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EXPLORING PRISON ADJUSTMENT AMONG FEMALE INMATES

Issues of Measurement and Prediction

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This article explores the factor structure and concurrent validity of the Prison Adjustment Questionnaire with a cohort of 777 maximum-security female inmates. Results suggest a two-factor solution of a Distress factor and a Conflict factor, both of which demonstrate good concurrent validity using the Brief Symptom Inventory (BSI) Global Severity Score, institutional misconduct, security level, and self-report violence. Regression analyses indicate scores on the Distress factor were predicted by the BSI Anxiety Scale, having children, not being of minority status, and prior incarceration. Scores on the Conflict factor were predicted by BSI Hostility, BSI Phobic Anxiety, presence of a personality disorder, being married, being the victim of threats and physical assaults, time served, and being incarcerated for a violent crime.

Keywords: prison adjustment; female inmates; Prison Adjustment Questionnaire; concurrent validity; emotional distress and conflict

As the number of incarcerated women increases across both state and federal institutions (Bureau of Justice Statistics, 1999), interest in measuring how women adjust to this unique living environment

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becomes increasingly relevant to policy makers, mental health practitioners, and agencies mandated to provide supervision and care to these women. Liability issues associated with self-harm or harm toward others, humanitarian interests in the mental and physical health of these women, and a rehabilitative interest in the successful return of these women to the community underscore the need to understand the experience of these women as they undergo the costly, sustained, and disruptive experience of prison incarceration. Thus far, the majority of research on this topic has focused on men. This gender-specific focus undoubtedly has been influenced by the far greater number of men who are incarcerated across the United States each year. However, it also appears to be affected by the less-articulated belief that women adjust more easily and with less violent disruptions than men. The few existing comparative studies point to substantial differences in adjustment patterns between male and female inmate populations (Koban, 1983; Linquist & Linquist, 1997; Sobel, 1982).

The early research on adjustment among male inmates is directed toward arriving at methods for best classifying prisoners for potential differential treatment or corrective actions. These initial studies use the Minnesota Multiphasic Personality Inventory (MMPI) and later the 10-profile MMPI taxonomy developed by Megargee (Megargee & Bohn, 1979) to determine offenders' classifications as they relate to different patterns of institutional adjustment (Carbonell, Megargee, & Moorhead, 1984; Carey, Garske, & Ginsberg, 1987; Davis, 1974; Hanson, Moss, Hosford, & Johnson, 1983; Wright, 1988). Although such methods were generally successful in ensuring the comprehensive classification of the majority of prisoners, the results were disappointing in usefully predicting actual patterns of prison behavior. Hanson et al. (1983) explored the relevance of demographic variables and the Megargee offender typology (Megargee & Bohn, 1979), security designation, and custody classification in assessing the penitentiary adjustment of 337 male inmates. They found custody classification and age were the most robust predictors of adjustment, with only one of the 10 Megargee types relating to the measures of overall institutional adjustment.

The second generation of research concerning prison adjustment focuses less on classification and more on the processes by which inmates improve or deteriorate in their level of functioning. MacKen-

zie and Goodstein (1985) examined the adjustment of 1,270 male inmates incarcerated in three U.S. prisons. They studied the relationship between demographic variables, measures of prosocial lifestyle (e.g., employment prior to incarceration), degree of previous experience with the criminal justice system, present conviction, and a variety of affective measures (e.g., depression, anxiety, psychosomatic illness, fear). They found that inmates who were new to prison and who anticipated serving long sentences reported poorer adjustment than inmates who had already spent significant amounts of time in prison. Short-term inmates who were new to prison reported better adjustment than new inmates who were sentenced to longer periods of incarceration. Similar results were obtained by Zamble (1992).

A single meta-analysis examines prison adjustment in male prisoners and the factors that best predict prison misconduct (Gendreau, Goggin, & Law, 1997). Based on 39 studies published from 1940 to 1995, Gendreau et al. (1997) computed 695 effect sizes to assess 12 predictor domains that examined the relative importance of situational versus personal variables in predicting both violent and nonviolent infractions. They found that age, criminal history, and antisocial attitudes and behavior were the most powerful predictors in the personal domains, whereas time served and institutional factors were the most powerful predictors in the situational domain. Taken as a whole, the situational factors outweighed the personal variables in predicting violent misconduct. Gendreau et al., nonetheless, underscored the need to examine the interactions between these domains as "when offenders high on personal risk factors live in precarious prison environments potentially volatile consequences are more likely to result" (p. 426).

