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What Factors Are Related to Success on Conditional Release/Discharge? Findings from the New Orleans Forensic Aftercare Clinic: 2002–2013

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Abstract

The present study investigated the empirically based factors that predicted success on conditional release among a sample of individuals conditionally discharged in Louisiana. Not guilty by reason of insanity acquittees and individuals on conditional release/discharge for incompetency to stand trial were included in the study. Success on conditional release was defined as maintenance of conditional release during the study period. Recidivism (arrest on new charges) and incidents were empirically evaluated. Success on conditional release was maintained in over 70% of individuals. Recidivism was low, with only five arrests on new charges. Success on conditional release was predicted by financial resources, not having a personality disorder, and having fewer total incidents in the program. After controlling for the influence of other variables, having an incident on conditional release was predicted by a substance use diagnosis and being released from jail. Individuals conditionally released from jail showed fewer number of days to first incident (67 vs. 575 days) compared with individuals discharged from the hospital. These data provide support for the successful management of forensic patients in the community via conditional release, although they highlight specific factors that should be considered when developing community-based release programming. Conditional release programs should consider empirical factors in the development of risk assessment and risk management approaches to improve successful maintenance of community-based forensic treatment alternatives.

The conditional release of individuals detained in jails and forensic hospitals reflects a growing trend in state policies toward community-based forensic mental health programming (McDermott, Scott, Bosse, Andrade, Zozaya & Quanbeck, 2008; Vitacco, Vauter, Erickson, & Ragatz, 2013). When individuals are released from a secure forensic setting, it is important to demonstrate that treatment in the community is effective and that public safety is not compromised. In addition, factors that influence whether an individual is likely to be successful on conditional release are important to understand so that clinicians and legal decision-makers have an empirical basis to guide release evaluations and

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placement decisions. Conditional release into the community is predicated on individuals meeting specific conditions of the release agreement. If an individual violates the conditions of his or her release, the person is subject to revocation of release and return to incarceration or inpatient treatment.

Owing to the important public safety and policy implications involving the release of individuals into the community from secure forensic facilities, recent research has focused on the success of individuals placed on conditional release. The majority of the empirical research on conditional release programs has considered whether individuals on conditional release are able to be maintained in the community safely and successfully. Research demonstrates that conditional release programs are effective on key variables, such as reducing recidivism, minimizing arrests and revocations (Bloom, Williams, & Bigelow, 1991, 1992; Vitacco *et al.*, 2013; Wiederanders, 1992; Wilson, Tien, & Eaves, 1995). Early studies demonstrated the success of conditional release programs (i.e., arrest on new charges and revocation), although revocation rates among not guilty by reason of insanity (NGRI) acquittees across studies tended to hover between 35% and 49% (Callahan & Silver, 1998). More recent research has demonstrated improvement in revocation rates and the maintenance of individuals on conditional release in the community over longer durations, perhaps due to the evolution of conditional release programming and responsiveness to behavioral changes in individuals (Vitacco *et al.*, 2013).

Much of the extant research investigating conditional release focuses on identifying the factors associated with its successful maintenance; however, differences among programs, participants, and jurisdictions make comparisons difficult. The majority of studies focus on the conditional release of NGRI acquittees (Callahan & Silver, 1998; Monson, Gunnin, Fogel, & Kyle, 2001; Parker 2004; Vitacco *et al.*, 2008, 2011, 2013), although Bertman-Pate and colleagues (2004) and Wilson and colleagues (1995) evaluated conditional release in a mixed sample of mentally disordered offenders.

Wilson and colleagues (1995) reported a 35% revocation rate for male mentally disordered offenders released to an intensive assertive case management program. Individuals released from jail to an intensive forensic case management program spent fewer post-release days in jail and were maintained longer in the community than a comparison sample released from jail without follow-up.

Callahan and Silver (1998) examined conditional release across four states. The average revocation rate was 31%, indicating that most participants are successful on conditional release. Several variables were related to success on conditional release. Individuals with a substance abuse history were more likely to be revoked. Being White, employed, and married is associated with a lower likelihood of revocation. Race percentages were not listed. Callahan and Silver (1998) also found a trend for individuals with a history of prior hospitalizations to have greater rates of revocation.

Consistent with the results found by Callahan and Silver (1998), Monson, Gunnin, Fogel, & Kyle (2001) demonstrated that minority status, substance abuse diagnosis, and prior criminal

history predicted revocation in a random sample of 125 NGRI acquittees. Thirty-eight percent of the Monson and colleagues sample was African-American.

In a study similar to the one conducted by Wilson and colleagues (1995), examining treatment outcome, Parker (2004) evaluated conditional release success in an assertive community treatment (ACT)-based program over a five year period. Arrest or hospitalization (not revocation) was the primary outcome measure used to determine success on conditional release. Parker (2004) demonstrated that 83% of NGRI acquittees in an assertive case management program were maintained in the community during the five year study period. He reported a 1.4% arrest rate with only one arrest for violent behavior. The primary factor associated with failure on conditional release was a diagnosis of paranoid schizophrenia. Length of time in the community also significantly predicted maintenance on conditional release. Overall, Parker (2004) demonstrated a low arrest rate, moderate hospitalization rate, and high community tenure.

Bertman-Pate and colleagues (2004) reviewed the factors associated with successful conditional release in a sample of individuals at the New Orleans Forensic Aftercare Clinic (FAC). The original study examined the conditional release system as it operated in Louisiana from 1995 to 2002. In that study, no significant differences between individuals who were discharged on conditional release from long-term hospitalization and those diverted from jail were found. For both jail-diverted and hospital-discharged clients, success on conditional release was significantly related to fewer previous hospitalizations, fewer prior arrests and a lower number of in- program incidents. Individuals who had their conditional release revoked were more likely to have a diagnosis of schizophrenia and less likely to have a diagnosis of mental retardation. Sixty-five percent of the sample maintained their conditional release over the seven year follow-up period. A 10% rearrest rate was noted with only two arrests for violent charges. The sample in the Bertman-Pate *et al.* study was a largely minority cohort (81.5% African-American), in contrast to most other published reports.

