Assessing Insanity Acquittee Recidivism in Connecticut

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For over 30 years now the movement and status of insanity acquittees in Connecticut has been supervised by the Psychiatric Security Review Board (PSRB). During this time, 365 acquittees have been committed to the jurisdiction of the PSRB, 177 individuals have achieved conditional release (CR) and 215 acquittees have been discharged from PSRB jurisdiction. This article examines revocation of CR by the PSRB, arrests of acquittees on CR, and provides the first report of arrests following discharge from the PSRB's jurisdiction. The literature on relevant aspects of recidivism is reviewed and compared with findings in Connecticut. There is little available literature about recidivism of insanity acquittees following release from supervision. In the present sample of individuals discharged from the PSRB, 16% were rearrested, a rate that compares favorably with other discharged populations of offenders. For discharged acquittees, community supervision on CR prior to discharge from the PSRB had a statistically significant effect on decreasing the risk of subsequent rearrest, as did both the length of stay in the hospital and the duration of commitment to the PSRB. This article presents descriptive information about revocations, arrests on CR, and arrests following discharge. These data are consistent with criminal justice studies demonstrating the value of community supervision in lowering recidivism. Copyright © 2016 John Wiley & Sons, Ltd.

In 1978, Oregon revised its mechanisms for treating and monitoring insanity acquittees, and out of these revisions was born the country's first Psychiatric Security Review Board (PSRB). As Rogers and Bloom (1985) described, "The PSRB has received national attention as a potentially viable solution to the dilemma of how to preserve the medical, moral, and legal values of the insanity defense, while simultaneously honoring the growing contemporary consensus that security measures should be substantially improved for insanity acquittees" (p. 71). In 1982, the PSRB model was supported by the American Psychiatric Association (APA) in their *Statement on the Insanity Defense* (American Psychiatric Association, 1982).

The institution of Connecticut's PSRB followed two significant legal cases in which individuals were found not guilty by reason of mental disease or defect (hereafter

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abbreviated NGRI, for not guilty by reason of insanity). The first was the 1981 attempted assassination of President Ronald Reagan by John Hinckley Jr., in which Hinckley was ultimately found NGRI. The second was a Connecticut case in which a former police officer was found NGRI in 1978 after shooting and killing his first wife outside of her workplace. The acquittee was hospitalized for 3 months and then released into the community after being deemed no longer dangerous to himself or others by hospital clinicians. He subsequently remarried, but in 1983 was again charged with murder after the deceased body of his second wife was found in their home only days after she had filed for divorce (Associated Press, 1983).

Following these verdicts and the subsequent increase in national and local attention to insanity acquittees and their post-verdict management, in 1983 the General Assembly of Connecticut directed the Law Revision Commission to study the post-verdict dispositions of the insanity defense in Connecticut. The Commission found that Connecticut lacked a centralized system of monitoring and decisionmaking post-verdict and that much of the burden of determining when to release acquittees from the hospital fell on an overburdened Superior Court system. Further, the Commission determined that individual judges lacked sufficient staffing or guidelines to adequately monitor or evaluate an acquittee's progress in treatment, manage ongoing mental health issues, or evaluate proposed programs for confinement and treatment of acquittees conditionally released from the hospital. The Commission concluded that post-verdict procedures in the state were inadequate to provide for the proper review, regulation, and supervision of insanity acquittees, allowing for acquittees to be improperly released or inadequately treated in the hospital and/or community. To address these concerns, the Commission recommended the establishment of a PSRB to serve as a centralized authority overseeing the management and supervision of acquittees throughout the state (Connecticut Law Revision Commission, 1985).

As a result of this recommendation and following Oregon's lead, in 1985 Connecticut established its own PSRB. The Connecticut PSRB is a state agency to which the Superior Court commits persons who are found NGRI with a primary mission of public safety (Psychiatric Security Review Board, n.d.). The PSRB is charged with reviewing the status of acquittees committed to its jurisdiction through an administrative hearing process and orders the level of supervision and treatment for the acquittee necessary to protect the public. Connecticut's PSRB is composed of six members appointed by the Governor and confirmed by either house of the General Assembly. The board members are designated to represent professional expertise in the fields of law, probation/parole services, psychology, psychiatry, victim services, and the interest of the general community. At the time of commitment by the Superior Court, the PSRB takes jurisdiction over the acquittee and makes subsequent determinations as to the hospital setting (i.e., maximum vs. enhanced security) in which an acquittee is to be confined and when and under what circumstances an acquittee can be released into the community.

The PSRB carries out this responsibility by the review of reports submitted every 6 months on the acquittee and by conducting adversarial hearings at least every 2 years or at such time that the provider of treatment or the acquittee applies to the PSRB for a change in supervision status. The general findings and orders that the PSRB issues are: confinement in a maximum security facility, confinement in an enhanced security facility, confinement in a hospital for the mentally ill, placement with the Commissioner of Developmental Services, approval of temporary leave (TL), approval of conditional release (CR) with specific conditions, modification or termination of CR, and recommendations to the court for discharge or continued commitment to the PSRB.

When TL is granted, the acquittee is allowed access off hospital grounds into the community without staff escort for a defined period of time, ranging from a few hours to 7 nights a week. While on TL, the hospital maintains responsibility for all of the acquittee's psychiatric and medical care. Even when the acquittee has been granted TL for 7 nights weekly, the acquittee is still expected to return to the hospital once per week for a psychiatric evaluation. CR is granted once the PSRB has determined that an acquittee can be safely treated and supervised in the community. Mandated conditions are individualized to the acquittee and can include residential programming, therapeutic and psychiatric services, supervision by the Office of Adult Probation, and restrictions on association and movement. For example, acquittees are most often forbidden from associating with known criminals, possessing weapons, or visiting businesses whose primary purpose is the sale of alcohol. While on CR, all psychiatric and medical care for an acquittee is transferred to community providers.

NGRI REHOSPITALIZATION AND RECIDIVISM LITERATURE

The arrest rates for those engaged in psychiatric treatment have long been of interest to the psychiatric and criminal justice communities. In 1979, Rabkin reviewed the literature on arrest rates following discharge from a psychiatric hospital for those with and without a prior history of arrests (Rabkin, 1979), finding that those with such a history had significantly higher rates of post-discharge arrest (19–56% vs. 2–4%). Harris and Koepsell completed two studies comparing the rates of criminal recidivism of incarcerated individuals who suffered from a mental illness at the time of their arrest with those who did not, but in both instances they were unable to find a statistically significant difference between these groups (Harris & Koepsell, 1996, 1998). Rice and Harris (1992) specifically examined recidivism following release from prison in schizophrenic versus non-schizophrenic offenders, finding a statistically significant difference with higher rates of recidivism for non-schizophrenic offenders (53% vs. 35%) and a trend toward higher rates of rearrests for violent crimes in the non-schizophrenic offenders.