Research concerning women in prison focuses on similar issues of change over time while also exploring differences between males and females in terms of their parenting experiences and the degree of psychiatric distress experienced in response to various types of environmental stress. MacKenzie, Robinson, and Campbell (1989) sought to examine the adjustment patterns of female inmates as determined by length of sentence and current time served. Inmates who were new to prison reported fewer perceived problems with their environment but were more concerned about issues of safety and tended to organize themselves more consistently in groups referred to as play families.

Those inmates who had served significant amounts of time were much more concerned about real limitations in their environment including access to family, interesting work, and stimulating activities.

Further research highlights the significance of the parenting role for female inmates. Sobel (1982) examined differences in the educational and occupational opportunities offered to male and female inmates and reviewed the various ways incarceration affected the mother-child relationship. Koban (1983) similarly sought to define the effects of incarceration on parenting, documenting numerous ways in which females had greater difficulty adjusting to separation from children than did male inmates. Relative to men, women reported more difficulty in maintaining adequate contact with their children and a greater decline in the number of visits over time. Fogel (1993) and Fogel and Martin (1992) documented the difficulties women experienced adjusting to separation from children and the consequent affect on their mental well-being.

More recently, Linquist and Linquist (1997) attempted to compare the effects of gender and environmental stress on the mental health of male and female inmates. Using Derogatis's (1993) Brief Symptom Inventory (BSI), they found that women reported higher levels of distress on the Somatization, Obsessive-Compulsive, Depression, Anxiety, and Psychoticism subscales as well as the Global Severity Index. Being married was correlated with higher levels of distress, whereas being a parent, serving a longer sentence, and having experienced a prior incarceration were not. The degree of environmental distress was measured using the Environmental Quality Scale, which measures the perceived supply of seven environmental resources (privacy, safety, certainty, assistance, support, activity, and autonomy), and the Jail Preference Inventory, which examines the same seven dimensions using a comparison by pairs format. Linquist and Linquist found that environmental stress was more highly correlated with psychological distress for women, whereas issues of safety and activity correlated significantly with scores on the BSI for both male and female inmates.

One measure developed for use with male inmates but which appears to hold potential for extending and standardizing our understanding of prison adjustment among women is the Prison Adjustment Questionnaire (PAQ) (Wright, 1985). The PAQ was initially

developed to explore differences in prison adjustment between African American and Caucasian male inmates. Assuming differences in prior life experience and biases in official reporting, the PAQ was designed to assess comparative adjustment of prisoners within prison in contrast to the community while also assessing discomfort with prison across several dimensions. The PAQ's dual intent of controlling for differences in prior life experiences while also standardizing both subjective and behavioral dimensions of the prison experience appeared to be particularly useful for assessing women. The available research documents the high levels of abuse, victimization, and substance abuse that often precedes women's entry into prison and has begun to suggest that a significant number of women find life in prison safer and more stable than life in the community (Browne, Miller, & Maguin, 1999; Bureau of Justice Statistics, 1999; Warren et al., 2002). Research that demonstrates the high level of psychiatric symptomatology observed among female inmates (Jordan, Schlenger, Fairbank, & Caddell 1996; Singer, Bussey, Song, & Lunghofer, 1995; Teplin, Abram, & McClelland, 1996), combined with the consistency of arguments and fights that occur between women in prison (Warren et al., 2002), also underscores the importance of a multidimensional measure that takes into account subjective distress as well as physical aggression.

In the current study, the authors sought to explore the applicability of the PAQ (Wright, 1985) in validly measuring the experience of a large cohort of imprisoned women. First examined was the factor structure of the PAQ to determine whether the dimensional structure of the instrument was similar across male and female samples and to determine the internal consistency of the resultant scales. Second, alternative scoring techniques that were anticipated to ensure greater applicability with female inmates and provide a more useful index for studying adjustment among women at various stages of their prison careers were explored. Third, the concurrent validity of the PAQ's two-factor model was examined and validated using measures of institutional adjustment and psychological distress. Fourth, a block design multiple regression was used to predict high scores on the PAQ using a variety of demographic, criminological, and psychological variables.