Most recently, Vitacco and colleagues (2008, 2011, 2013) conducted a series of robust studies examining factors related to the maintenance of conditional release. Vitacco and colleagues (2008) demonstrated in a large sample ($n = 363$) of NGRI acquittees that 66% maintained conditional release for 3.7 years. A diagnosis of substance abuse, previous revocation of conditional release, and mental health symptoms requiring inpatient hospitalization were all positively related to revocation of conditional release. In the only study examining conditional release in female NGRI acquittees, Vitacco and colleagues (2011) demonstrated that 68.4% maintained conditional release for an average of 4 years. There were no revocations due to violent behavior. Emerging symptoms of mental illness requiring hospitalization were related to revocation. Vitacco and colleagues (2013) examined a racially diverse sample of 127 NGRI acquittees in Virginia who were on conditional release from 2007 to 2010. The sample was described as racially diverse and consisted of 38% African-Americans and 56% Caucasian Americans. Previous failure on conditional release, non-adherence to treatment, dangerousness, and prior violent charges predicted revocation. A multivariate survival analysis indicated that criminal behavior (i.e., number of previous charges, number of violent charges) and previous failure on conditional

release predicted time to revocation. The authors note that although they relied on a list of standard risk factors, they did not employ an empirically based measure of violence risk.

Research on conditional release has focused on the identification of individual factors associated with success on conditional release. Studies employing primarily demographic and standardized risk data demonstrate that individuals are able to be maintained safely in the community, although there exists a subset of individuals who do not respond favorably to community-based treatment programs (Bieber, Pasewark, Bosten, & Steadman, 1988). The conditional release of individuals is predicated on making informed decisions regarding which factors impact success on conditional release, such as the presence and severity of an individual's mental illness, criminogenic factors related to recidivism and potential dangerousness (McDermott *et al.*, 2008; McDermott & Thompson, 2006). Identifying factors related to conditional release revocation can inform conditional release programming and aid in the development of successful risk management and risk reduction strategies for individuals in community-based treatment.

CONDITIONAL RELEASE IN LOUISIANA

The conditional release of individuals is permissible under Louisiana law when an individual has been adjudicated NGRI or found incompetent to stand trial (IST). NGRI acquittees who may "be released without danger to others or to himself" are placed on conditional release/probation in order to receive continued treatment for a mental illness (*Foucha v. Louisiana*, 1992). Such individuals are subject to monitoring by the Louisiana Division of Probation and Parole and the Louisiana Department of Health and Hospitals (DHH). Individuals who are IST may be conditionally released in order to receive competency restoration services, mental health treatment and court-supervised monitoring (La C.Cr.P. Art. 648). Their placement on conditional release/discharge is subject to monitoring by both the court and the DHH.

When the original study by Bertman-Pate and colleagues (2004) was published, criminal defendants in Louisiana who were unrestorably incompetent and not in need of inpatient treatment could be released on probation under state supervision (La C.Cr.P. Art. 648 (B) (2)). However, in December 2004, the Louisiana Supreme Court ruled that it was no longer permissible to release an incompetent individual on supervised probation (*State v. Denson*, 888 So.2d 805, La. 2004). Shantell Denson, a client at the FAC, was remanded to the state forensic hospital for evaluation subsequent to an arrest on new criminal charges. Denson's probation was subsequently revoked. Denson filed suit against the State arguing that she was being held in violation of the Fourteenth Amendment. The court agreed and ruled that placing an incompetent defendant on probation was unconstitutional.

As a result of the Denson ruling, the practice of placing non-dangerous defendants incapable of standing trial in the foreseeable future on supervised probation was discontinued. Therefore, the conditional release on *probation* for individuals who lack the capacity to stand trial is no longer permissible. However, individuals who are unrestorably incompetent are likely to need treatment to be successful in the community. In accordance with mental health law in Louisiana, incompetent defendants continue to be conditionally released under

court supervision and mandated to attend outpatient treatment pursuant to Louisiana Revised Statutes 28 (La. R.S. 28:2) via judicial civil commitment. Judicial civil commitment allows for conditional discharge defined as “full or conditional release” as determined by the court. Individuals released to FAC may have their conditional release/discharge revoked for noncompliance or for violating the court-ordered conditions of commitment.

Given the potential implications of the Denson ruling on forensic practice in Louisiana, we sought to evaluate how these statutory changes might have impacted the characteristics of individuals enrolled in the forensic aftercare program. The primary aim of the current study was to identify the characteristics of clients served at FAC since the publication of the original study in 2004. An additional purpose was to examine the factors related to success on conditional release in light of the statutory changes in Louisiana regarding placement of unrestorable individuals on conditional release/discharge rather than supervised probation.

METHOD

This study is a retrospective chart review of consecutive clients admitted to the New Orleans FAC between October 1, 2002 and December 30, 2012. Study procedures were reviewed and approved by the Tulane University School of Medicine Institutional Review Board (IRB) and the Louisiana Department of Health and Hospitals IRB.

Participants

A total of 193 clients were admitted during the study period. No clients were excluded from the study. If a client was admitted during the study period and then readmitted at some later time, only the first period of admission data was included. Twenty clients remained actively enrolled in treatment at FAC at the conclusion of data collection. For clients who were actively enrolled, data were collected through December 17, 2013.