Comparing Insanity Acquittees with Other Groups

In studies comparing rates of recidivism of acquittees with those of other offender populations, there have been mixed results, although factors predictive of recidivism have been identified, and generally longer periods of follow-up with larger samples have demonstrated lower relative rates of recidivism amongst acquittees.

The first comparison is to rates of rearrest and recidivism for mentally ill and nonmentally ill offenders in Connecticut. In the State of Connecticut's 2011 Annual Recidivism Report, the Office of Policy and Management reported a 2-year rearrest rate for all sentenced offenders released in 2008 of 56% and a recidivism (defined as re-conviction) rate of 39% (Annual Recidivism Report, 2011). In examining mentally ill offenders, in particular, a study by Kesten, Leavitt-Smith, Rau, Shelton, Zhang, Wagner & Trestman (2012) evaluated rearrest and recidivism rates for mentally ill offenders who participated in a specialized re-entry program [Connecticut Offender Reentry Program (CORP)] focused on building life skills and providing community supports compared with mentally ill offenders who received standard treatment and release planning services from the Department of Mental Health and Addiction Services (DMHAS) (Kesten *et al.*, 2012). The study found 6-month rearrest rates of 14.1% for CORP participants as compared with 28.3% for the DMHAS group, and identified younger age and co-occurring substance use as predictive of reincarceration.

Others have focused specifically on those found NGRI and compared rates of recidivism in insanity acquittees with those of criminal offenders with or without a history of mental illness (see Table 1). One of the earliest studies in this area was the comparison by Morrow and Peterson (1966) of reconviction rates of insanity acquittees with criminal sexual psychopaths (CSPs) over a 5-year period following discharge from Missouri's maximum security hospital. They found that the 37% reconviction rate of NGRI acquittees was greater than the 25% rate for CSP patients, but was almost identical to the 35% rate of a contemporaneous sample of federal prisoners. Two subsequent studies did not find significant differences in post-institutional arrest rates of insanity acquittees compared with a matched group of non-mentally ill felons (Pantle, Pasewark, & Steadman, 1980; Pasewark, Pantle, & Steadman, 1982). However, two later studies did find significantly lower rearrest rates among acquittees when compared with mentally ill offenders, non-mentally ill offenders, and a group of prisoners matched by offense type (Rice, Harris, Lang, & Bell, 1990; Silver, Cohen, & Spodak, 1989). Rice et al. explained that the differences in recidivism rates observed in their study were probably due to the lower prevalence of personality disorders and substance use in acquittees and their higher level of supervision following discharge (Rice et al., 1990). In examining the disparate findings of these two pairs of studies, it appears that larger studies with longer follow-up periods were better equipped to identify differences in recidivism rates amongst these groups.

Study	Comparison group	Sample size	Duration of follow-up	NGRI rate	Comparison group rate(s)
Morrow and Peterson (1966)* ^a	CSP	n = 44 NGRI n = 43 CSP	5 years	37%	25%
Pantle et al. (1980)	NMIO	n = 46 NGRI n = 46 NMIO	6 years	24%	27%
Pasewark <i>et al.</i> (1982)	NMIO	n = 50 NGRI n = 50 NMIO	2 years	15%	18%
Silver et al. (1989)*	MIO and NMIO	n = 127 NGRI n = 135 MIO n = 127 NMIO	5 years	54%	MIO – 73% NMIO – 65%
Rice, Harris, Lang, and Bell (1990)* ^b	MGP	n = 238 NGRI n = 238 MGP	7 years	41%	54%

Table 1. Studies comparing rates of recidivism of insanity acquittees with those of other criminal offenders

NGRI, not guilty by reason of insanity; CSP, criminal sexual psychopaths; NMIO, non-mentally ill offenders; MIO, mentally ill offenders; MGP, matched group of prisoners.

*Statistically significant difference in rate between NGRI and comparison group(s)

^aExamined rates of reconviction as marker of recidivism, as opposed to all other studies which utilized rearrest as marker of recidivism.

^bOnly assessed male acquittees/prisoners.

Outcomes in Community-based Forensic Treatment

With the greater emphasis on community-based treatment in the United States in recent decades, several studies have examined rates of recidivism and rehospitalization among insanity acquittees following hospital discharge, with most studies generally supporting the notion that more intensive community supervision contributes to lower rates of recidivism with only a modest increase in rehospitalization (see Table 2).

In earlier studies of CR programs utilizing less rigorous community supervision, rates of rearrest were high, ranging from 29% to 58% (Bogenberger, Pasewark, Gudeman, & Bieber, 1987; Pasewark, Bieber, Bosten, Kiser, & Steadman, 1982; Spodak, Silver, & Wright, 1984). A follow-up study reanalyzing the work of Pasewark, Bieber *et al.* (1982) identified several factors that increased the risk of post-NGRI offenses 5–10

Study	State or country	Sample size	Duration of follow-up	Supervision status in community	Outcomes
Pasewark, Bieber et al. (1982)	NY	<i>n</i> = 133	5 years	CR/Released ^a	31% rehospitalized 29% rearrested
Spodak <i>et al.</i> (1984)	MD	<i>n</i> = 86	15 years	CR	58% rearrested 29% convicted
Bogenberger <i>et al.</i> (1987)	HI	<i>n</i> = 107	8 years	CR/Released ^b	13% incarcerated 40% rearrested
Parker (2004)	OH	<i>n</i> = 83	5 years	FACT	47% rehospitalized 5% rearrested
Simpson, Jones, Evans, and McKenna (2006)	NZ	<i>n</i> = 105	7.5 years	FCT	<1% rearrested
Skipworth, Brinded, Chaplow, and Frampton (2006)	NZ	<i>n</i> = 135	28 years	FCT	15% reconvicted (2 years post-discharge) 40% reconvicted (10 years post-discharge)
Vitacco, Van Rybroek, Erickson, Rogstad, Trip, Harris and Miller (2008)	WI	<i>n</i> = 363	5 years	CR	34% CR revocation (7% due to rearrest)
Ong, Carroll, Reid, and Deacon (2009)	AU	n = 25	3 years	FCT	48% rehospitalized 4% rearrested
Smith, Jennings, and Cimino (2010)	AK	<i>n</i> = 91	8 years	FACT	29% rehospitalized ^c 5% rearrested
Manguno-Mire, Coffman, DeLand, Thompson,	LA	<i>n</i> = 193	10 years	CR	30% CR revocation (3% due to rearrest)
and Myers (2014) Marshall, Vitacco, Read, and Harway (2014)	MD	<i>n</i> = 356	6 years	CR	55% rehospitalized 14% rearrested

Table 2. Studies comparing rates of conditional release (CR) revocation, rehospitalization, and recidivism

AU, Australia; NZ, New Zealand; FCT, forensic community treatment; FACT, forensic assertive community treatment.

