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Foreword | *Although in some ways communities appear to be increasingly more risk averse and punitive in their attitudes toward offenders, the development and proliferation of a range of rehabilitation programs that aim to address the problems that lead to offending represents an important component of contemporary criminal justice policy in Australia.*

This research is based on the premise that the social climate of a prison will exert a profound influence on rehabilitative outcomes. In this paper, the authors present their validation of the Essen Climate Evaluation Schema (EssenCES) measure of prison social climates and the findings offer further support for measuring and identifying the means by which a prison's social climate can be assessed. It is proposed that the measure be routinely used to audit the social climate of a prison or prison unit on an annual basis. This would enable changes over time to be assessed, standards and targets set, and the need for additional resources or interventions identified and responded to. Further research is required to establish how a social climate might be modified or changed in a way that would enhance rehabilitative outcomes.

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Assessing the social climate of Australian prisons

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In Australia, the rehabilitation of prisoners is one of the primary goals of correctional agencies. It is commonly believed, however, that prisons do not typically provide environments that are conducive to successful rehabilitation, with qualitative and ethnographic research consistently identifying ways in which the institutional social climate can act in counter-therapeutic ways. However, despite the considerable appeal of the notion of a prison 'social climate', it has proven difficult to operationalise what is meant by constructs such as climate, culture and milieu and as a result, research in this area has been hampered by the absence of a suitable method to reliably measure the climate of a particular institution. Schalast et al. (2008) have proposed that the key characteristics of a prison social climate relate to the extent to which the climate is perceived as supportive of therapy and therapeutic change, whether mutual support of a kind typically seen as characteristic of therapeutic communities is present and the level of tension and perceived threat of aggression and violence that exists. It is this construct that is operationalised in the present study which reports on the validation of a brief measure of social climate in two Australian prisons—the Essen Climate Evaluation Schema (EssenCES).

Therapeutic prisons

The origins of the therapeutic prison can be traced back to the notion of the moral treatment of the mentally ill, which originated in late eighteenth century Britain. This can be seen, for example, in the opening in 1796 of *The Retreat*, a therapeutic program based on Quaker philosophies (Kennard 1983), which signalled the introduction of cooperative rather than prescriptive models of treatment. The origins of modern day therapeutic units can be found in the United Kingdom during the 1940s at the Northfield Military Hospital and Maxwell Jones' Mill Hill Neurosis Unit (Whiteley 2004). Known as *democratic therapeutic communities*, these programs offered a structured approach to treating social deficits through a process of re-socialisation.

Their methods were subsequently applied in the Cassel and Henderson Hospitals, and it is the Henderson model that has become known for its ability to treat individuals with

personality disorders who often also present with forensic histories. Indeed, the Henderson Hospital quickly became known as 'the centre of the therapeutic community ideology, and...as a unique treatment unit for psychopaths' (Dolan 1997: 50), subsequently contributing to the training of staff at several prisons, including at HMP Grendon Underwood—the first therapeutic community prison in the United Kingdom.

An alternative model of therapeutic communities developed independently in the United States. The hierarchical (or 'concept') therapeutic community model was fashioned on Charles Dederich's 'Synanon' program—a community-based self-help movement for substance abusers that utilised behaviour modification techniques to effect change (Vandeveldt et al. 2004). Synanon had its origins in the Alcoholics Anonymous model but, over time, focused more on drug addiction and adopted a more secular ideology. The Synanon ideals were redeveloped at Daytop Village in 1963 and formed the basis of the next generation of therapeutic communities in the United States, subsequently influencing the spread of therapeutic communities throughout Europe and becoming a widely accepted model for the treatment of drug-using offenders, personality disordered offenders and violent offenders.

Both democratic and concept model therapeutic communities utilise a model of multiple interventions that aim to enact lifestyle change in the individual. Treatment occurs 24 hours a day, with the community itself acting as a therapeutic tool to provide opportunities for new learning and the reinforcement of positive attitudes and behaviours. Kennard (2004: 296) describes a therapeutic community as

a 'living-learning situation' in which everything that happens between members (staff and patients) in the course of living and working together is used as a learning opportunity.

The therapeutic community model, whether democratic or concept-based, thus aims to use the community to provide a range of life situations in which members can re-enact and re-experience their relationships in the outside world. The therapy process (groups, individual etc) is then used to examine and learn from these difficulties.

