

12-1999

The Environment and Working Conditions in Juvenile Boot Camps and Traditional Facilities

Ojmarrh Mitchell

University of Maryland - Baltimore

Doris Layton MacKenzie

University of Maryland

Angela Gover

University of South Carolina

Gaylene Armstrong

University of Nebraska at Omaha, garmstrong@unomaha.edu

Follow this and additional works at: <https://digitalcommons.unomaha.edu/criminaljusticefacpub>

 Part of the [Criminology Commons](#)

Recommended Citation

Mitchell, O., MacKenzie, D.L., Gover, A.R., & Styve, G.J. (1999). The environment and working conditions in juvenile boot camps and traditional facilities. *Justice Research and Policy*, 1(2), 1-22. <https://doi.org/10.3818/JRP.1.2.1999.1>

This Article is brought to you for free and open access by the School of Criminology and Criminal Justice at DigitalCommons@UNO. It has been accepted for inclusion in Criminology and Criminal Justice Faculty Publications by an authorized administrator of DigitalCommons@UNO. For more information, please contact unodigitalcommons@unomaha.edu.

The Environment and Working Conditions in Juvenile Boot Camps and Traditional Facilities

Ojmarrh Mitchell
Doris Layton MacKenzie
Angela R. Gover
Gaylene J. Styve

Abstract

This national study of juvenile correctional facilities compared the correctional environments of 25 juvenile boot camps to those of 22 traditional juvenile facilities. Data on perceived environmental conditions for juveniles and work climate for staff, as well as demographic characteristics, were collected from 1,233 juvenile correctional facility staff. While there was some regional variation, in comparison to staff employed in traditional juvenile correctional facilities, boot camp staff perceived the environmental conditions for juveniles as having significantly more activity, control, justice, structure, caring, and therapeutic programming, and believed that their re-leases were better prepared for the future. Boot staff also perceived their facilities as having less danger for residents and staff, as well as having less general environmental danger and risks to residents. Furthermore, boot camp staff perceived their work climates as generally more favorable than comparison facility staff. In contrast to the opinions of many boot camp critics, these data suggest that the boot camp environment has more of the environmental components suggested by psychological theorists as being necessary for effective correctional treatment.

This research project was funded in part by Grant #96-SC-L X-0001 from the National Institute of Justice, Office of Justice Programs, U.S. Department of Justice, to the University of Maryland. An earlier version of this paper was presented at the 1998 Annual Meeting of the American Society of Criminology in Washington, D.C. The opinions expressed in this paper are solely those of the authors and may not represent the views of the Department of Justice.

Boot camps have become increasingly popular as short-term residential sanctions for juvenile delinquents. Boot camps originated in adult corrections as a more punitive intermediate sanction for offenders of marginal seriousness, emphasizing drill and ceremony and physical activity similar to basic training in the military (Gowdy, 1996). Recently boot camps have been incorporated into juvenile corrections and have since proliferated. In 1996, MacKenzie and Rosay (1996) identified 36 juvenile boot camps; yet, only one of these juvenile boot camps had opened before 1990. The emergence of boot camps appears to have come primarily as a response to a shift in the prevailing juvenile justice philosophy and an increase in the number of juvenile offenders (Gowdy, 1996, p.1). Policymakers appear to have moved away from the traditional juvenile justice philosophy of rehabilitation, and increasingly espouse protection of the public and deterrence of juvenile offenders as the most important goals of juvenile justice (Feld, 1999). Politicians and the public appear to expect boot camps to be sufficiently punitive to achieve both of these goals, and therein lies much of the appeal of boot camps.

The rapid spread of juvenile boot camps occurred in spite of many researchers' concerns that boot camps may not be appropriate for juvenile offenders. Advocates of boot camps argue that the structure and discipline of these programs result in a healthy and constructive environment that forces individuals to make changes in their lives (Clark & Aziz, 1996; MacKenzie & Hebert, 1996). Such environments are believed to be advantageous to therapy, education, and other treatment activities (Clark & Aziz, 1996; Cowles & Castellano, 1995). Conversely, many researchers knowledgeable about corrections and behavioral change assert that positive change occurs in an interpersonally supportive environment—an environment radically different from that of the confrontational, militaristic boot camp model. According to many psychological theorists, the boot camp environment is antithetical to effective treatment (Andrews, Zinger, Hoge, Bonta, Gendreau, & Cullen, 1990; Gendreau, Little, & Groggin, 1996; Lipsey, 1992; Morash & Rucker, 1990; Sechrest, 1989).

