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The Prevalence of Mental Illnesses in U.S. State Prisons: A Systematic Review

Seth J. Prins, MPH

Columbia University Department of Epidemiology Mailman School of Public Health 722 W. 168th Street, 720-C Department of Epidemiology New York, New York 10032 sjp2154@columbia.edu

Abstract

Objective—People with mental illnesses are understood to be overrepresented in the U.S. criminal justice system, and estimates of the prevalence of mental illnesses in corrections settings are crucial for planning and implementing preventive and diversionary policies and programs. Despite consistent scholarly attention, two federal self-report surveys are typically cited, and these may not represent the extent of relevant data. This systematic review identifies studies that assess the prevalence of mental illnesses in U.S. state prisons, in order to develop a broader picture of prison prevalence and identify methodological challenges to obtaining accurate and consistent estimates.

Methods—Medline, PsycInfo, the National Criminal Justice Reference Service, Social Services Abstracts, Social Work Abstracts, and Sociological Abstracts were searched. Studies were included if they were published between 1989 and 2013; focused on U.S. state prisons; reported prevalence of diagnoses/symptoms of DSM Axis I disorders; and identified screening/assessment strategies.

Results—Twenty-eight articles met inclusion criteria. Estimates of current and lifetime prevalence of mental illnesses varied widely; however, the range of prevalence estimates for particular disorders was much greater—and tended to be higher—in prisons than community samples.

Conclusions—Operationalizations of mental illnesses, sampling strategies, and case ascertainment strategies likely contributed to inconsistency in findings. Other reasons for study heterogeneity are discussed, and implications for public health are explored.

Keywords

US; mental illnesses; incarceration; prisons; epidemiology

Introduction

People with mental illnesses are overrepresented in criminal justice settings in the United States, including jails, prisons, probation, and parole.[1–7] These settings are rarely appropriate for treatment.[8] For people with mental illnesses, who face inordinate poverty, unemployment, crime, victimization, family breakdown, homelessness, substance use, physical health problems, and stigma, [9–11] contact with the criminal justice system can exacerbate prevailing social marginalization, disrupt treatment and linkage to service

systems, or represent the first occasion for treatment. For the corrections system, which was not designed or equipped to provide mental health services, the high prevalence of people with mental illnesses has capacity, budgetary, and staffing ramifications; high numbers of people with mental illnesses affect the provision of constitutionally mandated treatment "inside the walls," transition planning and reentry services, and community corrections caseload scope and scale. More generally, mental illness (and co-occurring substance use disorders) represents a substantial component of the public health burden of mass incarceration—a policy where structural inequalities in race, class, crime, health, and social services intersect.

The overrepresentation of people with mental illnesses in the corrections system has received consistent scholarly and political attention, as lawmakers, administrators, practitioners, and advocates all depend on valid and reliable estimates of the prevalence of mental illnesses in corrections settings to plan and implement policy and programmatic responses. Such estimates are frequently presented as preambles to policy monographs, white papers, and grant programs (e.g., Bureau of Justice Assistance[12]) that propose or fund efforts to reduce the number of people with mental illnesses in contact with the criminal justice system. Yet, only a handful of studies and federal reports are typically cited, and these may not represent the extent of relevant data.

Among this handful, two reports by the Bureau of Justice Statistics [2,3] have been cited at least 1,100 times, according to a recent query of Google Scholar. These reports used self-report surveys and defined mental illnesses as a current mental or emotional condition, a prior overnight stay in a "mental hospital," or endorsement of symptoms of mental disorders in the Diagnostic and Statistical Manual of Mental Disorders (DSM).[13] Prevalence estimates were 3 to 12 times higher than community samples, reaching as high as 64%.

Given the role that such prevalence estimates play in framing programs and policies, past research has sought to inventory and integrate findings from a broader sampling of studies that use more robust case ascertainment strategies. At least seven prior systematic[14–18] and non-systematic [19,20] literature reviews or meta-analyses have been published in the past two decades. These reviews, however, tend to include studies that predate the policies that would contribute to the present program of mass incarceration (e.g., the "War on Drugs" and "three strikes laws[21]), include international findings, combine jail and prison estimates, or focus on single or few disorders. The most recent is an important meta-analysis, based on pooled jail and prison data, that provides summary estimates for the prevalence of psychotic disorders and major depression in 33,588 incarcerated individuals worldwide.[14] This analysis puts mental illness and incarceration in a global context and addressed high levels of heterogeneity between studies with sophisticated techniques.

