



## **Correctional Officer Rating of Prisoner Adjustment on Entry to Prison**

J. T. Dollard.<sup>1+</sup>; M. F. Dollard.<sup>1</sup>; M.K Byrne<sup>2</sup> and S. Byrne<sup>1</sup>

<sup>1</sup> *University of South Australia, Adelaide;* <sup>2</sup> *University of Wollongong, NSW, Australia*

### **Abstract**

The aim of this longitudinal research was to assess and monitor adjustment (operationalised in terms of anxiety) of 60 prisoners as they entered prison and one month later. Results confirmed very high levels of anxiety on admission, which reduced after one month, but still remained significantly higher than adult population norms. Given that Correctional Officers (COs) play an integral role in identifying 'at risk' prisoners, 44 officers were recruited to rate prisoners' adjustment, on entry to prison and one month later. Results showed that COs were good at assessing prisoner distress on entry to prison but heuristic errors occurred in predicting later adjustment, and in reassessment at one month. Prisoners' anxiety remained high, and therefore the ability to rate prisoner adjustment was just as important one month later. The study underscores the importance of diligent observation during at least the first month of imprisonment, and the need for CO training to achieve this.

*Keywords:* Correctional Officers; Prisoner Adjustment; Assessment; Risk

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### **INTRODUCTION**

Prisons have a duty to protect the life of prisoners. Knowing how incarceration affects prisoners has major implications for the humane management of prisoners (Zamble, Porporino & Kalotay, 1984). Prisoners are reported to have high rates of generalised anxiety disorder, simple phobic disorder (Koenig, Johnson, Bellard, Denker & Fenlon, 1995) and a high incidence (33%) of post-traumatic stress disorder (PTSD) (Gibson, Holt, Fondacaro, Tang, Powell & Turbit, 1999). If prisons are to function more humanely then the impact that imprisonment has on individuals must be predicted (Zamble, et al. 1984) and reasonable care taken to prevent prisoner self-harm. Prisoners are often screened for risk of self-harm on entry to prison and Correctional Officers (COs) play a key role in this. It is therefore important to understand

how COs judge prisoners' adaptation to incarceration.

Imprisonment is well known as a stressful life event (Hobson, Kamen, Szostek, Nethercut, Tiedmann & Wojnarowicz, 1998), and entry to prison in particular is highly stressful (Paulus & Dzindolet, 1993). For example, Long, Sultan, Kiefer and Sebrum (1984) found that prisoners had high state anxiety (compared to prisoner norms) (Spielberger, Gorsuch, Lushene, Vagg & Jacobs, 1983) when measured within 72 hours of entry to prison. Three weeks after entry to prison, mean state anxiety lowered from the initial high level, to a level commensurate with the mean trait anxiety level as assessed on entry to prison (Sultan, Long, Kiefer, Schrum, Selby & Calhoun, 1984).

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<sup>+</sup>Address for correspondence: J. Dollard, South Australian Centre for Rural and Remote Health, University of South Australia, Whyalla Campus, Nicolson Ave, Whyalla Norrie, South Australia, 5608, Australia

Factors contributing to high state anxiety on entry to prison include prisoners' pre-incarceration problems, such as the abuse of substances to cope with depression, tension and anxiety (DiCatalda, Greer & Wesley, 1995; Peters & Schonfeld, 1993; Weisheit & Klofas, 1989). Another factor that contributes to high state anxiety on entry to prison is separation from social support. Harding and Zimmerman (1989) found that having a close female relationship increased the prisoners' concerns about incarceration, and was a factor that predicted higher levels of anxiety from around the first week of incarceration to two months later. External problems such as family, friends and home-life increase anxiety early in incarceration (Paulus & Dzindolet, 1993). Prison is also characterised by its own rules, lack of privacy and loss of freedom (Negy, Woods & Carlson, 1997).

Indeed compared to other populations, such as students and working adults, prisoners experience substantially higher levels of state anxiety (Spielberger, et al, 1983). Some studies have shown that neither psychological distress nor anxiety (Hurley & Dunne, 1991; Paulus & Dzindolet, 1993) reduced four months after incarceration. Other studies demonstrate that over time, anxiety decreases but is maintained at a high level. For instance, prisoners incarcerated from between a year and six years (MacKenzie, 1987; MacKenzie & Goodstein, 1985; MacKenzie & Goodstein, 1986) experienced levels of state anxiety above both the normative data for working adults and prisoners (Spielberger, et al., 1983).