Further, the extant research assessing the treatment effectiveness of juvenile boot camp correctional programming consistently has found that boot camps are no more effective than more traditional facilities (Bottcher, Isorena, & Belnas, 1996;

Peters, 1996a, 1996b, 1996c). However, all of this body of research has assessed juvenile boot camp program effectiveness through the problematic measure of post-incarceration official recidivism. While a number of commendable studies have compared recidivism rates of juveniles released from boot camps to those of juveniles released from traditional facilities (Bottcher et al., 1996; Peters, 1996a, 1996b, 1996c), such measures of the effectiveness of correctional programming are by themselves inadequate, as official measures of recidivism rely on numerous factors beyond the control of correctional practitioners (Boone & Fulton, 1995; Dilulio, 1993; Gottfredson, 1987). For example, Gottfredson (1987) asserts measures of criminal behavior such as recidivism “may depend not only on the behavior of the persons . . . [but] also depend on the behavior of police, prosecutors, judges, or probation and parole officials” (p.14).

A number of practitioners and criminologists argue that measures more immediate to the control of correctional facilities may yield more equitable measures of correctional performance (Logan, 1993). One set of measures assessing these facility characteristics are measures of the quality of correctional conditions, which quantify the extent to which correctional environments are conducive to rehabilitation and positive behavioral change. From this perspective, high-quality correctional environments should provide residents safety, structure, therapeutic programming, activity, and emotional support (Logan, 1993; Dilulio, 1993). The impact of a facility's environment on inmates' adjustment and behavior has been well-documented in the research literature (Ajdukovic, 1990; Goffman, 1961; Johnson & Toch, 1982; Moos, 1971; Wright, 1985, 1991; Wright & Goodstein, 1989; Zamble & Porporino, 1990). Previous researchers have noted that facilities “possess unique and enduring characteristics that impinge upon and shape individual behavior” (Wright & Goodstein, 1989: 266), both in the facility and after they leave. Measures of correctional performance assessing the quality of the correctional environment instead of recidivism have the advantage of being independent of the actions of other criminal justice agencies.

As yet, little is known about the specific conditions of confinement in juvenile boot camps in comparison to more traditional juvenile correctional facilities. Most of

the extant literature concerning components of boot camps have focused on adult inmates' perceptions of the environment (Lutze, 1998), or their attitudes towards the boot camp program and its impact on their future (MacKenzie and Shaw, 1990; MacKenzie and Souryal, 1995). In general, boot camp inmates have perceived the environment as having some components conducive to rehabilitation, such as safety and discipline; however, boot camps were not perceived to include more "internally" important components such as emotional feedback and support (Lutze, 1998). Adult inmates typically view boot camp programs as a positive experience that will assist them in the future (MacKenzie & Shaw, 1990; MacKenzie & Souryal, 1995).

While most previous studies of environmental conditions have used data from institutional records or inmate perceptions, we believe that a unique perspective can be gained by asking correctional facility staff for their perceptions of the environment for the inmates. The correctional staff perspective is expected to be insightful as staff spend a great deal of time in correctional facilities, and have a tremendous amount of interaction with inmates. The accumulation of these experiences qualifies correctional staff as discerning observers and evaluators of the correctional environment. Staff work from a theoretical perspective whether tacitly understood or openly acknowledged. The task, then, is to make these views explicit in order to understand what model drives their interactions with juveniles under their care (Gottfredson, 1984).

The present study attempts to address the issues of the appropriateness of boot camps for juveniles and offers an alternative, perhaps more equitable, measure of correctional effectiveness. The present authors do not attempt to measure correctional performance through recidivism; rather, the authors assess correctional performance through measuring staff perceptions of each facility's conditions of confinement and quality of correctional programming. With these research goals in mind, the conditions of confinement and the work climate in 47 juvenile correctional facilities were examined from the perspective of staff working in 25 boot camps and 22 traditional juvenile facilities. Interest focused on comparing how staff in the different types of facilities perceive the correctional environment and programming for juveniles, and the working conditions for themselves. The authors

examined whether boot camps were viewed by staff as providing safe, supportive environments, conducive to positive growth and change, or whether boot camps were viewed by staff as focusing primarily on deterrence by creating a punitive, disagreeable environment.

