky, L., Rich, J. D., & Walley, A. Y. (2012). Prevention of fatal opioid overdose. *JAMA*, 308(18), 1863–1864. <https://doi.org/10.1001/jama.2012.14205>.
- Bennett, D. A. (2001). How can I deal with missing data in my study? *Australian and New Zealand Journal of Public Health*, 25(5), 464–469.
- Binswanger, I. A., Stern, M. F., Deyo, R. A., Heagerty, P. J., Cheadle, A., Elmore, J. G., & Koepsell, T. D. (2007). Release from prison — a high risk of death for former inmates. *New England Journal of Medicine*, 356(2), 157–165. <https://doi.org/10.1056/NEJMsa064115>.
- Bose, J., Hedden, S. L., Lipari, R. N., Park-Lee, E., Porter, J. D., & Pemberton, M. R. (2016). *Key substance use and mental health indicators in the United States: Results from the 2015 national survey on drug use and health* (No. SMA 16-4984). Rockville, MD: Center for Behavioral Health Statistics and Quality, Substance Use and Mental Health Services Administration. Retrieved from <https://www.samhsa.gov/data/sites/default/files/NSDUH-FFR1-2015/NSDUH-FFR1-2015/NSDUH-FFR1-2015.htm>.
- Bronson, J., & Berzofsky, M. (2017). *Indicators of mental health problems reported by prisoners and jail inmates, 2011-12* (No. NCJ 250612). Washington, D.C.: Bureau of Justice Statistics, Office of Justice Programs, U.S. Department of Justice. Retrieved from <https://www.bjs.gov/content/pub/pdf/imhprpji1112.pdf>.
- Callahan, L. (2004). Correctional officer attitudes toward inmates with mental disorders. *International Journal of Forensic Mental Health*, 3(1), 37. <https://doi.org/10.1080/14999013.2004.10471195>.
- Castillo, E. D., & Alarid, L. F. (2011). Factors associated with recidivism among offenders with mental illness. *International Journal of Offender Therapy and Comparative Criminology*, 55(1), 98–117. <https://doi.org/10.1177/0306624X09359502>.
- Chandler, R. K., Fletcher, B. W., & Volkow, N. D. (2009). Treating drug abuse and addiction in the criminal justice system: Improving public health and safety. *JAMA*, 301(2), 183–190. <https://doi.org/10.1001/jama.2008.976>.
- Chonody, J. M., Kavanagh, P. S., & Woodford, M. R. (2016). Does closeness to someone who is gay, lesbian, or bisexual influence etiology beliefs about homosexuality? *Journal of Homosexuality*, 63(12), 1726–1748. <https://doi.org/10.1080/00918369.2016.1172863>.
- Clark, R. E., Ricketts, S. K., & McHugo, G. J. (1999). Legal system involvement and costs for persons in treatment for severe mental illness and substance use disorders. *Psychiatric Services*, 50(5), 641–647.
- Constantine, R. J., Pettila, J., Anel, R., Givens, E. M., Becker, M., Robst, J., ... Howe, A. (2010). Arrest trajectories of adult offenders with a serious mental illness. *Psychology, Public Policy, and Law*, 16(4), 319–339. <https://doi.org/10.1037/a0020852>.
- Corrigan, P. W. (2012). Research and the elimination of the stigma of mental illness. *The British Journal of Psychiatry*, 201(1), 7–8. <https://doi.org/10.1192/bjp.bp.111.103382>.
- Corrigan, P. W., Green, A., Lundin, R., Kubiak, M. A., & Penn, D. L. (2001). Familiarity with and social distance from people who have serious mental illness. *Psychiatric Services*, 52(7), 953–958. <https://doi.org/10.1176/appi.ps.52.7.953>.
- Dvoskin, J. A., & Spiers, E. M. (2004). On the role of correctional officers in prison mental health. *The Psychiatric Quarterly*, 75(1), 41–59.
- Emeritus, G. K. P., & Wickens, T. D. (2004). *Design and analysis: A researcher's handbook* (4 ed.). Upper Saddle River: Pearson.