Prisoners' trait anxiety (anxiety proneness) is also higher than in other populations (Spielberger, et al., 1983). High anxiety proneness may well be a factor that describes prisoners and their vulnerability to anxiety. Trait anxiety predicts individual state anxiety in response to a given specific situation (Levitt, 1980). Thus, the individual's trait anxiety will determine how they will respond to incarceration. As most prisoners would perceive entering prison as threatening, most of them would have elevated state anxiety. However, prisoners with high trait anxiety are likely to have high state anxiety over time, whereas prisoners with low trait anxiety are likely to have lower state anxiety over time (Spielberger, et al., 1983). Therefore, knowing a prisoner's trait anxiety may help identify which prisoners are most at risk on entry to prison and soon after.

While trait anxiety may explain individual differences in state anxiety, so might the prisoner's correctional services history. It might be expected

that prisoners who have been incarcerated before as an adult (recidivist) would not find entry to prison as anxiety provoking as first-time prisoners. To understand the variations in prisoner response on entry to prison, Long, et al. (1984) compared recidivists' state anxiety to first-time prisoners within 72 hours of admission to prison. Unexpectedly, first-time prisoners' and recidivists' state and trait anxiety were no different on entry to prison. This suggests that entering prison is highly anxiety provoking for both recidivists and first-time prisoners.

The anxiety experienced during incarceration is difficult for prisoners to manage, because incarceration is beyond the prisoner's control (Harding & Zimmerman, 1989). Some studies found that prisoner's state anxiety is related to their coping in prison (Negy, et al., 1997; Zamble, 1992). As state anxiety increased, effective coping decreased. It has been suggested that the individual's strategies used to cope with stressful situations such as incarceration, moderates between situational and individual differences (Billings & Moos, 1981). When prisoners cannot use their traditional means of coping, they respond in various ways. According to Ivanoff (1992) some prisoners "ask for help, others lash out at others, and others at themselves" (p. 426). Not only is this an issue for prisoners, but also for COs, because they have to manage the distress or aggression of prisoners which may be directed towards other prisoners, COs or themselves.

Some prisoners may not appear distressed until it is clearly obvious they are distressed, such as when the prisoner suddenly erupts into anger, violence or self-injury (Cooke, Baldwin & Hewison, 1993; Mackenzie, 1987). Lombardo (1985) believes that prisoners often communicate difficulties coping through their behaviour. Therefore, COs need to be alert to the behaviour that expresses need for help.

There is evidence that COs recognise problem behaviour. Lombardo (1985) believes that "correctional personnel are often perceptive in reading signs of stress and interpreting those symbolic prisoner gestures that reflect more underlying difficulties" (p.18). Further, Lawlor and Kosky (1992) found that 50% of people who made serious suicide attempts were retrospectively noted by staff to have "labile moods with irritability and aggressive outbursts in the days prior to the attempts" (p.476). The COs also noted retrospectively, that other serious attempters, though quiet and compliant with staff, did not interact well with other prisoners. Of course, it is

easier to recognise problem behaviour retrospectively. It is more advantageous when COs detect prisoners having problems coping at the time.

There is some evidence that COs can accurately rate current prisoner behaviour based on their observation alone. For example, Carbonell, Megargee and Moorhead (1984) found that CO ratings of prisoner behaviour (for example, observing prisoner relations with other prisoners and COs, and observing emotional control under stress) correlated significantly to scales that measured behaviour problems.

For a number of reasons it is important that COs can detect prisoners having difficulty adjusting. Firstly, incarceration is highly anxiety provoking (Long, et al., 1984), and is potentially a high risk event for suicide and self-harm. Secondly, there is evidence that prisoners generally have poor coping strategies, both in and out of prison (Zamble, et al., 1984). Thirdly, the prison culture possibly deters prisoners from seeking help (McCorkle, 1993). The prisoner may even report they are coping rather than admit to any weakness. Fourthly, once incarcerated, the prisoner loses some of their preferred means of coping, yet people cope better when they can use their preferred coping strategy (Carver, Scheier & Weintraub, 1989).