Site

The FAC in New Orleans, Louisiana, has been operating continuously since December 1995 and is administered by the Louisiana Office of Mental Health. The program was originally conceived as a pilot project recommended by a legislative task force after the United States Supreme Court ruled that aspects of Louisiana’s procedure for recommending ongoing hospitalization of insanity acquittees were unconstitutional (*Foucha v. Louisiana*, 1992). The clinic is part of the broader Community Forensic Services division of Louisiana’s Office of Mental Health. FAC is a community-based, comprehensive program that serves clients referred either from jail or the state forensic hospital, including sex offenders. FAC operates on an ACT model where clients have 24-hour access to care. It is the only free-standing outpatient forensic clinic in Louisiana. Clients are court-ordered to treatment, with a legal status of either NGRI ($n = 63$) or IST ($n = 128$). Clients who are IST are either adjudicated unrestorably incompetent ($n = 48$) or remain on pre-trial status ($n = 80$) until they are restored to competency or adjudicated unrestorably incompetent. Individuals who are IST are conditionally released/discharged to outpatient treatment at FAC since the Louisiana Supreme Court ruling in *Denson v. Louisiana* (2004). NGRI individuals are conditionally released to FAC on supervised probation.

Integrated evaluative, clinical, and rehabilitative services are provided and included, but are not limited to, psychiatric evaluation and treatment, substance abuse evaluation and treatment, psychological testing and evaluation, including risk assessment, nursing assessment and services, home visits and monitoring, competency assessment and restoration, and intensive case management. Individual and group treatment modalities are utilized. The clinical treatment team consists of a board-certified forensic psychiatrist who is the clinical director, a forensic psychiatry fellow, a licensed clinical psychologist, a psychology intern, a psychiatric nurse, a licensed social worker who specializes in the treatment of substance abuse, three district forensic coordinators, two competency restoration specialists, and a licensed clinical social worker who specializes in the treatment of sex offenders. The clinic maintains an average daily census of 55 clients.

Procedure

The second author (K.L.C.) reviewed the charts of all clients admitted to the clinic from October 2002 to December 2012. The entire client chart was reviewed for specified data elements, including standard demographic data, selected risk variables identified in the research literature, including data collected in prior research on conditional release outcome (Bertman-Pate *et al.*, 2004). Data were collected using a standardized coding sheet and entered into a secure database for analysis.

Data were collected from the psychiatric evaluation which is conducted by the treating psychiatrist at admission, the discharge summary, progress notes, treatment plan, psychosocial assessments, and relevant legal documentation, including a rap sheet/arrest report where available. Information contained in the psychiatric evaluation included legal status (NGRI, IST), referral setting (jail, hospital), index charge, and any history of previous psychiatric hospitalizations. The discharge summary contained information on the individual's diagnoses and incident information. The treatment plan and progress notes were used to further identify specific incidents, including the date of the incident and the specific type of incident. The definition of incidents as outlined by Bertman-Pate and colleagues (2004) was used. These included relapse to psychosis, substance abuse relapse, treatment non-adherence or going AWOL, rule or curfew violation, or arrest. The psychosocial assessment included several demographic variables, information on history of physical/sexual abuse, employment history, education history, and legal history. If a formal rap sheet or arrest report was included in the chart, this was used to determine the client's age of first offense and the number of previous charges. In cases where there was a discrepancy between the rap sheet and the psychosocial assessment, the earlier age of first offense and the higher number of previous offenses were recorded.

Risk Variables

Variables selected for inclusion were those that were originally collected in the Bertman-Pate and colleagues study by in order to provide data for direct comparisons between the two studies and a review of the cogent research literature. For convenience and ease of discussion, the variables were classified based on the type of variable under consideration (i.e., demographic, clinical/diagnostic, legal, and program), consistent with previous studies

of conditional release (Callahan & Silver, 1998; Monson *et al.*, 2001; Vitacco *et al.*, 2008, 2011, 2013).

Demographic variables included gender, race (White, African-American, Asian, Hispanic/Latino), marital status (single, married, divorced/widowed), age at admission, education (highest grade level completed), history of employment, Medicaid enrollment (whether or not the client was receiving Medicaid), Medicare enrollment (whether or not the client was receiving Medicare), and social security disability income (SSDI) enrollment (whether or not the client was receiving social security disability income) were collected.

Clinical/diagnostic variables were psychiatric diagnoses at admission [i.e., mental retardation, substance use (abuse or dependence), personality disorder, schizophrenia/psychotic disorder], history of physical or sexual abuse, and a history of prior psychiatric hospitalization. Specifically, information was included regarding the presence or absence of any psychotic disorder, mental retardation or borderline intellectual functioning, substance abuse/dependence, and/or a personality disorder. Diagnoses were recorded if there was chart documentation of a *Diagnostic and Statistical Manual of Mental Disorders (DSM)*-based diagnosis, including “rule out” and “not otherwise specified” diagnoses. Psychotic disorders included any documentation of schizophrenia, schizoaffective disorder, or psychosis not otherwise specified. Substance-induced psychotic disorders or psychosis secondary to a mood disorder were not classified as psychotic disorders. The presence of personality traits was not coded as a personality disorder.

Legal variables included whether the index charge was homicide, a violent crime, legal status (NGRI or IST), the referral source (jail or forensic hospital), age at first offense, and the number of previous arrests. Homicide was defined as either murder (first or second degree) or manslaughter. Consistent with Louisiana law (La. R.S. 14:2), a charge was classified as violent if the index charge was murder, manslaughter, attempted murder/manslaughter, assault and/or battery, rape, or any crime that was “aggravated,” indicating use of a weapon. NGRI acquittees have been adjudicated as NGRI and placed on conditional release/probation for a period of one to five years, although this may be extended indefinitely in one year increments after five years. IST individuals were those who were found IST and conditionally released/discharged to FAC. The IST group consisted of unrestorable individuals and those for whom a determination of restorability has yet to be made.