In the United States, however, the criminal justice system and mass incarceration are institutions with unique racialized, economic, and political contexts that make cross-country comparisons difficult. Furthermore, prisons and jails are functionally discrete (see online supplemental Table 5), and the two should not be conflated by researchers, as they entail different mitigation strategies from a public health perspective. The purpose of this report is therefore to summarize and synthesize research on the prevalence of mental illnesses in U.S.

state prisons. This systematic review is intended to add to the existing body of literature by being both more inclusive and restrictive than prior reviews—allowing for studies whose primary focus is not mental illness and limiting review to state prisons in the United States. The present review will also explore methodological issues that continue to make obtaining accurate prevalence estimates a challenge for researchers and policymakers alike.

Methods

A systematic review of the scholarly literature was conducted to identify studies that presented prevalence estimates of mental illnesses in prisons. Articles were included if they were published in peer-reviewed, English-language journals between 1989 and August 2013; focused on US state prisons; reported prevalence estimates of diagnoses or symptoms of DSM Axis I disorders; and clearly identified the denominator for prevalence proportions. Articles were excluded if they did not present original data; focused solely on Axis II disorders, youth, jails, or foreign prisons; selected samples only of people with mental illnesses or substance use disorders; presented only combined jail and prison prevalence estimates, did not present prevalence estimates (e.g., presented only mean scale scores or odds ratios for disorders), or if the denominator for prevalence estimates was not apparent. Samples selected on substance use were excluded given the high rates at which substance use disorders co-occur with mental illnesses among incarcerated individuals,[1,22] and would therefore not provide good estimates of mental illnesses per se. A review of the prevalence of substance use disorders in prisons is beyond the scope of this report.

Medline, PsycInfo, the National Criminal Justice Reference Service, Social Services Abstracts, Social Work Abstracts, and Sociological Abstracts were searched. For Medline and PsycInfo, combinations of the following Medical Subject Headings (MeSH) were used: Mental Disorders, Mental Health, Prevalence, Incidence, Epidemiology, Psychotropic Drugs, Drug Therapy, Prisons, and Prisoners. For the remaining databases, similar keyword combinations, including Axis I disorder terms, were searched.

All articles were uploaded into EndNote X4 software. Duplicate entries were identified using the software's de-duplication function and then sorted alphabetically by title to visually identify any missed duplicates. The initial search yielded 3,670 non-duplicate articles. Based on titles and abstracts, 3,388 articles did not meet inclusion criteria and were excluded. All articles published between 1989 and August 2013 contained in previous reviews/meta-analyses were captured in the present search. Full texts of the 282 remaining articles were reviewed, and an additional 254 studies were rejected based on exclusion criteria outlined above. One study [23] was excluded that re-reported findings from a earlier study included below. Twenty-eight articles were thus included in the present review. In rare cases, the author recalculated prevalence proportions when a more appropriate denominator was reported (e.g., the general facility population rather than a subpopulation). Approximations for summary prevalence estimates were calculated by taking weighted means of all reported diagnoses ("any mental illnesses") and of major depression, bipolar disorder, schizophrenia, schizoaffective disorder, and psychotic disorder ("serious mental illnesses"). Figures were created in R version 3.0.1 with package "ggplot2."[24]

Results

Researchers characterized the prevalence of mental illnesses in prisons in three main ways: as a broad category of unspecified psychiatric disability or "mental health problems" (Table 1, 4 studies[25–28]) as a diagnosis of a DSM psychiatric disorder (Table 2 and Table 3, 19 studies[29–47]) and as cut points on scales of symptoms or psychiatric distress (Table 4, 5 studies[48–52]).

