

Myla H. Young,¹ Ph.D.; Jerald V. Justice,¹ M.A., M.S.W.; and Philip Erdberg,² Ph.D.

Risk of Harm: Inmates Who Harm Themselves While in Prison Psychiatric Treatment

ABSTRACT: In this study, 242 randomly selected male offenders who were receiving psychiatric treatment in prison were administered psychological and neuropsychological evaluations and were followed during their treatment in a prison psychiatric hospital. Offenders who harmed themselves in treatment were compared to those who did not harm themselves. Eighteen percent of offenders harmed themselves, the severity of which required medical intervention. Young age, drug abuse, absence of Axis I mental disorder but presence of Axis II borderline personality disorder identified offenders who harmed themselves. Psychopathy checklist-revised (PCL-R) total rating ≥ 30 and PCL-R Factor 2 (antisocial lifestyle) rating also identified offenders who harmed themselves. Additionally, offenders who harmed themselves also were 8.36 times more likely than their cohorts to harm treatment staff. Theoretical understanding of offenders who harm themselves, the importance of considering the environmental context in identifying risk factors for self-harm, and implications for treatment are suggested.

KEYWORDS: forensic science, forensic psychology, psychopathy, correctional psychology, self-harm in prison, neuropsychology in self-harm

Protecting individuals who want to harm themselves from harming themselves is a difficult task in any setting. Protecting offenders from harming themselves while in prison is an even greater challenge, and researchers report high suicide rates in jails and prisons. Hayes and Rowan (1) reported that the annual rate of suicide by offenders incarcerated in United States jails was nine times higher than the rate of suicide by individuals in the general population. Similarly, Pritchard et al. (2) reported that the rate of suicide for male probationers in England was almost nine times the community rate of suicide. More recently, Bonner (3) and Correia (4) reported similar rates of suicide in United States prisons. Doodly (5) reported that the rate of suicide in English prisons was approximately four times that of the general population, and the rate of suicide in English Federal prisons was as high as 12 times that of the general population.

Kreitman (6) defined parasuicide (self-harm) as an act of nonfatal, intentional self-harm. Although parasuicide—by definition—is nonfatal, self-harm always has the potential, either intentionally or unintentionally, of being fatal. Self-harm, like suicide, presents a particularly difficult task for prison officials and for prison mental health professionals. The rate of self-harm in the general population is estimated to range between 130 and 149 per 100,000 persons, or less than 1%, whereas the rate of self-harm among offenders incarcerated in the general prison population is estimated to range from 2200 to 3760 per 100,000 inmates (7,8), or 2–4%. Of note, however, in one research study (9), the rate of self-harm among incarcerated offenders who had been identified as mentally disordered offenders was—remarkably—52.9%.

In prison, offenders who harm themselves, or who threaten to harm themselves, are often transferred from the general prison population to a prison psychiatric treatment program. Similar to reports of self-harm among mentally disordered offenders, Hillbrand et al. (10) reported that 53% of male psychiatric patients in

their sample of offenders who were receiving psychiatric treatment within a *maximum-security* hospital had engaged in self-harm. Lower, but still remarkably high, incidence of self-harm is reported for offenders receiving psychiatric treatment in general prison psychiatric treatment programs. Annual Report (2002) by the Western Australian Department of Justice (11) and Annual Report (2000) by the California Department of Corrections (12) both reported that 15% of offenders who were receiving psychiatric treatment while in prison engaged in self-harm. The task of keeping suicidal offenders safe from themselves while in prison and in prison psychiatric treatment, therefore, is a critical role for mental health professionals.

Whether in the community, in prison, or in prison psychiatric treatment, the cost of self-harm to the individual, the individual's family, and to the institution is quite substantial. Early identification of offenders who are at risk for serious self-harm in prison psychiatric treatment is, therefore, needed.