This study is valuable to juvenile correctional policy as the continued proliferation and funding of juvenile boot camps may not be justifiable in the absence of answers to issues raised in the above. The present study is also a valuable addition to the correctional literature examining juvenile boot camps, as much conjecture has been written about the appropriateness of the boot camp model for juveniles, but no previous research has empirically assessed this question.

Hypotheses

From the previous research on adult inmate perceptions, recidivism, and description of boot camps, the authors expected to find that the staff in the boot camps perceive their correctional environments as having more activity, structure, and safety, while having less freedom for juvenile inmates. Furthermore, the authors expected staff in the traditional facilities to perceive the environments of their facilities as having more components important for positive behavioral change, such as care, therapeutic programming, planning for the future, and preparation for release. That is, boot camp staff would emphasize the structure, order, and active aspects of the facilities in order to force delinquents to obey rules, follow directions, and behave appropriately. In contrast, comparison facilities staff would be expected to perceive more treatment, individualized programming, fair and just procedures, and reintegration planning, reflecting the emphasis of their facilities.

Methodology

This research project began by identifying and locating all juvenile boot camps in operation at the commencement of the research project (April 1997). At that time, 50 privately and publicly funded secure residential boot camps were identified. These facilities were contacted and asked to participate in the research project. Twenty-seven of the 50 facilities agreed to participate in the research project and completed the

evaluation process. Twenty-three programs did not participate for various reasons: parental consent issues, staffing and resource limitations, impending program closure, etc. Thus, the 27 boot camps agreeing to participate in this project represented 54 % (27 out of 50) of the residential juvenile boot camps operating in 1997.¹ (Note two boot camps were later eliminated, as no comparison facility was available for these facilities).

In order to assess how the experiences of residents in boot camps differed from those in traditional facilities, a comparison facility for each boot camp was selected. Comparison facilities were selected for this research project by identifying those secure residential facilities where the juveniles would have been confined if the boot camp program were not in operation. This method of selection was chosen to ensure that the residents at the comparison facilities were as similar as possible to the boot camp residents. The chief administrator at each boot camp, with this definition of a comparison facility in mind, recommended the most appropriate comparison facility. Comparison facilities were then contacted and asked to join the research project. All of the 22 comparison facilities identified agreed to participate in the research project.

Note that there were only 22 comparison facilities for the 27 boot camps. The discrepancy between the two types of facilities was due to the fact that in three states, two different boot camp administrators identified the same non-boot camp facility as the most appropriate comparison facility. In these instances, one comparison facility served as the control facility for two boot camps; consequently, three comparison facilities served as control facilities for six boot camps.

Survey Administration

The staff survey was administered by a survey facilitator, who was an employee of each facility. The research investigators recommended that the survey

¹ As a high percentage of all juvenile boot camps in operation at the time of study agreed to participate in the study, the researchers do not expect their sample of facilities to be meaningfully different from the population of all juvenile boot camps in operation at the time of the study.

facilitator distribute the survey packets to all staff members having direct contact with the residents. The investigators also recommended that staff be given time during their shift to complete the approximately 30-minute survey. The researchers stressed to staff that participation in the survey was voluntary and all responses would be kept strictly confidential. All data were collected between April 1997 and August 1998.

Scale Development

Numerous scales have been developed to measure the environments of correctional facilities: the Social Climate Scale (Moos, 1974), the Prison Environment Inventory (Wright, 1985), the Prison Social Climate Survey (Federal Bureau of Prisons, 1993), the Conditions of Confinement Study (Office of Juvenile Justice and Delinquency Prevention, 1994), Quality of Confinement (Logan, 1993), and the Correctional Program Evaluation Inventory (Gendreau & Andrews, 1996). All of these measures assess correctional environments/ climates using quantitative indices designed to evaluate components of the correctional atmosphere believed to be integral in promoting behavioral change.

An analysis of these scales reveals a considerable amount of consensus regarding which aspects of the correctional environment are viewed as important to achieving a high quality correctional environment. These scales measure similar constructs: activity/involvement, safety, support/care, order/structure, etc., and often ask similar questions. The current authors modeled the scales utilized in the current evaluation after the above-mentioned measures of correctional environments.

Staff Survey

The evaluation's 216-item staff survey contained 20 scales and 11 demographic questions. Fifteen of the scales concern staff perceptions of the environmental conditions in their facilities; these scales were designed to measure the staff's perceptions of residents' quality of confinement at each facility. The environmental conditions scales comprised the following 15 scales: Structure, Activity, Control, Freedom, Resident Danger, Staff Danger, Environmental Danger, Risks to Residents, Care, Quality of Life, Justice, Therapeutic Programs, Preparation for

Release, Planning, and Individual Emphasis.