- Fernez, F. J. (1975). Attitudes of certain criminal justice personnel toward drug laws and drug offenders. *Journal of Police Science and Administration*, 3(3), 354–362.

- Franklin, S. B., Gibson, D. J., Robertson, P. A., Pohlmann, J. T., & Fralish, J. S. (1995). Parallel Analysis: A method for determining significant principal components. *Journal of Vegetation Science*, 6(1), 99–106. <https://doi.org/10.2307/3236261>.
- Friedmann, P. D., Taxman, F. S., & Henderson, C. E. (2007). Evidence-based treatment practices for drug-involved adults in the criminal justice system. *Journal of Substance Abuse Treatment*, 32(3), 267–277. <https://doi.org/10.1016/j.jsat.2006.12.020>.
- Gary, F. A. (2005). Stigma: Barrier to mental health care among ethnic minorities. *Issues in Mental Health Nursing*, 26(10), 979–999.
- Goldkamp, J. S., White, M. D., & Robinson, J. B. (2001). Do drug courts work? Getting inside the drug court black box. *Journal of Drug Issues*, 31(1), 27–72.
- Hair, J. F., Tatham, R. L., Anderson, R. E., & Black, W. (1998). *Multivariate data analysis* (5th ed.). Upper Saddle River: Prentice Hall.
- Henderson, C. E., & Taxman, F. S. (2009). Competing values among criminal justice administrators: The importance of substance abuse treatment. *Drug and Alcohol Dependence*, 103(Suppl 1), S7–S16. <https://doi.org/10.1016/j.drugalcdep.2008.10.001>.
- James, D. J., & Glaze, L. E. (2006). *Mental health problems of prison and jail inmates*. Washington, DC: US Department of Justice, Office of Justice Programs, Bureau of Justice Statistics.
- Judge, T. A., & Bono, J. E. (2001). Relationship of core self-evaluations traits—self-esteem, generalized self-efficacy, locus of control, and emotional stability—With job satisfaction and job performance: A meta-analysis. *The Journal of Applied Psychology*, 86(1), 80–92.
- Kelleher, S. (2007). Health care professionals' knowledge and attitudes regarding substance use and substance users. *Accident and Emergency Nursing*, 15(3), 161–165. <https://doi.org/10.1016/j.aen.2007.05.005>.
- Kessler, R. C., Chiu, W., Demler, O., & Walters, E. E. (2005). Prevalence, severity, and comorbidity of 12-month DSM-IV disorders in the National Comorbidity Survey Replication. *Archives of General Psychiatry*, 62(6), 617–627. <https://doi.org/10.1001/archpsyc.62.6.617>.
- Kolodziej, M. E., & Johnson, B. T. (1996). Interpersonal contact and acceptance of persons with psychiatric disorders: A research synthesis. *Journal of Consulting and Clinical Psychology*, 64(6), 1387.
- Komiti, A., Judd, F., & Jackson, H. (2006). The influence of stigma and attitudes on seeking help from a GP for mental health problems: A rural context. *Social Psychiatry And Psychiatric Epidemiology*, 41(9), 738–745.
- Kropp, P. R., Cox, D. N., Roesch, R., & Eaves, D. (1989). The perceptions of correctional officers toward mentally disordered offenders. *International Journal of Law and Psychiatry*, 12(2), 181–188. [https://doi.org/10.1016/0160-2527\(89\)90006-X](https://doi.org/10.1016/0160-2527(89)90006-X).
- Lavoie, J. A., Connolly, D. A., & Roesch, R. (2006). Correctional officers' perceptions of inmates with mental illness: The role of training and burnout syndrome. *International Journal of Forensic Mental Health*, 5(2), 151. <https://doi.org/10.1080/14999013.2006.10471239>.
- Livingston, J. D., Milne, T., Fang, M. L., & Amari, E. (2012). The effectiveness of interventions for reducing stigma related to substance use disorders: A systematic review. *Addiction*, 107(1), 39–50. <https://doi.org/10.1111/j.1360-0443.2011.03601.x>.
