2000

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Recommended Citation

Styve, G. J., MacKenzie, D. L., Gover, A. R., & Mitchell, O. (2000). Perceived conditions of confinement: A national evaluation of juvenile boot camps and traditional facilities. Law and Human Behavior, 24(3), 297–308. https://doi.org/10.1023/A:1005532004014

Perceived Conditions of Confinement: A National Evaluation of Juvenile Boot Camps and Traditional Facilities

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In a national study of juvenile correctional facilities, the perceived environment of 22 juvenile boot camps was compared to the perceived environment of 22 traditional facilities. Self-report surveys completed by 4,121 juveniles recorded information on demographics, risk factors, and perceptions of the facility's environment. Compared to juveniles in traditional correctional facilities, boot camp residents consistently perceived the environment as significantly more controlled, active, and structured, and as having less danger from other residents. Boot camp juveniles also perceived the environment as providing more therapeutic and transitional programming. Overall, from the perspective of the juveniles, boot camps appear to provide a more positive environment conducive to effective rehabilitation considering almost all of the conditions measured. A major concern is that in both types of facilities, juveniles perceived themselves to occasionally be in danger from staff (rated as rarely to sometimes).

The appropriateness of correctional boot camps for juveniles is a controversial subject (MacKenzie & Hebert, 1996; MacKenzie & Parent 1992; Meachum 1990; Morash & Rucker 1990). In contrast to traditional correctional programs, boot camps incorporate elements of military basic training in the daily schedule. For example, most boot camps require juveniles to wear military-style uniforms, march to and from activities, enter and exit the program in squads or platoons, and participate in military-style drill and ceremony and strenuous physical fitness activities. There is disagreement about whether this is an appropriate method for managing and treating delinquents.

Advocates argue the focus on strict control and military structure provides a safer environment which is more conducive to positive change (Steinhart, 1993; Zachariah, 1996). From this perspective, the intense physical activity and healthy atmosphere of the camps provide an advantageous backdrop for therapy, education, and other treatment activities (Clark & Aziz, in MacKenzie & Hebert, 1996; Cowles & Castellano, 1995).

Critics of the camps suggest the confrontational nature of boot camps is antithetical to treatment. In fact, they argue some aspects of the boot camps are diametrically opposed to the constructive, interpersonally supportive treatment environment necessary for positive change to occur (Andrews et al., 1990, Lipsey, 1992). It is argued that boot camps hold inconsistent philosophies and procedures (Marlowee, Marin, Schneider, Vaitkus, & Bartone, 1988), set the stage for abusive punishments (Mo- rash & Rucker, 1990), and perpetuate a ‘‘we versus they’’ attitude suggesting newer inmates are deserving of degrading treatment (Raupp, 1978). Critics expect the boot camp environment to be perceived as less caring, more unfair or unjust, and less therapeutic as compared to traditional facilities. They anticipate that youth may fear staff and that the camps will have less individualized programming, and as a result youth will be less prepared for their return to the community.

As the critics predict, those released from boot camps do not fare better after they return to the community. Comparison of juvenile (Bottcher, Isorena, & Belnas, 1996; Clawson, Coolbaugh, & Zamberlan, 1998; MacKenzie, 1997) or adult-boot

camp inmates (MacKenzie, Brame, McDowall, & Souryal, 1995) to inmates who received more traditional correctional options (prison, probation, training schools, detention centers) show no differences in recidivism rates or participation in constructive community activities such as work and school (MacKenzie & Brame, 1995). However, despite the empirical evidence, boot camps have remained a popular sentencing option for juveniles. Advocates of the boot camps say that the juvenile boot camps studied were early models of the programs that were not fully developed or were different from the camps of today.