The second component of the staff survey—the work experiences/attitudes scales—were designed to measure staff perceptions of the juvenile residents and how well each institution was run from an employee’s point of view. The work experiences/attitudes scales were Staff Communication, Personal Stress, Job Satisfaction, Support of Staff, and Juvenile Culpability.

All of the above-mentioned scales use five-point Likert scales to measure the construct of interest, with the exception of the Planning and Preparation for Release scales, which use both five-point Likert scale items and yes-no-uncertain response options.

Scale Analysis

The scales utilized in the national evaluation were not validated measures; therefore, all the scales were examined for internal reliability using an array of statistical devices. All of the scales were scrutinized by both Barlett’s Test of Sphericity and the Kaiser-Meyer-Olkin test to measure the appropriateness of factor analysis. Using the above statistical devices, all the scales were deemed appropriate for factor analysis. Confirmatory factor analysis, using Principal Components and Varimax rotation with list-wise deletion of missing data, was performed on all of the hypothesized scales. After the confirmatory factor analysis had been performed, Cronbach’s alpha reliability test was performed to test the internal reliability of each scale. The Individual Emphasis scale did not meet the researchers’ reliability coefficient criterion of .60; therefore, it was excluded from all analyses. Descriptions of each scale and scale reliabilities are reported in Table A1 and A2, in the Appendix.

Demographic Information

Respondents were asked to describe themselves by a variety of demographic, background, and occupational characteristics, including age, race, education, experience working with juveniles, law enforcement experience, military experience, correctional training, job title, length of employment in current facility, frequency of

contact with residents, and primary shift worked.

Analysis of Variance Model

Using an analysis of variance model (general linear model, [GLM]), we examined whether there were differences between boot camps and comparison facilities on the environmental and work experiences/attitudes scales, independent of demographic and regional variations. The environmental conditions and work experiences/attitudes scales were the dependent variables in the following analyses. The GLM model attempted to answer two questions: Were there significant differences between boot camps and comparison facilities in general on the scales after controlling for demographic and regional differences; and, if so, how consistent were these differences across regions?

The GLM model employs three categories of independent variables. First, in order to remove the possibility that the detected differences in staff perceptions are due to demographic dissimilarities, all of the models contain independent variables which control for the demographic differences. Second, the researchers expected to find regional differences between facilities, which were independent of type of facility. For example, perhaps the quality of juvenile correctional facilities differs from one state to the next, which would in turn produce regional differences between staff perceptions of quality of the correctional environment. The GLM contains a series of variables, which control for regional differences that may exist between facilities independent of the type of facility. To accomplish this task, all of the regional pairs of facilities, that is each boot camp and paired comparison facility in the same geographic area (usually the same state, but some larger states had more than one pair of facilities), were entered into the model. Stated another way, all of the facilities located in the same region were grouped into a separate variable for each region. These variables were then entered into the model to control for variations that are due strictly to regional differences.²

² Note that in order to protect the confidentiality of the facilities involved in the study, all of the regions were assigned a random number. Also, some larger states had two pairs of boot camps and comparisons; thus, there are more regions (22) than there are different states participating in the study (19)

Finally, the GLM contains the two variables of interest: type of facility (boot camp or comparison facility) and an interaction term between type of facility and region. The type of facility variable determines whether there are general differences between the two types of facilities, while the interaction term determines whether the general difference between boot camps and comparison facilities was consistent across regions, i.e., the 22 pairs of facilities. If the interaction was significant in the analysis, we used contrast statements to compare the difference between each regional pair of facilities to the overall mean difference between boot camps and comparison facilities in order to determine which pairs differed from the overall difference between boot camps and comparison facilities.

Stated differently, the type of facility variable determines whether there is a general (overall) difference between boot camps and comparison facilities. The interaction terms indicate whether the difference between a boot camp and its geographically similar paired comparison facility differs significantly from the overall difference between boot camps and comparison facilities. Thus, the type of facility variable indicates whether there are significant differences between the two types of facilities, and the interaction term measures how consistently the difference between each pair of boot camp and comparison facility agrees with the overall (mean) difference between boot camps and comparison facilities.