Program variables included whether or not an individual had an incident while on conditional release (incident status), the total number of incidents, length of stay, and the number of days to first incident.

The primary outcome variable was whether or not conditional release was revoked during the study period. Incident status was also evaluated in a secondary analysis.

Data Analysis Plan

Data analysis was approached in two ways. First, differences in variables as a function of success on conditional release were examined. Medians are reported for continuous

variables with large standard deviations. It should be noted that we selected variables based on recent research (Bertman-Pate *et al.*, 2004) and a review of the cogent literature on conditional release variables. Variables were classified according to type of variable (i.e., demographic, clinical, legal, and program) and the bivariate contributions of variables on revocation status were examined as in the original study. Secondly, logistic regression analyses were employed to examine what independent variables predicted success on conditional release. A forward stepwise regression approach predicting revocation was used to determine the best possible combination of predictor variables. Clinical, legal, and program variables from Tables 1 and 2 were included as possible predictors if the unadjusted p -value was <0.20 . Eligible effects were gender, conditional release status (NGRI vs. IST), prior hospitalizations, history of a violent charge, Medicare, SSDI, personality disorder, schizophrenia, age at first offense, and number of previous arrests. The identical analytic approach was utilized with incident status.

RESULTS

Of the sample of 193 individuals on conditional release during the study period, 135 (70%) maintained their conditional release. Fifty-eight (30%) individuals had their conditional release revoked due to an arrest on new charges or due to a conditional release rule violation. Almost all of the arrests leading to revocation ($n = 53$) were for breaking rules of the conditional release order (e.g., noncompliance, rule violation) rather than arrests on new charges ($n = 5$). Of the five arrests on new charges, three were for crimes of violence (i.e., domestic abuse battery, aggravated burglary, attempted murder). Individuals who were arrested had a significantly greater number of prior arrests (median arrests = 7) compared with those who were not arrested (median arrests = 3) [$\chi^2_{(1)} = 2.31, p = 0.01$].

As shown in Table 1, multiple demographic variables were measured to determine their relationship to conditional release revocation and as a point of comparison to the study by Bertman-Pate and colleagues. Pearson's chi-squared tests were used to examine differences in frequency variables (i.e., gender, race, marital status). The Kruskal–Wallis test was employed to investigate differences in continuous variables (i.e., age, years of education, number of previous arrests). For time to event data (i.e., number of days to incident), Kaplan–Meier estimates were utilized, which allow the inclusion of censored observations (i.e., the event didn't happen). The majority of demographic variables were unrelated to revocation. Employment history [$\chi^2_{(1)} = 0.11, p = 0.74$], having Medicaid [$\chi^2_{(1)} = 0.16, p = 0.69$], years of education [$\chi^2_{(1)} = 1.37, p = 0.24$], gender [$\chi^2_{(1)} = 1.90, p = 0.17$], race [$\chi^2_{(1)} = 0.16, p = 0.69$], age [$\chi^2_{(1)} = 0.10, p = 0.76$], or marital status [$\chi^2_{(2)} = 2.31, p = 0.32$] were not associated with revocation. Other than the finding that individuals who had Medicare [$\chi^2_{(1)} = 7.05, p = 0.01$] or SSDI [$\chi^2_{(1)} = 8.61, p = 0.01$] had lower rates of revocation, no relationship between the demographic variables and success on conditional release was found. The sample, as in Bertman-Pate and colleagues (2004), was largely a minority sample and is consistent with release data from the state forensic hospital (Manguno-Mire *et al.*, 2007).

The clinical, legal, and aftercare program variables are presented in Table 2. The only clinical variable related to revocation was diagnosis of a personality disorder. Individuals

who were coded as having a personality disorder were more likely to have their conditional release revoked [$\chi^2_{(1)} = 16.79, p < 0.01$]. Although very few individuals had a personality disorder ($n = 18$), individuals with personality disorders accounted for a majority of conditional release revocations (72.2%; $n = 13$). DSM diagnoses that were unrelated to conditional release outcome were as follows: schizophrenia [$\chi^2_{(1)} = 1.92, p = 0.17$], mental retardation [$\chi^2_{(1)} = 0.01, p = 0.91$], and substance abuse/dependence. Although many of the individuals on conditional release had a history of prior psychiatric hospitalization (65%; $n = 126$), prior hospitalization was not related to failure on conditional release.

Of the legal variables examined, several were significantly related to conditional release revocation. A younger age at first offense [$\chi^2_{(1)} = 6.49, p = 0.01$] and a higher number of previous arrests were significantly related to revocation [$\chi^2_{(1)} = 6.39, p = 0.01$]. There was a trend noted for NGRI commitment status to be significantly related to conditional release revocation [$\chi^2_{(1)} = 3.86, p = 0.05$]. Approximately 40% of NGRI acquittees placed on conditional release had their conditional release revoked, whereas only roughly 26% of mentally disordered individuals found IST were ultimately revoked.