Although current Australian approaches to offender rehabilitation are largely based on cognitive behavioural models that locate the causes of offending within the individual rather than within their social relationships (Heseltine, Day & Sarre 2011), the notion of the therapeutic environment articulated in therapeutic community models of treatment remains influential and recent years has seen the development of specialist rehabilitation prisons that explicitly aim to provide a therapeutic environment in which treatment is offered. Two Australian examples of such prisons are the Compulsory Drug Treatment Correctional Centre in New South Wales (Birgden & Grant 2010; Dekker, O'Brien & Smith 2010) and Marnongeeet prison in Victoria (Morison & Craig 2002). Both of these institutions offer intensive treatment programs and aim to provide an environment that is more therapeutic than that offered in mainstream prisons.

Correlates of social climate

Although the focus of this paper is on the potential influence of the prison social climate on rehabilitative outcomes, an institutional environment or social climate may also influence other aspects of prison life. For example, there is some research to suggest that correctional staffs' perceptions of social climate are significantly correlated with staff readiness to use force against prisoners. In researching predictors of the use of force, Griffin (1999) found that certain aspects of the social climate, such as authority, fear of victimisation and quality of supervision were related to officers' readiness to use force against inmates. In particular, Griffin (1999) showed that officers who felt that they had higher levels of authority were less ready to use force. Other aspects of the climate (eg alienation, institutional operations, organisational support, role ambiguity and training) were not found to have a significant effect.

Another important issue facing prison administrators is the incidence of prison riots, disturbances and general disorder. Again, what emerges from the published literature is that a prison's social climate is likely to be of critical importance in determining the level of disorder that occurs. In a systematic review conducted by Gadon, Johnston and Cooke (2006), prison structure (supervision and security level, population mix and prison size), staff features (length

of employment and number of years experience), temporal aspects of the prison (how a person's time and space are organised), location (recreational areas, dorms, cell) and prison management were all shown to predict the incidence of prison violence. Most importantly, this review concluded that the greater the percentage of prisoners that attended programs relating to education, vocational training and industry, the lower the rates of prisoner–staff assaults.

How can social climate be measured?

Although specialist measures of prison social climate have been developed, these tend to be the product of multiple, and at times inconsistent, conceptualisations of social climate. As such, available instruments tap different dimensions of social climate. While there continues to be interest in the development of new instruments, there has been less work establishing the validity and reliability of social climate scales. In particular, evaluations of most scales have been limited by the lack of long-term follow-up data. Three of the most widely used measures are the Correctional Institutions Environment Scale (which has been used routinely for a number of years by the Federal Bureau of Prisons in the United States), the Prison Social Climate Survey (which only measures staff perceptions) and a brief climate measure designed for use in forensic psychiatric wards (which has also been adapted for use in prisons) known as EssenCES.

Aims

The primary aim of this study was to provide further validation data for one measure of prison social climate—the EssenCES. This measure was selected primarily because of its brevity and utility in a correctional environment, and also because preliminary validation data have already been collected in a range of different institutional settings. The study sought to establish the factor structure of the measure using Australian prison populations and staff, examine construct validity and to investigate the association between scores on the measure and other variables considered to be organisationally important.

Methodology

Participants

Participants in the study were drawn from the population of prisoners (n=144) and staff members (n=109) at two correctional settings based in one Australian state. One is a therapeutically focused medium security institution that offers intensive rehabilitation for sex offenders, violent offenders and those with drug and alcohol problems. The other is a minimum to medium security prison that accommodates predominantly mainstream prisoners and offers violent offender and substance use rehabilitation programs. Based on the assumption that it is important to have experienced institutional life for a certain period of time before it is possible to make an assessment of the social climate, a decision was made to exclude prisoners and staff who had been in a particular institution for a period of less than 14 days. This resulted in the removal of three participants from the inmate sample; a further seven participants did not report length of sentence and were also removed from the sample. This reduced the number of prisoner cases available for analysis to 134. A total of seven cases were removed from the staff sample because they either did not meet the criterion for length of service or failed to indicate length of service. This left 102 staff cases available for analysis, of which 70 were operational staff members and 32 were from rehabilitation services.