Substantial investigation has been conducted in attempting to identify characteristics associated with suicide and/or self-harm in the community (identified as "risk factors") and demographic, developmental, and psychiatric diagnostic factors have been identified. Gibbs (13) and Perkins et al. (14) reported that self-harm was more likely among Caucasian as compared to either African American or Latino males. Childhood victimization, poor school experience, and neuropsychological impairment (15–17) have also been identified as risk factors for self-harm in the community. Many researchers have identified depression, psychosis, and drug abuse as associated with self-harm in the community (18–20). Borderline, narcissistic, dependent, and antisocial personality disorders (21,22) as well as feelings of hopelessness, anxiety, and negative self-identity (23) have also been associated with self-harm in the community.

As well as in the community, demographic, psychiatric, and criminal history characteristics have also been identified as risk factors for self-harm in prison. Being young, Caucasian, unmarried, and having a family history of suicide and/or self-harm have been identified as risk factors for self-harm in prison (24–26). Psychiatric treatment before prison, depression, drug abuse, and psychopathy (particularly Factor II—antisocial lifestyle) have also

¹ California Department of Mental Health Psychiatric Programs, Walnut Creek, CA 94596.

² Private Practice, Corte Madera, CA 94925.

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been identified as characteristics associated with self-harm in prison (27–29). Lengthy prison sentence and history of violent offending have also been identified as risk factors for self-harm in prison (30).

Considering that in 2000, the Department of Justice reported that “fully 16%” of individuals in the nation’s corrections systems were mentally ill (31), there is increasing need for psychiatric treatment in prison, and consequently increasing possibility of self-harm in that treatment. The purpose of this study, therefore, was to identify measures that were associated with self-harm in prison psychiatric treatment.

Building on prior research identifying factors associated with self-harm both in the community and in prison, demographic, psychiatric, developmental, drug abuse, and violent criminal histories were hypothesized as risk factors for self-harm in prison psychiatric treatment. Specifically, it was hypothesized that young age, childhood victimization, low education, Caucasian ethnic group, and being unmarried would be risk factors for self-harm. Psychiatric diagnoses of mood disorder, psychotic disorder, drug abuse disorders, as well as psychiatric hospitalization before prison, were hypothesized as risk factors for self-harm. Borderline, narcissistic, and antisocial personality disorders, as well as psychopathy (particularly Factor 2 antisocial lifestyle) were also hypothesized as risk factors for self-harm. Violent committing offense, prison violence, and long prison sentence were also hypothesized as associated with self-harm in prison psychiatric treatment.

Balancing the concern for identifying measures as significant when they are not (Type I error) with the need to learn more about self-harm in prison psychiatric treatment a series of post hoc exploratory analyses were also conducted. Neuropsychological measures of attention, memory, psychomotor, language, and executive functioning were analyzed, and Rorschach measures of attachment, self-esteem, anger, affect, affect modulation, stress tolerance, reality testing, thinking, interpersonal distance, and composite indexes (schizophrenia, depression, suicide, coping deficit) were analyzed.

Method

Participants

Participants were 242 male offenders who were receiving psychiatric treatment in a mental health facility located within a California state prison. In this treatment program, any offender within the State of California prison system who was thought to be experiencing acute psychiatric problems, or who reported suicidal intent, could be referred for psychiatric stabilization, evaluation, and treatment. Participation in the study was voluntary, and participants were not compensated for their participation. This research project was approved and is reviewed annually by the California Statewide Committee for the Protection of Human Subjects. Prior to initiating procedures, all offenders provided signed informed consent as specified by this committee.

Materials

Semistructured Interview

Demographic information was obtained through an interview with the inmate and a review of his criminal, medical, and psychiatric records. The semistructured interview included description of the inmate’s criminal, psychiatric, family, relationship,

drug use, developmental, medical, social, school, and work histories.