Results

Sample

A sample of 1,233 respondents was obtained.³ These respondents came from 47 juvenile facilities (25 boot camps and 22 comparison facilities) in 19 states. The overall response rate for all 47 juvenile correctional facilities was 64 %. The response rate of boot camps was 70 % (N = 646), while the comparison facilities had a 58 % response rate (N = 587).

³ These figures exclude the two boot camps that did not have comparison facilities.

Demographic Comparison

Table 1 shows the demographic characteristics of the boot camp staff and the comparison facility staff. The staff showed several significant differences on some of the variables. Most notably, the boot camp staff had less education, more law enforcement experience, more military experience, and had worked less time at the current facility, which was expected given the newness of most residential juvenile boot camps. The boot camp staff also were more racially diverse, with a higher proportion of minority staff members than the comparison facility staff. Furthermore, there was a small, but statistically significant, difference in age between the two types of staff, with boot camp staff being slightly younger. More of the comparison sample identified their occupation as correctional officer, teacher, or counselor; more of the boot camp staff were drill instructors. The two groups of staff were demographically similar on all of the remaining characteristics.

Comparisons of Environmental Conditions and Staff Work Experiences

Boot camp and comparison facility staff means, adjusted for the control variables, on each of the environmental conditions and work experience/attitudes scales are shown in Tables 2 and 3. As shown in Table 2, even after controlling for regional and demographic differences, boot camps were perceived by their staff as having lower levels of freedom for residents, higher levels of structure, and more control over inmates than the levels reported by comparison facility staff on the same measures. Boot camps were also considered to be less dangerous for residents and staff, to have fewer environmental dangers, and to have fewer risks to residents. Boot camps were perceived to involve more activity, to be more caring and just, and to have a higher quality of life. Furthermore, they were viewed as providing significantly more effective therapeutic programming, taking more effective steps to prepare juveniles for release, and helping juveniles better plan for their futures.

* Table 1

Demographic Comparison of Boot Camp and Comparison Facility Staff

Comparison Characteristic	Boot Camp Staff (N = 646)	Facility Staff (N = 587)
Gender (% Male)	68.9	63.6
Race/Ethnicity (%)*		
African-American	21.4	19.0
White	63.8	70.4
Hispanic	9.2	5.6
Other	5.7	4.9
Age, <u>M</u> (SD)*	35.4 (9.4)	39.3 (10.8)
Highest Level of Education (%)*		
High School/Technical Training	16.5	13.7
Some College	35.3	22.7
College Degree	30.9	37.8
Graduate Study	17.3	25.7
Formal Training Prior to Work in this Facility (% Yes)	70.4	65.1
Previous Law Enforcement Experience (% Yes)*	37.3	19.2
Military Experience (% Yes)*	51.8	24.9
Years in Current Facility, <u>M</u> (SD)*	1.9 (2.8)	6.4 (6.5)
Occupational Category (%)*		
Correctional officer	11.5	19.9
Medical staff	1.1	1.3
Psychologist	.5	.9
Administrative personnel	10.4	10.5
Teacher	14.0	22.2
Counselor	12.7	30.6
Caseworker	3.8	4.9
Drill instructor	39.3	.5
Other	6.7	9.1
Prior Experience in a Juvenile Facility (in Years), <u>M</u> (SD)	1.8 (4.2)	1.5 (3.4)
Frequency of Contact with Juveniles (%)		
Yearly	1.7	1.2
Monthly	2.1	1.6
Weekly	2.5	2.4
Every day	93.8	94.8
Predominant Shift (%)		
Day	55.0	57.0
Evening	18.2	23.1
Night	9.9	7.3
No predominant shift	16.8	12.5

*p <.05

Table 3 compares boot camp and comparison facility staff's perceptions of the work experiences/attitudes scales. Boot camp staff, in contrast to comparison facility staff, perceived significantly less personal stress and more job satisfaction. Boot camp staff also perceived more support from other staff in their facilities and more communication among staff. Moreover, boot camp staff in comparison to comparison facility staff rated the juveniles under their care as being significantly less culpable for their own misbehavior.

