From Incarceration to Community Care: Structured Assessment of Correctional Adaptation

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In this study, the authors extend their evaluation of a structured instrument for assessing the persistence of attitudes and behaviors developed by mentally ill offenders during periods of incarceration (Structured Assessment of Correctional Adaptation; SACA) and seek to demonstrate further the clinical significance of the construct of correctional adaptation. The subjects, patients at a state psychiatric center, were administered the SACA, along with the Brief Psychiatric Rating Scale the Psychopathy Checklist: Screening Version and Working Alliance Inventory. Chart review captured relevant demographic, diagnostic, and correctional history variables. Results were analyzed comparing patients with and without incarceration histories. The SACA total score demonstrated strong interrater reliability and association with criminal history indices of validity. Patients with histories of incarceration were significantly more likely to score higher on the Correctional Adaptation measure and lower on the Bond subscale of working alliance. Controlling for symptom severity and psychopathy did not alter the negative relationship between correctional adaptation score and the Working Alliance Inventory.

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A substantial number of individuals with mental illness have experienced criminal justice incarceration as part of their life histories. In fact, the criminal justice system serves as the entry point for mental health treatment for a large proportion of acutely symptomatic mentally ill individuals.[1] When mentally ill offenders do ultimately enter community mental health treatment, they often arrive with needs and expectations that are quite different from those of persons who have never been in correctional environments. In navigating the demanding and dangerous environment of jail and prison, many psychiatric patients acquire a repertoire of behaviors that help them adapt to incarceration.[2,3] Attitudes such as suspiciousness of clinicians or a hesitancy to share information with staff and behaviors such as intimidating shows of strength and minding one's own business, while adaptive during incarceration, conflict with the expectations of most therapeutic environments. These "correctional adaptations" can interfere with community adjustment and personal recovery and create barriers to the development of the therapeutic alliance necessary to achieve these goals.

Unfortunately, mental health providers are frequently unaware of these patterns of correctional adjustment and interpret the behaviors and attitudes of former inmates as resistance, lack of motivation for treatment, evidence of character pathology, or symptoms of mental illness. Mental health treatment providers, even those with experience treating mentally ill offenders, often experience unwarranted concerns about safety and lose opportunities for early and empathic engagement.[3] In our previous work, we demonstrated that concerns about information sharing, beliefs that intimidation of other patients and staff is appropriate and necessary, and views that clinical treatment is akin to doing time in a correctional setting were more common among patients who had spent time in jail or prison compared with those without a history of incarceration.[4] The need for a

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reliable and valid method of measuring these adaptations was the impetus for the creation of the Structured Assessment of Correctional Adaptation (SACA[5]).

The SACA was initially developed as a 16-item clinician-rated scale, supported by a semistructured interview. The measure was first pilot tested in 2002 in the context of a cognitive behavioral intervention developed for former jail and prison inmates with mental illness who were living in New York City homeless shelters.[6] Subsequently, in a study of 64 psychiatric patients, all of whom had a history of correctional exposure, Carr and colleagues[5] demonstrated that the total score of the SACA possessed acceptable internal consistency and could be reliably rated by multiple raters. In addition, preliminary validity analysis of the SACA was promising, as higher total scores on the SACA were significantly related to longer cumulative correctional sentences and a higher frequency of disciplinary tickets while incarcerated.[5] Individual items, however, were more variable in their reliability and validity, prompting further refinement of the interview and measures and analysis of its utility. In the present study, the authors sought to extend their evaluation of the reliability and validity of this new measure with a larger sample and to demonstrate further the clinical significance of the construct of correctional adaptation.

Methods

This study was approved by the Bronx Psychiatric Center Institutional Review Board.