^aSubjects had either been discharged from the hospital or were on an extended CR status; however, for those discharged no details were provided about their level of supervision or treatment while in the community. ^b60% of subjects were hospitalized following not guilty by reason of insanity (NGRI) acquittal and later placed on CR following hospital discharge; 33% were never hospitalized but were immediately placed on CR following NGRI acquittal; and 7% were unconditionally released following NGRI acquittal without court-ordered treatment.

^cRehospitalization included admission to a residential or inpatient setting

years following hospital discharge, including a greater number of pre-NGRI arrests, more serious pre-NGRI crimes, psychosis, homicide as the NGRI offense, and escape during their NGRI hospitalization (Bieber, Pasewark, Bosten, & Steadman, 1988).

In the 1990s, the focus on community-based forensic treatment and CR programs for insanity acquittees intensified, with studies examining these programs beginning to demonstrate reduced rates of recidivism. Kravitz and Kelly (1999) described in detail a community-based forensic treatment program at the Isaac Ray Center in Chicago for those NGRI acquittees on CR, demonstrating recidivism rates for their program of 19% and rehospitalization rates of 47% for the 43 subjects engaged in treatment during the year 1996 (follow-up period not specified), a noted difference from the studies described earlier. Callahan and Silver (1998a) studied CR revocation rates and reasons for CR revocation among four states' programs (CT, MD, NY, and OH). There were 43 individuals studied in CT from 1985 to 1987; 34.9% of them had their CR revoked after a median length of time in the community of 3 years. The authors did not specifically address rates of rearrest (Callahan & Silver, 1998a). Heilbrun and Griffin (1993) reviewed the available literature on community-based forensic treatment programs in a number of states and reported rearrest and rehospitalization rates for five states (IL, OR, MD, CA, NY), finding that rearrest rates during CR ranged from 2% to 16%. During longer-term follow-up after CR termination (7–15 years), rearrest rates ranged from 42% to 56%, and estimates of rehospitalization rates ranged from 11% to 40%. Lower rearrest and higher rehospitalization rates were found in Oregon with its PSRB mechanisms after 4-7 years of follow-up (Heilbrun & Griffin, 1993). Wiederanders, Bromley, and Choate (1997) compared CR outcomes in three states (NY, OR, CA), finding the highest rearrest rate in New York (22% over 7 years), followed by Oregon (15% over 8 years) and then California (8% over 7 years).

Since the turn of the century, ongoing efforts have been focused on devising creative and sophisticated community-based forensic treatment to increase successful outcomes for insanity acquittees on CR or following discharge. Several studies have continued to build an evidence base demonstrating that such programs, including forensic assertive community treatment (FACT), can contribute to reduced recidivism amongst this population with only moderate reciprocal increases in rates of rehospitalization (Manguno-Mire *et al.*, 2014; Marshall *et al.*, 2014; Parker, 2004; Smith *et al.*, 2010; Vitacco *et al.*, 2008) (see Table 2). Miraglia and Hall (2011) provided further support for community-based treatment models by demonstrating that length of hospitalization had little effect on rearrest rates and that rearrest following hospital discharge was mostly explained by demographic and criminogenic factors.

The topic of community-based forensic treatment for mentally ill offenders has also been of great international interest (see Table 2). The studies by Ong *et al.* (2009) and Simpson *et al.* (2006) demonstrate rates of recidivism comparable to or even less than the more recent American studies. Skipworth *et al.* (2006) found significantly higher rates of recidivism, but this may be related to the longer duration of follow-up (which is often linked to higher recidivism rates) and the study follow-up beginning in 1976, prior to the advent of more intensive community supervision. A recent Canadian study by Crocker, Nicholls, Charette, and Seto (2014) evaluated the influence of static and dynamic risk factors on review board discharge decisions, finding that review boards were taking into account empirically validated risk factors represented on the Historical Clinical Risk Management-20 (HCR-20) in making their determinations. Several recent studies have examined factors that are related to success or failure on CR or discharge. Manguno-Mire *et al.* (2014) reported that in Louisiana a higher risk of CR revocation was associated with more severe mental illness, a greater number of prior arrests, and a greater number of incidents while in the aftercare program. Success was related to being on Social Security Disability Insurance, not having a personality disorder diagnosis, and fewer incidents while on CR. Factors repeatedly found to be predictive of CR or discharge revocation include greater number of prior arrests, degree of violence of prior arrests, and treatment non-adherence during initial hospitalization or while in community treatment programs (Callahan & Silver, 1998b; Lund, Hofvander, Forsman, Anckarsater, & Nilsson, 2013; Manguno-Mire, Thompson, Bertman-Pate, Burnett, & Thompson, 2007; Manguno-Mire *et al.*, 2014; Monson, Gunnin, Fogel, & Kyle, 2001; Vitacco, Vanter, Erickson, & Ragatz, 2014; Webster, Douglas, Eaves, & Hart, 1997).