- Merrall, E. L. C., Kariminia, A., Binswanger, I. A., Hobbs, M. S., Farrell, M., Marsden, J., ... Bird, S. M. (2010). Meta-analysis of drug-related deaths soon after release from prison. *Addiction*, 105(9), 1545–1554. <https://doi.org/10.1111/j.1360-0443.2010.02990.x>.
- Moore, K., Stuewig, J., & Tangney, J. (2013). Jail inmates' perceived and anticipated stigma: Implications for post-release functioning. *Self and Identity*, 12(5), 527–547. <https://doi.org/10.1080/15298868.2012.702425>.
- Mulay, A. L., Vayshenker, B., West, M. L., & Kelly, E. (2016). Crisis intervention training and implicit stigma toward mental illness: Reducing bias among criminal justice personnel. *International Journal of Forensic Mental Health*, 15(4), 369–381. <https://doi.org/10.1080/14999013.2016.1208308>.
- Mumola, C. J., & Karberg, J. C. (2006). *Drug use and dependence, state and federal prisoners, 2004* (No. NCJ 213530). Rockville, MD: Bureau of Justice Statistics, Office of Justice Programs, U.S. Department of Justice. Retrieved from <https://www.bjs.gov/content/pub/pdf/dudsf04.pdf>.
- National Institute of Justice. (2015). Drug Courts. Retrieved September 26, 2017, from <http://www.nij.gov/80/topics/courts/drug-courts/Pages/welcome.aspx>.
- O'Connor, B. P. (2000). SPSS and SAS programs for determining the number of components using parallel analysis and velicer's MAP test. *Behavior Research Methods, Instruments, & Computers*, 32(3), 396–402.
- Pattyn, E., Verhaeghe, M., & Bracke, P. (2013). Attitudes toward community mental health care: The contact paradox revisited. *Community Mental Health Journal*, 49(3), 292–302. <https://doi.org/10.1007/s10597-012-9564-4>.
- Perlick, D. A., Rosenheck, R. A., Clarkin, J. F., Sirey, J. A., Salahi, J., Struening, E. L., & Link, B. G. (2001). Stigma as a barrier to recovery: Adverse effects of perceived stigma on social adaptation of persons diagnosed with bipolar affective disorder. *Psychiatric Services*, 52(12), 1627–1632. <https://doi.org/10.1176/appi.ps.52.12.1627>.
- Pettigrew, T. F., & Tropp, L. R. (2006). A meta-analytic test of intergroup contact theory. *Journal of Personality and Social Psychology*, 90(5), 751–783. <https://doi.org/10.1037/0022-3514.90.5.751>.
- Pettigrew, T. F., & Tropp, L. R. (2008). How does intergroup contact reduce prejudice? Meta-analytic tests of three mediators. *European Journal of Social Psychology*, 38(6), 922–934.
- Qualtrics. (2015). Provo, Utah. Retrieved from <http://www.qualtrics.com>.
- Rade, C. B., Desmarais, S. L., & Mitchell, R. E. (2016). A meta-analysis of public attitudes toward ex-offenders. *Criminal Justice and Behavior*, 43(9), 1260–1280. <https://doi.org/10.1177/0093854816655837>.
- Reinke, R. R., Corrigan, P. W., Leonhard, C., Lundin, R. K., & Kubiak, M. A. (2004). Examining two aspects of contact on the stigma of mental illness. *Journal of Social & Clinical Psychology*, 23(3), 377–389.
- Richardson, J. T. E. (2011). Eta squared and partial eta squared as measures of effect size in educational research. *Educational Research Review*, 6(2), 135–147. <https://doi.org/10.1016/j.edurev.2010.12.001>.
- SAMHSA's GAINS Center. (2015). *Adult mental health treatment courts database*. Retrieved from http://gainscenter.samhsa.gov/grant_programs/adultmhc.asp.
- Schafer, J. L. (1999). Multiple imputation: A primer. *Statistical Methods in Medical Research*, 8(1), 3–15. <https://doi.org/10.1177/096228029900800102>.
