



Social distance behind bars: comparing inmates' and prison officers' perceptions of the social climate during the COVID-19 pandemic in German prisons

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Abstract

The COVID-19 pandemic presented challenges to prison officers and inmates alike. Since it impacted all areas of the working and living environment, it was assumed that the social climate in prison changed as a result. As part of the Corona Behind Bars project, this study had two objectives: first, to compare how the social climate (Essen Climate Evaluation Schema) is perceived by inmates ($N=956$) and prison officers ($N=502$) as a result of the pandemic. Second, to analyze the impact of the burden of contact restrictions between inmates and prison officers on their respective perceptions of the social climate. In line with the differences between inmates and prison officers reported in the literature, inmates reported significantly higher values on the dimension *experienced safety* than did prison officers, while prison officers reported significantly higher values on the dimension *therapeutic hold*. No significant difference was found for the dimension *inmate cohesion*. Compared to norm values both the prison officers and the inmates rated the social climate as clearly below average. The moderation analysis revealed an interaction of status group \times burden of contact restriction: The impact of the burden of contact restriction on social climate perception was more pronounced for inmates than for prison officers. Overall, the results suggest that the perception of the social climate was adversely affected by the pandemic for the prison officers and the inmates. However, the specific factors contributing to this deterioration appear to be group-specific.

Keywords Coronavirus pandemic · EssenCES · Prison environment · Prisoners · Corrections officers

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Social Distance Behind Bars: Vergleich der Wahrnehmung des sozialen Klimas während der COVID-19-Pandemie zwischen Insassen und Vollzugsbediensteten in deutschen Gefängnissen

Zusammenfassung

Die COVID-19-Pandemie stellte sowohl die Vollzugsbediensteten als auch die Inhaftierten vor Herausforderungen. Da sie sich auf alle Bereiche des Arbeits- bzw. Lebensumfelds auswirkte, wird angenommen, dass hierdurch auch das soziale Klima im Gefängnis verändert wurde. Als Teil des Corona-Behind-Bars-Projekts sollte mit dieser Studie einerseits verglichen werden, wie das soziale Klima (Essen Climate Evaluation Schema) von Inhaftierten ($N=956$) und Bediensteten ($N=502$) infolge der Pandemie wahrgenommen wurde. Andererseits sollte der Einfluss der Belastung durch Kontaktbeschränkungen zwischen Inhaftierten und Bediensteten auf ihre jeweilige Wahrnehmung des sozialen Klimas untersucht werden. In Übereinstimmung mit den in der Literatur berichteten Unterschieden zwischen Inhaftierten und Bediensteten gaben die Inhaftierten signifikant höhere Werte für die Dimension *Sicherheitserleben* an, während die Bediensteten signifikant höhere Werte für die Dimension *therapeutischer Halt* berichteten. Kein signifikanter Unterschied wurde für die Dimension *Zusammenhalt der Inhaftierten* festgestellt. Im Vergleich zu den Normwerten bewerteten sowohl Bedienstete als auch Inhaftierte das soziale Klima als deutlich unterdurchschnittlich. Die Moderationsanalyse ergab eine Interaktion zwischen Statusgruppe und der Belastung durch die Kontaktbeschränkungen. Der Einfluss der Belastung durch die Kontaktbeschränkung auf die Wahrnehmung des sozialen Klimas war für die Inhaftierten stärker ausgeprägt als für die Bediensteten. Insgesamt deuten die Ergebnisse darauf hin, dass das soziale Klima in der Wahrnehmung sowohl der Bediensteten als auch der Inhaftierten durch die Pandemie negativ beeinflusst wurde. Die spezifischen Faktoren, die zu dieser Verschlechterung beitrugen, scheinen jedoch gruppenspezifisch zu sein.

Schlüsselwörter Corona-Pandemie · EssenCES · Gefängnisumgebung · Häftlinge · Justizvollzugsbeamte

Introduction

Life in prison has undergone substantial changes as a result of the COVID-19 pandemic. Comprehensive national and international studies have shown that regulations implemented for social distancing purposes have significantly restricted the lives of inmates across various domains, including social contact, therapeutic opportunities, and release preparations (Düinkel and Morgenstern 2020; Novisky et al. 2020; Schlebusch 2020; Schliehe et al. 2022). These changes were linked to declines in both the psychological and physiological well-being of inmates (Baier et al. 2022; Drenkhahn 2022; Suhomlinova et al. 2022). Likewise, the legal adjustments had an impact on prison officers. With a reduced staffing ratio, they were tasked to enforce the new regulations, which led to a significant increase in their workload (Baier and Wegel 2022; Frey et al. 2021; Schlebusch 2020).