Literature on Insanity Acquittees in Connecticut

Others have previously investigated insanity acquittees in Connecticut, although much of this work occurred prior to the inception of the PSRB. This work revealed relatively high rates of recidivism, as is consistent with prior research in other states predating the advent of more intensive community supervision programs. Phillips and Pasewark (1980) examined the length of institutionalization and rates of recidivism and rehospitalization for a group of 25 acquittees in CT who were found NGRI from 1970 to 1972 in comparison to a matched group of felons 7 years following discharge. Of the acquittees, 61% were rearrested and 44% were rehospitalized. Zonana, Wells, Getz, and Buchanan (1990) compiled a comprehensive database of all those found NGRI from 1970 to 1985 (just prior to the inception of the PSRB). Over that time, they identified 313 NGRI cases, and described their demographics, diagnoses, and criminal histories. In this cohort, there was a male to female ratio of 10:1 and far more Whites than minorities (68% White vs. 25% Black and 6% Hispanic). Regarding psychiatric diagnoses, 63% had a psychotic illness, 18% had a personality disorder and 7% a substance use disorder. Twenty-five percent of the group were acquitted of homicide and 55% were acquitted of other crimes against persons (e.g., assault, sexual assault, or robbery). In a second study, Zonana, Bartel, Wells, Buchanan, and Getz (1990) found that factors that predicted rearrest included number of prior arrests, being a racial minority, having a non-psychotic diagnosis, and a non-married status. This earlier work is somewhat limited by its lack of comparison to other relevant populations.

Scott, Zonana, and Getz (1990) wrote one of the first articles describing Connecticut's PSRB. In it they outlined some of the differences between the Oregon and Connecticut boards, the challenges in establishing Connecticut's board, and the changes in the treatment of acquittees following the institution of the PSRB in Connecticut. They also provided data on CR revocation rates. From 1985 to 1989, 13 of the 45 acquittees (29%) placed on CR had it revoked and were returned to the hospital – six due to a deteriorating psychiatric condition, three for failing substance abuse screening, two for medication non-compliance, and two for arrest on drug-related charges. The present study expands on this initial work by examining recidivism outcomes for those discharged from the PSRB over the 30 years since its inception.

Literature Regarding the Oregon PSRB

Given the analogous administrative systems for oversight of insanity acquittees in Connecticut and Oregon, the acquittees under the oversight of Oregon's PSRB are the closet comparison group to the Connecticut sample. Rogers, Bloom, and Manson (1984) reviewed outcomes from the first 5 years of Oregon's PSRB from 1978 to 1982 and found that, of the 295 acquittees granted CR during that period, 13% were charged with new crimes while on CR (7% for misdemeanors and 6% for felonies) and 5% were re-convicted. Bloom, Williams, Rogers, & Barbur (1986) found that for those granted CR under the Oregon PSRB from 1980 to 1983 who were engaged in a community hospital day treatment program, 51% had their CR revoked with a rearrest rate of 12% over a 3-year period; those individuals whose CR was revoked were less engaged in treatment, had a greater number of crises, and were more likely to live in shelters. In another study, Bloom, Rogers, Manson, & Williams (1986) examined the lifetime number of police contacts for those acquittees discharged from the PSRB from 1978 to 1980. The duration of follow-up was 2-4 years postdischarge (the analysis was completed in February 1982), revealing that 41% were rearrested during that time frame following discharge, 71% for misdemeanors and 29% for felonies (20% of which were for "violent crimes" of assault, sexual assault, and arson). Younger age and number of arrests prior to PSRB engagement were associated with post-discharge rearrest. The number of police contacts declined during and after PSRB supervision, from seven police contacts/person before PSRB placement to 0.6/person while under PSRB supervision, and then to 1.4 contacts per person following discharge.

A recent review by Bloom and Buckley (2013) described the 34-year history of Oregon's PSRB from 1978 to 2012. Although revocation and recidivism rates for those on CR or following discharge were not presented for the entire 34-year history, they did describe more recent data from the final decade of the reporting period (2002–2011), demonstrating an annual CR revocation rate ranging from 7% (in 2011) to 26% (in 2004), and that over that 10-year period 2.6% of all CR revocations were as a result of new felony charges. They attributed these low felony recidivism rates to effective CR plans, intensive community monitoring and prompt reporting of deviations from treatment plans to the PSRB. Data on misdemeanor recidivism were not provided, as only new felony charges were tabulated so as to remain consistent with the definition of recidivism provided by the Oregon Department of Corrections for the purpose of performance measure comparisons. The most recent available data indicate that from 2011 to 2015, those on CR had a lower cumulative annual recidivism rate of 0.64% (Oregon Psychiatric Security Review Board, n.d.).

Limitations of Prior Research

Despite an ample body of prior research assessing outcomes for NGRI acquittees, this literature has some limitations. Some early studies comparing rates of recidivism of acquittees with those of other offenders appeared to have an inadequate duration of follow-up to identify statistically significant differences (e.g. Pantle *et al.*, 1980; Pasewark, Pantle *et al.*, 1982), which were later identified by studies with longer follow-up periods. Studies also have not used a uniform definition for the term "recidivism," with some utilizing this term to refer to rates of rearrest, and others to refer to

reconviction. Further, studies did not always identify the specific nature of the recidivism beyond whether the charges were for a felony or misdemeanor, with no indication as to whether the charges were for violent crimes, which would presumably be of greater concern for public safety. Finally, the level and degree of community supervision for acquittees were not always clearly explicated, making it more challenging to contextualize the outcomes of interest.

Past recidivism studies of acquittees monitored by a PSRB are few in number. Three reports of recidivism among Oregon acquittees studied periods of 4, 5 and 10 years: Bloom, Williams *et al.*, 1986; Rogers *et al.*, 1984; and Bloom & Buckley, 2013, respectively. Previous Connecticut reports are more limited, with one study of 25 acquittees in a 2-year period before the creation of the PSRB (Phillips & Pasewark, 1980), and another study of 45 acquittees over the first 5 years of the PSRB (Scott *et al.*, 1990).

THE PRESENT STUDY

This study takes advantage of 30 years of experience with the CT PSRB, with all 177 acquittees who achieved some period of CR and all 196 acquittees discharged to community living from the supervision of the PSRB. The study was designed to examine specific types of recidivism for the relevant acquittee subgroups within the Connecticut population, and for the longest duration of community exposure possible for acquittees over the 30-year existence of the PSRB. The study examines recidivism of insanity acquittees for both revocation of CR and for rearrest, and provides data about the arrest charges. This is done for periods of community exposure during both CR and following final discharge from the PSRB and its monitoring procedures. Rates of arrest after discharge from the CT PSRB have not been previously reported or studied. Given the significant commitment of resources in the state devoted to the PSRB's supervision, monitoring, and community support of acquittees, these results have important policy and public safety implications.

The hypotheses for the study were based in part on findings known previously about this population (low rate of rearrest during CR, but higher rate of revocation of CR), and anecdotal experience. Three specific hypotheses were proposed: CR data would show continued low rates of rearrest and higher rates of revocation and rehospitalization; acquittees who experienced periods of CR would be more successful in avoiding arrest after discharge from the PSRB; and rates of arrest after discharge from the PSRB would be modestly higher than during CR but still represent a significant level of success for those individuals.