All of the program variables examined were significantly related to conditional release revocation. One hundred and thirty (67%) individuals had at least one incident during the study period [$\chi^2_{(1)} = 40.18, p < 0.01$]. All 58 of the individuals who had their conditional release revoked had at least one incident while on conditional release. The median number of days to the first incident was 37.5 days for those who were revoked and 568 days for those who were not revoked [$\chi^2_{(1)} = 51.85, p < 0.01$]. Individuals who were revoked had an average of 3.9 incidents during conditional release, whereas individuals who were not revoked averaged 1.4 incidents [$\chi^2_{(1)} = 59.60, p < 0.01$]. Not surprisingly, individuals who had their conditional release revoked spent a median of 296 days in the program, whereas individuals who were not revoked remained in the program for a median of 441 days [$\chi^2_{(1)} = 5.99, p < 0.02$].

Logistic Regression Results

A logistic regression approach was employed to evaluate the ability of the independent variables to predict revocation outcome (Table 3). A stepwise regression approach determined the best possible combination of predictor variables based on an unadjusted association of $p < 0.20$ for all study variables. Predictors regressed onto conditional release outcome included demographic, clinical, legal, and program variables as listed in Tables 1 and 2. Gender, conditional release status, prior hospitalizations, history of a violent charge, Medicare, SSDI, personality disorder, schizophrenia, age at first offense, and number of previous arrests were entered into the regression equation. The outcome variable for this analysis was revocation of conditional release. The final model included two significant predictors: personality disorder diagnosis ($p = 0.0004$; OR = 7.5, 95% CI: 2.4–22.7) and SSDI ($p = 0.0086$, OR = 0.4, 95% CI: 0.2–0.7). The model did not fit particularly well (c-index = 0.67), as the c-index should be roughly 0.80 or above to indicate a good fit. Model 1 was rerun and included the same effects as possible predictors, but the number of incidents were added to determine whether this improved the model's fit. The number of program incidents were selected as an additional predictor. Owing to concerns about collinearity,

whether the subject had an incident, number of days to incident, or length of stay were not included as they were all highly correlated. The final model retained personality disorder diagnosis, SSDI, and number of program incidents. This combination of predictors yielded an improved model fit (c-index = 0.86).

The relationship between program incidents and revocation status was explored further. Although having an incident did not result in conditional release revocation in every case, it was highly predictive of conditional release failure. As in the preceding analysis, bivariate contributions to incident status were investigated first, followed by a logistic regression. The goal of the regression model was to identify specific variables related to whether an individual had an incident while on conditional release. The results are listed in Tables 4 and 5. Marital status, years of education, employment history, substance use diagnosis, personality disorder diagnosis, prior hospitalizations, age at first offense, history of a violent charge, number of previous arrests and referral setting were included in the initial model. The final regression model as demonstrated in Table 6 included two predictors: substance use diagnosis and referral setting (c-index = 0.65) (see table 6). Adding program duration/length of stay did not change the model. Other program variables were not included in this analysis due to multicollinearity.

DISCUSSION

The present study investigated factors associated with success on conditional release among individuals enrolled in a supervised forensic aftercare program from 2002 to 2013. The current study replicates and expands on the original program evaluation reported by Bertman-Pate and colleagues (2004), which considered all clients enrolled in the program from 1995 to early 2002. In the original study, Bertman-Pate and colleagues demonstrated that individuals conditionally released from a forensic hospital or directly from jail could be safely maintained in the community (i.e., 34% revocation rate; only 10 arrests on new charges). Clients released from jail to the community did not differ significantly from individuals discharged from the hospital on most risk variables. Additional support for these findings was found in the present study using a novel group of forensic clients.

In the present sample, 70% of individuals on conditional release were successfully maintained in the community over the decade-long follow-up period. Fifty-eight of 191 eligible individuals had their conditional release revoked, yielding a 30% rate of revocation. Recidivism, defined as arrest on new charges, was very low ($n = 5$). Three of the five arrests were for violent crimes. Individuals who were arrested while on conditional release were more likely to have been arrested previously. These data are consistent with the increasing volume of reports in the published literature indicating that conditional release programs are effective in maintaining individuals successfully in the community and lowering recidivism, thus providing alternatives to incarceration and long-term forensic hospitalization.

Failure on Conditional Release

Using bivariate analyses, Bertman-Pate and colleagues (2004) demonstrated that individuals who failed on conditional release were seriously mentally ill (i.e., diagnosed with schizophrenia and more likely to have a history of psychiatric hospitalization), had a greater

number of prior arrests, and had a greater number of incidents while in the program. Other studies have found similar results using multivariate outcomes with the metric of emerging mental health symptoms requiring hospitalization (Parker, 2004; Vitacco *et al.*, 2008, 2011), which could be considered a dynamic risk counterpart to the finding by Bertman-Pate *et al.* Previous criminal charges have also been shown to be related to revocation by Vitacco and colleagues (2013).

In the present study, several variables were related to success on conditional release. These were SSDI, having a personality disorder, and the number of incidents while on conditional release. Individuals who had social security disability income were less likely to be revoked, indicating that financial resources may serve as a protective factor for revocation, although it is unclear through what mechanism. Having a steady income may reduce financial stressors and allow individuals access to improved transportation and housing options, which may result in increased environmental stability.

Schizophrenic individuals were more likely to be released from the hospital than from jail settings. Additionally, individuals adjudicated NGRI were more likely to be schizophrenic. Although prior research has demonstrated a relationship between schizophrenia and revocation (Bertman-Pate *et al.*, 2004), this was not found in the present study. Individuals with schizophrenia did not have higher rates of revocation. This finding was also reported by Vitacco and colleagues (2008) in a large sample of NGRI acquittees in Wisconsin. This could potentially be due to improved treatment for individuals with schizophrenia since the publication of the original study noting higher revocation rates among those with schizophrenia. The responsiveness of psychosis to enhanced treatment, including medication management, social support and relapse prevention, may have accounted for the similar revocation rates for schizophrenic and non-schizophrenic individuals in the present sample.