Participants

All participants were patients recruited from the residents of a long-term state psychiatric hospital in the Northeast United States. Data were collected in two stages using similar methodologies, the first of which ($n = 65$) is described elsewhere.[6] The total sample consisted of 149 men: 92 (61.3%) African American, 39 (26.0%) Hispanic, and 16 (10.7%) Caucasian. Participants ranged in age from 18 to 67 years with a mean of 38.4 years (SD 10.3), and an average of 10.4 years of education completed (SD 2.1; range, 3–18). The most common diagnoses among the participants were schizoaffective disorder (38.0%, $n = 57$); schizophrenia, paranoid type (26.7%, $n = 40$); and schizophrenia, undifferentiated type (17.3%, $n = 26$). In addition, 53.0 percent ($n = 79$) of the sample had a co-occurring substance use diagnosis, and 20.1 percent ($n = 30$) had antisocial personality disorder (typically, in addition to a psychotic disorder). The majority of participants had prior arrests (83.2%, $n = 124$), with an average of 6.8 arrests (SD 6.5) for the subset who had been arrested. The average age at first arrest, for those with a history of arrest, was 21.8 years (SD = 7.0). Independent-samples t tests revealed no significant differences in age ($t(146) = 0.80$, $p = .43$) or number of years educated ($t(138) = -1.45$, $p = .16$) between the groups, with and without a history of incarceration (Table 1); however, there was a somewhat greater percentage of substance abuse and personality disorders, and a lower percentage of schizoaffective disorder among those previously arrested. There were also no significant differences in total scores on the Brief Psychiatric Rating Scale (BPRS), Anchored Version, a clinician-rated symptom scale[7] ($t(80) = -0.431$, $p = .69$), but total scores on the Psychopathy Checklist, Screening Version (PCL-SV), a 12-item rating scale that assesses characteristics of psychopathy,[8] were, as expected, significantly higher in the group that had prior arrests ($t(81) = 4.524$, $p < .001$).

Table 1 Descriptive Statistics for Previously Arrested Versus Never Arrested Participants

Variable	Previously Arrested ($n = 124$)	Never Arrested ($n = 25$)
Mean age, y	38.74	36.64
Education, y	10.30	11.23
Race, %		
Black	63.7	52
Hispanic	25.8	28
White	8.9	20
Other	1.6	0
Diagnosis, Axis I, %		
Schizoaffective disorder	35.5	52
Schizophrenia, paranoid type	27.6	24
Schizophrenia, undifferentiated type	17.9	16
Mood disorder	8.9	4
Other psychotic disorder	8.9	4
Other disorder	.8	0
Diagnosis, Axis II, %		
None	66.7	100
Antisocial personality disorder	24.4	0
Other personality disorder	8.9	0
Diagnosis, substance abuse, %		
Yes	56.2	30.4
No	43.8	69.6

Procedures

The participants were recruited in two phases, a portion of which has been published (i.e., the sample

recruited in the first study phase, $n = 65$).[5] All participants were recruited from the inpatient and outpatient units of an urban state psychiatric hospital. Prospective participants were approached by a member of the research staff through convenience sampling and given a brief description of the study procedures, risks, and benefits. For those patients who agreed to participate, the patient's psychiatrist was asked to confirm that the patient had the capacity to provide informed consent.

After obtaining informed consent from the participant, research staff (trained psychology graduate students) administered the SACA interview (described below) and elicited demographic, diagnostic, and criminal history information from the medical record. Participants in the second phase of study recruitment ($n = 84$) were administered several additional measures, including the PCL-SV and the BPRS. In addition, participants in the second phase of study recruitment completed the Working Alliance Inventory-Short Form (WAI),[9] a brief self-report instrument developed to assess three aspects of the working alliance between therapist and patient: agreement on goals (the Goals subscale), agreement on the means of achieving these goals (the Tasks subscale), and development of a personal bond (the Bond subscale). For participants in the second phase of study recruitment, the assessment process was divided into two separate sessions; participants were paid $10 for each assessment session completed (a total of $10 for those participants in the first phase of data collection and $20 for those in the second phase). To establish inter-rater reliability, a subset of interviews was conducted jointly, with independent raters completing the study measures (i.e., SACA, BPRS, and PCL-SV).