As far as we are aware, there has been no research on COs' ability to assess and predict prisoner adjustment over time. It is expected that prisoners will experience adjustment problems within the first month of entry to prison. However, these should be minimised for humanitarian reasons and to prevent the incidence of self-harm. The timing is crucial because entry to prison is anxiety provoking, and prisoners are vulnerable to psychological distress (Cooke, Baldwin & Hewison, 1993; Smyth, Ivanoff & Jang, 1994). Further, early identification of an at-risk prisoner may be instrumental in lowering the chance of adverse behaviour by targeting resources to their needs.

This study will examine levels of adjustment (in terms of anxiety) of prisoners on entry to prison and one month later. It will explore whether COs can accurately assess prisoner's adjustment to prison on entry to prison and one month later, and identify what variables influence CO rating of prisoner adjustment. It will also examine COs' ability to accurately predict prisoner adjustment to prison.

## METHOD

### *Participants*

Participants were 44 COs volunteers from Yatala Labour Prison (YLP), a maximum-security prison in South Australia. Participation was voluntary and there were no exclusion/inclusion criteria except that COs either had interacted with or observed the identified prisoner to make a rating of adjustment. This meant that the CO worked in the prisoner's unit. At time one, 25 COs rated prisoners adjustment. Of these, 22 COs rated between 1 and 5 prisoners, and 3 COs rated between 8 and 10 prisoners. At time two, 33 COs rated prisoners adjustment. Of these, 32 CO rated between 1 and 5 prisoners, and 1 CO rated 13 prisoners. Of the total 44 CO, only 3 rated the same prisoner at time one and two. No other information was collected about the COs.

Seventy-nine male prisoner volunteers were invited to participate, with 71 prisoners (90% participation rate) recruited on entry to the prison system and 60 prisoners (76% participation rate) remained in the study for the second time of testing. Information was not collected from those who refused or did not meet the eligibility requirements to participate, the major reason being illiteracy. There were two reasons for prisoner attrition: (a) six prisoners were released, and (b) five prisoners were transferred to other prisons. All prisoners who agreed to participate on entry to prison agreed one month later.

Prisoner selection criteria included, (a) that the researcher saw the prisoner within three days of entry to prison, (b) that the prisoner was literate, and (c) that the prisoner was likely to be at YLP one month later. The researcher selected the prisoners based on the YLP Movement Coordinator's estimation on which new prisoners would be likely to remain in YLP for at least one month. For most sentenced prisoners, this meant that their sentence length was over six months, as prisoners with a sentence under six months were usually transferred to another location. Other prisoners who met the criteria of being at YLP for one month were fine defaulters and remandees under protection. Fine defaulters were selected based on the amount of their outstanding fines. Those with higher fines were more likely to be in prison one month later.

Retesting was one month after the first testing for the following reason. Anxiety is one criterion for acute stress disorder, and for this diagnosis, symptoms such as anxiety should not persist for more than one month. If symptoms do continue, a

diagnosis of PTSD may be warranted if other criteria for PTSD are met (American Psychiatric Association, 1994).

Prisoners were either first-time prisoners (never been sentenced to prison) or recidivists (had a previous conviction that resulted in incarceration as an adult). Prisoners were also either directly sentenced to prison or were sentenced from remand.

### *Measures*

#### CO Rating of Adjustment

The operational definition of prisoner adjustment used in this study referred to prisoner psychological adjustment (anxiety).

#### Correctional Officer Questionnaire 1.

This question measured on a ten point scale (1=very poor to 10=very well) prisoner adjustment as rated by the CO on entry to prison. The researcher asked the CO, "How well is this prisoner currently adjusting in prison compared to other new prisoners? Please put a X on a scale of 1 to 10." Also the CO was asked, "Can you predict how well this prisoner will adjust to being in prison compared to other new prisoners? Please put an X on the scale of 1 to 10".

#### Correctional Officer Questionnaire 2.

This question measured on a ten-point scale (1=very poor to 10=very well) prisoner adjustment as rated by the CO, one month following the first rating. The researcher asked the CO, "How well is this prisoner currently adjusting in prison compared to other new prisoners? Please put an X on the scale of 1 to 10".