Results demonstrated that having a personality disorder emerged as a significant predictor of conditional release revocation which was also reported in the Wisconsin study conducted by Vitacco and colleagues (2008). A landmark case (*Foucha v. Louisiana*, 1992) demonstrates that individuals who are maintained in inpatient settings must be considered both mentally ill and dangerous. A diagnosis of a personality disorder alone is not sufficient to bear the burden of the mentally ill prong of the statute for continued confinement. Perhaps conditional release pursuant to *Foucha* accounts for the finding that individuals with personality disorders are more likely to be revoked due to their behavioral instability and increased program incidents. Specific personality disorder diagnoses were not recorded in the present study. It is possible that a diagnosis of antisocial personality disorder in these individuals could be related to failure on conditional release as antisocial individuals are less likely to engage in and benefit from clinical treatment (Rice, Harris, & Cormier, 1992).

The number of incidents also emerged as a significant predictor of conditional release failure. This is consistent with the previous study (Bertman-Pate *et al.*, 2004) demonstrating that individuals who were revoked had a greater number of incidents while on conditional release. Recall that incident was defined as any chart documentation of a relapse to psychosis, substance abuse relapse, treatment non-adherence, going AWOL, a conditional release, rule or curfew violation, or arrest. The present study did not break down incident

type to determine whether the incidents related to revocation were related to variables found in the literature to predict revocation, such as psychiatric hospitalization (Vitacco *et al.*, 2008, 2011) or non-adherence to treatment (Vitacco *et al.*, 2013). However, by extrapolating from arrest data (one type of incident) that the majority of arrest incidents were for treatment noncompliance/non-adherence or rule violations and not new charges. Dismantling incident type and severity to determine whether there are specific types of incidents that lead to revocation could augment study findings and provide a contribution to the empirical literature but was outside the scope of the present study.

Incident Status

Due to the relationship of the number of incidents to success on conditional release, it was important to identify what factors predicted an incident in the program. By improving understanding of the factors that result in an incident, it may be possible to identify and detect proximal behaviors and prevent risk for “relapse” and subsequent revocation. Results indicate that it was not whether an individual had an incident while on conditional release that was predictive of revocation, but rather the total number of incidents. Revoked individuals had more than twice as many incidents as individuals who were not revoked.

Having a substance use disorder and being referred from jail predicted whether or not an individual had an incident on conditional release. Having a substance use disorder has been shown to place an individual at risk for conditional release failure (Callahan & Silver, 1998; Monson *et al.*, 2001; Vitacco *et al.*, 2008). Data indicate that substance abuse and co-occurring disorders are highly prevalent among mentally disordered offenders (Hoff *et al.*, 1999; SAMHSA, 2004). Inclusion of empirically validated substance abuse programming has been recommended by multiple authors (Blandford & Osher, 2012; Mire, Forsyth, & Hanser, 2007; Osher, 2013) and is a key component of effective forensic programming for justice-involved individuals (Marlowe, 2003; Rempel & Destefano, 2001). Individuals who have co-occurring disorders benefit from systematic treatment of their substance use disorder and demonstrate improved outcomes across settings (Osher, 2013). Targeting specific treatment needs is also a key principle of the risk–need–responsivity model (RNR; Bonta & Andrews, 2007) in which treatment services are matched to the individual’s risk of reoffending, criminogenic needs (including substance abuse), and responsivity to program settings and treatment modalities.

Data demonstrating that individuals released from the jail setting are more likely to have an incident point to need to incorporate systematic risk evaluation strategies in conditional release programming. Individuals released from jail also have a much shorter time period to first incident (67 vs. 575 days) and could benefit from more intensive services within this critical period. The shorter duration of time to first incident was also found among individuals who had their conditional release revoked, indicating that identifying risk strategies to prevent incidents in the initial 30- to 60-day commitment period may be essential. These data highlight the importance of evaluating and addressing both static (risk) and dynamic (need) variables in treatment planning and risk reduction strategies.

Trends in Legal Status/Conditional Release Services

Over the past decade, many more individuals have been conditionally released to the clinic for outpatient competency restoration services in lieu of jail-based or hospital-based restoration attempts. In fact, the clinic has expanded from zero competency restoration specialists in 2002 to two full-time competency restoration specialists and an additional district forensic coordinator. In the original study published in 2004, 69 NGRI acquittees and 50 unrestorably incompetent individuals were treated in the clinic. From 2002 to 2013, 63 NGRI acquittees, 48 unrestorably incompetent individuals, and 80 IST individuals were treated at FAC.

The present study demonstrates that despite the trend towards the conditional release of individuals due to IST, revocation rates and recidivism rates have remained stable. Current findings for success on conditional release are largely consistent with data reported in the literature for NGRI acquittees. Individuals on conditional release, whether due to insanity at the time of offense or to pretrial incompetence, can be successfully maintained on conditional release in a comprehensive aftercare program. Data demonstrate that financial resources, personality and substance use disorders, and number of incidents are related to conditional release revocation in a sample of NGRI and IST individuals.

STUDY LIMITATIONS AND FUTURE DIRECTIONS

The present study was limited by a reliance on retrospective data. Clinical diagnoses and other variables were based on chart review and therefore subject to reduced reliability and other sources of potential error, such as clinician and/or treatment bias. Risk variables were not standardized. The use of a prospective sample would be useful to improve validity. This could potentially include the identification of individual risk factors in the hospital prior to release to the community, thereby providing an independent evaluation of risk prior to release. The inclusion of standardized risk assessment measures, such as the Violence Risk Appraisal Guide (VRAG; Harris, Rice, & Quinsey, 1993), the Historical Clinical Risk Management-20, Version 3 (HCR-20 V3; Douglas, Hart, Webster, & Belfrage, 2013), or the Level of Service/Case Management Inventory (LS/CMI; Andrews, Bonta, & Wormith, 2008), could provide a systematic method for identifying empirically validated risk factors that could assist clinicians in decisions regarding release and could offer evidence for treatment responsiveness and violence risk in the community.