Neuropsychological Functioning

Neuropsychological evaluations included measures selected to evaluate attention (seashore rhythm, trail making A and B), incidental memory (tactual performance test [TPT] memory and location), language (WAIS-R vocabulary, WRAT-R reading recognition), psychomotor (WAIS-R block design, TPT total time), and problem solving (category test, Wisconsin card sorting test). Intellectual functioning was estimated using the test of nonverbal intelligence (TONI III).

Rorschach Evaluation

The Rorschach test was administered and scored using the Comprehensive System developed by Exner (32). Rorschach measures suggesting poor attachment (texture, human), poor self-esteem (egocentricity index, reflection, morbid), anger (space and S-percent), unmodulated affect (pure C and CF), indexes (schizophrenia, depression, coping deficit, suicide), stress tolerance (*D* score, adjusted *D* score), reality testing (*X*+%, *Xu*%, *X*−%), thinking (weighted sum special scores, sum Level 2 special scores), affect (*Y*, *C*′, *V*), and interpersonal distance (personal) were analyzed.

Two raters coded 10% of the Rorschach protocols to establish intercoder agreement. Agreement findings are based on Cohen’s (33) κ , a chance-corrected agreement characteristic. Landis and Koch (34) suggested the following guidelines for describing levels of agreement as characterized by κ : 0.10–0.20 slight agreement; 0.21–0.40 fair agreement; 0.41–0.60 moderate agreement; 0.61–0.80 substantial agreement; and 0.81–1.00 nearly perfect agreement. Intercoder agreement for this sample ranged from 0.75 to 1.00. Only Rorschach protocols with ≥ 14 responses were included in data analysis.

Psychiatric Diagnosis

Psychiatric diagnosis was established using demographic and personal information, clinical information, and psychological and neuropsychological testing. Psychopathy was established using the PCL-R (35).

Inter-rater reliability for Axis I diagnosis was established by comparing structured clinical interview for DSM-III-R patient edition (SCID-P) (36). The SCID-P was administered by an investigator who was blind to diagnosis based on all other information. There was 79% agreement between SCID-P diagnosis and psychiatric diagnosis used in this study.

Investigators collecting data for this project were certified (Hare PCL-R Certification Program). Using the criteria of agreement within two (2) total points, there was 88% intercoder agreement for 10% of PCL-R interviews. Using the criteria of agreement within three (3) total points, there was 100% intercoder agreement. PCL-R interviews were completed without prior knowledge of psychological and/or neuropsychological testing results, psychiatric diagnosis, or presence/absence of self-harm.

Procedures

Each month, a list of the offenders who were admitted for treatment was provided to the researchers by the program’s Health Information Services (HIS). From this list, and using a Table of Random Numbers generated by CRUNCH4 Statistical Package,

offenders were randomly selected for participation. Although the percentages varied over time, overall, approximately 25% of admissions to the program were selected as research participants.

Informed consent was obtained. A comprehensive review of medical and criminal records was completed. The inmate was interviewed and all previously listed procedures were completed. Procedures for documenting the offender's response to treatment, including documentation of self-harm, were prospectively established for all participants. This study is, therefore, considered to be prospective.

The average length of psychiatric treatment for all participants was 117 days, and ranged from 1 day to 580 days of treatment. Although a significant difference between offenders who harmed themselves and those who did not was not found for time in prison ($t(159) = -0.46, p = 0.65$), offenders who harmed themselves were psychiatrically hospitalized significantly longer than those who did not harm themselves ($t(120) = 2.98, p = 0.01$). Unfortunately, information as to the length of time in treatment prior to incidence of self-harm was not available for analysis. Policy of the treatment program, however, was that offenders who harmed themselves while in treatment were returned to psychiatric treatment once their emergency medical needs had been met, and remained in treatment until the treatment team determined that they were reasonably no longer of danger for self-harm, which likely explains the longer length of treatment.