However, the interaction term was found to be significant in all of the scales, indicating that there was some variation in the difference between boot camps and comparison facilities by their geographic location. There were two major types of interactions—magnitudinal and directional (see Figure 1 and Figure 2 for a graphical presentation of the interactions). When there were magnitudinal differences, the *magnitude* of the difference between a specific pair of facilities differed from the overall mean difference between all boot camps and comparison facilities; however,

* Table 2

Boot Camp and Traditional Facility Comparison on the Environmental Conditions Scales

Scale	Boot Camp Mean (SD)	Comparison Mean (SD)	Consistency of Finding		Model Statistics
			(%)	F	R ²
Activity	4.50 (.03)	4.02 (.03)*	95	9.32**	.35
Control	4.20 (.02)	2.79 (.03)*	91	13.63**	.44
Freedom	2.15 (.02)	2.66 (.03)*	86	18.24**	.51
Justice	4.31 (.02)	4.11 (.03)*	86	5.61**	.24
Structure	4.40 (.03)	4.03 (.03)*	86	7.06**	.29
Resident Danger	2.05 (.02)	2.61 (.03)*	100	22.57**	.56
Staff Danger	2.03 (.03)	2.56 (.03)*	95	15.51**	.47
Environmental Danger	1.76 (.03)	2.26 (.03)*	91	14.81**	.46
Risks to Residents	1.67 (.03)	2.00 (.03)*	91	7.18**	.29
Care	4.07 (.02)	3.70 (.03)*	91	10.03**	.36
Quality of Life	3.85 (.02)	3.62 (.03)*	77	8.60**	.33
Programs	4.01 (.03)	3.59 (.03)*	95	7.87**	.31
Preparation for Release	4.34 (.03)	4.06 (.04)*	77	7.38**	.30
Planning	4.40 (.03)	4.12 (.03)*	82	7.30**	.29

* Significant difference at the $p < .001$ level.

** Model significant at the $p < .001$ level.

the direction of the difference was consistent with the overall difference. For example, the overall means for boot camps and comparison facilities on the Freedom scale were 2.15 and 2.66, respectively, a difference of .51, with the comparison facilities having the larger mean. The data analysis revealed that for the Freedom scale there was a significant interaction and the follow-up contrast comparison indicated that the comparison facility in Region 21 had a mean of 2.80 and the boot camp had a mean of 1.94, a difference of .86.⁴ This is a magnitudinal difference because the direction of the difference between the means is in the same direction as the overall difference between all boot camps and comparison facilities (i.e., the comparison facility had more freedom than the boot camp), but the difference between facilities in Region 21 was significantly larger than the overall difference.

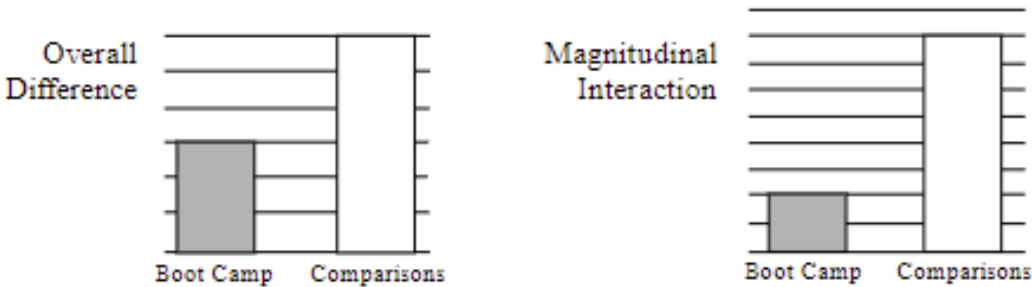
* Table 3
 Boot Camp and Traditional Facility Comparison on the Work Experiences/Attitudes Scales

Consistency Scale	Boot Camp		Comparison		of Finding		Model Statistics	
	Mean (SD)	Mean (SD)	Mean (SD)	Mean (SD)	(%)	F	R ²	
Activity	4.50 (.03)	4.02 (.03)*	95	9.32**	.35			
Job Satisfaction	3.65 (.03)	3.47 (.03)*	86	3.75**	.18			
Support of Staff	3.75 (.03)	3.46 (.04)*	82	5.17**	.23			
Personal Stress	1.89 (.04)	2.13 (.04)*	91	3.24**	.16			
Juvenile Culpability	2.63 (.03)	2.83 (.04)*	95	3.10**	.16			
Staff Communication	3.74 (.04)	3.43 (.05)*	91	4.18**	.20			

*Significant difference at the $p < .001$ level.