METHODS

The Connecticut PSRB has maintained a database of acquittees under its jurisdiction, which includes revocations of CR. It also notes criminal recidivism in its annual reports. Earlier this year, the PSRB and DMHAS did a search of individuals discharged from the PSRB in the Connecticut Criminal Justice Information System to see whether or not they have been subsequently rearrested. Thus, information was available to allow examination of three aspects of recidivism related to CR among the population of

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insanity acquittees in Connecticut: revocations of CR (i.e., enforced return to the hospital) and the reasons for the revocations; criminal arrests and convictions of acquittees while under CR; and subsequent arrests of the 215 acquittees who had been released from the PSRB.

The study population consisted of a total of 215 acquittees who have been discharged from the jurisdiction of the PSRB. For this group, the mean length of stay in the hospital was 9.8 years (range < 1–39). The mean duration of the acquittees' PSRB commitment was 12.9 years (range < 1–39). Mean age at time of discharge from the hospital for this group was 43.6 years (range 19–80), and the mean age at time of discharge from the PSRB was 46.7 years (range 23–83). Of the group, 178 were male, and 37 were female. The racial breakdown was as follows: 150 White, 47 Black, 13 Hispanic, and 4 other.

This work was determined by the Institutional Review Boards of Yale University and DMHAS not to require review as it represents an evaluation of a unique program which is not generalizable.

RESULTS

Over the 30-year period from July 1, 1985 to June 30, 2015, 177 insanity acquittees attained CR at some point and 215 acquittees were released from the jurisdiction of the PSRB. These two groups overlap substantially, but are not co-extensive. For example, of the 177 acquittees who achieved CR, 147 have been released from the PSRB itself. During this time period, a total of 365 individuals have been under the jurisdiction of the PSRB.

Revocation of CR

The PSRB has the authority to have an individual returned from CR to the hospital for examination at any time if the acquittee has violated terms of the CR plan, had a change

	Hearing results				
Reason for revocation	Termination of CR	Modification of CR	No change		
Psychiatric decompensation	14	4	3		
Supervision non-compliance	8	5	0		
Treatment non-compliance	7	2	0		
Alcohol use	6	0	1		
Drugs	6	0	0		
Medication non-compliance	2	0	0		
Loss of program	2	0	0		
Arrest	1	0	2		
Away without leave (AWOL)	1	0	1		
Inadequate supervision and treatment	1	0	0		
Inappropriate phone calls	1	0	0		
Inappropriate sexual behavior	1	0	0		
Needs higher level of service	1	0	0		
Sexual assault	1	0	0		
Physical aggression	1	0	0		
Law violation	0	0	1		
Totals	53	11	8		

Table 3. Revocation of conditional release (CR)

in mental condition, or absconded from the Board's jurisdiction, or if the community resources required by the CR plan become unavailable. The hospital then conducts an evaluation for the Board hearing on the revocation order.

Of the 177 individuals who have achieved CR, 55 of them have had their CR revoked at some point, representing a total of 73 revocations. There were 42 acquittees whose CR was revoked once, 10 whose CR was revoked twice, one whose CR was revoked three times and two whose CR was revoked four times. Table 3 lists the results of the hearings on revocation and the reasons for the revocation. Terminations of CR are most often based on psychiatric decompensation, substance use or non-compliance with treatment or supervision. One CR was terminated by the death of an acquittee who was on away without leave (AWOL) status. Fifty-three of the 73 revocations (73%) resulted in termination of CR, with 11 resulting in modification of CR (15%), and eight cases (11%) in which the acquittee was returned to the original CR plan after the hospital evaluation.

Arrests on CR

Over a 30-year period, with 177 acquittees on some period of CR, there were a total of only 4 arrests (2.3%). One of these arrests did not lead to revocation of CR, as it was a breach of peace that the prosecutor did not pursue. The charges in two of the arrests were dismissed. The other two arrests resulted in misdemeanor convictions, one in FY 1986-87 and one in FY 1990-91. There were a total of ten motor vehicle violations.

Timing of Discharges

There was no temporal pattern to the year of discharge. The mean number of discharges per year for the years 1986–2014 (for which there were full-year data) was 7.3 (range 2–14) (see Figure 1).

The group of acquittees who were discharged from the PSRB included a large percentage of individuals who had been acquitted of serious offenses, with the vast majority (88%) charged with felonies. The largest numbers of offenses were Class B

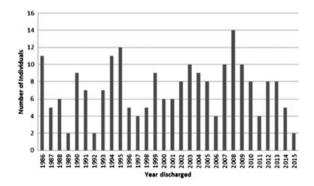


Figure 1. Individuals discharged from the Psychiatric Security Review Board by year.

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Penal code classification	Frequency	Percentage	Cumulative percentage
A Felony	58	27	27
B Felony	94	43.7	70.7
C Felony	15	7	77.7
D Felony	23	10.7	88.4
A Misdemeanor	15	7	95.3
B Misdemeanor	7	3.3	98.6
C Misdemeanor	3	1.4	100
Total	215	100	100

 Table 4. Penal code classifications of not guilty by reason of insanity (NGRI) offenses for individuals discharged from the Psychiatric Security Review Board

Table 5. Most frequent acquittal charges for individuals discharged from the Psychiatric Security Review Board

Charge	Penal code classification	Frequency	Percentage	Cumulative percentage
Assault 1	B Felony	40	19	19
Murder	A Felony	39	18	37
Arson 1	A Felony	16	7	44
Manslaughter 1	B Felony	15	7	51
Robbery 1	B Felony	12	6	57
Assault 2	D Felony	12	6	63
Sexual Assault 1	B Felony	7	3	66
Arson 2	B Felony	6	3	69
Manslaughter 1 with Firearm	B Felony	5	2	71
Reckless Endangerment	A Felony	5	2	73

felonies (43.7%), followed by Class A felonies (27%). The insanity defense is not commonly pursued for misdemeanor or lower level felony charges, given the strictures of and lengthy commitments to the PSRB. The 25 misdemeanor cases in the sample of discharged acquittees were all acquitted between 1979 and 2002, with 20 of those cases being acquitted between 1983 and 1992, probably reflecting a growing awareness among defense counsel of the liabilities to the defendant of such commitment in comparison to a maximum 1 year jail sentence (see Table 4).