The sample was drawn from an urban, predominantly male African-American population, which should be taken into account when inferring results to other populations and drawing comparisons to extant research. There was no comparison group and, as such, data inferences are limited. Inclusion of a comparison group of similar individuals released into the community without follow-up would allow for more robust conclusions about treatment effectiveness. Future research should include a larger sample to allow for the stratification of subjects by specified variables, including treatment variables to determine what components of treatment may be effective in lowering recidivism and revocation. Collecting data on the effectiveness of specific interventions could augment our understanding of how specific personal variables interact with treatment variables. These data, combined with a systematic approach to risk assessment as described in the RNR model for offender rehabilitation or

similar empirically based model for risk assessment, would go a long way to addressing the existing gaps in the literature. Expanding this idea, systematic data collection on treatment outcome in outpatient competency restoration, such as the time to regain competency and what variables are associated with successful restoration to competency and maintenance of competency, would be a useful contribution to the scant literature on mandated outpatient competency restoration treatment programs.

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Table 1

Demographic variables and their relationship to conditional release status

Characteristic	Total (N = 193)	Revocation status		Statistic/significance
		No (N = 135)	Yes (N = 58)	
Gender				
Male	151	102	49	$\chi^2_{(1)} = 1.90$
Female	42	33	9	$p = .17$
Race				
Non-African-American	40	29	11	$\chi^2_{(1)} = .16$
African-American	153	106	47	$p = .69$
Marital status				
Single	152	105	47	
Married	15	13	2	$\chi^2_{(d)} = 2.31$
Divorced/widowed	26	17	9	$p = .32$
Age (years)				
M (SD)	37.6 (12.4)	37.8 (12.4)	37.0 (12.4)	$\chi^2_{(1)} = .10$
Median	38	38	37.5	$p = .76$
Education (years)				
M (SD)	10.3 (2.9)	10.4 (2.9)	10.2 (2.8)	$\chi^2_{(1)} = 1.37$
Median	10	10	10	$p = .24$
Employment history				
No	64	44	20	$\chi^2_{(1)} = .11$
Yes	128	91	37	$p = .74$
Medicaid				
No	122	87	35	$\chi^2_{(1)} = .16$
Yes	70	48	22	$p = .69$
Medicare				
No	148	97	51	$\chi^2_{(1)} = 7.05$
Yes	44	38	6	$p = .01$
SSDI				
No	73	42	31	$\chi^2_{(1)} = 8.61$
Yes	120	93	27	$p = .01$

Note: In some instances, total cells have fewer than 193 observations. In these cases, data were missing for the specified observation. Differences in frequency of categorical variables were assessed using Pearson's chi-squared test. Differences in continuous variables were assessed using the Kruskal-Wallis test.

Table 2

Clinical, legal, and program variables and their relationship to conditional release status

Characteristic	Total (N = 193)	No (N = 135)	Yes (N = 58)	Statistic/significance
<i>Clinical variables</i>				
Mental retardation				
No	111	78	33	$\chi_{(1)}^2 = 0.01$
Yes	82	57	25	$p = 0.91$
Substance use				
No	51	39	12	$\chi_{(1)}^2 = 1.40$
Yes	142	96	46	$p = .24$
Personality disorder				
No	175	130	45	$\chi_{(1)}^2 = 16.79$
Yes	18	5	13	$p < 0.01$
Schizophrenia				
No	82	53	29	$\chi_{(1)}^2 = 1.92$
Yes	111	82	29	$p = 0.17$
Abuse				
No	136	96	40	$\chi_{(1)}^2 = 0.02$
Yes	56	39	17	$p = 0.90$
Prior hospitalization				
No	67	51	16	$\chi_{(1)}^2 = 1.8$
Yes	126	84	42	$p = 0.17$
<i>Legal variables</i>				
Homicide charge				
No	178	125	53	$\chi_{(1)}^2 = 0.08$
Yes	15	10	5	$p = 0.77$
Violent charge				
No	120	79	41	$\chi_{(1)}^2 = 2.56$
Yes	73	56	17	$p = 0.11$
Conditional release status				
NGRI	63	38	25	$\chi_{(1)}^2 = 3.86$
Non-NGRI	128	95	33	$p = 0.0495$
Referral setting				
Jail	129	92	37	$\chi_{(1)}^2 = 0.35$
Hospital	64	43	21	$p = 0.56$
Age at first offense (years)				
M (SD)	22.8 (11.3)	23.9 (11.8)	20.1 (9.6)	$\chi_{(1)}^2 = 6.49$
Median	18	19	17	$p = 0.01$
No. of previous arrests				
M (SD)	9.0 (12.3)	8.1 (12.3)	11.0 (12.2)	$\chi_{(1)}^2 = 6.39$

Characteristic	Total (N = 193)	No (N = 135)	Yes (N = 58)	Statistic/significance
Median	4	3	8	$p = 0.01$
<i>Program variables</i>				
Had incident				
No	63	63	0	$\chi_{(1)}^2 = 40.18$
Yes	130	72	58	$p < 0.01$
No. of incidents				
M (SD)	2.2 (2.5)	1.4 (2.4)	3.9 (2.0)	$\chi_{(1)}^2 = 59.60$
Median	1	1	4	$p < 0.01$
Length of stay				
M days (SD)	546 (526)	608 (569)	407 (383)	$\chi_{(1)}^2 = 5.99$
Median	390	441	296	$p < 0.02$
No. of days to incident				
Median	161	568	37.5	$\chi_{(1)}^2 = 51.85$
(95% CI)	(77–361)	(242–1903)	(23–64)	$p < 0.01$

NGRI, not guilty by reason of insanity.