**Model significant at the $p < .001$ level.

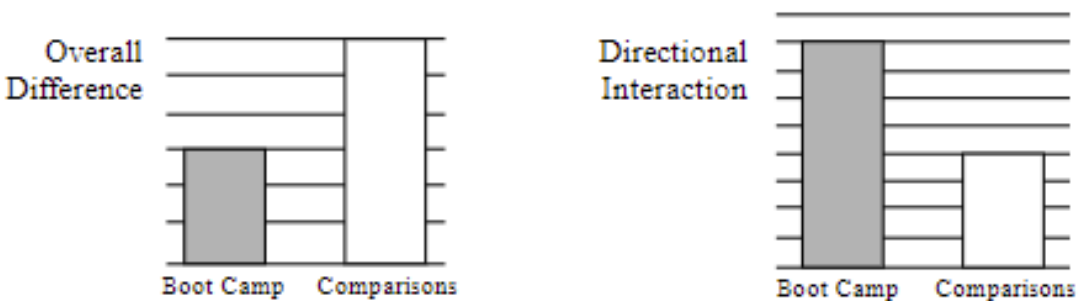
Figure 1
 Illustration of Magnitudinal Interaction



⁴ Group pairs were given arbitrary numbers to protect the confidentiality of the sites.

More interesting for our purposes were the directional interactions, because these directional interactions indicate that the difference between a boot camp and its paired comparison facility was inconsistent with the overall mean difference between boot camps and comparison facilities in the *direction* of the difference. For example, in the follow-up contrasts for the Freedom scale, Region 4 also was found to exhibit a directional interaction. The means were 2.96 and 2.86, respectively, for the boot camp and the comparison facility pair at this site. Thus, instead of perceiving less freedom than the comparison facility, the boot camp in this region perceived more freedom for juveniles, which was considered a directional interaction because it was *inconsistent* with the overall finding.

Figure 2
Illustration of Directional Interaction



The consistency of the overall difference between boot camps and comparison facilities is reflected in the fourth column of Tables 2 and 3, with higher values indicating a more consistent finding. Consistency of finding is the quotient of the number of regions displaying differences between boot camps and comparison facilities consistent with the overall findings to the total number of regions (22). Hence, the Activity scale had a consistency of 95 %, as 21 of the 22 regions perceived the difference between boot camps and comparison facilities similarly. Twelve of the 14 environmental conditions scales—Control, Resident Danger, Staff Danger, Environmental Danger, Activity, Care, Risks to Residents, Structure, Justice, Freedom, Programming, and Planning—had four or fewer regions out of the 22 matched pairs of facilities displaying directional interactions, a consistency of finding of at least 82%

(18 of 22).

The interaction term was significant on all of the work experience/attitudes scales; however, none of the work experience/attitudes scales had more than four directional interactions. The Support of Staff and Job Satisfaction scales had four and three directional interactions, an 82 % and 86 % consistent finding, respectively. Personal Stress, Juvenile Culpability, and Staff Communication each had two or fewer directional interactions, at least a 91 % consistent finding.

Analysis of the follow-up contrasts revealed that the results were less consistent for the Quality of Life and Preparation for Release scales. Both the Quality of Life and Preparation for Release scales exhibited five directional interactions. For these scales, the majority of boot camp staff in the 22 matched pairs of facilities (at least 17 of 22 regions, or 77 %) perceived their environments more favorably on these scales than comparison facility staff, but the consistency of these findings was marginal.

The authors also examined whether any region consistently demonstrated directional interactions (see Table 4). All but four of the matched pairs of facilities exhibited directional interactions on two or fewer of the environmental conditions scales (see columns 2 and 3 of Table 4). Thus, of the 22 regions, 82 % (18/22) of these facilities perceived the differences between boot camps and comparison facilities on the environmental conditions scales similarly. The exceptions to these otherwise consistent findings were Regions 22, 19, and 9, which all displayed six directional interactions, and Region 17, with five directional interactions on the 14 environmental conditions scales. These four regions did not appear to follow the overall difference between boot camps and comparison facilities as well as the other regions. That is, for these regions, the differences between boot camps and comparison facilities were not consistently similar to the overall differences between boot camps and comparison facilities.