The 10 most frequently encountered charges in this population are shown in Table 5. The common Class A felonies were Murder and Arson 1. Assault 1 was the most common charge, followed very closely by Murder. The common Class B felonies were Assault 1, Manslaughter (with and without firearm), Robbery, Sexual Assault 1 and Arson 2. In all but one of the 215 cases, the original charge was the same as the acquittal charge; in one case the acquittee was originally charged with murder, but was found NGRI of the charge of manslaughter first degree.

Reasons for Discharge from PSRB

It is also worth noting the reasons for discharge from the PSRB for this group of acquittees. In Connecticut, PSRB commitment terms may be extended repeatedly by motion of the state and an order of the court, based on the condition of the acquittee

Reason	Frequency	Percentage	Cumulative percentage
End of commitment	112	52.1	52.1
Discharge application approved	64	29.8	81.9
Death in hospital	19	8.8	90.7
Death after hospital discharge	16	7.4	98.1
Commitment overturned	4	1.9	100
Total	215	100	100

Table 6. Reasons for discharge from the Psychiatric Security Review Board

at the time. If the state does not move for re-commitment, then the acquittee is discharged from the PSRB at the expiration of the original commitment order. The most common reason for discharge is expiration of the term of commitment, with more than half of the cases ending this way. Acquittees may also apply for discharge from the PSRB and the court may grant such an application; this accounted for 30% of the discharges in the sample. Among the 215 discharges were 35 deaths, accounting for 16% of the total. In a small number of cases, the insanity acquittal was overturned following a motion by the defendant (see Table 6).

Of the 215 discharges, 135 individuals were discharged while on CR status. Nineteen died in the hospital and were thus not on any release status. Twenty-two individuals were on TL status when they were discharged from the PSRB, and 39 individuals were not on CR or TL status when discharged. The typical pattern is for an acquittee to achieve TL status, then CR from the hospital, and finally discharge from the PSRB. However, there are times when discharges occur for legal reasons, irrespective of the acquittee's status.

Arrests after PSRB Discharge

After removing the 19 acquittees who died in the hospital, there were 196 acquittees who were in the community subsequent to their discharge from the Board, and thus

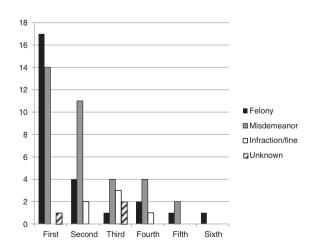


Figure 2. Arrests and rearrests of individuals post-discharge from the Psychiatric Security Review Board.

had the potential for rearrest. The mean duration of exposure to the community for this sample was approximately 12.5 years (range 0–28). (There have been 13 known deaths, with unknown dates of death, among the group following PSRB discharge. This calculation takes account of an estimate of one-half the average community exposure for 18 individuals, recognizing the possibility of an additional number of unknown deaths.) Thirty-two (16.3%) of this subgroup of 196 were arrested. About half of that group (17) were arrested a second time. There were 10 individuals arrested three times, seven arrested four times, three arrested five times and one arrested six times (see Figure 2).

Of the 17 first arrest felonies, 11 were Class D felonies, three were Class C felonies (Risk of Injury to Child in two cases; Assault 3 and Burglary 2 in the third) and three were Class B felonies (Larceny in one case, and Assault on Public Safety Worker in two cases). Thirteen of the 32 total first arrests (40%) were for individuals released during the first 5 years of the Board's operation from 1986 to 1990. The mean time from PSRB discharge to first arrest was 5.8 years (range 0-29).

Felonies in the second arrest group consisted of three Class D felonies and one Class C felony. The one felony in the third arrest was a Class D felony. In the fourth arrest, there was one Class D and one Class B felony. The single felonies in the fifth and sixth arrests were Class D felonies. Felonies accounted for 37% of all rearrests, misdemeanors accounted for 50%, infractions for 8.6%, and 4.3% were unknown.

Table 7 illustrates the numbers rearrested among the group with the most frequent acquittal charges, revealing a small numbers of rearrests. For example, of the 39 individuals acquitted of murder, only two (5%) were rearrested (for Assault 3 and Assault on a Public Safety Worker) after discharge from the Board. Of the 40 individuals acquitted of Assault 1, only two (5%) were rearrested (for Assault 2 and Possession of Controlled Substance). Of 16 acquitted of Arson 1, two (12.5%) were arrested (for Burglary 2 and Stalking/Harassment). Of the 15 acquitted of Manslaughter 1, only one was rearrested (for Larceny). The original charges that most often resulted in rearrest after discharge were Robbery 1 (33%) and Assault 2 (25%). The mix of felony and misdemeanor cases changed from the acquittal charge to the rearrest charge; felonies accounted for 88% of the original charges, but only 53% of the first rearrests and 37% of the total rearrests.

The number of individuals who were and were not arrested in terms of whether they had been on CR at the time of discharge is important to an analysis of the conceptual

Original charge	Acquittal charge frequency	Number rearrested (%)
Assault 1	40	2 (5)
Murder	39	2 (5.1)
Arson 1	16	2 (12.5)
Manslaughter 1	15	1 (6.7)
Robbery 1	12	4 (33.3)
Assault 2	12	3 (25)
Sexual Assault 1	7	0 (0)
Arson 2	6	0 (0)
Manslaughter 1 with Firearm	5	0 (0)
Reckless Endangerment	5	0 (0)

Table 7. Most frequent original charges and rearrests

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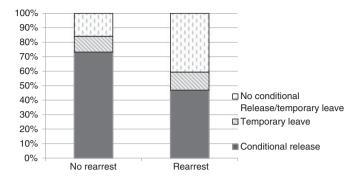


Figure 3. Status at time of Psychiatric Security Review Board discharge.