#### Prisoner Anxiety

The Spielberger State-Trait Anxiety Scale (STAI) (Spielberger, Gorsuch, Lushene, Vagg & Jacobs, 1983) was used to measure state and trait anxiety. Spielberger, et al., (1983) report a coefficient alpha of .93 for state anxiety and .91 for trait anxiety based on representative normative sample of working adults. State anxiety questions required prisoners to circle how they felt 'right now, that is, at this moment', to 20 questions such as 'I am tense', against one of four possible responses (1=not at all, 2=somewhat, 3=moderately so, and 4=very much so). Trait anxiety questions required prisoners to circle how they 'generally feel' to 20

trait anxiety questions such as 'I feel pleasant' against one of four possible responses (1=almost never, 2=sometimes, 3=often, and 4=almost always). The scores range from 20 to 80. A high score indicated high anxiety.

#### Prisoner Demographic, Correctional Service and Psychiatric History

Prisoner demographic and correctional service history was collected from the Department of Correctional Service's computer database, the Justice Information System. The variables were age (years), educational level (primary, year 8-10, year 11-12, tertiary), marital status (single, married/defacto, separated/divorced), and correctional service history, such as juvenile detention (no/yes), remand other times (no/yes, number of months remanded), recidivist (no/yes, number of prior sentencing, number of months spent in prison), remand prior to current sentence (no/yes, number of months remanded) and length of current sentence (months). Psychiatric history was obtained from the Prison Stress Screening. This screening is administered to prisoners in the holding cells to assess if the prisoner is at risk, principally of self-harm. The variables included were treatment in psychiatric hospital (no/yes), psychiatric diagnosis (no/yes), and history of self-harm (no/yes).

#### *Procedure*

The study received ethics approval from the University of South Australia's Human Research Ethics Committee prior to commencing.

#### On Entry to Prison

Within three days of admission to prison, the prisoners who met the criteria for the study were taken individually to the professional visit area. The prisoner was informed of the study, given the study information sheet, and invited to voluntarily participate. If so, they signed a consent form. The researcher then administered the STAI. Once this was completed, the researcher went to the prisoner's unit and invited the CO to voluntarily participate. The CO was informed of the study, given the study information sheet, and if they agreed to participate, they signed a consent form. Then the CO rated current prisoner adjustment, and predicted prisoner adjustment.

#### One Month Later

At four weeks, the researcher re-administered the STAI to the prisoner. The researcher went to the prisoner's unit and invited the CO working in the unit to voluntarily participate. The CO was informed of the study, given the study information sheet, and if they agreed, they signed a consent form. The CO rated the prisoner's adjustment, and following the rating the CO checked the prisoner's case file for reported incidents (with prisoners or COs) since admission.

RESULTS

Sixty-one percent of the prisoners (N=71) had studied from year 7 to year 10, while 31% had studied from year 11 to 12. Sixty-two percent of prisoners were single, while only 21% of prisoners were married or in defacto relationships. One half of the prisoners (51%) were remanded prior to sentencing for a mean of 1.7 months (SD=2.75 months). Independent group t-tests showed that there were no significant differences in mean state or trait anxiety on entry to prison or one month later for prisoners remanded before this sentence or those directly sentenced. Nearly two thirds of the prisoners were recidivists. The mean sentence length was 31 months (SD = 28 months). Independent group t-tests showed that recidivists

and first-time prisoners did not differ in mean state or trait anxiety on entry to prison, nor one month later.

Four prisoners were reported for incidents during the first month. Three prisoners were reported for conflicts with other prisoners and one prisoner was reported for conflicts with COs.

State and trait anxiety was high on entry to prison, compared to the normative data. Table 1 presents the comparisons for state and trait anxiety between this sample and normative data for prisoners and working adults (Spielberger et al, 1983). Single sample t-tests showed that the mean state and trait anxiety on entry to prison was not significantly different to the norms for prisoners, but was significantly higher to the norms for working adults. State anxiety one month after entry to prison was significantly lower than the prisoner norm, but remained significantly higher than the norm for working adults. Although levels of anxiety decrease over time they continued to be significantly higher than those of the normal adult population are. This confirms that incarceration is a highly stressful event resulting in high levels of anxiety in prisoners.