METHOD

PARTICIPANTS AND RECRUITMENT PROCEDURES

Women at a maximum-security state prison were invited to participate in a larger study of adjustment and coping in prison. The women were contacted directly in their units during a 6-month period. Accompanied by correctional staff, the researchers entered each unit of the prison on a rotating basis and briefly described the nature of the study to the women. Immediately following this introduction, the women were invited to accompany the research staff to two rooms in the educational building where they filled out the research protocol. The research protocol generally took from 45 to 60 minutes. From this contact, 802 inmates, which represented almost two thirds of prison census during the course of the study, agreed to participate in this segment of the research study. Due to missing data on the various instruments, 777 inmates completed the Prison Adjustment Inventory and the other instruments used in the current study. Participants in the research sample were compared with all nonparticipants who were in the prison from the time it opened until the end of data collection 21 months later. The two groups were compared on race, violent criminal offense, sentence, number of instances of institutional misconduct, and security classification using information from the prison files. The participants and nonparticipants did not differ on the variables of race, sentence, or time served, although the research sample was statistically significantly younger (sample $M = 33.5$, $SD = 8.67$; nonsample $M = 35.5$, $SD = 8.86$) and had more counts of institutional misconduct (sample $M = 2.05$, $SD = 3.42$; nonsample $M = 1.83$, $SD = 3.60$).

MEASURES

PAQ. The PAQ (Wright, 1985), a two-part measure, was used to measure prison adjustment. In the first segment, items were designed to assess adjustment in prison as compared to adjustment in the community. These items included the experience of being uncomfortable around inmates and correctional officers, feelings of anger, fear of

being attacked, illness and injury, trouble sleeping, physical fights and arguments, and instances of feeling taken advantage of by others. In the questionnaire, the respondents were asked to answer 9 of the 11 questions on the scale to indicate if the problem was worse in prison or worse in the community. Two questions pertaining to being uncomfortable around and having arguments with correctional officers were excluded from the comparison questions due to the fact that they involved experiences unique to the prison environment and therefore could not be compared to life in the community.

Using the Wright (1985) scoring procedure, if the respondent answered that the problem was no worse in prison, she received a score of 0, regardless of her estimate of the severity of the problem in prison. If the inmate indicated that the problem was worse in prison, the score on the ordinal scale was assigned a severity level using a 1 to 4 scale. The second segment of the questionnaire involved additional questions that query the inmate as to quality of life issues including ability to obtain adequate exercise, sleep, food, activity, and privacy; understanding prison rules; presence of good friends; and opportunities to better her job situation when released.

Institutional misconduct. A file review was conducted for each inmate to ascertain the number of institutional "tickets" each had obtained between the time that the prison opened in April 1998 and close of data collection in January 2000. Each count of institutional misconduct was assigned to one of three categories: violent infractions, nonviolent infractions that violate societal rules (e.g., theft), and behaviors that are rule infractions only because of the incarcerated status of the women (e.g., smoking in a nondesignated area or refusing to report for work).

Security classification. The custody level of each inmate was ascertained at the time of her record review as described above. The prison recognized three security levels: low, medium, and high. It reflected a multifaceted assessment, which included factors such as instant offense, institutional misconduct, time served, and prior violent behavior.

Prison Violence Inventory. A Prison Violence Inventory was created to measure the amount of violence each inmate had both experienced and perpetrated since arriving at the correctional institution. This measure was modified from a measure assessing community violence (Monahan et al., 2001). Dimensions of violence experienced, both as a perpetrator and victim, were quantified using eight items. The items included perpetration of threats; throwing objects at another inmate; pushing, grabbing, or shoving; slapping, kicking, biting, or choking another inmate or guard; hitting with a fist or beating someone up; forcing someone to have sex; and threatening someone with a weapon since being incarcerated. The scores on these various items were measured as either 0 or 1. These were added into three cumulative scales (i.e., physical violence, threats, and sexual assault) and combined into a total score. Victimization experienced while incarcerated followed the same format.