Tables 1-4 (see online supplement for expanded tables) also present key information on each of the 28 studies in addition to prevalence estimates: facility type (e.g., single prison versus all prisons in a given state), target sample (e.g., men, women, general prison population, or some special prison population), method of case ascertainment (e.g., from case files or a particular screening or diagnostic instrument), diagnostic classification system, and current versus lifetime prevalence. Of the 19 studies that presented prevalence estimates of DSM diagnoses, 5 presented estimates of diagnosis groupings that could not be disaggregated (see Table 3).

Estimates of the current and lifetime prevalence of mental illnesses in state prisons varied widely. For example, in the present review, estimates for current major depression ranged from 9% to 29%, for bipolar disorder from 5.5% to 16.1%, for panic disorder from 1% (women) to 5.5% (men and women) to 6.8% (men), and for schizophrenia from 2 to 6.5%. Figure 1 summarizes current prevalence estimates for all studies that presented findings for psychiatric diagnoses (i.e., from Tables 2-3). Figure 2 separates the results from Tables 2-3 according to studies that presented findings on men, men and women, and women, respectively. As a point of comparison, Figures 1 and 2 also display the range of prevalence estimates for select disorders from major community surveys of mental illnesses: the Epidemiological Catchment Area survey,[53–55] the National Comorbidity Survey,[56,57] the National Comorbidity Survey Replication,[58–60] the National Epidemiologic Survey on Alcohol and Related Conditions,[61–64] and the National Survey on Drug Use and Health.[65] The figures are dot plots, in which each diamond (prison) and circle (community) represents a prevalence estimate from a single study and the lines are a visual aid for the range of estimates. For example, in Figure 1, seven studies provided prevalence estimates for current attention deficit hyperactivity disorder in prison, ranging from approximately 10% to 25%. It is clear from Figures 1 and 2 that community prevalence estimates tend to fall near or below the low end of the range of prison prevalence estimates, and that there is a generally a greater range in prison prevalence estimates than community estimates.

Also as a point of comparison, Figure 1 contains prevalence estimates for "any mental illness" and serious mental illness (SMI).[57,65–67] These are compared to estimates from community surveys. "Any mental illness" estimates were calculated by taking weighted means from Tables 2-3 of all disorder diagnoses. It must be noted that, while reviewed studies do not include diagnoses of substance use disorders, it was not possible to exclude these disorders from most community comparisons of "any mental illnesses." SMI estimates were calculated by taking weighted means from Tables 2-3 of major depression, bipolar disorder, schizophrenia, schizoaffective disorder, and psychotic disorder. Because one study[29] was much larger (N=170,215) than the others, it exerted appreciable influence on

the weighted means; thus, weighted means for “any mental illness” and SMI were also calculated excluding this study, providing the high end of the range for these categories in Figures 1-2. Since no measure of functional impairment was available in most studies, and definitions of SMI vary across surveys, caution is warranted in making inferences from these comparisons.

Several of the studies reviewed are notable for strong methodology. In one study,[41] researchers used the Structured Clinical Interview for DSM-IV Diagnoses (SCID),[68] and found prevalence estimates of PTSD (15%), major depression (10%), and dysthymia (8%) among incarcerated women that were mostly higher than the general population. Another study,[47] however, used the SCID and clinician-administered assessment interviews and found the prevalence of PTSD among incarcerated women to be 48.2%. Another study[42] used the Composite International Diagnostic Interview [69] and clinician re-interviews and found prevalence estimates of major depression (10.8), generalized anxiety disorder (1.4) and panic disorder (4.7) among incarcerated women that were similar to or higher than the general population. Using the Minnesota Multiphasic Personality Inventory [70] followed by clinical interviews, another study[30] found prevalence estimates of major depression among incarcerated women to be 29%.

Discussion

This systematic review summarizes 28 studies, published between 1989 and August 2013, of the prevalence of mental illnesses in prisons in 16 U.S. states. As a result of inclusive search criteria, this review contains data on the prevalence of mental illnesses among incarcerated subpopulations such as HIV-positive women, individuals aged 55 years and older, suicide attempters, and those under administrative segregation. This review presents a detailed summary of key study characteristics that may be of interest to researchers, policymakers, and practitioners. These details are likely implicated in the overall inconsistency in findings. Nonetheless, reviewed studies generally confirm what researchers, policymakers, practitioners, and advocates have long understood: the current and lifetime prevalence of numerous mental illnesses is higher among incarcerated populations than in non-incarcerated populations, sometimes by large margins. Yet, the wide variation in prevalence found among even the more robust studies reviewed here warrants caution against generalizations from any single study. Furthermore, given the heterogeneity in samples, states, facilities, study designs, and diagnostic instruments represented in this review, it would not be appropriate to draw more than broad conclusions about the veracity of particular prevalence estimates relative to others (e.g., studies that used validated instruments followed by clinical interviews are likely more robust than those that used only correctional health records).