The impact of the prison environment on inmate adjustment and behavior inside and outside the prison walls has been well established in the research literature (Ajdukovic, 1990; Goffman, 1961; Johnson & Toch, 1982; Moos, 1971; Wright, 1985, 1991; Wright & Goodstein, 1989; Zamble & Porporino, 1990). Facilities have been found to ‘‘possess unique and enduring characteristics that impinge upon and shape individual behavior’’ (Wright & Goodstein, 1989, p. 266). As such, an understanding of potential differences in the perception of environments of boot camps and traditional facilities is important.

To make a positive impact on inmate adjustment and reduce criminal activity, correctional environments at a minimum must provide an environment that is perceived as safe to allow inmates to focus on the treatment programs. Though boot camps may provide some basic components such as safety, structure, and activity, these program aspects may not be sufficient for rehabilitation to occur (Lutze, 1998). Effective rehabilitation that reduces future criminal activity and improves positive adjustment requires more (Andrews et al., 1990; Gendreau & Ross, 1987; Gendreau, Little, & Goggin, 1997). Such an atmosphere would be perceived as caring and just, and would include therapeutic programming, focus on reintegration, and provide individualized programming. These are the conditions that are necessary if boot camps are to influence adjustment and a change in criminal activities.

This study builds on previous research examining the prison environment to determine how inmates perceive the environment of two dramatically different programs. We expect inmates in boot camps and traditional facilities to perceive

consistent differences in their environments. Given the military-type atmosphere of the boot camps, we expect inmates in these camps to perceive the environment as more structured, controlled, and active. Furthermore, as a result of the highly controlled and structured military atmosphere, they will see themselves as safer from the threat of danger from other inmates. However, we anticipate that the highly controlled atmosphere typical of military basic training with confrontational interactions, group punishments, and management by squad or platoon will lead to some negative perceptions. As critics of boot camps assert, the camps are expected to be perceived by the juveniles as less caring and less just, to have less individualized planning and fewer programs focusing on reintegration, and, overall, to focus less on therapeutic treatment. We also anticipate that the yelling, direct commands, and summary punishments by ''drill instructors'' in the boot camps will result in the boot camp youth perceiving themselves to be in more danger from the staff than will the youth in the traditional facilities.

METHOD

Participants

Incarcerated juveniles from 24 boot camps (*n* = 2,668 juveniles) and 22 traditional facilities (*n* = 1,848 juveniles) were surveyed and compared.[3] Traditional facilities were selected as a comparison for each boot camp facility by identifying the state facility in which the juveniles would have been confined if the boot camp was not in operation. These matched facilities are referred to as state pairs or state- paired facilities.

Survey Instrument

The survey included 266 questions consisting of 17 demographic questions, 13 environmental conditions scales, 17 risk factor scales (criminal history and attitudes), and 9 intermediate outcome scales. Thirteen questions were open-ended

[3]For two pairs of boot camps, the same facility was identified as the most appropriate comparison facility. Given that these two boot camps did not significantly differ, the data from the two boot camps were combined. Thus, 22 matched boot camp and comparison pairs were included for analysis.

(primarily demographics) with the remaining questions based on 5-point Likert scales.[4]

Surveys were administered in classroom-like settings in groups of 15–20 participants in accordance with prevailing ethical principles. A videotaped presentation of instructions and survey questions was provided on televisions to ensure uniform administration and provide assistance to juveniles with reading difficulties.

Scale Development

Conditions of Confinement Scales

Items were developed for 13 conditions of confinement using the categories identified in previous research examining institutional environments (Gendreau & Andrews, 1994; Logan, 1993; Moos, 1974; U.S. Department of Justice, Federal Bureau of Prisons, 1993; U.S. Department of Justice, Office of Juvenile Justice and Delinquency Prevention, 1994; Wright, 1985). The summated scales were as follows:

(1) Control, the security measures exerted over the residents to keep them in the facility and monitor their activities;

(2) Resident Danger, the resident's risk of being injured by other residents;

(3) Danger from Staff, the resident's risk of being injured by staff members;

(4) Environmental Danger, the resident's risk of being injured as a result of being institutionalized;

(5) Activity, the level and variety of activities available to inmates;

(6) Care, the quality of interactions between juveniles as well as between staff and juveniles;

(7) Risks to Residents, the risks to the residents as a result of facility conditions;

(8) Quality of Life, the general social environment including the resident's ability to maintain some degree of individuality;

[4]It is interesting to note that juveniles found the last 105 questions in the survey most appealing, as they were asked concrete questions about their experiences in the institution. Most likely, this resulted in the high completion rate of over 85% of the total population.