BSI. The BSI (Derogatis, 1993) was used to assess various aspects of Axis I psychopathology. The BSI is a 53-item measure of mental health symptom status at a particular point in time (i.e., in the past 7 days). Three of the nine subscales, Depression, Anxiety, and Somatization, plus the composite Global Severity Index, were used in the current study. This instrument has been used with large samples of adult female nonpatients, adult female psychiatric outpatients, and adult female psychiatric inpatients. It allows for a comparison of the prison sample to other clinical and nonclinical populations. Test-retest coefficients range from a low of 0.68 for Somatization to a high of .91 for Phobic Anxiety, with the Global Severity Index demonstrating .90 reliability (Derogatis, 1993).

Structured Clinical Interview for DSM-IV Personality Disorders Screening Questionnaire (SCID-II Screen). The SCID-II Screen was used to collect information regarding the 10 personality disorders listed in the *Diagnostic and Statistical Manual of Mental Disorders* (4th ed.) (American Psychiatric Association, 1994): paranoid, schizoid, schizotypal, antisocial, borderline, histrionic, narcissistic, avoidant, dependent, and obsessive-compulsive (First, Gibbon, Spitzer,

TABLE 1: Sample Characteristics by Frequency and Percent

	Frequency	Percent
Age		
Younger than age 32	343	48
Older than age 32	370	52
Race/Ethnicity		
Minority	468	61
Nonminority[a]	297	39
High school education		
Yes	398	52
No	361	48
Ever married[b]		
Yes	403	46
No	349	54
At least one child		
Yes	596	79
No	161	21
Length of sentence[c]		
Less than 5 years	391	57
More than 5 years	297	43
Time served		
Less than 1 year	114	17
More than 1 year	561	83
Prior incarceration		
Yes	248	33
No	504	67
Violent conviction		
Yes	256	65
No	474	35

Note. Total *N* varies due to missing data.
a. Includes African American (54%), Hispanic (1%), Asian (1%), Native American (1%), and Other/Biracial (4%).
b. Women selecting "Common Law Marriage" were included as having been married.
c. Range in months (12 to 1080).

Williams, & Benjamin, 1995a, 1995b). The SCID-II Screen contains criteria questions for each of the 10 personality disorders stated in lay terms to determine areas of personality pathology most relevant to an individual assessment.

Demographic and crime history variables. Five demographic variables were used to explore differences across dimensions of adjustment as measured by the PAQ. These included age, minority status,

TABLE 2: Frequencies for Prison Adjustment Questionnaire Items Assessing How Well Prison Environment Meets Inmates' Needs

Personal Need	Often or Always	Seldom or Never
Feel cell is home	155 (20)	618 (80)
Enough exercise	182 (24)	589 (76)
Enough sleep	322 (42)	450 (58)
Enough to eat	321 (42)	451 (58)
Enough to do	188 (24)	585 (76)
Enough privacy	118 (15)	654 (85)
Understand rules	678 (88)	94 (12)
Necessary training	(yes) 357 (48)	(no) 390 (52)
Have friends	(some or many) 589 (76)	(none) 185 (24)

Note. Values enclosed in parentheses represent percent of sample.

attainment of a high school degree, marital status (having ever been married), and parental status (mother of children or not). Crime history was described in terms of the length of sentence, time served, prior incarceration, and current conviction for a violent crime (see Table 1).

RESULTS

PAQ

Table 2 displays the frequencies for the nine items on the PAQ that assessed how well the inmates feel the prison environment is currently meeting their needs, without regard to their experiences before incarceration. The majority of the women reported understanding the rules and having friends, whereas close to half indicated they were receiving the training they required for reintegration into society, were generally obtaining enough to eat, and appeared to be getting sufficient sleep. On the remaining questions, a majority of women reported that the needs for exercise, activity, and privacy were not currently being met.