Explaining the lack of consistency among prevalence estimates is no easy task; however, two likely contributing factors warrant discussion here. These can be characterized as issues of *measurement* and *selection*. Measurement issues are artifacts of the research process, and can be inferred from the characteristics of the studies summarized in this review, whereas selection issues represent “real” phenomenon about which one can only speculate based on the data presented here.

Regarding measurement, methodological differences in the operationalization of mental illness, sampling strategies, and case ascertainment strategies may explain a significant amount of the variation across studies. Measurement differences may arise from a divergence in the disciplinary orientations of researchers and the constraints on access and other resources inherent in conducting research in institutions organized around segregation, security, and control. Researchers with a forensic orientation, for example, may be less interested than community mental health researchers with strict adherence to DSM diagnostic criteria because their primary concern may be in identifying administrative needs and population management risks. Researchers may be granted limited access to a single correctional institution or to records for an entire statewide system containing only rough proxies for mental disorders. During primary data collection, intake procedures may limit the time that can be spent on screening and assessment, which may limit the type of personnel (lay versus clinician) and instruments or scales (screens versus structured diagnostic interviews) that can be used. Indeed, in the present review, over a dozen different case ascertainment strategies are represented, each with its own strengths and weaknesses around diagnostic reliability and validity.[71] Furthermore, these instruments were based on at least 5 different variations of psychiatric nosology, from DSM-III through IV-TR and the ICD-10.

Another source of variation in prevalence estimates may stem from differential “selection into prison,” which can be conceptualized as the real forces that influence the “base” or “source” populations that contribute to the composition of prison populations in different jurisdictions. These selection forces are likely determined by myriad macro- and meso-level factors beyond individuals’ propensity for arrest or crime. These include, but are not limited to, the demographic composition of state populations more broadly, political-economic arrangements and trends, criminal codes (e.g., drug policies), corrections policies, mental health and substance use treatment policies and availability of services, housing policies, policing strategies, etc.

Of particular interest for criminal justice and mental health policymakers and practitioners is the question of whether increased access to treatment services would reduce the number of people with mental illnesses (and co-occurring substance use disorders) in corrections settings.[72] If one accepts the logic that lack of treatment is a cause of people with mental illnesses’ contact with prisons, then states that (on average) provide more and better treatment for co-occurring disorders should have a lower prevalence of mental illnesses in prisons. This is an empirical question that is beyond the scope of the present review. Nonetheless, two aspects of this selection issue deserve consideration. First, state prison populations are less “local” than county or municipal jail populations, because state prisons typically receive individuals from across a state. If mental health and substance use treatment access and utilization affect the prevalence of mental illnesses in prisons, prison composition is likely to reflect the average impact of these services across numerous jurisdictions within a state. Second, most people in the United States with serious mental illnesses, including substance disorders, do not receive treatment.[73–75] For these individuals, contact with the criminal justice system may represent the first occasion for any treatment services.[8] Considering within- and between-state differences in service quality and access

(e.g., across urban/rural areas, etc.), the impact of these services—or lack thereof—on the variation in prison prevalence may not be straightforward.

One limitation of the current review is that it does not include studies that use proxy operationalizations of mental illnesses, such as corrections department expenditures on medication or clinical staffing. Although treatment is an imperfect proxy for mental illnesses, as prevalence estimates based on treatment reflect well-documented disparities in access and utilization, [74–76] a systematic review of this literature would nonetheless be worthwhile, as it would draw special attention to budgetary issues. Another limitation is that this review does not include gray literature, as it was designed to focus on peer-reviewed publications. With 50 states, at least 50 departments of corrections with varying degrees of data unification and reporting standards, and varying numbers of prisons per state, systematically obtaining unpublished or low-circulation reports from these agencies and facilities was beyond the scope of the present review. Such a project is clearly a crucial component of future research.