Measures

Essen Climate Evaluation Schema: Version for Prisons and Correctional Settings (EssenCES; www.forensikessen.de)

The EssenCES is a 17 item questionnaire (15 valid items; 2 positively worded unscored items) consisting of three climate dimensions, each of which is measured using five items—*hold and support* (eg staff take a personal interest in the progress of inmates), *inmates' social cohesion and mutual support* (eg the inmates care for each other) and *experienced safety* (eg there are some really aggressive inmates in this unit). Participants (staff and inmates) indicate how much they agree with each of the statements using a 5-point Likert-type scale, with responses ranging from 1 (I agree not at all) to 5 (I agree very much). Higher scores on the EssenCES are indicative of a more positive social climate. In their recent validation study for forensic psychiatric wards, Schalast et al. (2008)

reported moderately strong internal consistency ranging from Cronbach's $\alpha=.79$ to $.87$ for patients, $.73$ to $.78$ for staff and $.78$ to $.86$ for the total sample. Internal consistency reliability in the present study revealed a similar pattern for both staff (Cronbach's $\alpha=.72$ on the total scale and $.82$, $.74$ and $.75$ for *inmates' social cohesion and mutual support*, *hold and support*, and *experienced safety* respectively) and prisoners (Cronbach's $\alpha=.64$ on the total scale and $.86$, $.74$ and $.62$ for *inmates' social cohesion and mutual support*, *hold and support*, and *experienced safety* respectively).

In addition, prisoner participants completed the following measure for the purpose of assessing convergent validity:

Corrections Victoria Treatment Readiness Questionnaire (CVTRQ; Casey, Day, Howells & Ward 2007)

The CVTRQ is a 20-item measure that scores four components of readiness—*attitudes and motivation* (6 items), *emotional reactions* (6 items), *offending beliefs* (4 items) and *efficacy* (4 items). Responses are made on a 1 (strongly disagree) to 5 (strongly agree) scale. Item responses are summed to produce four subscale scores and the subscales summed to produce a total score. Higher scores, after the recoding of negatively keyed items, reflect greater readiness to enter treatment. In the present study, internal consistency reliability was acceptable for the total scale ($\alpha=.74$) and three of the four subscales (*attitudes and motivations*=.68; *emotional reactions*=.72; and *offending beliefs*=.62) but low on the *efficacy* subscale ($\alpha=.45$).

Staff participants also completed the following measure to assess for convergent validity:

Working Environment Scale (WES-10; Rössberg & Friis 2004)

The WES-10 is comprised of 10 items that purport to measure staff morale and stress in the working environment. It is comprised of four subscales—*self-realisation* (4 items) measures the extent to which the staff members feel supported, whether they achieve more confidence and whether they experience being able to use their knowledge in the working environment; *workload* (2 items) is a measure of the number of tasks imposed on staff members

and the extent to which they feel they should be in several places at the same time; *conflict* (2 items) measures the extent to which staff members experience conflicts and loyalty problems; and *nervousness* (2 items) measures the extent to which staff are worried about going to work and feel nervous or tense at work. After reading each item, responses are made using a 5-point Likert-type scale, with the response format differing as a function of item content (ie *not at all to very often*; *very often to never*; and *far too few to far too many*). After recoding, higher scores are indicative of more positive workplace experiences. Rössberg, Eiring and Friis (2004) reported moderate to moderately strong internal consistency—Cronbach's $\alpha=.66$, $.69$, $.84$ and $.85$ for *nervousness*, *conflict*, *workload* and *self realisation* respectively. Internal consistency reliability in the present study was as follows—*self realisation*=.73, *workload*=.69, *conflict*=.63 and *nervousness*=.73.

Procedure

Following ethics approval, flyers outlining the nature and purpose of the study were placed on staff and prisoner noticeboards. Interested staff were directed to the program manager at each facility and provided with a more detailed information sheet; prisoners who wished to participate in the study were asked to contact their case manager who provided the detailed information sheet. After consultation with prison program managers, a suitable time for data collection was identified at each institution. Two members of the research team attended on the designated day. Those who indicated a willingness to participate were then provided with an information sheet, a copy of the questionnaire and a self-sealing envelope for its return.

Results

Factor structure

Principal axis factoring with orthogonal rotation was conducted on the EssenCES items for the total sample. The Kaiser-Meyer-Olkin measure of sampling adequacy (.79) and Bartlett test of sphericity (1,188.52, $p<.001$) indicated the suitability of the data for factor analysis. As expected, the eigen value and scree test criteria identified a 3-factor solution which accounted for 56.26 percent of the variance. Factor loadings are

shown in Table 1. As with the analyses involving prisoners and staff, this structure reflects the 3-factor solution proposed by the scale developers. Given the factor analysis for each of these samples produced the three EssenCES factors and the items loaded on the correct factors, a global assessment of the factor structure produced provides further support for the validity of the measure.