Table 3 summarizes inmates' assessment of the relative difficulty of adjusting to prison in comparison to life in the community. Feeling uncomfortable around people and problems sleeping were the only

TABLE 3: Frequencies for Screening Variable Worse in Prison

Problem	Worse in Prison	Worse Outside, the Same, or Not Endorsed as Problem
Uncomfortable around people	447 (58)	330 (42)
Problems sleeping	412 (53)	365 (47)
Feeling angry	294 (38)	483 (62)
Heated arguments	177 (23)	600 (77)
Fights	36 (5)	741 (95)
Being injured	48 (6)	729 (94)
Being sick	165 (21)	612 (79)
Fear of being attacked	179 (23)	598 (77)
Fear of being taken advantage of	189 (24)	588 (76)

Note. Values enclosed in parentheses represent percent of sample.

items for which a majority of women reported the problem was worse in prison. For the majority of the women, feeling angry, getting into heated arguments, having fights, being injured, being sick, and fear of being taken advantage of were worse or the same when they lived in the community or were not reported to be a significant problem for the women while living in prison. Fewer than 10% of the women reported that fighting or being injured was worse since being incarcerated.

FACTOR STRUCTURE AND ALTERNATIVE SCORING

To explore the internal structure of the PAQ and to compare results with those found in incarcerated men, the various items indicating whether a particular problem was worse during incarceration and if so, how frequently it occurred, were submitted to exploratory factor analysis (varimax rotation). A three-factor solution was initially conducted, as this reflected the results reported by Wright (1985) with male inmates. The three-factor solution included an Internal factor (uncomfortable around inmates, 0.79; uncomfortable around staff, 0.75); an External factor (feeling angry, 0.37; heated arguments with inmates, 0.77; fights, 0.45); and a Physical factor (being injured, 0.39; being sick, 0.47; fear of being attacked, 0.49; fear of being taken advantage of, 0.43). A number of observations deriving both from the scoring of the items and the factor results suggested that a more optimal solution could be obtained for the female population.

TABLE 4:   Factor Loadings and Internal Reliability for Warren et al. (2002) Female Derived Two-Factor Solution

Problem	Distress	Conflict
Uncomfortable around inmates	.68[a]	−.06
Uncomfortable around staff	.41[a]	.21
Problems sleeping	.56[a]	−.05
Being sick	.34[a]	.09
Fear of being attacked	.58[a]	−.04
Fear of being taken advantage of	.50[a]	.06
Feeling angry	.33	.46[b]
Heated arguments with inmates	.06	.66[b]
Heated arguments with guards	−.11	.78[b]
Fights	−.03	.53[b]
Being injured	.25	.26[b]
Coefficient alpha	.69	.70

a. Indicates variable loaded on Distress factor.
b. Indicates variable loaded on Conflict factor.

First, both the Eigenvalues and the low internal reliability for the Physical Scale suggested that a two-factor solution might be more parsimonious. Second, the scores on the items were not ordinal because the 0 category represented two possible responses, either that the problem did not currently occur or that the problem was not worse in prison. Third, for most items, a majority of women did not report that their environment had worsened since incarceration. Wright (1985) recommended scoring procedures that assign a 0 score for such items, regardless of how frequently the item is rated as occurring during incarceration. Based on these findings, an alternative factor analysis was conducted using only the frequency with which problems are endorsed in prison.

The first three Eigenvalues suggested a two-factor solution (3.9, 1.2, and 0.51, respectively). Table 4 presents the factor loadings and Cronbach's coefficient alphas for the two factors. All variables had sufficient loadings, and this solution suggested a Conflict factor, capturing feeling angry, arguing, fighting, and being injured, and a Distress factor, composed of being uncomfortable around people, sleep problems, being sick, and fear of being attacked or taken advantage of. Being injured was a complex variable with moderate and similar loadings on both factors. The two factors were substantially correlated ($r = .42$).

TABLE 5:   Concurrent Validity: Correlations Between Scales Derived From Two-Factor Solution and Self-Report, Psychological, and Adjustment Measures

Measure	Distress	Conflict
Brief Symptom Inventory		
Anxiety	.54***	.36***
Somatization	.45***	.25***
Obsessive-Compulsive	.48***	.37***
Depression	.50***	.34***
Hostility	.37***	.61***
Interpersonal Sensitivity	.46***	.34***
Phobic Anxiety	.41***	.24***
Paranoid Ideation	.44***	.41***
Psychoticism	.48***	.33***
Global Severity Index	.57***	.42***
Prison Violence Inventory		
Physical assaults	.11**	.47***
Threats	.09*	.44***
Sexual assaults	.04	.15***
Institutional misconduct		
Violent	.02	.22***
Nonviolent socially proscribed	.02	.29***
Prison rule based	.07	.32***
Security classification	.04	.28***