Reasons for the high prevalence of mental illnesses in prisons have been explored in depth elsewhere.[8,10,77–81] In response, specialized programs designed to divert people with mental illnesses from contact with law enforcement, courts, and corrections to the community; improve reentry after incarceration; and reduce recidivism have been in effect for over a decade.[82–86] Despite these efforts, the prevalence of mental illnesses in prisons remains high. Our ability to accurately measure the impact of such programs, in addition to changes in more fundamental causes of the prevalence of mental illnesses in prisons (e.g., drug policy), depends largely on the sorts of estimates summarized in this review. Also of interest to policymakers and practitioners is the fact that most of the roughly 2,300,000 incarcerated individuals in the United States[87] will be released, contributing to the approximately 4.8 million individuals—the majority of the U.S. corrections population—that resides in the community, on probation and parole.[88] Around 43% of these individuals will recidivate within 3 years.[89] As such, accurately measuring the prevalence of mental illnesses “inside the walls” is essential for community corrections planning. Given the existence of brief, well-validated instruments that screen for mental illnesses, such as the Brief Jail Mental Health Screen,[90] K6,[67] and Correctional Mental Health Screen,[91] reporting standards for routine assessments upon intake are clearly feasible. Even in the absence of such standards, prison administrators, working in collaboration with mental health policymakers and practitioners, can (at relatively low cost) calibrate such screening instruments to their populations and begin collecting valid and reliable prevalence estimates.

Incarceration creates or exacerbates chronic incapacitation among the exposed and their families and communities well beyond the effects of mental illness.[92] Incarcerated individuals are at increased risk for HIV/AIDS and other sexually transmitted infections, hepatitis, tuberculosis, sexual violence, drug use, and suicide.[92] Incarcerated populations are now aging populations, with sentences increasingly exceeding life expectancies.[92] Material and psychosocial consequences are also grim, as many formerly incarcerated individuals are denied public housing, employment in numerous fields, income support, education subsidies, supplemental nutrition assistance, and participation in civic institutions such as jury duty and political franchise.[92] These concerns have public health ramifications in their

own right, but have additional implications for individuals with mental illnesses, who already face numerous barriers to community integration.[8,93] The United States incarcerates a higher rate and number of individuals than any other country.[87] As such, no discussion of community mental health in the United States is complete without consideration of prison prevalence and the policies that produce it.

Supplementary Material

Refer to Web version on PubMed Central for supplementary material.

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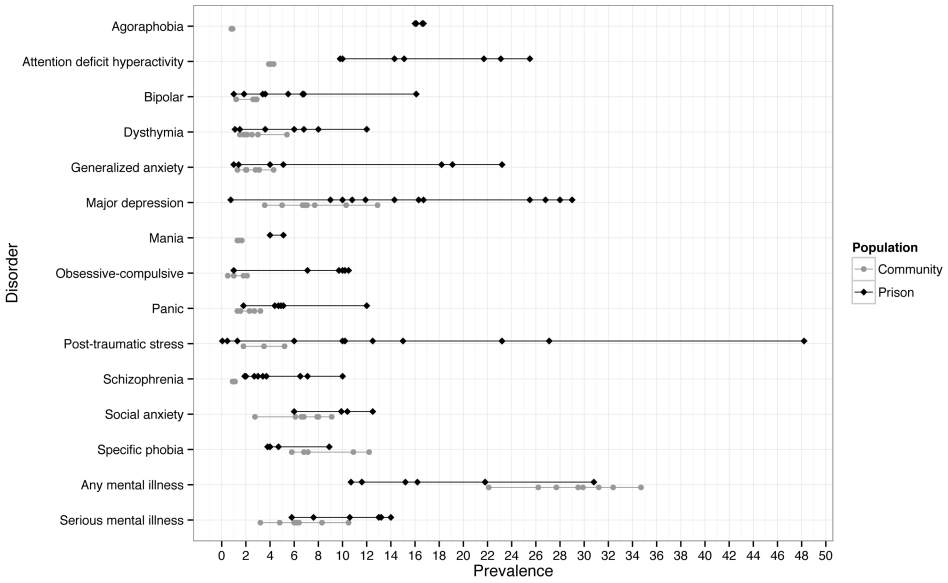

Figure 1.