 Table 8. Arrest after discharge from the Psychiatric Security Review Board and conditional release (CR) at time of discharge

Arrest status	Number on CR at discharge (%)	Percentage of subgroup on CR at discharge	Number not on CR at discharge (%)
Arrested $(n = 32)$	15 (11.1)	46.9	17 (27.9)
Not arrested $(n = 164)$	120 (88.9)	73.1	44 (72.1)
Total (<i>n</i> = 196)	135 (100)	68.9	61 (100)

 $\chi^2 = 8.637; p = 0.003.$

Table 9. Primary diagnosis of 32 individuals arrested post-discharge from the Psychiatric Security Review Board

Diagnosis	Frequency	Percentage
Schizophrenia	7	22
Schizoaffective disorder	7	22
Bipolar disorder	6	19
Personality disorder ^a	4	13
Antisocial personality disorder	2	6
Conduct disorder	1	3
Delusional disorder	1	3
Depression	1	3
Impulse control	1	3
Pathological gambling	1	3
Psychotic disorder	1	3
TOTAL	32	100

^aOther than antisocial personality disorder.

model for the PSRB of the risk-mitigating effect of a period of CR supervision in the community. Figure 3 displays the acquittees' statuses at the time of discharge from the PSRB for those who were arrested and those who were not arrested. The difference between these groups is the percentage that were on CR. (The 19 acquittees who died in hospital, and had no exposure to the community, are not included in Figure 3 or Table 8.)

Table 8 displays the arrest/non-arrest status of the discharged acquittees compared with their status at the time of discharge. Of the acquittees who were on CR at the time of discharge (total = 135), 15 (11%) were arrested. Of the acquittees who were not on CR at the time of discharge (total = 61 on either TL only or no CR/no TL), 17

(27.9%) were arrested. This is a statistically significant difference (p = 0.003). The subgroup who were not arrested had a much higher percentage of acquittees on CR at discharge than the subgroup who were arrested (73.1 vs. 46.9).

Table 9 illustrates the primary diagnoses of the 32 individuals arrested following discharge from the PSRB. This was a group composed largely of individuals with serious mental illnesses (~72%). A small minority (6%) had a primary diagnosis of antisocial personality disorder, with another 13% having other personality disorders. [These are the diagnoses given after long periods of observation in the hospital, and do not necessarily match the diagnoses proffered at the individuals' trials. In Connecticut, the insanity defense standard is that the defendant "lacked substantial capacity, as a result of mental disease or defect, either to appreciate the wrongfulness of his conduct or to control his conduct within the requirements of the law." The statutory exclusions of "mental disease" for purposes of the insanity defense are voluntary intoxication and "an abnormality manifested only by repeated criminal or otherwise antisocial conduct or... pathological or compulsive gambling" (Connecticut General Statutes. 53a-13, n.d.).]

A majority of the individuals who were arrested had a co-occurring substance use disorder (69%) with a significant proportion of co-occurring personality disorder (34%). There were smaller numbers for co-occurring intellectual disability (16%) and sexual disorder (6%). The two individuals with co-occurring sexual disorders were not arrested for sexual assaults (Assault 3/Assault Public Safety Worker and Assault 3/ Larceny 2/Prostitution).

Length of stay in hospital and under the PSRB varied significantly between the group not arrested (n=164) and the group arrested (n=32) (see Table 10).

Race was not a statistically significant variable in determining whether a former acquittee was rearrested (p=0.1). Rearrest rates for African-Americans (8.9%) and Hispanics (8.3%) were smaller than for Caucasians (18.5%). Gender trended toward significance (p=0.06). Thirty out of 161 males (18.6%) and two out of 35 females (5.7%) were rearrested.

DISCUSSION

The PSRB is an Executive Branch agency charged with the centralized monitoring of insanity acquittees through its quasi-judicial procedures, backed by judicial authority. The PSRB holds hearings approximately every 2 weeks, and issues elaborate memoranda of decisions, granting or denying CR applications and detailing all aspects of approved CR plans for insanity acquittees. The level of scrutiny that is applied by the PSRB is preceded by layers of hierarchical decision-making at the hospital and community mental health center levels about risk management in individual cases. The results

	Arrested	Not arrested
In Hospital	5.8 years (range 0–19)	10.7 years (range 0–39)
Under PSRB	7.75 years (range 0–21)	13.9 years (range 0–39)

Table 10. Mean length of stay and arrest status

Mann–Whitney U = 1,589, Wilcoxon W = 2,117, p = 0.000. PSRB, Psychiatric Security Review Board.

of the examinations conducted here illustrate the several ways in which the PSRB system appears to be highly effective.

Two-thirds of acquittees discharged from the hospital on CR have been able to successfully maintain their release status. One-third of the acquittees (31.1%) had their CR revoked, some more than once, most often for clinical reasons. Psychiatric decompensation, substance use and failure to participate in treatment as required are considered serious risk factors for reoffense and result in rehospitalization in the vast majority of revocations. But rehospitalization is not an automatic response in that 15% of revocations result only in modification of the CR and 11% result in resumption of the release plan. This demonstrates the individualized nature of PSRB decisions and reflects the adversarial nature of the proceedings. This rate of revocation is significantly lower than in two reported studies (Kravitz & Kelly, 1999; Marshall *et al.*, 2014), comparable to those reported in several other studies (Manguno-Mire *et al.*, 2014; Pasewark, Bieber *et al.*, 1982; Vitacco *et al.*, 2008), and slightly higher than the 29% rate of revocation reported in CT in the first 5 years of the PSRB (Scott *et al.*, 1990).

These CR procedures are highly effective in that there have been no felony arrests and only four misdemeanor arrests among the 177 acquittees who have been on CR over a 30-year period, resulting in two misdemeanor convictions and two dismissed charges. This is equivalent to the lowest rates of recidivism on CR observed in the literature (2-3%) (Heilbrun & Griffin, 1993; Manguno-Mire *et al.*, 2014), and significantly lower than other reported rates, which ranged from 7% to 29% (Kravitz & Kelly, 1999; Pasewark, Bieber *et al.*, 1982; Rogers *et al.*, 1984; Vitacco *et al.*, 2008; Wiederanders *et al.*, 1997). The absence of felony arrests on CR is an important result in that it demonstrates that clinicians and monitoring officials were able to offer community release to acquittees without compromising public safety. Most likely this was due to heightened scrutiny of and alertness to individual risk factors, with revocation employed swiftly when necessary to halt errant clinical and risk trajectories. The data on CR confirm the first hypothesis: there is a low rate of rearrest on CR (2.3%), with a higher rate of revocation and rehospitalization (31.1%).