$*p < .01.$ $**p < .003.$ $***p < .0001.$

Based on the alternative two-factor analysis, for each inmate a Distress Scale score was computed from the mean of her scores on the variables loading on the Distress factor and a Conflict Scale score was computed using the identical procedure. The mean for the Distress Scale was 2.50 ($SD = 0.77$). The distribution did not violate the assumptions of normality. The mean for the Conflict Scale was 1.82 ($SD = 0.61$). Although the distribution was positively skewed (skewness = 0.93), the option of transformation was rejected because of the large sample size and to preserve the interpretability of the results.

CONCURRENT VALIDITY

To assess concurrent validity of the PAQ, scores on the alternative two factor–derived scales observed in the present study, Distress and Conflict, were evaluated for relationships with a measure of psycho-

logical symptomatology (BSI Global Severity Index), self-report of violence perpetration, security classification, and average counts per month of violent, nonviolent socially proscribed, and prison rule–based institutional misconduct. As summarized in Table 5, the Prison Adjustment Scale scores demonstrated consistent relationships with the validating measures. Psychological symptomatology as measured by the BSI Global Severity Index correlated significantly with both scales but demonstrated higher correlation coefficients with the Distress Scale. The self-reported perpetration of violence, counts of institutional misconduct, and security classification were strongly related to the Conflict Scale. Only two of these variables, physical assaults and threats, were more moderately related to the Distress Scale.

MULTIPLE REGRESSION ANALYSES

Standard multiple regressions were conducted using the block entry method to determine which of the demographic/history variables (age, race, parental status, marital status, educational status, and self-report victimization), criminological variables (length of sentence, time served, prior incarceration, and conviction for a violent crime), and psychological variables (BSI subscales including Depression, Anxiety, Hostility, Interpersonal Sensitivity, Somatization, Obsessive-Compulsive, Paranoid Ideation, Phobic Anxiety, Psychoticism, and the SCID-II Screen) were significantly related to the Distress and Conflict Scales on the PAQ. Collinearity diagnostics were conducted to avoid overfitting the models. In instances where there was multicollinearity between the independent variables with a condition index value exceeding 30, variables explaining the greatest amount of variance were retained in the analyses.

As indicated by Table 6, the model predicting scores on the Distress Scale was significant, $F(10, 587) = 17.88$, $p = .01$, and explained 37% of the variance. A single psychiatric variable, BSI Anxiety, explained 26% of the variance in the model and was the only significant BSI subscale score that remained in the model. The demographic block retained two variables (i.e., being a parent and being a nonminority) and explained an additional 12% of the variance. The one criminological variable that was retained in the model (i.e., having experienced a

TABLE 6: Regression Analyses for Variables Predicting Distress and Conflict Scales of the Prison Adjustment Questionnaire

Scale	β	SE	F	t	Adjusted R^2	Partial R^2	p
Distress			17.88		.37		.000
1st Block—Demographics/ History						.12	
Having kids	.15	.07		1.38			.023
Being a minority	−.21	.06		−3.53			.000
2nd Block—Criminological						.01	
Prior incarceration	.17	.06		2.85			.005
3rd Block—Psychiatric						.26	
BSI—Anxiety	.18	.05		3.35			.001
Conflict			32.30		.50		.000
1st Block—Demographics/ History						.23	
Been married before	−.09	.04		−2.50			.013
Victim of threats prior to age 18	.12	.04		3.09			.002
Victim of physical assault prior to age 18	.48	.02		2.64			.008
2nd Block—Criminological						.02	
Time served	.00	.00		2.15			.032
Conviction for violent crime	.09	.04		2.22			.027
3rd Block—Psychiatric						.27	
BSI—Hostility	.31	.03		12.77			.000
BSI—Phobic Anxiety	−.10	.03		−3.34			.001
Presence of personality disorder	.22	.06		3.57			.000

Note. Partial R^2 is derived from R^2 not Adjusted R^2. BSI = Brief Symptom Inventory.

prior period of incarceration) explained approximately 2% of the model variance.