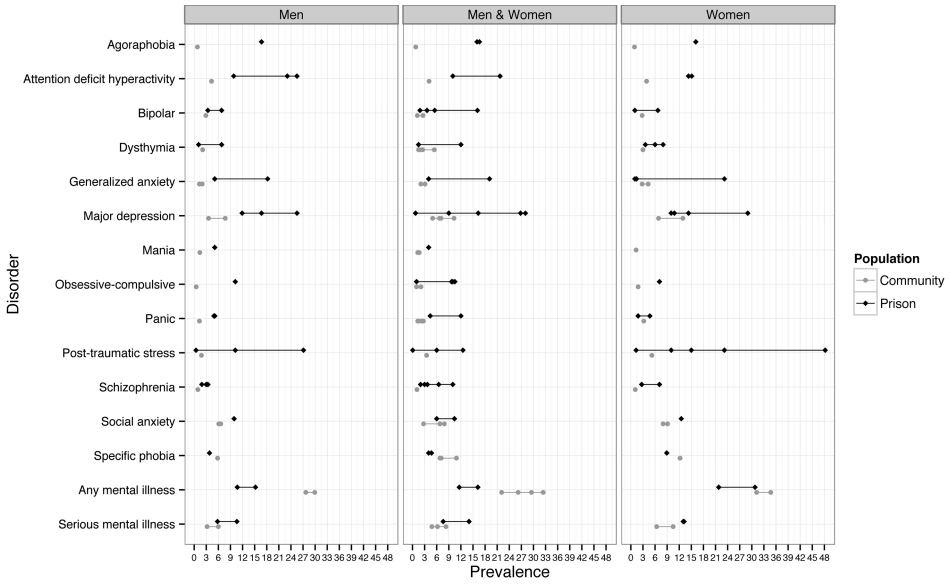

Figure 2.

Table 1

Prevalence estimates of psychiatric disability/mental health problems and key study characteristics from 5 reviewed studies

Ref	State	Facility type	Prison sample	Study N (% of facility N)	Ascertainment	Current/Lifetime	Psychiatric disability/mental health problem
Dvoskin, 1989 [25]	NY	State prisons	General	3684 (9.4)	Survey of correctional health and mental health staff	Current	Significant psychiatric disability: 10 Severe psychiatric disability: 5
Haugebrook, 2010 [26]	NJ	State prisons	Adults aged 55 and above	114 (12[a])	Case records	NR	Mental health issue: 36
Staton, 2003 [27]	KY	Correctional Institute for Women	Women	60 (NR)	ASI	Lifetime	Major depression: 61.7 Ever prescribed psychotropic medication: 40 Generalized anxiety: 53.3
Tripodi, 2013 [28]	NC	Two state prisons	Women	125 (8.3)	ASI	Lifetime	Lifetime hospitalized for mental health problems: 27.6

[a]Percentage of population aged 55 and above

ASI: Addiction Severity Index. NR: Not reported.

Table 2

Prevalence estimates of psychiatric disorder diagnoses and key study characteristics from 19 reviewed studies.