As a consequence, these environmental changes are likely to have affected the *feeling* or *personality* of the prison, as captured by the construct of social climate (Moos 1997). The social climate has been defined as “[t]he physical, social and emotional conditions of an institutional setting [that] interact in a specific way [...], which may over time influence the mood, behavior and self-concept of the people involved” (Schalast and Laan 2017, p. 167; translation of Schalast and Groenewald 2009, p. 329). Based on this definition, Schalast and Groenewald (2009) developed the Essen Climate Evaluation Schema (*EssenCES*), the

briefest social climate questionnaire, distinguished by its uniqueness in providing identical versions both for prison officers and for inmates. This enables the quantification of the social climate perception of these groups. The authors highlighted the importance of three subscales that influence the social climate perception of inmates and prison officers: the relation between inmates (inmate cohesion; IC), experienced safety (ES), and the degree of support from prison officers (therapeutic hold, TH; Schalast and Tonkin 2016).

Monitoring how inmates and prison officers perceive the social climate during the pandemic seems highly relevant as the social climate has been widely recognized as a central factor for the success of prison (Day et al. 2012; Liebling et al. 2011; Tonkin 2016). Beneficial effects of the social climate have been found for inmates and prison officers (for an overview see Guéridon and Suhling 2018). However, two systematic differences have been identified between inmates’ and prison officers’ evaluation of the social climate using the EssenCES. Firstly, TH was consistently rated significantly higher by prison officers compared to inmates; secondly, if significant differences were found in ES, it was the inmates who rated it higher (Blagden et al. 2016; Day et al. 2012; Guéridon and Strecker 2020; Isenhardt et al. 2020; Schalast and Laan 2017; Schalast and Tonkin 2016; Tonkin et al. 2012). For IC, most of these studies could not identify significant differences. An exception is the study by Guéridon and Strecker (2020), who found that prison

officers of German sociotherapeutic units rated IC higher than the respective inmates did.

Although a substantial body of research has identified differences between inmates and prison officers in their perception of the social climate, little is known about what causes these differences. As the objective social climate—if such a thing exists—would be identical for inmates and prison officers, it seems evident that differences in perception must result from some sort of group-specific factors (de Vries et al. 2016; Guéridon and Strecker 2020; Isenhardt et al. 2020). These group-specific factors may affect the perception of the social climate itself as well as the response to the items. To start an investigation of these group-specific factors that potentially influence social climate perception, we investigated the role of one central element for a good social climate to form in the first place: contact between inmates and prison officers. For a good social climate to form, interactions and relations between inmates and prison officers are a necessity (Liebling 2011), which decreased as a result of isolation and discontinuation of group activities. In the absence of group-specific factors, a decrease in social contact would lead to a worse reported social climate for inmates and prison officers alike. Conversely, if the restrictions had no effect on social climate evaluation or if its effect would differ between inmates and prison officers, this would suggest that group-specific factors override the effect of inmate–officer interactions.

Research questions and hypotheses

This study aimed to investigate the following questions and hypotheses: First, do inmates and prison officers differ in their perception of the social climate? Specifically, we hypothesized that inmates would rate ES significantly higher compared with prison officers, while prison officers would rate TH significantly higher compared with inmates. Additionally, differences in IC and the overall rating of the EssenCES were investigated exploratorily. Second, does the impact of BoCR negatively affect the perception of social climate, and if so, does this effect differ for inmates and prison officers? Thus, for this relation, no directional hypothesis was formulated.

Methods

Procedure

Data were gathered as part of the research project Corona Behind Bars, conducted by the Criminological Research Institute of Lower Saxony and the University of Hildesheim, with two main objectives: (1) examining the effects of the COVID-19 pandemic on the criminal justice system and

(2) exploring its potential impact on both prison officers and inmates. Due to enhanced entrance restrictions resulting from the pandemic, a data collection procedure was implemented that minimized physical contact. Questionnaires were dispatched to prisons via mail. Prison officers and inmates interested in participation could retrieve a questionnaire from a designated office. No exclusion criteria were imposed, allowing anyone interested to take part in the study.