Results

Self-harm was defined as any action against oneself, the severity of which required medical attention. In the program from which data in this research are reported, 60% of offenders referred for psychiatric treatment were admitted because of self-harm or threat of self-harm. Eighteen percent of participants in the sample harmed themselves while in prison psychiatric treatment. Self-harm included cutting (45%), hanging attempt (34%), and drug overdose (5%). Other self-harm included suffocation, drowning, head banging, or jumping from high places (16%). Offenders who harmed themselves while in prison psychiatric treatment ($N = 43$) were compared to offenders who did not harm themselves while in prison psychiatric treatment ($N = 199$). Addressing concern for statistical impact of unequal sample size, pooled variances for T -tests and Mann-Whitney statistics are reported. Addressing concern for Type I errors due to multiple comparisons, Bonferroni corrected α for each set of comparisons (demographic, psychiatric, offense, neuropsychological, Rorschach) are reported. Bonferroni corrected α for all comparisons is $p = 0.01$.

Demographic Measures

It was hypothesized that young age, childhood victimization, low education, Caucasian ethnic group, and being unmarried would significantly identify offenders who harmed themselves while in prison psychiatric treatment. Of these hypotheses, only young age ($t(241) = -2.04, p = 0.04$) significantly identified offenders who harmed themselves. Although young age significantly identified offenders who harmed themselves, Mann-Whitney ($z(1.74) p = 0.08$) was not significant, and young age did not meet Bonferroni corrected α ($p = 0.01$).

Psychiatric Measures

It was hypothesized that inmates who harmed themselves would be diagnosed with an Axis I mood disorder, psychotic disorder, and/or drug abuse disorder. Although offenders who

harm themselves were more likely to report drug abuse ($\chi^2(1, N = 236) = 3.45, p = 0.05$), they were not more likely to be diagnosed with mood or psychotic disorders. Of note, offenders who harmed themselves were significantly more likely *not* to be diagnosed with any Axis I disorder ($\chi^2(1, N = 236) = 6.30, p = 0.01$) and were significantly more likely *not* to be diagnosed with a psychotic disorder ($\chi^2(1, N = 236) = 11.08, p = 0.001$). Presence of drug abuse, absence of Axis I mental disorder, and absence of Axis I psychotic disorder remained significant under Mann-Whitney analyses (drug abuse $z(1.93) p = 0.05$; no Axis I disorder $z(2.61) p = 0.01$; no Axis I psychotic disorder $z(3.14) p = 0.001$). Absence of Axis I disorder and absence of Axis I psychotic disorder both met Bonferroni corrected α ($p = 0.01$). Drug abuse did not meet this corrected α .

It was hypothesized that offenders who harmed themselves would be diagnosed with Axis II borderline, narcissistic, or antisocial personality disorder and would meet criteria for psychopathy (PCL-R total score ≥ 30) with higher Factor 2 (antisocial lifestyle) ratings. Diagnosis of borderline personality disorder ($\chi^2(1, N = 232) = 8.76, p = 0.01$), Psychopathy ($\chi^2(1, N = 207) = 3.59, p = 0.05$), and higher Factor 2 ratings ($t(200) = 2.15, p = 0.03$) significantly identified offenders who harmed themselves. Of note, Axis II personality disorder also was significantly likely to be the primary diagnosis of the offender who harmed himself in psychiatric treatment ($\chi^2(1, N = 230) = 10.51, p = 0.001$). Each of these measures remained significant under Mann-Whitney analysis (borderline personality disorder $z(3.17) p = 0.001$; psychopathy total score $\geq 30 z(1.99) p = 0.05$; psychopathy Factor 2 Rating $z(2.40) p = 0.01$; Axis II Diagnosis as primary diagnosis $z(3.32) p = 0.001$). Only borderline personality disorder and Axis II primary diagnosis, however, met Bonferroni corrected alpha ($p = 0.01$). Psychiatric treatment prior to incarceration and family history of suicide did not significantly identify offenders who harmed themselves.