Ref	State	Facility type	Prison sample	Study N (% of facility N)	Ascertainment	Nosology	Current/Lifetime	Disorder
Baillargeon, 2000 [29]	TX	State prisons	General	170,215 (100)	Physician or mid-level practitioner examination	ICD-10	Current	Affective disorders: 3.9 Mental disorders: 10.8 Schizophrenia: 2
Birecree, 1994 [30]	OR	State prisons	Women	91 (50)	MMPI, Clinical interview	DSM-III-R	Current	Adjustment disorders: 22 Dysthymia: 6 Generalized anxiety: 1 Major depression: 29 PTSD: 10
Black, 2004 [31]	IA	Medical and Classification Center	General	67 (NR)	MINI-Plus	DSM-IV	Current	ADHD: 10 Agoraphobia: 16 Dysthymia: 12 Generalized anxiety: 4 Hypomania: 3 Major depression: 28 Mania: 4 Panic: 12 Psychotic: 10 PTSD: 6 Schizophrenia: 3 Social phobia: 6 Specific phobia: 4
Blitz, 2005 [32]†	NJ	State prisons	General	17,967 (100)	Corrections records	NR	Current	Bipolar: 3.6 PTSD: .52
Cahill, 2012 [33]	CO	State prisons	General	3962 (NA)	Coolidge Correctional Inventory	DSM-IV-TR	Current	ADHD: 10.5
Collins, 1990 [35]*	NC	State prisons	Male felons	1140 (NR)	DIS plus additional PTSD measures	DSM-III	Lifetime	PTSD: 2.3
Collins, 1990 [36]*	NC	State prisons	Male felons	1140 (NR)	DIS	DSM-III	Lifetime	Generalized anxiety:3.4 Major depression: 3
Daniel, 2005 [37]	MO	State prisons	Suicide attempters	112 (NA)	Corrections records	DSM-IV	Current	Bipolar: 16.1 Major depression: 26.8
DiCataldo, 1995 [38]	MA	Maximum security prison	General	514 (89.3)	Modified RDS	DSM-III	Current	Bipolar: 5.5 Major depression: 9 Schizophrenia: 6.5
Eyestone, 1994 [39]	UT	State Prison	Men	102 (NR)	BDI, HRS, four measures for childhood ADHD	DSM-III-R	Current	ADHD: 25.5 Major depression: 25.5
Gunter, 2008 [40]	IA	Medical and Classification Center	General	320 (NR)	MINI-Plus	DSM-IV	Current	ADHD: 21.7 Agoraphobia: 16.6 Bipolar: 22.5

Ref	State	Facility type	Prison sample	Study N (% of facility N)	Ascertainment	Nosology	Current/Lifetime	Disorder
								Dysthymia: 1.5 Generalized anxiety: 19.1 Major depression: 16.3 OCD: 9.7 Panic: 4.4 PTSD: 12.5 Schizophrenia: 3.7 Social phobia: 10.4 Specific phobia: 4.7
Hutton, 2001 [41]	MD	Correctional Institution for Women	Women	177 (22)	SCID	DSM-IV	Current	Dysthymia: 8 Major depression: 10 PTSD: 15
Jordan, 1996 [42]	NC	Correctional Center for Women	Female felons	805 (100)	CIDI, clinical re-interview	DSM-III-R	Current	Generalized anxiety: 1.4 Major depression: 10.8 Panic: 4.7
Lewis, 2005 [43]	CT	York Correctional Institute	HIV-positive women	81 (73.3[a])	SCID	DSM-IV	Lifetime	Bipolar: 3.7 Generalized anxiety: 1.2 Major depression: 48.1 OCD: 3.7 Panic: 6.2 Schizoaffective: 1.2 Schizophrenia: 1.2
Powell, 1997 [44]	NE	State prisons	Men	118 (13)	DIS	DSM-III-R	Current	Bipolar: 6.8 Dysthymia: 6.8 Generalized anxiety: 5.1 Major depression: 11.9 Mania: 5.1 Panic: 5.1 PTSD: 27.1 Schizoaffective: 9.3 Schizophrenia: 3.4
Wolff, 2005 [46][†]	NJ	State prisons	Men	16,700 (100)	Corrections records	NR	Current	Schizophrenia or other psychotic: 4.3
Zlotnick, 1997 [47]	RI	Correctional Institution for Women	Women	85 (NR)	SCID, Clinician-Administered Assessment Interview for Adults	DSM-IV	Current	PTSD: 48.2

[a] Percentage of HIV-positive women

[*] Same sample, different articles

[†] Same sample, different articles

Abbreviations: ADHD: Attention Deficit Hyperactive Disorder. ASI: Addiction Severity Index. BDI: Beck Depression Inventory. CES-D: Center for Epidemiologic Studies Depression Scale. CIDI: Composite International Diagnostic Interview. DIS: Diagnostic Interview Schedule. DSM: Diagnostic and Statistical Manual of Mental Disorders. HRS: Hamilton Psychiatric Rating Scale. ICD-10: International Classification of Disease. MCMI-III: Millon Clinical Multiaxial Inventory-III. MINI-Plus: Mini Neuropsychiatric Interview-Plus. MMPI: Minnesota Multiphasic Personality Inventory. NR: Not reported. NA: Not applicable. OCD: Obsessive compulsive disorder. PTSD: Posttraumatic Stress Disorder. RDS: Referral Decision Scale. SCID: Structured Clinical Interview for DSM Disorders. STAI-S: Speilberger State Anxiety Inventory.