Participants were instructed to place their completed questionnaire in an envelope and to put it into a sealed ballot box. Once the data collection process was completed, questionnaires were collected or returned through the mail.

Questionnaires entailed detailed instructions and information about the study's objectives and assured participants anonymity and confidentiality. Data collection began during the first quarter of 2022 and concluded during the third quarter of the same year. For a more elaborate description, see Bliesener and Schüttler (2023).

Data were collected in six federal states (Baden-Württemberg, Bavaria, Berlin, Brandenburg, Lower Saxony, Schleswig-Holstein) from 26 prisons. To represent various types of correctional facilities, data were gathered from prisons for men, women, juveniles, and institutions for extended custody (Table 1). The study received approval from the criminological services of each participating federal state, as well as from the ethics committee of the University of Hildesheim.

Participating inmates

The participating inmate sample consisted of 956 individuals. The median age for the prisoners fell within the

Table 1 Distribution of age and institution

	Prison officers (<i>N</i> = 502)		Inmates (<i>N</i> = 956)	
<i>Age</i>				
< 18	–	–	12	1.3%
18–29	58	11.2%	219	22.9%
30–39	145	28.9%	343	35.9%
40–49	134	26.7%	198	20.7%
50–59	151	30.1%	124	13%
> 59	14	2.8%	60	6.2%
<i>Type of institution</i>				
Closed prison	336	66.9%	581	60.8%
Imprisonment on remand	151	30.1%	137	14.3%
Sociotherapeutic unit	52	10.4%	119	12.4%
Open prison	83	16.5%	100	10.5%
Extended custody	22	4.4%	19	2%

Prison officers could select more than one institution type as their workplace

category of 30–39 years (Table 1). The majority ($n=715$, i.e., 74.8%) were born in Germany and 41.1% had a migration background ($n=393$). Among the inmates, 675 were male (70.6%). Only 9.1% ($n=87$) reported to be in a juvenile correctional facility. Regarding educational qualification, 12% ($n=115$) reported having no formal education, 4.5% ($n=43$) held a special education certificate (*Sonder-schulabschluss*), 36.5% ($n=349$) had finished secondary general schooling (*Hauptschulabschluss*), 30.5% ($n=292$) had achieved the intermediary secondary school certificate (*Realschulabschluss*), and 16.4% ($n=157$) had obtained a higher education degree. The most reported index offenses were bodily harm (250 inmates, i.e., 26.2%), other types of violent crime (202 inmates, i.e., 21.1%), theft (239 inmates, i.e., 25%), fraud (242 inmates, i.e., 25.3%), and drug-related offenses (229 inmates, i.e., 24%)¹. Approximately half of the prisoners ($n=535$, i.e., 56%) indicated that this incarceration was their first.

Participating prison officers

The sample of participating prison officers consisted of 502 participants. Of those, 305 prison officers were male (60.9%). The median age group was 40–49 years (Table 1). Most prison officers were employed in prisons for male offenders ($n=347$, i.e., 69.1%), followed by those employed in facilities for female offenders ($n=84$, 16.7%), and a small proportion worked in juvenile correctional facilities ($n=71$, i.e., 14.1%).

Instruments and measures

Social climate The perception of social climate was assessed using the EssenCES (Schalast and Tonkin 2016). While this instrument was first developed for forensic–psychiatric institutions it was later adapted and validated for prisons (Schalast and Groenewald 2009). It encompasses 15 items, assessing individual agreement on a five-point Likert scale ranging from “not at all” to “completely.” The three subscales are each measured by five items (IC: “The inmates care for each other”; ES: “Really threatening situations can occur here”; TH: “In this unit, inmates can openly talk to staff about all their problems”). The EssenCES has demonstrated good convergent and divergent validity, a good fit to the proposed three-factor structure, and good internal consistency (Tonkin 2016). To condense the overall questionnaire, the EssenCES was reduced by three items. This led to a total of four items per subscale. The internal consistency for the three subscales ranged from acceptable to high for inmates (IC: $\alpha=0.83$;

ES: $\alpha=0.78$; TH: $\alpha=0.82$) and prison officers (IC: $\alpha=0.78$; ES: $\alpha=0.82$; TH: $\alpha=0.77$).