Table 1  
*Comparison of Mean State and Trait Anxiety on Entry to Prison and One Month Later With Norms for Prisoners and Working Adults*

	Current Sample		Prisoner Norm*		t		Working Adult Norm*		t	
	M	(SD) <sup>a</sup>	M	(SD) <sup>b</sup>		(df)	M	(SD) <sup>c</sup>		(df)
On Entry to Prison										
State Anxiety	47.63	(13.77)	45.96	(11.04)	.941	(59)	35.72	(10.10)	6.7***	(59)
Trait Anxiety	47.17	(12.89)	44.64	(10.47)	1.52	(59)	34.89	(9.76)	7.38***	(59)
One Month Later										
State Anxiety	41.25	(13.01)	45.96	(11.04)	-2.80**	(59)	35.72	(10.10)	3.29**	(59)
Trait Anxiety	42.70	(12.58)	44.64	(10.47)	-1.20	(59)	34.89	(9.76)	4.81***	(59)

Note. <sup>a</sup> N=60, <sup>b</sup> N=212, <sup>c</sup> N=1387  
 \*\*p < .01, \*\*\* p < .001  
 \*Spielberger, et al (1983)

Repeated measures t-test showed there were sizeable significant decreases in mean state anxiety from entry to prison (M = 47.63, SD = 13.77) to one month later (M = 41.25, SD = 13.01), t (59) =

4.34,  $p < .001$ . Repeated measures t-test showed there were sizeable significant decreases in mean trait anxiety from entry to prison ( $M = 47.17$ ,  $SD = 12.89$ ) to one month later ( $M = 42.70$ ,  $SD = 12.58$ ),  $t(59) = 4.45$ ,  $p < .001$ . Both state and trait levels of anxiety decreased significantly over time but maintained at a high level.

No psychiatric, demographic or correctional service history variables correlated with state anxiety on entry to prison or one month later, as presented in table 2. However, trait anxiety correlated with psychiatric, demographic and correction service history variables. For instance, trait anxiety on entry to prison significantly correlated with the number of months spent in remand prior to sentencing,  $r(71) = -.24$ ,  $p < .05$ . That is, prisoner's anxiety proneness on entry to prison conversely related to the number of months on remand prior to

sentencing. Trait anxiety one month later was correlated with education,  $r(58) = -.28$ ,  $p < .05$ ; and psychiatric treatment,  $r(56) = .33$ ,  $p < .05$ . In other words, trait anxiety once prisoners were incarcerated was higher for those with poor levels of education and for those who had psychiatric treatment.

Table 2 presents the correlation coefficients between state and trait anxiety and CO rating of prisoner adjustment. CO rating significantly negatively correlated to prisoner state anxiety on entry to prison,  $r(70) = -.32$ ,  $p < .001$ . In addition, CO rating significantly negatively correlated to trait anxiety on entry to prison,  $r(70) = -.26$ ,  $p < .05$ . In summary, COs were good at predicting state and trait anxiety on entry to prison.

Table 2  
*Intercorrelations between Correctional Officer Ratings and Other Variables*

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
1 T1 CO rating of adjustment	--																
2 T2 CO rating of adjustment	.12	--															
3 CO prediction of adjustment	.73***	.12	--														
4 Education	.04	.19	-.03	--													
5 Remand other time (mths)	.26*	-.00	.27*	.03	--												
6 Recidivist <sup>a</sup>	.18	.18	.16	.25*	.33**	--											
7 Number of prior sentences	.15	.21	.25*	.09	.48***	.65***	--										
8 Prison other times (mths)	.37**	.20	.41***	.07	.58***	.46***	.52***	--									
9 Remand prior current sentence (mths)	.07	-.01	.08	.25*	.20	.16	.05	.14	--								
10 Remand prior current sentence <sup>b</sup>	.19	.02	.24*	.06	.30*	.06	.07	.30*	.64***	--							