Offense Characteristics

It was hypothesized that offenders whose committing offense was of high violence (serious physical assault, battery, rape, and/or murder) in the community and offenders who were violent in prison would be more likely to harm themselves in prison psychiatric treatment. Although community violence did not significantly identify offenders who harmed themselves, these offenders were significantly more likely to assault psychiatric treatment staff ($\chi^2(210) = 19.56, p = 0.001$). Assault of treatment staff remained significant under Mann-Whitney analysis ($z(5.70) p = 0.001$) and met Bonferroni corrected α ($p = 0.01$).

Table 1 provides a summary of test statistics, effect sizes and/or odds ratios for each of these significant measures.

Post Hoc Analyses

Neuropsychological Measures—With the exception of intellectual functioning and reading, neuropsychological scores were converted to gender, age, and education adjusted T scores (37). In order to reduce the number of measures evaluated, a principal components analysis with Varimax rotation was performed on the age- and education-corrected T scores for these measures. Factor analyses were performed for three-, four-, and five-factor models. Although all analyses produced eigenvalues >1 , the four-factor model explained the greatest total variance (87%). Factor 1 was comprised of WAIS-R vocabulary, WRAT-R reading. The eigenvalue for this language factor was 2.82. Factor 2 was comprised of

TABLE 1—*Characteristics of offenders who harm themselves while in prison psychiatric treatment.*

Characteristic	Test Statistic	Effect (η^2)	Odds Ratio*
Young age	$t(241) = -2.04, p = 0.04$	0.02	
Drug abuse	$\chi^2(1, N = 236) = 3.45, p = 0.05$		2.19
Axis I—not psychotic	$\chi^2(1, N = 236) = 11.08, p = 0.001$		4.14
Axis I—no diagnosis	$\chi^2(1, N = 236) = 6.30, p = 0.01$		2.47
Axis II—borderline	$\chi^2(1, N = 232) = 8.76, p = 0.01$		3.20
Axis II—primary diagnosis	$\chi^2(1, N = 230) = 10.51, p = 0.001$		3.30
Positive for psychopathy†	$\chi^2(207) = 3.59, p = 0.05$		2.24
Psychopathy factor II‡	$t(200) = 2.15, p = 0.03$	0.03	
Assault of treatment staff	$\chi^2(1, N = 210) = 19.56, p = 0.001$		8.36

*Reciprocal of odds ratio is used when value <1.0.

†Positive for psychopathy is psychopathy checklist—revised total score ≥ 30 .

‡Psychopathy factor II is psychopathy checklist—revised factor II (antisocial lifestyle).

Trails A, Trails B, TPT total time (TPT-T), and category test (CAT). This attention and information-processing factor had an eigenvalue of 2.65. TPT location (TPT-L) and TPT memory (TPT-M) comprised Factor 3. The eigenvalue for this memory factor was 1.67. Wisconsin card sorting test perseverative responses (WCS-PSVR) and categories completed (WCS-CAT) comprised the fourth factor. The eigenvalue for this executive functioning factor was 1.50. Using measures within each of these factors, composite neuropsychological functioning scores were developed, and an impairment index was established. Overall neuropsychological impairment (impairment index) was defined as T score <40 on ≥ 5 of eight (8) neuropsychological measures (Trails A, Trails B, CAT, TPT-T, TPT-M, TPT-L, WCS-PSVR, and WCS-CAT).

Impairment across neuropsychological functions (overall neuropsychological functioning, attention, memory, language, executive functioning) was hypothesized to identify offenders who harmed themselves. A remarkably high percent of offenders—both those who harmed themselves (47%) and those who did not harm themselves (61%)—demonstrated overall neuropsychological impairment. A significant difference in overall neuropsychological functioning, and significant differences on all neuropsychological functions, however, were not demonstrated. Of note, the average performance on measures of executive functioning both for offenders who harmed themselves (mean = 36.27, standard deviation = 11.09) and those

who did not harm themselves (mean = 37.17, standard deviation = 11.96) was mildly impaired for both groups of offenders. Impaired executive functioning (ability to think, reason, problem solve, maintain impulse control, anticipate consequences of actions) likely had an impact on the actions of offenders who harmed themselves, although impaired executive functioning did not distinguish these offenders from their cohorts who did not harm themselves (Table 2).