(9) Structure, the formality of daily routines and interactions with staff and other residents;
(10) Justice, the appropriateness and constructiveness of punishments given to the residents;
(11) Freedom, choice of activities and movement to residents;
(12) Therapeutic Programming, the availability and utility of therapeutic opportunities; and
(13) Preparation for Release, activities with juveniles prior to release to assist the juvenile in the transition back to society.[5]

Factor Analysis

All scales were formed utilizing confirmatory factor analysis methods for each scale. Initially, both the Barlett's Test of Sphericity and Kaiser–Meyer–Olkin (KMO) measure of sampling adequacy were performed to determine whether factor analysis of the questions was warranted. Given acceptable KMO and Bartlett scores, varimax factor analysis with pairwise deletion of missing cases was performed.[6]

Cronbach's (1951) alpha reliability test was used to test the internal consistency of the items, the alphas are displayed in the last column of Table 2. If the items were reliable, scale scores were computed controlling for missing data.[7] All scales contained less than 10% missing data. The only scale that was not developed was for a measure of Individualized Planning. Items pertaining to this concept failed to factor-analyze or demonstrate internal consistency.

[5]A listing of individual items and related descriptive statistics of each scale can be obtained from the authors.

[6]Varimax rotation was used because it was assumed that the most interpretable factor has numerous high and low loadings, but few of intermediate value (Comrey & Lee, 1992). This occurs because the variances of the variables are maximally spread apart. In the majority of cases, items were dropped if they did not load on a factor as .30 or greater.

[7]If an individual failed to answer more than 20% of the questions contained in the scale, the case was excluded from the overall analysis.

Analytic Model

Individual differences between inmate characteristics in each type of facility were determined using *t* tests for continuous variables and the Kolmogorov–Smirnov (KS) test for categorical variables. Subsequently, analysis of covariance (ANCOVA) was performed to examine the inmates' perceptions of the environments in boot camps and traditional facilities. Separate analyses were completed for each of the 13 environmental conditions. Variables in the model were Type of Facility (boot camp vs. traditional facility), the State Pair (grouping of boot camp and comparable traditional facility within a state), individual differences (gender, race, age, sentence, age at first arrest, length of incarceration, prior commitments, family violence history, substance use, and alcohol abuse) and an interaction between boot camps, and the state pairs.

If there was an overall main effect difference between boot camps and traditional facilities for an environmental measure, we examined whether this difference was consistent for all boot camp–traditional pairs. The interaction term indicated whether environmental differences were consistent among all the state pairs or if differences existed in only some of the state pairs. If the interaction term was significant, contrast statements in the ANCOVA model compared the mean difference between each boot camp and traditional facility to the overall mean difference between the two types of facilities. The contrast statement implemented the equation

$$(\bar{x}_{\text{boot camp}} - \bar{x}_{\text{traditional facility}}) - (\text{boot camp}_i - \text{traditional facility}_i)$$
$$\text{for} \quad i = 1, \ldots, 22 \quad \text{facilities}$$

If the contrast statement was significantly different from zero as determined by a *t*-test, we determined whether differences between environments were due to direction or magnitude. To do so, it was necessary to refer to the estimated marginal means of the significant state-paired facilities to compare them with the overall means of boot camps and traditional facilities.

If each mean difference between the facilities was similar to the difference between the overall mean of boot camps and traditional facility, conclusions regarding a consistent difference in environments are warranted. For example, if

a state's boot camp had a higher mean level on the environmental control scale in comparison to the traditional facility, we concluded there was a consistent difference in environ- mental control between boot camps and traditional facilities. However, if some state boot camps had higher control than traditional facilities, while others did not (a directional difference from the overall mean), an inconsistency in perceptions of the environmental control existed.