BoCR Prison officers assessed the burden of restriction of their contact with inmates in the following three areas: (1) interventions they supervised, (2) leisure activities, and (3) time spent on station. Each area was rated using a five-point Likert scale, ranging from “no burden” to “strong burden.” These ratings were used to calculate an average score, representing the BoCR for prison officers. Similarly, inmates rated the burden of the restriction of their contact with prison officers based on decreased (1) contact with prison officers and (2) programs offered by prison officers. Again, an average score was calculated to indicate the overall BoCR for inmates.

Statistical analysis

To address missing values, we employed multiple imputations using chained equation modeling. To investigate differences between inmates and prison officers in their social climate perception, independent-sample t tests were performed for each dimension and the total EssenCES score. Effect sizes were calculated and interpreted using Cohen’s d to differentiate between small ($d \geq 0.2$), medium ($d \geq 0.5$), and large ($d \geq 0.8$) effects. The interaction between BoCR and group (0=inmate, 1=prison officers) was investigated on the EssenCES dimensions. Moderation analysis was run using (Hayes 2017) process modeling in SPSS using model 1 with 5000 bootstrap samples. In this model, BoCR was inserted as the predictor and group functioned as the moderator. Both variables were mean-centered. Moderation analyses were performed for each dimension of the EssenCES (IC, ES, TH) and the overall EssenCES score. All models were run a second time using z-standardized values to obtain standardized coefficients. Figures were created using RStudio (R Core Team 2022) with the ggplot2 (Wickham 2016) package.

Results

Ratings of the social climate

When compared with an international normative sample (Schalast and Tonkin 2016)², the evaluation of prison officers and inmates largely fell within the second lowest out of five categories: *somewhat below average* (percentile rank: $20 \leq 40$). Only inmates’ perception of ES fell within

¹ Inmates could select multiple offense types as their index offense.

² For this comparison, the scale was adjusted to original the original five-item scale by replacing the missing value with an individual dimension item average.

the lowest category: *clearly below average* (percentile rank ≤ 20). There was no significant group difference between prison officers ($M=6.99$, $SD=2.70$) and inmates ($M=6.81$, $SD=3.63$) for IC, $t(1293.33)=-1.091$, $p=0.138$. Inmates ($M=8.91$, $SD=4.01$) reported significantly higher values of ES, $t(111.11)=10.224$, $p<0.001$, compared to prison officers ($M=6.48$, $SD=3.63$). The effect size was $d=0.63$, indicating a medium effect. Prison officers rated the TH significantly higher ($M=8.90$, $SD=3.06$) than did inmates ($M=6.44$, $SD=4.04$), $t(1278.250)=-13.067$, $p<0.001$. This can be interpreted as a medium effect, $d=0.68$. For the overall rating of the EssenCES, no significant difference was found between inmates ($M=22.16$, $SD=8.41$) and prison officers ($M=22.69$, $SD=8.41$), $t(1242.169)=-1.327$, $p=0.185$.

Moderation of BoCR \times group on the social climate

Four moderation analyses were performed to investigate the moderating effect of group (inmates vs. prison officers) on

the effect of BoCR on perceived social climate (IC, ES, TH, overall EssenCES). The results are presented in Table 2 and Fig. 1. While all four models reached statistical significance, the explained variance and significant predictors differed. No significant interaction effect was found for IC. However, the effect of BoCR on perceived IC reached significance ($B=-0.233$, $\beta=-0.08$, $p=0.002$). Thus, both for inmates and for prison officers for every unit of change of BoCR the perceived IC decreased by 0.233 points. For the dimension ES, a significant interaction for BoCR \times group was found ($B=0.457$, $\beta=0.06$, $p=0.012$). Investigation of the conditional effects showed that the impact of BoCR on ES was stronger for inmates ($B=-0.890$, $\beta=-0.25$, $p<0.001$) than for prison officers ($B=-0.433$, $\beta=-0.12$, $p=0.003$). While for inmates, for every unit of change on BoCR the perceived ES decreased by 0.890 points, for prison officers it decreased by 0.433 points. For the dimension TH, a significant BoCR \times group interaction was found ($B=0.605$, $\beta=0.08$, $p<0.001$). For inmates, for every increase in one unit of BoCR their perceived TH decreased by