Rorschach Measures—It was hypothesized that Rorschach measures of poor attachment (texture, human), poor self-esteem (egocentricity index, reflection, morbid), anger and oppositional approach (space and S-%), unmodulated affect (Pure C and CF), composite indexes (schizophrenia, depression, coping deficit, suicide), stress tolerance (D score and adjusted D score), reality testing ($X+$ %, Xu , $X-$ %), thinking (weighted sum special scores, sum Level 2 special scores) affect (Y , C' V), and interpersonal distance (personal) would identify inmates who harmed themselves. Rorschach protocols, which had <14 responses were not included in data analyses ($N = 14 = 5.51\%$). Rorschach measures did not significantly identify men who harmed themselves (Table 3).

Regression Analysis

To assess both the explanatory power of the combined measures, and the relative contribution of each of the measures, logistic regression analysis was conducted by simultaneously entering all the variables into the equation. When significant correlation existed between measures, the measure with the highest correlation was entered into the logistic regression. The simultaneous regression model was significant ($p = 0.001$). Borderline personality disorder ($p = 0.01$) and assault of psychiatric treatment staff ($p = 0.001$) each significantly contributed to the equation. Measures of young age, drug abuse, no diagnosis on Axis I, borderline personality disorder on Axis II, positive for psychopathy, and assault of psychiatric treatment staff correctly classified 82.5% of the offenders (Table 4).

Relative Operating Characteristic (ROC)

In order to estimate the overall accuracy of measures, which independently identified men who harmed themselves in prison psychiatric treatment, ROC analysis, which provides information about predictive efficiency compared to chance, was calculated for measures, which independently significantly predicted to self-harm. Figure 1 demonstrates this curve. ROC analysis of 0.77 suggests that even for this low base rate event (18%), the predictive efficiency of measures identified in this study have acceptable sensitivity (accurate identification of those who harm themselves)

TABLE 2—*Neuropsychological functioning of offenders with and without self-harm.*

Characteristic	Offenders With Self-Harm			Offenders Without Self-Harm			p
	n	M (%)	SD	n	M (%)	SD	
Intellectual	39	80.61	12.75	199	83.25	14.23	0.28
Overall neuropsychological impairment*	20	47		121	61		0.21
Attention†	38	40.50	12.31	182	42.63	13.29	0.36
Memory†	35	42.29	12.32	162	40.95	11.32	0.55
Language†	39	42.34	12.09	192	41.95	11.24	0.81
Executive functioning†	37	36.27	11.09	192	37.17	11.96	0.67

*Overall neuropsychological impairment is performance <40 on ≥ 5 of eight neuropsychological measures.

†Neuropsychological scores are composite scores of age and education adjusted T scores.

T score = 40+ is normal neuropsychological functioning; T score = 30–39 is mild neuropsychological impairment.

TABLE 3—Selected Rorschach measures for offenders with and without self-harm.

Characteristic	Offenders With Self-Harm		Offenders Without Self-Harm		<i>p</i>
	<i>n</i>	%	<i>n</i>	%	
Schizophrenia index ≥ 5	8	22	92	46	0.75
Depression index ≥ 5	6	17	54	27	0.78
Coping deficit index ≥ 4	14	40	126	63	0.15
Suicide index ≥ 8	3	8	12	6	0.17
Situational stress					
<i>D</i> total < 0	19	54	80	40	0.51
Adjusted <i>D</i> total < 0	11	31	61	31	0.92
Perceptual accuracy					
<i>X</i> - % > 30	9	26	53	27	0.81
Thinking					
Weighted sum 6 ≥ 30	7	20	32	16	0.42
Level 2 special scores > 0	10	28	63	31	0.31

and specificity (accurate identification of those who do not harm themselves).