Staff and prisoner perceptions

The next step in the analysis was to conduct an overall comparison of EssenCES scores for prisoners, operational staff and clinical staff, given the possibility that different aspects of the social climate will be salient to staff and prisoners. A multivariate analysis of variance (MANOVA) with Bonferroni adjustment for multiple comparisons was used to test for between group differences. The main effect was significant with a large effect size—Wilks $\lambda=.74$, $F(6, 454)=12.22$, $p<.001$, $\eta^2_{\text{partial}}=.14$. Examination of the univariate effects revealed significant

differences on total EssenCES scores, $F(2, 229)=4.07$, $p<.05$, $\eta^2_{\text{partial}}=.03$; significant differences were also noted on the *hold and support* ($F(2, 229)=29.17$, $p<.001$, $\eta^2_{\text{partial}}=.20$) and *experienced safety* ($F(2, 229)=3.65$, $p<.05$, $\eta^2_{\text{partial}}=.03$) subscales. As shown in Table 2, prisoner scores on the EssenCES measure were significantly lower than those of both operational and clinical staff; the latter did not significantly differ. Prisoners felt safer than both clinical and operational staff in their environment. Finally, prisoners generally reported the climate to be significantly less therapeutic (as measured by the *hold and support* subscale) than both operational and clinical staff; no between group differences were noted between clinical and operational staff.

Convergent validity

A scale demonstrates convergent validity if it is related to alternative measures of the same construct. To evaluate convergent validity of the EssenCES, a correlation was first undertaken between total scores on the

EssenCES and the CVTRQ for the prisoner sample. This revealed a small but significant positive association between scores on the two measures, $r(111)=.23$, $p<.05$. Based on this finding, it can be concluded that for the sample examined, more positive perceptions of the social climate were associated with higher levels of readiness for treatment. Convergent validity for the staff sample was assessed by conducting a correlation between scores on the EssenCES and those on the WES-10. A moderate, significant positive association was noted between the two measures, $r(109)=.45$, $p<.001$. What this reveals is that for the sample under investigation, a more positive social climate was associated with higher levels of staff morale and lower levels of stress in the working environment.

Discussion

Although the notion of a prison social climate has long attracted the interests of researchers, practitioners and policymakers,

Table 1 Rotated principal axis factor matrix for the EssenCES scale items (total sample)

Item	Inmates' social cohesion and mutual support	Hold and support	Experienced safety
There is good peer support among inmates	.83		
Inmates care about their fellow inmates' problems	.82		
When inmates have a genuine concern, they find support from their fellow inmates	.81		
The inmates care for each other	.76		
Even the weakest inmate finds support from his fellow inmates	.74		
Staff members take a lot of time to deal with inmates		.85	
Staff take a personal interest in the progress of inmates		.81	
Staff know inmates and their personal histories very well		.72	
In this unit, inmates can talk openly to staff about all their problems		.64	
Often, staff seem not to care if inmates succeed or fail in their daily routine/program		.61	
There are some really aggressive inmates in this unit			.71
Some inmates are afraid of other inmates			.70
Some inmates are so excitable that one deals very cautiously with them			.65
At times, members of staff feel threatened by some of the inmates			.65
Really threatening situations can occur here			.58

Table 2 Means, standard deviations, F ratios and effect sizes for prisoners, clinical staff and operational staff on total EssenCES scores and subscale scores

	Prisoners		Operational staff		Rehabilitation staff		F	η^2_{par}
	M	SD	M	SD	M	SD		
EssenCES total	42.50	7.26	43.87	7.08	46.44	6.59	4.07*	.03
Social cohesion and mutual support	13.35	4.55	12.45	3.00	13.94	3.10	2.04	.02
Hold and support	12.80	4.24	16.58	3.48	16.88	2.99	29.17**	.23
Experienced safety	16.34	3.91	14.84	3.71	15.63	3.78	3.65*	.03

Note: * $p<.05$, ** $p<.01$

very little empirical research on this topic has been conducted in Australian prisons, with progress hampered by a lack of conceptual clarity about what is meant by social climate and how this construct might best be operationalised. The primary aim of this research was, therefore, to establish the psychometric properties of a recently developed measure of prison social climate, the EssenCES (Schalast et al. 2008). This measure was selected primarily because of its utility and parsimony—it is a straightforward measure that can be completed by both prison staff and inmates in only a few minutes and captures what are regarded as the key aspects of a social climate that are considered relevant to offender rehabilitation.