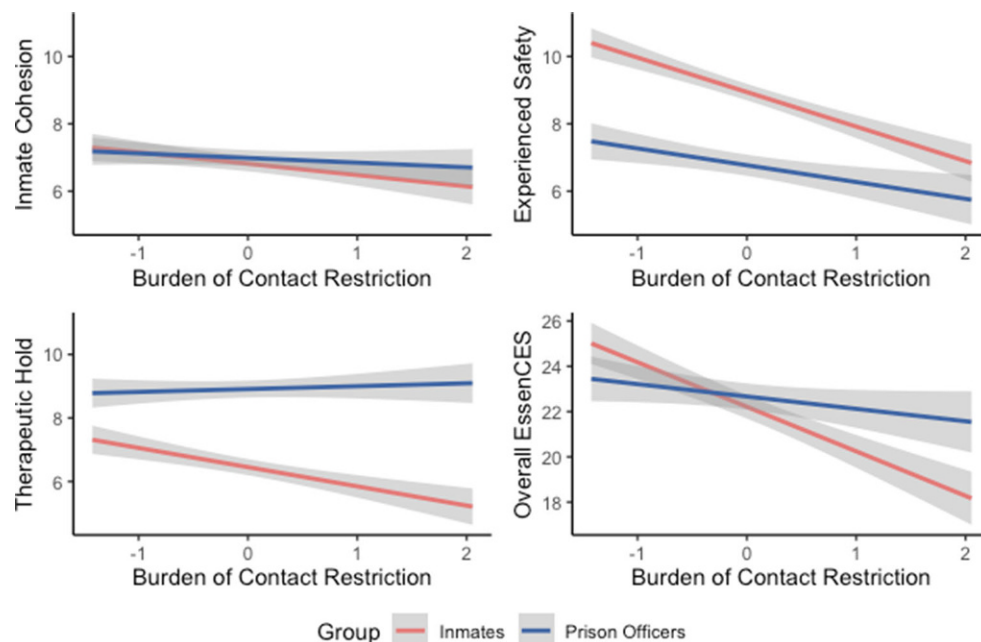
Table 2 Four moderation models for BoCR \times group on perceived social climate

IC	<i>B</i>	β	<i>SE</i>	95% CI	<i>p</i>
Constant	6.875	–	0.09	6.70, 7.05	<0.001
BoCR	–0.233	–0.08	0.08	–0.38, –0.08	0.002
Group	0.168	0.02	0.18	–0.19, 0.53	0.361
BoCR \times group	0.173	0.03	0.16	–0.14, 0.49	0.280
R^2	0.008	–	–	–	–
$F(df=3, 1454)$	3.894	–	–	–	0.009
ES	<i>B</i>	β	<i>SE</i>	95% CI	<i>p</i>
Constant	8.194	–	0.10	8.00, 8.39	<0.001
BoCR	–0.733	–0.21	0.09	–0.90, –0.56	<0.001
Group	–2.172	–0.26	0.21	–2.58, –1.76	<0.001
BoCR \times group	0.457	0.06	0.18	0.10, 0.81	0.012
R^2	0.111	–	–	–	–
$F(df=3, 1454)$	60.705	–	–	–	<0.001
TH	<i>B</i>	β	<i>SE</i>	95% CI	<i>p</i>
Constant	7.299	–	0.10	7.11, 7.49	<0.001
BoCR	–0.318	–0.09	0.09	–0.48, –0.15	<0.001
Group	2.459	0.30	0.20	2.06, 2.86	<0.001
BoCR \times group	0.605	0.08	0.18	0.26, 0.95	<0.001
R^2	0.106	–	–	–	–
$F(df=3, 1454)$	57.422	–	–	–	<0.001
Overall EssenCES	<i>B</i>	β	<i>SE</i>	95% CI	<i>p</i>
Constant	22.368	–	0.20	21.97, 22.76	<0.001
BoCR	–1.285	–0.19	0.17	–1.63, –0.94	<0.001
Group	0.455	0.03	0.42	–0.38, 1.29	0.283
BoCR \times group	1.235	0.09	0.39	0.51, 1.96	<0.001
R^2	0.044	–	–	–	–
$F(df=3, 1454)$	22.302	–	–	–	<0.001

$N=1458$

BoCR burden of contact restriction; IC inmate cohesion; ES experienced safety; TH therapeutic hold; code for group: 0=inmates, 1=prison officers.