11 Current sentence length (mths)	.24*	.19	.33**	.23	.14	.18	.17	.32**	.49***	.54***	__	__
12 Incident <sup>c</sup>	-.17	-.41***	-.15	-.06	-.15	-.12	-.06	-.17	-.18	-.29*	-.25	__
13 Psychiatric treatment <sup>d</sup>	.01	.19	.10	-.09	.32*	.19	.43***	.20	.02	.21	.22	.02
14 T1 trait anxiety	-.26*	.05	-.14	-.12	.13	.05	.08	.03	-.24*	-.14	-.12	-.16
15 T2 trait anxiety	-.28*	-.01	-.08	-.28*	.20	.06	.18	.00	-.17	-.05	-.18	-.09
16 T1 state anxiety	-.32***	-.01	-.30*	-.02	.05	-.08	-.12	-.08	-.05	-.08	-.07	-.07
17 T2 state anxiety	-.20	-.06	-.05	-.11	.22	.14	.16	.00	.00	.06	-.21	-.05

Note. N ranges from 42-71 due to missing data. T1 = entry to prison, T2 = one month later. <sup>a</sup> recidivist was coded 0 = first time prisoner, 1 = recidivist; <sup>b</sup> remand prior to current sentence was coded 0 = directly sentenced, 1 = remand prior; <sup>c</sup> incident was coded 0 = no, 1 = reported incident; <sup>d</sup> psychiatric treatment was coded 0 = no treatment, 1 = psychiatric treatment. \* $p < .05$ ; \*\* $p < .01$ ; \*\*\* $p < .001$ .

While no psychiatric history or demographic variables correlated with CO rating of adjustment on entry to prison, some correctional service history variables did. Correctional service variables significantly correlated with CO rating of adjustment on entry to prison, specifically CO rating of prisoner adjustment was higher: when prisoners had spent more months in remand at other times,  $r(70) = .26, p < .05$ ; and more months in prison previously,  $r(65) = .40, p < .01$ ; and for longer sentences,  $r(70) = .24, p < .05$ . In other words, adjustment on entry to prison was rated higher by COs if prisoners had spent more time in remand and prison on other occasions, and if prisoners had longer sentences. However, these correctional service variables themselves did not correlate with state anxiety or trait anxiety on entry to prison. Indeed when all the positively correlated variables were entered into a regression model (excluding trait anxiety), CO rating remained the most significant factor for state anxiety ( $t(1, 65) = 2.77, p < .01$ ) and for trait anxiety ( $t(1, 65) = -2.45, p < .05$ ). In fact the other variables were no longer significant indicating a possible mediating effect of the CO rating: in other words the CO rating could be seen to be influenced by prisoners previous and current correctional service history.

There was no relationship between CO rating of prisoner adjustment one month after entry to prison and prisoner state anxiety,  $r(59) = -.06, p > .05$  or

trait anxiety,  $r(59) = -.01, p > .05$ . In other words, COs were not good at predicting state or trait anxiety one month after incarceration.

Only one variable related to CO rating of prisoner adjustment at one month. CO rating of prisoner adjustment significantly correlated to prisoner incidents,  $r(58) = -.41, p < .01$ . Prisoners not reported for incidents were given higher ratings on adjustment, even though COs rated adjustment prior to checking the prisoner case file for reported incidents.

CO prediction of prisoner adjustment made on entry to prison did not relate to state anxiety one month later,  $r(60) = -.05, p > .05$ , or trait anxiety one month later,  $r(60) = -.08, p > .05$ . That is, COs could not predict how prisoners would adjust to prison. However, CO prediction of prisoner adjustment significantly correlated with state anxiety on entry to prison,  $r(70) = -.30, p < .05$ , and with CO current rating of prisoner adjustment on entry to prison,  $r(70) = .73, p < .001$ .

CO prediction of prisoner adjustment was however correlated with several correctional service variables: months in remand other times,  $r(70) = .27, p < .05$ ; months in prison other times,  $r(65) = .41, p < .01$ ; number of prior sentencing,  $r(70) = .25, p < .05$ ; remand prior to current sentence,  $r(70) = .24, p < .05$ ; and length of current sentence,  $r(70)$

$r = .33, p < .01$ . In other words, COs predicted higher ratings of adjustment for prisoners who had spent more months in remand and prison in the past; the more times prisoners had been sentenced; those who were remanded prior to the current sentence and those with longer sentences. In sum, the way COs predicted adjustment appeared to be based on heuristics, and they utilised justice information about the prisoners and current levels of adjustment to make their judgements, but these turned out not to be important in providing an accurate prediction of adjustment as indicated by anxiety levels recorded at one month. No psychiatric history or demographic variables correlated with CO prediction of prisoner adjustment.