- Shaw, S. J., Cartwright, A. K. J., Spratley, T. A., & Harwin, J. (1978). Responding to drinking problems. *Responding to Drinking Problems*. Retrieved from <https://www.cabdirect.org/cabdirect/abstract/19792700069>.
- Steadman, H. J., Barbera, S. S., & Dennis, D. L. (1994). A national survey of jail diversion programs for mentally ill detainees. *Hospital & Community Psychiatry*, 45(11), 1109–1113.
- Steadman, H. J., Osher, F., Robbins, P. C., Case, B., & Samuels, S. (2009). Prevalence of serious mental illness among jail inmates. *Psychiatric Services*, 60(6), 761–765. <https://doi.org/10.1176/appi.ps.60.6.761>.
- Stevens, J. P. (2009). *Applied multivariate statistics for the social sciences* (5 ed.). New York: Routledge.
- Substance Abuse and Mental Health Services Administration. (2013). *Results from the 2012 National Survey on Drug Use and Health:*

- Mental health findings*. Rockville, MD: Substance Abuse and Mental Health Services Administration.
- Swanson, J. W., Frisman, L. K., Robertson, A. G., Lin, H.-J., Trestman, R. L., Shelton, D. A., ... Swartz, M. S. (2013). Costs of criminal justice involvement among persons with serious mental illness in Connecticut. *Psychiatric Services, 64*(7), 630–637. <https://doi.org/10.1176/appi.ps.002212012>.
- Torrey, E. F., Stieber, J., & Ezekiel, J. (1998). *Criminalizing the seriously mentally ill: The abuse of jails as mental hospitals*. Collingdale: DIANE Publishing.
- van Boekel, L. C., Brouwers, E. P. M., van Weeghel, J., & Garretsen, H. F. L. (2013). Stigma among health professionals towards patients with substance use disorders and its consequences for healthcare delivery: Systematic review. *Drug and Alcohol Dependence, 131*(1), 23–35. <https://doi.org/10.1016/j.drugalcdep.2013.02.018>.
- Van Dorn, R. A., Desmarais, S. L., Petrila, J., Haynes, D., & Singh, J. P. (2013). Effects of outpatient treatment on risk of arrest of adults with serious mental illness and associated costs. *Psychiatric Services, 64*(9), 856–862. <https://doi.org/10.1176/appi.ps.201200406>.
- Wales, H. W., Hiday, V. A., & Ray, B. (2010). Procedural justice and the mental health court judge's role in reducing recidivism. *International Journal of Law and Psychiatry, 33*(4), 265–271. <https://doi.org/10.1016/j.ijlp.2010.06.009>.
- Ward, K. C., & Merlo, A. V. (2016). Rural jail reentry and mental health: Identifying challenges for offenders and professionals. *The Prison Journal, 96*(1), 27–52. <https://doi.org/10.1177/0032885515605473>.
- Watson, A. C., Angell, B., Morabito, M. S., & Robinson, N. (2008). Defying negative expectations: Dimensions of fair and respectful treatment by police officers as perceived by people with mental illness. *Administration and Policy in Mental Health and Mental Health Services Research, 35*(6), 449–457. <https://doi.org/10.1007/s10488-008-0188-5>.
- Watson, A. C., Corrigan, P. W., & Ottati, V. (2004). Police officers' attitudes toward and decisions about persons with mental illness. *Psychiatric Services, 55*(1), 49–53. <https://doi.org/10.1176/appi.ps.55.1.49>.
- Wilson, A. B., & Draine, J. (2006). Collaborations between criminal justice and mental health systems for prisoner reentry. *Psychiatric Services, 57*(6), 875–878. <https://doi.org/10.1176/appi.ps.57.6.875>.
- Wilson, A. B., Draine, J., Hadley, T., Metraux, S., & Evans, A. (2011). Examining the impact of mental illness and substance use on recidivism in a county jail. *International Journal of Law and Psychiatry, 34*(4), 264–268. <https://doi.org/10.1016/j.ijlp.2011.07.004>.

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