Table 3

Prevalence estimates of psychiatric disorder groupings and key study characteristics from 5 reviewed studies.

Ref	State	Facility type	Prison sample	Study N (% of facility N)	Ascertainment	Nosology	Disorder grouping
Blitz, 2005 [32]†	NJ	State prisons	General	17,967 (100)	Corrections records	NR	Schizophrenia, psychotic disorder, delusional disorder, and dementia: 4.5 Major depression, major mood disorder, depression, and dysthymia: 6.3 OCD, anxiety disorder, panic disorder, phobia, and adjustment disorders: 2.6
Caverley, 2006 [34]	UT	State prison	General	5700 (100)	Psychiatric records, Symptom Checklist-90	NR	Schizophrenia, other psychoses, depressive disorders, and bipolar spectrum disorders: 15.5
Daniel, 2005 [37]	MO	State prisons	Suicide attempters	112 (NA)	Corrections records	DSM-IV	At least one disorder: 78.6 Multiple diagnoses: 43.8
Way, 2008 [45]	NY	State prisons	General	2918 (NR)	Medical records and clinician diagnosis	NA	“Serious Mental Illnesses”: 6
Wolff, 2005 [46]†	NJ	State prisons	Men	16,700 (100)	Corrections records	NR	Major depression, major mood disorder, bipolar disorder: 6.7 Depression, dysthymia, obsessive compulsive disorder, PTSD: 2.7 Panic disorder, anxiety disorder, somatoform disorders, impulse control disorders, or ADD/ADHD: 2.1 “Serious Mental Illnesses”: 10.9

† Same sample, different articles

All diagnoses are current, except for Caverley 2006 [34], which was not reported.

Abbreviations: DSM: Diagnostic and Statistical Manual of Mental Disorders. NR: Not reported. NA: Not applicable. OCD: Obsessive compulsive disorder. PTSD: Posttraumatic Stress Disorder.

Table 4

Prevalence estimates of psychiatric symptoms and key study characteristics from 5 reviewed studies.

Ref	State	Facility type	Prison sample	Study N (% of facility N)	Ascertainment	Nosology	Symptoms
Boothby,1999 [48]	NC	State prisons	General	1494 (NR)	BDI	DSM-IV	Moderate depression: 22 Severe depression: 5
Conklin, 2000 [49]	MA	Hampden County Correctional Center	Men	1082 (90)	Comprehensive health interview	NA	Moderate depression: 20
			Women	116 (10)			Moderate depression: 53
Fogel, 1992 [50]	NC	Correctional Center for Women	Women	46 (NR)	STAI-S, CES-D/	NA/DSM-IV	Clinically relevant anxiety: 57 Clinically relevant depression: 67
O'Keefe, 2008 [51]	CO	State prisons	General	8513 (48.7)	MCMI-III	DSM-IV	Major depression: 5 Generalized anxiety: 35 PTSD: 8 Dysthymia: 17 Bipolar: 4 Somatoform disorder: 2 Thought disorder: 3 Delusional disorder: 4
Rowell, 2011 [52]	NR	Maximum security male prison	Black men	134 (NR)	BDI	DSM-IV	Moderate depression: 29 Moderate to sever depression: 11 Severe depression: 2

All symptoms are current, except for Conklin, 2000 [49], which is not reported. Abbreviations: BDI: Beck Depression Inventory. CES-D: Center for Epidemiologic Studies Depression Scale. DSM: Diagnostic and Statistical Manual of Mental Disorders. MCMI-III: Millon Clinical Multiaxial Inventory-III.. NR: Not reported. NA: Not applicable. PTSD: Posttraumatic Stress Disorder. STAI-S: Speilberger State Anxiety Inventory