## DISCUSSION

The study sought to assess levels of adjustment of prisoners on entry to prison and after one month, and to evaluate the utility of CO ratings of prisoner adjustment. The first key finding, as expected, confirmed other studies showing that entering prison is a highly stressful experience. Prisoners showed very high levels of psychological distress on entry and although this decreased, levels were still significantly higher than for other samples one month later. The second key finding was that COs could accurately rate prisoner adjustment on entry to prison, but not one month later, nor could they accurately predict prisoner adjustment.

The significance of the study was that it was a natural field study, sampling observations about a naturally occurring event and an anxiety provoking situation, that of incarceration. Further, the study was longitudinal and examined changes in CO rating of adjustment and prisoner anxiety over time. Finally, having a range of sources for data also strengthened the study, as it did not totally rely on self-report from prisoners, but also observation ratings from COs.

Consistent with the literature, prisoners were psychologically distressed on entry to prison (Long, et al., 1984). Their state anxiety was significantly higher than the adult norm, but not significantly different to the prisoner norm (Spielberger et al., 1983). This indicates prisoners' vulnerability on entry to prison. State anxiety decreased from the time of entry to prison to one month later, similar to Sultan's et al. (1984) study where state anxiety decreased quickly after three weeks. Like other studies (Long, et al., 1984, Spielberger, et al., 1983) prisoners also had high trait anxiety on entry to prison, significantly higher than working adults, but

not significantly different to the prisoner norm (Spielberger et al., 1983).

Theoretically, TA, a relatively stable personal disposition should not change. It is possible that the potentially powerful situation of entering prison influenced TA as it unexpectedly significantly lowered one month later. It was also lower for those with longer experience on remand prior to the current sentence, again indicating an adjustment effect. Further, the observation that education level and history of psychiatric treatment variously affected TA challenges the notion of a stable personal construct, independent of life experiences. It could be interpreted that the person and the environment continuously interact in the formation of behaviour (Lazarus & Folkman, 1984), or on the other hand, individuals with high TA may be predisposed to underachieve at school, and to require psychiatric treatment.

The highly anxiety provoking situation of entering prison in addition to the high levels of trait anxiety and increased incidence of anxiety disorder (Gibson, et al., 1999; Koenig et al., 1995) confirms the importance of COs being involved in assessing prisoner adjustment. COs were found to be accurate in their ratings of early adjustment as their ratings correlated significantly with the psychometric assessment of state and trait anxiety on entry to prison. In other words even though all prisoners experienced the stress of imprisonment, the COs could discern which ones were having the most trouble adjusting, and this could be verified using the STAI instrument. Seemingly, COs can detect prisoner adjustment (state and trait anxiety) on entry to prison by a simple 10 point metric of adjustment.

However, COs could not predict adjustment one month later, and at one month could not accurately assess adjustment. Even though prisoners anxiety decreased over the month since incarceration, their anxiety remained high, and therefore the ability to rate prisoner adjustment is just as important one month later.

Notwithstanding, it is interesting to note that some correctional variables (months in remand and prison at other times, and current sentence length) correlated with CO rating on entry to prison, but not correlated with state anxiety on entry to prison. Perhaps CO ratings would be more highly correlated with state anxiety on entry to prison if they were less influenced by the prisoner's past and current incarceration history. Further, it seems that of all the positively correlated variables CO ratings

were most important. Results supported a mediation model, CO ratings mediating the effects of the incarceration history with state and trait anxiety on entry to prison.