Note: In some instances, total cells have fewer than 193 observations. In these cases, data were missing for the specified observation. Differences in frequency of categorical variables were assessed using Pearson's chi-squared test. Differences in continuous variables were assessed using the Kruskal–Wallis test. Differences in time to event data (no. of days to incident) were assessed using the Kaplan–Meier test.

Table 3

Logistic regression predicting conditional release outcome using specific predictors

Predictor	<i>p</i>	Odds ratio estimates		
		Point estimate	95% Wald confidence limits	
SSDI	0.0034	0.3	0.14	0.68
Personality disorder	0.0020	7.2	2.1	25.1
Program incidents	< 0.0001	1.6	1.3	2.0

Table 4

Demographic variables and their relationship to incident status

Characteristic	Total (N = 193)	Incident status		Statistic/significance
		No (N = 63)	Yes (N = 130)	
Gender				
Male	151	50	101	$\chi^2_{(1)} = 0.07$
Female	42	13	29	$p = 0.79$
Race				
Non-African-American	40	10	30	$\chi^2_{(1)} = 1.34$
African-American	153	53	100	$p = 0.25$
Marital status				
Single	152	50	102	
Married	15	8	7	$\chi^2_{(2)} = 5.05$
Divorced/widowed	26	5	21	$p = 0.08$
Age (years)				
M (SD)	37.6 (12.4)	38.0 (11.8)	37.4 (12.7)	$\chi^2_{(1)} = 0.13$
Median	38	35	38.5	$p = 0.72$
Education (years)				
M (SD)	10.3 (2.9)	10.6 (3.0)	10.2 (2.8)	$\chi^2_{(1)} = 2.88$
Median	10	10	10	$p = 0.09$
Employment history				
No	64	16	48	$\chi^2_{(1)} = 2.66$
Yes	128	47	81	$p = 0.10$
Medicaid				
No	122	41	81	$\chi^2_{(1)} = 0.10$
Yes	70	22	48	$p = 0.76$
Medicare				
No	148	48	100	$\chi^2_{(1)} = 0.04$
Yes	44	15	29	$p = 0.84$
SSDI				
No	73	21	52	$\chi^2_{(1)} = 0.80$
Yes	120	42	78	$p = 0.37$

Note: In some instances, total cells have fewer than 193 observations. In these cases, data were missing for the specified observation. Differences in frequency of categorical variables were assessed using Pearson's chi-squared test. Differences in continuous variables were assessed using the Kruskal–Wallis test.

Table 5

Clinical, legal, and program variables and their relationship to incident status

Characteristic	Total (N = 193)	No (N = 63)	Yes (N = 130)	Statistic/significance
<i>Clinical variables</i>				
Mental retardation				
No	111	35	76	$\chi^2_{(1)} = 0.15$
Yes	82	28	54	$p = 0.70$
Substance use				
No	51	25	26	$\chi^2_{(1)} = 8.46$
Yes	142	38	104	$p = 0.01$
Personality disorder				
No	175	60	115	$\chi^2_{(1)} = 2.30$
Yes	18	3	15	$p = 0.13$
Schizophrenia				
No	82	23	59	$\chi^2_{(1)} = 1.37$
Yes	111	40	71	$p = 0.24$
Abuse				
No	136	44	92	$\chi^2_{(1)} = 0.04$
Yes	56	19	37	$p = 0.83$
Prior hospitalization				
No	67	26	41	$\chi^2_{(1)} = 1.77$
Yes	126	37	89	$p = 0.18$
<i>Legal variables</i>				
Homicide charge				
No	178	57	121	$\chi^2_{(1)} = 0.40$
Yes	15	6	9	$p = 0.53$
Violent charge				
No	120	31	89	$\chi^2_{(1)} = 6.69$
Yes	73	32	41	$p = 0.01$
Conditional release status				
NGRI	63	20	43	$\chi^2_{(1)} = 0.07$
Non-NGRI	128	43	85	$p = 0.80$
Referral setting				
Jail	129	38	91	$\chi^2_{(1)} = 1.79$
Hospital	64	25	39	$p = 0.18$
Age at first offense (years)				
M (SD)	22.8 (11.3)	23.8 (11.8)	22.4 (11.1)	$\chi^2_{(1)} = 2.47$
Median	18	19	18	$p = 0.12$
No. of previous arrests				
M (SD)	9.0 (12.3)	6.1 (10.1)	10.4 (13.0)	$\chi^2_{(1)} = 6.95$

Characteristic	Total (N = 193)	No (N = 63)	Yes (N = 130)	Statistic/significance
Median	4	3	6	$p = 0.01$
<i>Program variable</i>				
Length of stay (days)				
M (SD)	546 (526)	674 (642)	480 (444)	$\chi^2_{(1)} = 3.27$
Median	390	466	371	$p = 0.07$

NGRI, not guilty by reason of insanity.

Note. In some instances, total cells have fewer than 193 observations. In these cases, data were missing for the specified observation. Differences in frequency of categorical variables were assessed using Pearson's chi-squared test. Differences in continuous variables were assessed using the Kruskal–Wallis test.

Table 6

Logistic regression predicting incident status using specific predictors

Predictor	Odds ratio estimates			
	<i>p</i>	Point estimate	95% Wald confidence limits	
Substance use	0.0045	2.900	1.392	6.043
Referral setting	0.0172	0.415	0.202	0.856