Discussion

In this study, we attempted to identify measures that discriminated male offenders who harmed themselves while in prison psychiatric treatment from those who did not. Self-harm was defined as any self-inflicted action, which resulted in injury, the severity of which required medical attention. Eighteen percent ($N = 43$) of the 242 randomly selected offenders in this sample harmed themselves while in treatment.

Young age, Axis II borderline personality disorder, and psychopathy (PCL-R total score ≥ 30) with elevated Factor 2 (antisocial lifestyle) ratings significantly identified offenders who harmed themselves in prison psychiatric treatment. Absence of Axis I mental disorder, but Axis II borderline personality disorder as the primary diagnosis further characterized offenders who harmed themselves. Different from characteristics of individuals who harmed themselves in the community or in prison, offenders who harmed themselves in prison psychiatric treatment did not differ by history of childhood victimization, Caucasian race, marital status, psychiatric treatment prior to prison, or family history of suicide. Offenders who harmed themselves in treatment also did not have higher incidence of Axis I depression or psychotic disorders or higher incidence of Axis II narcissistic or antisocial personality disorder. Although differences in community violence

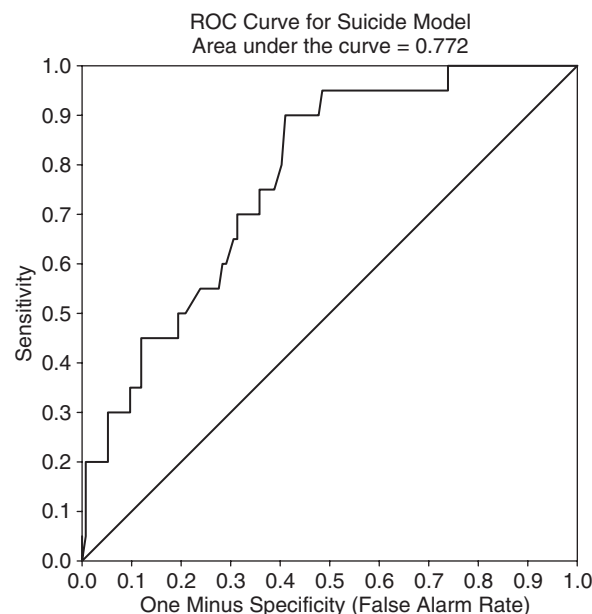


FIG. 1—Relative operating characteristics predicting to self-harm in prison psychiatric treatment.

were not demonstrated, offenders who harmed themselves in prison psychiatric treatment were more likely to assault treatment staff than their cohorts who did not harm themselves in treatment.

We think that the results of this research have two primary implications for mental health professionals who are providing services to mentally ill offenders. First, in evaluating risk factors for self-harm in prison psychiatric treatment, the importance of considering the context in which self-harm occurs needs to be emphasized. Researchers describing risk factors for violence against others have increasingly emphasized the importance of understanding the context in which violence towards others occurs (38–40). Our experience, however, has been that the same suicide assessment instruments that are used in community treatment programs are also often used in prison treatment programs. Results of this study suggest that these frequently used measures of self-harm in the community (depression, psychosis, childhood victimization, family history of suicide) do not distinguish offenders who harm themselves in prison psychiatric treatment. Future research might attempt to validate measures identified in this initial study, with the ultimate goal of developing a risk assessment instrument for use with offenders in prison psychiatric treatment. Once identified, early intervention and specialized treatment for men who are at high risk for harming themselves could be initiated.