In addition to determining the significance of differences between types of facilities, we determined the magnitude of these differences through effect sizes (ES). Cohen's *d* was computed for each of the environmental conditions (Cohen, 1977). Cohen's *d* coefficient was defined as the boot camp group mean minus the comparison group mean, divided by the pooled group standard deviation. A positive ES indicated a higher level of the outcome in the boot camp, whereas a negative ES indicated a higher level of the outcome in the comparison facility.

RESULTS

Demographics and Risk Factors

In examining the inmates within boot camps and traditional facilities, as shown in Table 1, *t* tests and KS tests demonstrated significant differences between groups in the mean age, sentence length, age at first arrest, length of incarceration, number of previous commitments, family violence, substance use, and alcohol abuse. The magnitude of these differences is small in most cases, however, these individual differences were subsequently controlled for in the ANCOVA model as covariates.

Environmental Conditions

In the ANCOVA model there were significant main effects for state and type of facility (boot camp and traditional facility). The state by boot camp interaction was significant for all 13 environmental conditions. Overall, boot camp inmates perceived the environment as more therapeutic, structured, active, controlled, just, caring, less dangerous from any source, better preparing them for release, and having a better quality of life and less freedom. The effect sizes or

magnitude of the differences between the means of the perceived environmental conditions within the two types of facilities are displayed in the fourth column of Table 2. The effect sizes show that the majority of differences between the two types of facilities are large in magnitude. They range from a high of 1.73 to a low of 0.03. Nine of the environmental conditions (69%) had effect sizes greater than 0.30.

The fifth column of Table 2 displays the number of state pairs that coincide with the overall means adjusted for the covariates. Our investigation of the interactions revealed that in 17 or more of the 22 facilities (more than 75%), inmates in the boot camps perceived the boot camps as having more therapeutic programming, activity, structure, and control, and a more thorough preparation process for release from the facility. Boot camp inmates also perceived the facility to pose less dangers from other inmates or the environment and have fewer general risks to residents. Thus, in the vast majority of the camps, the juveniles perceived the environments as high in the characteristics expected in a boot camp environment (structure, control, safety from other inmates), but they also view the environments as more positive in the more therapeutic components such as therapeutic programming and preparation for release. Additionally, although somewhat less consistently, boot camps are perceived by the inmates as being more just and more caring.

Table 1. Demographic Comparison of Boot Camp and Comparison Facility Populations

Characteristic		Boot camp (n = 2668)	Comparison (n = 1848)
Gender (% male)		92.1	95.6
Race (%)	African American	35.3	32.0
	White	34.1	31.1
	Hispanic	18.5	19.2
	Native American	3.7	5.6
	Asian	1.2	1.9
	Other	6.7	9.3
Age, $M(SD)$*		16.1 (1.2)	16.3 (1.4)
Sentence length, M (SD)*		9.46 (14.4)	16.2 (26.5)
Age at first arrest, M (SD)*		13.5 (1.9)	12.9 (0.75)
Length of incarceration, M (SD)*		3.01 (3.4)	6.54 (8.1)
Number of prior commitments, M (SD)*		2.59 (2.3)	2.96 (2.6)
Family Violence Scale, M (SD)*		1.55 (0.64)	1.66 (0.75)
Substance Use Scale, M (SD)*		1.48 (0.27)	1.46 (0.28)
Alcohol Abuse Scale, M (SD)*		1.69 (0.31)	1.64 (0.31)

*$p < .05$.