A total of 253 people (109 staff members and 144 prisoners) at two correctional facilities in one Australian jurisdiction rated the social climate of the prison in which they lived or worked. Factor analysis of the ratings provided support for the structure identified by the measure developers (*inmates' social cohesion and mutual support, hold and support and experienced safety*). A small but significant positive association between prisoner scores on the social climate measure and a measure of readiness to engage with offender programs was suggestive of some degree of convergent validity, as was the moderate, significant positive association observed between staff scores on the EssenCES measure and the measure of staff stress and morale. These results suggest that the EssenCES measure is suitable for use in further investigations of prison social climate. The value of this conclusion is that it allows a baseline to be established against which changes over time can be assessed. It also allows for the identification of particular aspects of the climate that are potentially counter-therapeutic and can thus provide a rationale for the introduction of measures that seek to bring about change in social climate in settings where concerns exist about a particular unit or institution.

Changing the social climate

A number of different attempts to improve the social climate of prisons have been described. For example, in response to research that suggests that some colours can be more soothing than others, a prison in Dallas County painted the prison walls

pink in an attempt to improve the prison environment (Borghese 2006). Other institutions have introduced pets (such as puppies and birds) to help offenders learn basic social skills (Britton & Button 2006; Fournier, Geller & Fortney 2007; Lindemuth 2007). Most of these experiments have, however, not been subject to any formal evaluation and as such, conclusions about their effectiveness cannot be drawn.

Wexler (1997) has argued that in order for therapeutic community programs to work in correctional settings, only motivated participants and competent staff should be selected, and a variety of treatment options that run for a sufficient period of time should be made available. Some institutions have attempted to influence the social climate by introducing more 'treatment focused' employees to the workforce (Clarke et al. 2002; Lang et al. 2004). Waters and Megathlin (2002) found significant improvements in inmate perceptions of a prison social climate 22 months after rehabilitation workers were employed. Similarly, a meta-analysis of 68 studies assessing the effectiveness of correctional treatment revealed that settings that provided behavioural treatment programs delivered by professional staff experienced the lowest rates of prison misconduct (French & Gendreau 2006).

Perhaps the most common intervention, however, is staff training. The rationale for this is based on the assumption that increasing staff awareness of aspects of the social climate will positively influence their behaviour which will, in turn, affect the broader workplace culture. There has been some related research in other settings—a longitudinal three-wave study of nurses who participated in a staff training program designed to teach them important aspects of milieu therapy were more likely to give positive ratings of the social climate a year after training. Patients also reported an increase in general satisfaction (Nesset et al. 2009).

In some cases, it may not be necessary to change staff perceptions and attitudes first in order to change negative behaviour. In a study of seclusion in a forensic psychiatric hospital, while results revealed a significant reduction in the use and duration of seclusion episodes a year after a range of interventions design to reduce the use

of seclusion were introduced, there was no change to the therapeutic climate or to staff attitudes towards seclusion (Ching et al. 2010).

Of course, some aspects of prison life that impact negatively on the social climate may be difficult to control. Often prison programs experience practical difficulties, including the necessity to schedule the regime around the prison timetable (eg meal times, security procedures), managing other rules of the prison that are in conflict with the goals of rehabilitation, dealing with security staff shortages that restrict the running of programs and differing views as to the aims of imprisonment. Such difficulties may be an inevitable result of seeking to administer treatment in contexts that are characterised by coercion.

Conclusion

What emerges from this research is further support for the idea that the social climate of a prison can influence rehabilitative outcomes. There would appear to be significant therapeutic opportunities that arise through attending closely to the social functioning and interactions of both staff and prisoners in institutional settings. This study has identified the means by which a prison social climate can be assessed and it is recommended that the EssenCES measure is routinely used to audit the social climate of a prison or prison unit on an annual basis, such that changes over time can be assessed, standards and targets set, and the need for additional resources or interventions identified and responded to. Further research is required to establish how a social climate might be modified or changed in a way that would enhance rehabilitative outcomes.

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Glossary

The following terms are used in this paper to establish the psychometric properties of the EssenCES scale.

Convergent validity, a form of construct validity, refers to the degree of agreement between measurements obtained by different approaches that are supposed to measure the same construct. To establish convergent validity, it is therefore necessary to show that scores on the measure are (at least) moderately correlated with scores on other measures thought to be associated with social climate.

Factor analysis is a statistical technique, the aim of which is to simplify a complex dataset by representing the set of variables in terms of a smaller number of underlying (hypothetical or unobservable) variables, known as factors or latent variables.

Internal consistency reliability refers to the level of consistency among answers to multiple instrument items that measure the same concept. For example, risk classification instruments often have redundant items that measure the same characteristic. If the answers to these items are consistent, the instrument has good internal reliability.

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