There are some explanations for COs poor assessment at one month. Firstly, as part of protocols at YLP, newly entered prisoners' are intentionally observed for seven days. This seven-day observation prompts the CO in their observation of the prisoner through a checklist of five behaviours. For example, one item on the checklist is "does the prisoner appear anxious, withdrawn, upset, tense etc?" This suggests that the seven-day observation may have influenced the COs in their rating of adjustment. They were more aware of the prisoner's behaviour because they had to observe them, whereas this did not systematically occur one month later. Secondly, at the second observation point there was a relationship between reported incidents and rating of adjustment. CO rated prisoners with reported incidents lower on adjustment, than if the prisoners had no reported incidents. Knowing (by working in the prisoner's unit) the prisoner had been reported may influence the CO to rate the prisoner lower on adjustment. However, unreported prisoners may also be not adjusting. Thirdly, some prisoners are transferred to a lower security division, where they are more likely to be working, spending more time out of the unit, and less time under observation of the CO.

Similarly, COs could also not predict prisoner adjustment from the point of entry to the prison. Other variables correlated with CO's prediction. For instance, previous remand or incarceration correlated with the CO's prediction of prisoner adjustment. Therefore, prisoners history of incarceration may influence CO's to rate prediction of prisoner adjustment higher, COs believing that prisoners previously incarcerated or remanded will adjust to prison better. Previous incarceration does not mean that recidivists will adjust any better than new prisoners as confirmed by the STAI. A more plausible explanation is that the prisoners have some knowledge of accepted behaviour and may appear to be adjusting but be still distressed, consistent with the prison culture. In contrast, completing a STAI with a female researcher external to the prison may have elicited a more candid response.

The literature suggests that recidivists do not adjust any better than first-time prisoners. Hurley and Dunne (1991) found recidivists had significantly higher depression and psychological distress than

first-time prisoners. This suggests that recidivists may experience more distress over time than first-time prisoners. Therefore, COs in the current study may be wrongly influenced by the prisoners' correctional service history and COs may require the knowledge that incarceration is distressing despite incarceration experience.

## LIMITATIONS

Limitations of the study require discussion. First, one of the prisoner exclusion criterion was illiteracy. It is not possible to include illiterate prisoners using the STAI. However, level of education negatively correlated with trait anxiety for prisoners in the current sample and in the norm sample (Spielberger, et al., 1983). Possibly, excluding illiterate prisoners may have lead to an underestimation of the mean anxiety of new prisoners. Therefore, the results generalise to literate prisoners only.

Secondly, an important limitation relates to the use of self-report instruments per se. Self-report measures hold the potential to provide extremely useful clinical information assuming that the respondent has insight into their own thinking and behaviour and is motivated to respond honestly (Cohen & Swerdlik, 1999). The testing environment (a prison) is certain to influence item response, with previous research demonstrating an elevation in paranoia within such environments (Sutton, Byrne & Byrne, 2000, unpub).

A further limitation is the use of norms from an American sample (mean age = 21 years) and it is unknown what stage of sentence the prisoners are at (Spielberger et al, 1983). The authors are unaware of norms for Australian prisoners using the State Trait Anxiety Inventory.

Lastly, while performing a number of correlations incurs the danger of type 1 error, the authors do not believe that a more conservative alpha would have changed the results, but further research is required.

## RECOMMENDATIONS AND FURTHER RESEARCH

The results suggest that COs can successfully rate prisoner adjustment on entry to prison when prisoners are most vulnerable. It is highly likely that the seven-day observation prompted the CO to observe the prisoner, and become attuned to gestures of adjustment. On this basis we suggest that COs be prompted to continue observations, especially as prisoners are still distressed one

month later, and receive training to achieve this. Further research could evaluate the impact of month long trials of systematic observation.

COs could not rate prisoner adjustment one month later. COs need to be cognizant that prisoners who have not acted out or reported incidents, or do not look overtly distressed (because of conforming to the prison culture), may still be distressed. In addition, previous correctional history does not lessen the psychological distress experienced on entry to prison. Lombardo's (1985) suggestion that COs need to develop skills in "reading behavioural cues that express prisoner distress" (p. 25) are also supported here. COs are clearly capable of accurate assessments, and given levels of distress experienced by inmates, lessons from their accurate assessment on entry to prison need to be applied at least for the first month.

#### ACKNOWLEDGEMENTS

The authors thank the South Australian Department for Correctional Services for their assistance in completing this research. The views expressed in this paper do not necessarily reflect those of the Department.

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