Statistical Analysis

Initial data analysis focused on the reliability of the individual SACA items and the overall scale, including inter-rater reliability (assessed using intraclass correlation coefficients (ICCs) to provide a conservative estimate of reliability for continuous variables) and internal consistency (i.e., Cronbach's coefficient α). In addition, the validity of the SACA items was evaluated by assessing the association with several criterion variables, including incarceration history and behavioral problems during incarceration. On the basis of the results, several of the items originally developed were eliminated, with the final scale being used for subsequent validation analyses (e.g., concurrent and discriminant validity, incorporating the WAI, PCL-SV, and BPRS).

Results

Scale and Item Analyses

Inter-rater reliability, based on 41 cases for which paired ratings were available, generated an intraclass correlation coefficient of 0.85 (95% confidence interval): 0.71–0.92) for the SACA total score, indicating a high degree of inter-rater reliability. However, there was some variability among the individual SACA items, with ICCs ranging from 0.51 to 0.95 (Table 2). The items with the highest inter-rater reliability were items 10 (wolfing, ICC = 0.99), 6 (stonewalling, ICC = 0.91), and 11 (cliquing, ICC = 0.85), while those with the lowest inter-rater reliability included items 16 (dissembling, ICC = 0.51), 12 (medication compliance, ICC = 0.55), and 3 (isolation, ICC = 0.59).

Internal consistency analysis (based on consensus scoring when the raters disagreed) yielded a Cronbach's coefficient α of 0.70 for the 16-item scale (Table 2). Item-total correlations also varied considerably across items, with items 1 (respect, $r = 0.43$) and 10 (wolfing, $r = 0.40$) having the highest item-total correlations and items 5 (snitching, $r = -0.01$) and 3 (isolation, $r = 0.18$) demonstrating the lowest.

The validity of the individual SACA items was assessed by using bivariate correlation coefficients with criminal history variables thought to be associated with the construct of correctional adaptation: a history of prior arrest (yes/no), disciplinary tickets while incarcerated, and cumulative number of months sentenced to incarceration. As is evident in Table 2, several SACA items, along with the SACA total score were significantly associated with these criminal history variables. For example, the SACA item that assesses the attitude toward treatment as being a prison sentence instead of an opportunity for rehabilitation, termed bid mentality, was significantly associated with the presence of an arrest history ($r_{pb} = 0.24$, $p = .004$) and frequency of disciplinary infractions in prison ($r = 0.25$, $p = .006$). In addition, the SACA scale item termed respect, which assesses a hypersensitivity to perceived disrespect, was significantly associated with an arrest history, ($r_{pb} = 0.21$, $p = .009$) and frequency of disciplinary tickets in prison ($r = 0.27$, $p = .003$).

Table 2 Interrater Reliability, Internal Consistency, and Concurrent Validity of SACA Items and Total Score

SACA Item	Mean (SD)	ICC (95% CI)	Item-Total *r*	Arrested (Yes/No)*	Disciplinary Tickets†§	Time Incarcerated†§
1. Respect	0.71 (.74)	0.64 (.33–.81)	0.43	0.21‖	0.27‖	0.18
2. Trust	1.08 (0.76)	0.79 (0.62–0.89)	0.37	0.17‖	0.07	0.11
3. Isolation	0.88 (0.80)	0.59 (0.24–78)	0.18	0.07	−0.001	−0.05
4. Manipulation	0.32 (0.61)	0.62 (0.29–0.80)	0.21	0.18‖	0.11	−0.14
5. Snitching	0.20 (0.49)	0.65 (0.34–0.81)	−0.01	−0.004	0.10	0.01
6. Stonewalling	0.84 (0.83)	0.91 (0.83–0.95)	0.36	0.15	−0.03	0.09
7. Vigilance	0.81 (0.82)	0.77 (0.56–0.88)	0.34	0.14	0.13	0.07
8. Bid mentality	0.61 (0.71)	0.66 (0.36–0.82)	0.31	0.24¶	0.25¶	0.09
9. Posturing	0.26 (0.54)	0.66 (0.35–0.82)	0.38	0.12	0.35¶	0.14
10. Wolfing	0.39 (0.71)	0.95 (0.90–0.97)	0.40	0.07	0.19‖	−0.01
11. Cliquing	0.10 (0.32)	0.85 (0.71–0.92)	0.20	0.03	0.12	0.05
12. Medication compliance	0.43 (0.75)	0.55 (0.15–0.76)	0.28	−0.005	0.19¶	−0.07
13. Do own time	1.02 (0.84)	0.72 (0.47–0.85)	0.28	0.14	−0.01	0.23‖
14. Stigma	0.62 (0.79)	0.77 (0.57–0.88)	0.31	0.06	0.27¶	0.07
15. Malingering	0.09 (0.35)	0.77 (0.56–0.87)	0.36	0.11	0.17‖	−0.01
16. Dissembling	0.18 (0.48)	0.51 (0.09–0.74)	0.36	0.05	0.07	−0.06
SACA total score	8.38 (4.5)	0.85 (0.71–0.92)	0.70[a]	0.25¶	0.32¶	0.15