Fig. 1 BoCR \times group on perception of social climate



0.526 points ($B = -0.526$, $\beta = -0.15$, $p < 0.001$), while there was no significant relationship for prison officers ($B = 0.079$, $\beta = 0.02$, $p = 0.585$). For the overall rating of the social climate there was a significant BoCR \times group interaction ($B = 1.235$, $\beta = 0.09$, $p < 0.001$). The effect of BoCR reached statistical significance for inmates ($B = -1.710$, $\beta = -0.25$, $p < 0.001$) but not for prison officers ($B = -0.475$, $\beta = -0.07$, $p = 0.112$). Thus, as the BoCR increased by one unit, the inmates' overall rating decreased by 1.71 points.

Discussion

This study had two objectives: first, to explore variations in the perception of the social climate among prison officers and inmates in time of the pandemic, and second, to examine the impact of COVID-19-related contact restrictions (BoCR) on the social climate perceptions of inmates and prison staff alike.

Our findings align with prior research on differences in the perception of the social climate among prison officers and inmates (Blagden et al. 2016; Day et al. 2012; Guéridon and Strecker 2020; Isenhardt et al. 2020; Schalast and Laan 2017; Schalast and Tonkin 2016; Tonkin et al. 2012). Thus, the previous findings of higher ratings of ES by inmates and higher ratings of TH by prison officers persisted even amid the COVID-19 pandemic. Like the majority of previous studies, we also could not identify differences in IC. The overall rating of the EssenCES seems to balance itself out as the result of differences in ES and TH. In comparison with international norm values (Schalast and Tonkin 2016), the ratings both by inmates and by prison officers

corresponded to the second lowest (*somewhat below average*) and lowest category (*clearly below average*), and, thus, a poor social climate. Although drawing conclusions without pre-pandemic comparison values is challenging, this striking deviation, found in a sample from 26 facilities, can hardly be explained without assuming an adverse impact of the COVID-19 pandemic on the social climate.

Regarding BoCR, its influence was more pronounced among inmates than among prison officers, although the effect varied across dimensions. The impact of BoCR on ES was nearly twofold higher for inmates compared to prison officers. This suggests that interpersonal contact between inmates and prison officers plays a crucial role in fostering a sense of safety. Inmates may seek to satisfy their need for safety through contact with prison officers. On the other hand, this need does not appear to be satisfied to the same extent among prison officers by inmate -contact, which could be explained by their primary responsibility, that is, to ensure security in prison (Liebling 2011). Surprisingly, the impact of BoCR on TH was found only for inmates and not for prison officers. This is unexpected, as one would assume that contact represents a fundamental necessity for prison officers to offer some form of hold and support to inmates. A potential explanation for this difference could be perception bias (de Vries et al. 2016; Guéridon 2020). Since the TH dimension is linked to prison officers' work, it may trigger a self-serving bias when officers rate these questions. This bias could lead prison officers to overlook certain detrimental aspects, such as BoCR, in their evaluation of TH. There was no significant difference in the effect of BoCR on IC between the two populations. Thus, both the prisoners' and the inmates' perception of

IC seems to have been similarly impacted by BoCR. This observation potentially suggests that this dimension is not affected by status group-specific factors such as needs and biases.

Limitations

A number of limitations have to be acknowledged. First, the data collection occurred at different points during the pandemic across federal states, potentially introducing variations in present restrictions. The evolving nature of the pandemic and the associated measures might have influenced the responses, and the findings should be interpreted with this temporal variability in mind. Second, the EssenCES scale was shortened by three items, raising the possibility of overlooking certain aspects of the social climate, even though the internal consistency of the shortened scale remained acceptable. Third, the nested data structure was not statistically accounted for in this study³. The lack of consideration for this structure might overlook effects that operate at the institutional level.

Conclusion

Overall, this study demonstrates the impact of the COVID-19 pandemic on the social climate of prisons for both inmates and prison officers. Subsequent research should investigate how, and whether, the social climate returns to average after the pandemic concludes. The study also underscores the significance of examining the distinct perceptions of inmates and prison officers. To investigate the reasons behind these group-specific factors, future studies could employ various methods, such as interviews exploring the thought process during social climate evaluations or questionnaires measuring social desirability and response biases.

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Conflict of interest M.S. Richter and M.J. Hamatschek declare that they have no competing interests.

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³ The calculated ICC for each dimension yielded values below 0.10, suggesting that most variance in the social climate lies within the individual (>90%) rather than at the institutional level (<10%).

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