The model predicting scores on the Conflict Scale was also significant, $F(10, 602) = 32.30$, $p = .01$, and explained 50% of the variance. As summarized in Table 6, the psychiatric block retained three variables, including a higher score on the BSI Hostility subscale, a lower score on the BSI Phobic Anxiety subscale, and a positive screening for the presence of a personality disorder. It captured 27% of the model variance. The demographic block retained three variables including

having been married, being the victim of threats before the age of 18, and being the victim of physical assaults before the age of 18. This block of variables assumed 23% of the model variance. The criminological block that included two variables (i.e., time served and conviction for a violent crime) explained 2% of the model variance. There was no overlap in terms of which variables were significant for the two factors, suggesting that although correlated, the scales measure different theoretical constructs of prison adjustment.

DISCUSSION

The current study suggests that prison adjustment can be validly measured in a female population using the PAQ. The PAQ correlated in a consistent and theoretically interpretable manner with validated measures of psychiatric distress, self-report measures of violence perpetration and violence victimization, as well as institutional counts of misconduct and security classification. The consistency of validation across psychological measures, self-report inventories, and institutional assessments suggest a consistent and multifaceted measurement of the behaviors and experiences associated with adjustment to a prison environment.

The authors' attempts to explore the dimensional structure of the PAQ measure when used with women as contrasted to men suggest both similarities and differences. As summarized above, a two-factor solution fits the current data better than the three-factor solution reported by Wright (1985) when validating the measure with male inmates. It initially appeared that these results suggested a unique structural model for women that encompassed on one hand states of emotional distress and on the other hand, physical conflict and angry arguments with others. A close inspection of the original Wright analyses, however, suggests a two-factor solution might have better fit the original male data, making the structural distinction for males and females less germane than it had originally appeared. Interestingly, the two-factor distinction labeled Distress and Conflict in the current study reflects the two theoretical constructs that Wright originally sought to measure when developing the PAQ (i.e., emotional distress and physical aggression).

The scoring used in our two-factor structure diverges from the scoring regime developed by Wright (1985) for use with male inmates. Wright chose to develop a measure that compared the various adjustment questions in prison as they related to adjustment in the community (i.e., Is this problem worse than in the free world?). This comparative format apparently was designed to factor out individual differences in adjustment that were not situationally specific to prison. Implicit to this comparative format was the relatively straightforward assumption that in most instances, inmates would experience more problems with adjustment in prison than in the community. The manner in which Wright reported his data does not allow for an explicit examination of this assumption, although the structural model that he reported captures a significant amount of item variability, suggesting that the majority of the inmates obtained an ordinal score on the 11 subscales of the PAQ. Based on the scoring rules that Wright used (i.e., a score of 0 if the problem was not worse in prison), these results would confirm this basic assumption that adjustment of men was, on average, more difficult in prison than in the community.

In contrast and in the current study, the majority of the women reported that they had worse problems with feeling angry, having heated arguments, getting involved in fights, being injured, getting sick, and fearing an attack when they were living in the community than when they were living in prison. These rather unexpected findings appear to be of both sociological and methodological significance. Regarding the former, it is the authors' impression that many female inmates feel safer, calmer, and physically more secure in prison than they do in the outside world, a point of important consideration for professional audiences. This finding apparently quantifies the instability and chaos of the inmates' preincarceration lives rather than any degree of comfort afforded to them by the prison environment.

Methodologically, this finding suggests that the scoring procedure used by Wright (1985) may be inappropriate for use with a female sample. If his comparison scoring procedure was used to summarize the current data, it would inappropriately suppress and hide the problems with adjustment that this sample experienced in prison due to the unusually harsh nature of their lives prior to being sentenced. The cur-

rent approach separates the community comparison from the degree of difficulty experienced during incarceration and therefore, allows for a less-constrained analysis of the problems these women do experience in prison.