ICC, intraclass correlation coefficient; CI, confidence interval; time incarcerated, cumulative time sentenced to incarceration; disciplinary tickets, self reported frequency category of number of disciplinary tickets received for rule infractions in prison.
*Point biserial correlation coefficient.
†$n = 124$.
‡Spearman correlation coefficient.
§Pearson correlation coefficient.
‖$p < .05$.
¶$p < .01$.

An examination of the individual SACA items revealed four items that appeared considerably weaker than the remainder, as evidenced by both poor reliability (i.e., low item-total correlations and/or poor inter-rater reliability) as well as weak validity (nonsignificant associations with criminal history variables). These items (3, isolation; 5, snitching; 11, cliquing; and 12, medication compliance) were excluded from subsequent analyses, resulting in a 12-item final version of the scale. Coefficient α for the revised, 12-item scale was 0.70.

Convergent and Discriminant Validity of the SACA-12

Validity of the 12-item SACA was assessed through bivariate correlations with variables expected to be associated with correctional adaptation (e.g., criminal history variables and patient-clinician working alliance) as well as variables that, in theory, should not be associated with this construct (e.g., severity of psychiatric symptoms). Bivariate correlational analyses indicated that the SACA-12 was significantly associated with a history of arrest ($r_{pb}(148) = 0.29, p < 001$) and number of disciplinary tickets while incarcerated ($r_s(119) = 0.29, p = .002$). The association with length of time incarcerated approached significance ($r_s(120) = 0.16, p = .09$). As expected, SACA total score based on the 12-item scale correlated significantly with scores on the Psychopathy Checklist, Screening Version (PCL-SV; $r = 0.49, p < .001$).

Correlation Between SACA-12 and Working Alliance Inventory

There was also a significant negative association between SACA total score and the Working Alliance Inventory Bond scale ($r(82) = -0.26, p = .02$), although neither the goals nor tasks scale of the WAI was significantly associated with SACA scores (Table 3). When these associations were reanalyzed after controlling for psychopathy (PCL-SV) and symptom severity (BPRS score), the significant association between higher SACA total scores and lower scores on the WAI Bond scale remained significant ($r(76) = -0.26, p = .02$), but the associations with criminal history did not.

Discussion

One consequence of the growing number of individuals with mental illness in the correctional system is the associated increase in the number of individuals in community treatment who have experienced incarceration. Studies have estimated the percentage of

Table 3 Bivariate Correlations of the SACA-12 With Select Variables

Variable	SACA-12
Age, y	0.04
Arrested (versus no arrest)	0.29*
Disciplinary tickets	0.30*
Time incarcerated	0.16
WAI	
Total	−0.14
Task	−0.10
Goal	0.10
Bond	−0.26*
PCL-SV	
Total score	0.49*
Factor 1	0.38*
Factor 2	0.48*
BPRS total score	0.22*

$N = 149$.
*$p < 0.05$.

psychiatric patients with a history of criminal justice contact as ranging from 42 to 66 percent.[10–12] The readjustment challenges that inmates face on returning to the community are myriad. Many of these challenges are related to the societal barriers placed on all returning inmates, including difficulties accessing jobs, housing, and benefits.[13] In addition to those challenges, individuals with mental illness face the added complications of needing immediate medical benefits to access necessary treatment and having to deal with the social stigma of mental illness that affects all psychiatric patients. However, even when access to treatment is attained, the adaptations that the offenders have made to the correctional environment (which we term correctional adaptations) complicate their integration into clinical settings because many of the values, beliefs, and behaviors of the incarceration culture are antithetical to those of the mental health culture, where open sharing, honesty, trust, and community mindedness are valued and expected. This clash of cultures impedes the development of the therapeutic alliance and collaborative goal-setting that is necessary for successful engagement in treatment.[4]