Table 2. Adjusted Mean Scale Scores of Boot Camps and Comparison Facilities

Scale	Adjusted means (*SD*)		Effect size	*N* of consistent facilities (max. 22)	Cronbach's α
	Boot camp	Comparison			
Theapeutic programs*	3.66 (0.99)	3.25 (1.0)	.41	21	.89
Activity*	3.97 (0.82)	3.50 (0.91)	.54	21	.77
Structure*	3.83 (0.69)	3.47 (0.68)	.49	22	.71
Preparation for Release*	3.88 (0.69)	3.73 (0.73)	.21	21	.45
Control*	3.14 (0.59)	2.73 (0.56)	.71	21	.70
Resident danger*	1.96 (0.78)	2.49 (0.77)	−.68	21	.81
Environmental Danger*	2.31 (0.88)	2.85 (0.79)	−.65	21	.73
Risks to Residents*	2.29 (0.81)	2.72 (0.85)	−.52	20	.77
Justice*	3.10 (0.79)	3.08 (0.74)	.03	18	.77
Care*	3.36 (0.75)	2.12 (0.68)	1.73	17	.74
Danger from Staff*	2.45 (1.0)	2.27 (1.0)	.18	15	.84
Quality of Life*	3.02 (0.66)	2.86 (0.71)	.23	15	.67
Freedom*	2.11 (0.74)	2.61 (0.73)	−.68	11	.66

*Interaction significant at $p < .001$.

Due to a lack of consistency in the pair comparisons, it is unclear which type of environment (boot camp vs. traditional facility) is perceived as having greater danger from staff, a better quality of life, and more freedom. It appears these variables may be more specific to the individual facility than the type of program.

DISCUSSION

Perceptions of juveniles in facilities are only one type of measure that can be used to develop standards for conditions conducive to positive inmate adjustment and change. We believe it is an important perspective. There is little reason to believe the juveniles in the boot camps would say the boot camp is positive in all of these aspects if that was not their perception. Observers of boot camps frequently argue that the active, structured environment provides safety for the inmates. Al- though some psychologists and other researchers believe the militaristic style of boot camp programs holds more potential for harm than benefit, the results from this investigation provide evidence contrary to this argument. Even though there are many critics of boot camp-style programs, these

programs were rated by the juveniles incarcerated in them as providing a much more positive atmosphere.

Juveniles perceived both the external environment (structure, control, etc.) and the therapeutic environment (care, justice, programming, etc.) as more conducive to treatment. In addition to perceiving the environment as controlled and safe, juveniles in the boot camp believed their experience provides more opportunities for programming and that they were provided with more intensive preparation for transition into the community. Furthermore, in their view boot camps better pre- pared them for their future, helped them to focus on their goals and understand themselves, and assisted them in learning things in classes (therapeutic programming and planning for release scales). Results were surprisingly consistent given the number of facilities, the variety of types of offenders, and the vast number of juveniles surveyed. Although differences between boot camps and traditional facilities were anticipated in some aspects of the environment (e.g., activity and control) due to the fundamental differences between programs, the overall strength of these differences as indicated by the effect sizes were larger than expected.

It should be noted, however, there are differences between the boot camps and traditional facilities in the youth who were detained in each. Youth in the comparison facilities had longer sentences and more prior commitments to facilities and had been first arrested at an earlier age than the boot camp youth. They had fewer substance use/abuse problems, more family, violence and they were older. Other than the substance use/abuse and age, all of the differences would suggest that the inmates in the traditional facilities are at more serious risk for criminal activity. Furthermore, selection criteria for boot camps restrict admission to youth with less serious criminal histories. While we controlled for these differences in the analysis of covariance, it is still possible that differences between the inmates led to differences in the environment and, hence, their perceptions. Alternatively, the environments might be the same, but the differences between the inmates led to differences in perceptions. There are also differences between these boot camp facilities and the traditional facilities

other than the boot camp aspects. For example, the boot camps are all relatively new programs (developed after 1990). The traditional facilities are much older. The boot camps are frequently very visible, touted as exciting new methods for managing juvenile delinquents. Similar new, highly visible programs without boot camp-type components may also result in more positive perceptions of the environment compared to traditional facilities. We cannot rule out any of these possibilities.