The multiple regression analyses that were conducted to determine factors that most readily predicted performance of the PAQ with our female sample resulted in two significant models that were largely confirmatory of earlier research. As implied by the research conducted by Linquist and Linquist (1997), psychological factors were central to the adjustment demonstrated by this sample of female inmates. These factors, as measured by the BSI and the SCID-II Screen, explained the greatest amount of the explained variance in both the Distress and Conflict factor scale models. BSI Anxiety contributed 26% of the shared variance in the Distress model, and BSI Hostility and a positive screening for a personality disorder accounted for the majority of variance in the Conflict model. It is not clear if the anxiety and hostility reported by these women reflect enduring coping styles possibly related to the high rates of victimization experienced by these women earlier in life or more unique reactions to prison life. The specificity of the BSI scales that are significant in these two models, however, suggests that these two emotional responses are uniquely related to prison adjustment and not an artifact of distressed reporting styles on both the PAQ and the BSI.

Demographic and historical factors were of somewhat less significance in the Distress and Conflict models. As suggested by Koban (1983), Fogel (1993), and Fogel and Martin (1992), being a parent contributed to greater distress among this sample of women and exacerbated the problems these women experienced in adjusting to prison life. The significance of this finding may be reflective of Koban's (1983) observation many years ago that female inmates had more difficulty maintaining regular contact with their children in contrast to male prisoners who were encouraged to maintain this type of family contact by their female partners. Alternatively, it might reflect the distress these women feel when they do have contact with their children and are poignantly reminded that they are not a part of their children's day-to-day lives. Being married was associated with better adjustment, suggesting that marriage may reflect some type of interpersonal

capacity that facilitates this type of adjustment in prison or that the presence of a martial partner may mitigate some of the stresses intrinsic to the prison environment.

Victimization as a child or adolescent and being a nonminority also contributed to greater problems with prison adjustment. The former may reflect the internalization of certain aggressive forms of interpersonal relatedness, a proxy form of "identification with the aggressor." The latter appears to be related to a greater degree of cultural exposure and familiarity with prison life by minority women and/or racial tensions within the prison that result in aggressive behavior by minority inmates toward nonminority inmates.

In contrast to prior research, prior incarceration was associated with higher levels of distress in our sample. Furthermore, although incarceration for a violent crime and time served were predictive of scores on the Conflict factor scale of the PAQ, length of sentence was not. This finding partially confirms earlier research by MacKenzie et al. (1989) that finds that both length of sentence and time served were significant in determining adjustment patterns among incarcerated females. In previous research pertaining primarily to men, the amount of time served also demonstrated a positive correlation with the Conflict scale, suggesting that inmates who had spent longer periods of time in prison reported more problems with adjustment related to angry outbursts and heated arguments. However, as summarized in Table 5, these criminological factors explained only a small amount of the explained variance in the Distress and Conflict regression models, suggesting that psychological and historical factors are pivotal in determining the individual's pattern of adjustment to prison life. These findings replicate to some degree the findings of Gendreau et al. (1997) who found that it was the interaction of personal and institutional factors that best predicted institutional misconduct among male inmates.

The limitations of the current study are both conceptual and methodological in nature. The former emanates primarily from the lack of theoretical clarity that surrounds the concept of adjustment. Although there is burgeoning literature that assesses and examines patterns of prison adjustment, there is no theory that addresses the nature or underpinnings of the experience or the process that is being examined. It is clear that prison administrators are interested in the containment

of disruptive and violent behavior and mental health professionals in the amelioration of psychological distress, yet the integration of these themes into a conceptual definition or framework has yet to be undertaken. This lack of theoretical integration may derive from the mixed intent embodied in a prison environment. Although the very nature of the prison environment suggests containment, punishment, and retribution, the plight of the individual inmates also engenders concerns about their psychological well-being and safety. This dichotomy, along with the issue of racial disparity that was addressed more explicitly, may lie at the heart of Wright's (1989) effort to develop a measure that would encompass both dimensions—distress and aggression.

The self-report nature of the PAQ also potentially limits its accuracy and applicability to some inquiries. Psychopathy research highlights the importance of blending self-report with file review to obtain the most accurate assessment of an inmate's personality and experience. However, recent research that used collateral interviews to study community violence among released inpatients also found that the added accuracy of the collateral reports was minimal and in many ways, not worth the additional cost that was involved (Steadman et al., 1998). This observation, coupled with the robust correlations observed in the current study between the PAQ scale scores and institutional misconduct and security classification, suggests that the biases embedded in these types of data are not so extensive as to undermine its usefulness to both correctional and mental health professionals.

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