The vast majority of acquittees discharged from the PSRB's jurisdiction and scrutiny were also not rearrested in the community (83.7%), with 91% not rearrested for a felony charge, with a mean exposure time in the community of approximately 12 years. This represents a rearrest rate approximating the 15% arrest rate for acquittees in one study (Pasewark, Pantle *et al.*, 1982), but that study had only a 2-year follow-up period and arrest rates generally rise with longer follow-up. The low rearrest rate in the current PSRB sample signifies a higher rate of successful community adaptation than reported in several other studies of acquittees in various types of community exposure, where rearrest rates ranged from 24% to 54% with 2- to 15-year follow-up periods (Bloom, Rogers *et al.*, 1986; Morrow & Peterson, 1966; Pantle *et al.*, 1980; Rice *et al.*, 1990; Silver *et al.*, 1989; Spodak *et al.*, 1984).

The total felony/misdemeanor mix in this sample was somewhat higher than that reported by Bloom, Rogers *et al.* (1986) from those arrested after discharge from the Oregon PSRB: CT felony portion of all arrests = 37%; OR felony portion of arrests = 29%. Felonies accounted for 53% of first rearrests in the Connecticut sample.

These results also compare favorably with rearrest rates for: convicted offenders in Connecticut (16.3% for discharged acquittees over a 12-year approximate mean duration of community exposure vs. 56% for released offenders in a 2-year follow-up) (Annual Recidivism Report, 2011); mentally ill offenders released in Connecticut

(28.3% rearrest rate over 6 months) (Kesten *et al.*, 2012); mentally ill offenders released in a specialized re-entry program in Connecticut (14.1% rearrest rate over 6 months) (Kesten *et al.*, 2012); and mentally ill and non-mentally ill offenders in studies in other states with a range of 18–73% recidivism over 2- to 7-year follow-up periods (Pantle *et al.*, 1980; Pasewark, Pantle *et al.*, 1982; Rice *et al.*, 1990; Silver *et al.*, 1989).

The present results tend to confirm the third hypothesis that arrests after discharge from the PSRB (16.3%) would be modestly higher than arrests during CR (2.3%), but still represent a significant level of success in the community (83.7% not arrested). The latter point is clearly true. It is possible to argue that the increase in the rate of arrest is more than modest, even though the absolute arrest rate after discharge from the PSRB compares quite favorably with other populations of offenders.

In the sample of 215 discharged acquittees, being on CR at the time of discharge was a statistically significant factor in mitigating the risk of rearrest, confirming the second hypothesis that CR experience would be associated with greater community success after discharge from the PSRB. This finding is consistent with the substantial literature demonstrating the value of a period of community supervision and programming in reducing recidivism in criminal justice populations (Council of State Governments Justice Center, 2014). Age, gender, and race did not demonstrate statistically significant correlations with rearrest following PSRB discharge in this study population.

In contrast to results in New York (Miraglia & Hall, 2011), this study reveals a significant effect of length of stay in the hospital on rate of rearrest. There was a similar effect in the present study with duration of PSRB commitment. The group who were not arrested had mean lengths of stay in both conditions approximately 1.8 times longer than the group who were arrested. Clearly, more time available for treatment and supervision allows for enhanced stability prior to discharge. What has not yet been analyzed is why the 32 individuals who were arrested were discharged so much earlier than their more successful counterparts. It has thus not been determined whether the arrested group was potentially less stable at discharge but discharged nonetheless for some reason, or whether the group was discharged as recommended but with unappreciated significant risk factors or unforeseeable circumstances which resulted in eventual rearrest. Further analysis may help to determine the extent to which length of stay is a proxy for increased age at discharge; the latter would be expected to have some mitigating effect on rearrest rates independent of the length of time in hospital or under the PSRB.

The vast majority of the 32 former PSRB clients in the study who were rearrested were diagnosed with serious mental illnesses. They were not a group of people with antisocial personality, although a third of them had co-occurring personality disorders. The study methodology did not examine the presence of criminogenic factors in this population, however, which figured more prominently in the New York study (Miraglia & Hall, 2011). It is unclear, therefore, whether other interventions might have been employed to further decrease the rate of criminal rearrest following discharge. Also unknown from this study is the status of clinical engagement of this group at the time of rearrest, so the presence or effectiveness of clinical interventions cannot be described. The present database did not include diagnostic information for the 164 acquittees who were not arrested. In future efforts, it would be useful to investigate whether there were diagnostic differences between the arrested and not arrested subgroups.

In future studies, it will be helpful to conduct idiographic analyses of the 32 rearrested individuals for actuarial (as well as individual circumstantial) risk factors that were evident at the time of arrest. Such analysis could reveal common themes of missed opportunities for enhanced intervention that might have prevented the rearrest. It would also be helpful to reanalyze the results in discrete periods from 1991 to 2015, which could then be compared with the first 5 years of the PSRB to look for trends over time and what factors of acquittal, release or management may have influenced any detected differences. Similarly, further analysis should be conducted of this discharged population over specified time intervals following discharge; this would allow more direct comparisons with other studies that have utilized durations of 2, 5 and 7 years or longer to detail rearrest rates. Such an approach would also permit the calculation of annual conviction rates and survival curve analysis.

Available comparisons with the analysis conducted thus far reveals that the investments in time, energy and resources in the PSRB mechanism, including significant periods of hospitalization, result in effective management of the risks of recidivism, both during and subsequent to commitment to the PSRB. These results support the continuation of current policies and procedures in addressing public safety goals. How these policies and procedures affect the promotion of recovery principles in service to this population is another important topic for future study. For example, it would be useful to investigate whether earlier movement to CR and community reintegration would achieve the same positive results on rate of rearrest. In other words, if the use of CR could significantly mitigate the risk of rearrest even with shorter hospital length of stay, public safety would be unaffected while promoting greater hope, autonomy and citizenship for acquittees (Rowe & Baranoski, 2000; Rowe & Pelletier, 2012).

CONCLUSIONS

The hypotheses for the study were largely confirmed. This study reveals a very low rate of arrest during CR (equal to the lowest rate reported in the literature), with no felony arrests. This is achieved without excessive reliance on revocation of CR, as the revocation rates in this study are comparable to many other studies and lower than some. This first examination of outcomes after discharge from the Connecticut PSRB demonstrates that the vast majority of individuals are not rearrested (83.7%), with only 9% rearrested for felonies. This 16.3% total rearrest rate compares favorably to other studies of discharged acquittees and to other offender populations, especially given the shorter follow-up periods in nearly all the other studies. Acquittees who have experience on CR in the community show a statistically significant improvement in rearrest rate after PSRB discharge compared with those acquittees discharged with no CR experience. The present results do not reveal whether the positive effects of CR experience could be achieved with shorter length of stay in the hospital and/or shorter duration under the PSRB's jurisdiction.

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