However, if there are indeed differences in the environments of these institutions as suggested by the perceptions of these juveniles, we are left with the question of why past research has not shown any differences in recidivism when boot camp releasees are compared to others. One possibility is that the boot camps operating today are different from those that were studied in the past in ways that make them more therapeutic. That is, the boot camps we studied may have more therapeutic components that will have an impact on the youth once they are released. For example, they may devote less time to drill and ceremony and more time to the type of cognitive skills programs that have been found to be effective in reducing recidivism (Johnson & Hunter, 1995; Knott, 1995; Little, Robinson, & Swan, 1996). Alternatively, in comparison to the earlier boot camps, they may devote more time to individualized planning and less to physical training. Considering how rapidly these camps are spreading in the juvenile justice system, it is surprising that more research examining outcomes has not been completed.

Another possible explanation for the differences in perceptions and the failure to find differences in recidivism is that the camps may have an atmosphere that leads the youth to view them very positively, but the specific components necessary for changing behavior are no more available in the boot camps than in traditional facilities. As the Canadian correctional researchers have asserted, there are components that must be in place for treatment to be effective (Cullen & Gendreau, 1989; Gendreau & Ross, 1987). For instance, programs based on cognitive-behavioral and social leaning theory are found to be more effective than those using nondirective relationship-oriented counseling or psychodynamic, insight-oriented

counseling methods (Andrews et al., 1990; Gendreau, Little, & Goggin, 1996; Lipton & Pearson, 1996). Treatment programs must have therapeutic integrity (be delivered as planned and designed by trained personnel). Treatment must be of sufficient intensity and duration (Gendreau, Little, & Goggin, 1996). Staff in boot camps may be enthusiastic about the programs because they are new and highly visible. They may attempt to counsel, help, and treat the youth. However, if this treatment is not done in a manner that is consistent with ''appropriate'' therapeutic programming (Gendreau & Goggin, 1997; Gendreau, Gogin, & Paparozzi, 1996; Gendreau, Little, & Goggin, 1996), the treatment may be no more effective than what is done in the traditional institutions despite the fact that the youth perceive it as better. From this perspective, the environment of boot camps is perceived as more positive than traditional facilities, but the perceptions do not reflect the actual situation in regard to quality correctional programming. Despite the fact that the environment of the boot camps is perceived as positive, the treatment aspects of the program may not reach the level (quality, intensity, duration, integrity) necessary to have an impact on recidivism.

With all the above cautions in mind, if these perceptions of the environments of these institutions reflect true differences in the environments or the perceived environments, than we would have to conclude that the boot camps provide an atmosphere that is more positive from the perspective of juveniles. Even if the environmental characteristics do not reach the level necessary to impact future behavior, it still appears that boot camps create an atmosphere that juveniles perceive as more constructive than more traditional institutions. Possibly, this is the first step in creating a quality institution where therapeutic programming will be effectively administered.

One of the concerns from our results is the juveniles' perception of danger from staff. Critics of boot camps assert that the confrontational nature of the interactions between staff and juveniles leads juveniles to fear staff. Yet, our findings suggest there are no differences between the boot camps and the traditional facilities. In both facilities, on occasion (rarely or sometimes), juveniles report that staff say mean things to inmates, grab, push, or shove them, and even place

residents in fear of being hit by staff members. Certainly, one goal should be to decrease the frequency of such behaviors.

ACKNOWLEDGMENTS

An earlier version of this paper was presented at the 1998 Annual American Society of Criminology meeting in Washington, D.C. This investigation was supported in part by Grant #96-SC-LX-0001 from the National Institute of Justice, Office of Justice Programs, U.S. Department of Justice, to the University of Maryland. Points of view in this document are those of the authors and do not necessarily represent the official position of the Department of Justice. Thanks are expressed to administrators, staff, and juveniles at the correctional facilities who participated in this research as well as the Center for Substance Abuse Research, which provided some technical assistance.

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