The present study provides one of the first systematic demonstrations of correctional adaptation, based on a newly developed scale specifically designed to assess this construct. The SACA appears to be a reliable and valid method of assessing correctional adaptations and can help identify and quantify the antitherapeutic traits often associated with (although not necessarily unique to) a history of incarceration. Of even greater clinical significance, even with adjustment for psychopathy and symptom severity, higher scores on the SACA were significantly related to lower scores on the WAI Bond scale (i.e., a poorer therapeutic relationship). That the SACA was not significantly associated with criminal history variables after adjustment for psychopathy, suggests simply that the PCL-SV is a more robust measure of criminality. Of course, the lack of longitudinal data precludes any assessment of causal relationships between correctional adaptations and working alliance, but the cross-sectional data presented herein are certainly consistent with the hypothesized relationship.

The principles of community forensic treatment are familiar to practitioners who work in the public mental health system.[13] They include clear treatment goals, established liaison relationships with criminal justice agencies, provider comfort with exercising authority, the need for structure and supervision, an understanding of violence risk management, and community support. In addition, community forensic treatment typically highlights services associated with the clinical needs of this population, including the need for integrated treatment of mental health and co-occurring substance abuse, trauma-sensitive interventions, and cognitive-behavioral approaches for co-existing personality disorders. However, mental health interventions are predicated on engaging the patient in treatment, which is a particular challenge in the offender population.

Our findings support the hypothesis that, in addition to whatever underlying clinical issues may complicate the process of treatment engagement (e.g., psychopathy and symptomatology), the experience of incarceration itself has an enduring impact and creates additional barriers to establishing the trusting, collaborative relationship that is necessary for successful treatment. Although the present study did not attempt to identify a cutoff for classifying individuals who exhibit high levels of correctional adaptation (as the SACA was not intended for classification purposes), it may help identify individuals who warrant additional therapeutic interventions that can reduce the impediments that correspond to these adaptations. Our research team is currently refining and evaluating one such intervention,[4,6,14] in hopes of improving the clinical outcomes for this underserved and understudied population.

The present study is not without limitations, including the use of convenience sampling, the restriction of study participation to males, the lack of lon-

gitudinal data (to help clarify causal associations), and the modest sample size (particularly for analyses involving the WAI, BPRS, and PCL-SV). Perhaps more important, patient perceptions of the working alliance, although independent of the clinician-rated SACA scores, should ideally have been contrasted with treating clinician's ratings of the working alliance. There tends to be moderate agreement between patient and therapist ratings of the working alliance, although this agreement decreases when clients have severe psychiatric disturbances and substance abuse.[15] Despite these limitations, the findings from this study appear to support the construct of correctional adaptations, the use of the SACA as a tool for measuring their presence and the challenges to the development of a therapeutic alliance that may be associated with such adaptations. Clearly future research must begin to examine the variables that may influence correctional adaptations, including specific aspects of one's criminal history, the nature of the incarceration setting (e.g., jail versus prison, experience in specialized psychiatric units, time spent in administrative segregation), and other clinically relevant history such as trauma, violence, and substance abuse.

In the meantime, the current study helps to refine a structured assessment approach for this population and highlights the need for provider sensitivity to and understanding of the influence of jail and prison experience on individuals with mental illness to help them engage in treatment and adapt to the clinical environment and its expectations. The SACA can help in furthering that understanding in individual patients, both to what degree correctional attitudes and behaviors shape their thinking and behavior in the clinical setting and which particular adaptations are most relevant for them. In addition, as a reliable tool, the SACA can provide an opportunity for further research into the effects of the incarceration experience on mentally ill offenders and may also be useful in measuring the outcome of interventions that target this clinical challenge.

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