Second, for offenders, theoretical understanding of self-harm—and consequently treatment of offenders who are at risk for self-harm—may need to be reconsidered. As indicated in the introduction to this project, historical perspective and common clinical knowledge is that mood and/or psychotic disturbances typically drive suicidal and self-harmful behaviors. In this sample, however, depression or psychosis as measured by clinical diagnosis or by Rorschach responding did not significantly identify offenders who harmed themselves.

Gorenstein and Newman (41) suggested that alcohol abuse and antisocial behaviors are characterized by a “failure of inhibition.” They further suggested that treatment, which focused on understanding dynamics underlying failure of inhibition would have the greatest potential to facilitate change for individuals who experience these disorders. Like alcohol abuse and antisocial behaviors,

TABLE 4—Simultaneous logistic regression model predicting to self-harm.

Variable	Likelihood Ratio				Odds Ratio*
	χ^2	<i>p</i>	β	SE	
Simultaneous model	32.08	0.001***			
Young age			−0.03	0.03	1.03
Drug abuse			0.79	0.55	2.17
Axis I—no diagnosis			0.76	0.50	2.13
Axis II—borderline			1.21	0.51	3.33**
Positive for psychopathy†			0.28	0.55	1.33
Assault of treatment staff			1.66	0.55	5.26***

*Reciprocal of odds ratio used when value < 1 .

†Positive for psychopathy is psychopathy checklist revised total score ≥ 4 .

** $p < 0.01$; *** $p < 0.001$.

it is suggested that self-harm among offenders might reasonably also be considered a "failure of inhibition." Although there could be several possible explanations (attempt to extend psychiatric treatment rather than return to undesirable prison placement; mild frontal lobe dysfunction and consequent difficulty maintaining impulses; psychopathic personality structure; etc.) it is further suggested that failure of inhibition might also explain why offenders who harmed themselves also harmed psychiatric treatment staff. A relapse prevention model of treatment (42) has been demonstrated as effective in treatment for a wide range of disorders, including alcohol and substance abuse (43,44), obsessive-compulsive behaviors (45), and obesity (46). If further research also demonstrates that "failure of inhibition" predominantly drives self-harmful actions of offenders, it is suggested that a relapse prevention model, combined with psychopharmacological intervention to address impulsive behaviors, might be an effective model of treatment for offenders who harm themselves.

Although we think that information gained from this study is helpful to mental health professionals who are providing mental health treatment in a forensic setting, at this point in time, the information is quite preliminary. Several limitations to the study include: (1) Information from this research needs to be validated, and future direction for this project is to validate these measures to determine their sensitivity and specificity in predicting self-harm. (2) In this study, a small sample of men who harmed themselves in prison psychiatric treatment ($N = 43$) were compared to a large sample of men who did not harm themselves ($N = 199$). Although statistics attempting to accommodate both unequal sample size and unequal distributions are reported, future research might use critical demographic characteristics to match equal samples of men who do/do not harm themselves. (3) It is unfortunate that the length of time in treatment prior to incidence of self-harm was not documented. Efforts to obtain this information would provide important information for understanding self-harm. (4) Although this is a prospective evaluation of self-harm, this research project was not specifically designed to evaluate self-harm among offenders. The project was designed to provide a comprehensive description of offenders who required psychiatric treatment while in prison. Incidence of self-harm was one of several descriptions, which was planned. Future research might be to design a protocol specifically developed to evaluate self-harm among offenders both within psychiatric treatment and within the general prison population. (4) It is noteworthy that men who harmed themselves in prison psychiatric treatment were also 8.36 times more likely to assault the treatment staff who was providing their care. Future direction for this research might also be to explore a better understanding of why, among these men who require psychiatric treatment while in prison, aggression is directed both towards themselves and towards those who are there to provide their treatment.

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Additional information and reprint requests:

Myla H. Young, Ph.D.

California Department of Mental Health Psychiatric Program

1630 North Main Street #357

Walnut Creek, CA 94596

E-mail: mylayoung@sbcglobal.net