The high number of directional interactions in Region 19 may be explained by the fact that the comparison facility in this region was not a truly traditional facility (i.e., training school or detention center). The comparison facility in this region was a residential forestry camp, which utilized a treatment-oriented philosophy with a

high level of therapeutic programming and vocational training. These qualitative observations are buttressed by the fact that this comparison facility was perceived by its staff to have high scores on those scales associated with a treatment-oriented philosophy (Care, Programs, Quality of Life, etc.) Region 22 was dissimilar from the other regions in that the boot camp in this region was recently opened at the time of the survey, while the comparison facility was an older, well-established facility. The newness of the boot camp facility could account for some of the directional differences, as the boot camp staff may have not been fully accustomed to the boot camp philosophy at the time of the staff survey. This view is supported by the findings that the boot camp staff in this region perceived their environment as having lower scores on the scales that we expected boot camps to score strongest on, i.e., structure and activity.

We are unable to offer any explanations as to why Regions 9 and 17 displayed above average numbers of directional interactions on the environmental conditions scales. These sites do not appear to differ from the other regions in any apparent systematic manner.

Discussion

Opponents of juvenile boot camps claim that these programs have harsh, punishment-oriented, and uncaring environments, which are antithetical to effective treatment (Morash & Rucker, 1990). The findings of the only previous study (Lutze, 1998) comparing the correctional environment of an adult boot camp to that of a traditional prison partially supports the conclusions of Morash and Rucker. Lutze concluded that the correctional environment of the adult boot camp she studied did not differ from a traditional prison in providing support for positive internal behavioral change. The present study's findings clearly were in opposition to both these previous studies.

As hypothesized and in concordance with the work comparing adult correctional environments (Lutze, 1998), perceptions of the environment revealed that boot camps were perceived to be significantly safer than comparison facilities on all of the measures of facility dangerousness. These findings are of utmost importance, as

* Table 4

Number of Directional Interactions by Region

Directional Interactions				
Scale	Environmental Conditions Scales	Consistency of Finding ^a (%)	Work Experiences Scales	Consistency of Finding (%)
Region 1	0	100	0	100
Region 2	3	79	3	40
Region 3	2	86	2	60
Region 4	1	93	0	100
Region 5	0	100	1	80
Region 6	0	100	0	100
Region 7	0	100	0	100
Region 8	0	100	0	100
Region 9	6	57	0	100
Region 10	0	100	0	100
Region 11	1	93	0	100
Region 12	0	100	0	100
Region 13	0	100	1	80
Region 14	3	79	0	100
Region 15	0	100	0	100
Region 16	0	100	0	100
Region 17	5	64	0	100
Region 18	0	100	1	80
Region 19	6	57	3	40
Region 20	1	93	0	100
Region 21	0	100	0	100
Region 22	6	57	1	80

^a Consistency of finding is the number of consistent findings divided by the total number of scales: 14 for the environmental conditions, 5 for the work experiences/attitudes.

previous researchers have concluded that without a safe correctional environment, inmates are forced to focus on self-defense instead of internal change (Toch, 1977; Wright, 1985; Lutze, 1998). Also as expected, staff in boot camps perceived their facilities as having less freedom, but more control, structure, and activity, which is consistent with the discipline-oriented philosophy of boot camps. However, unexpectedly, boot camp staff perceived the environment of their programs as more caring, more just, more focused on individualized planning, incorporating more effective rehabilitative programming, having a higher quality of life, and better preparing residents for release.

Moreover, analysis of the work experiences/attitudes scales revealed consistent, significant differences between the two types of facility staff. Boot camp staff reported more job satisfaction, more support from other staff, more communication among staff, and less personal stress than did comparison facility staff. Boot camp staff also perceived that their residents were less culpable in their misbehavior than comparison facility staff.

These findings suggest that boot camp staff not only perceive the environment of boot camps as being more conducive to rehabilitation for juveniles, but also that the boot camp environment seems to produce more favorable work experiences for staff. In general, these findings were very consistent across sites, except in regard to quality of life and preparation for release; it should be noted, however, that even on these measures the majority of the paired sites (at least 77 %) perceived the boot camp environment more favorably. Based upon these results, the authors conclude that while there was some variation across regions, in general there were consistent, significant differences between the quality of the correctional environment of boot camps and comparison facilities, with boot camps being overwhelmingly perceived more favorably. However, it is also possible that characteristics other than the military atmosphere, such as the newness of the boot camps or type of staff hired, may have led to some of these differences in perceptions.

The current study provides evidence of the efficacy of boot camp programming. Correctional policymakers deliberating the future of boot camp programs should take note of the present study's findings. While boot camps may not be a panacea against future criminality, our findings suggest that they are not the harmful, abusive environments some critics portray them to be.

This study has shown that valid measures of correctional programming effectiveness other than recidivism exist and should be the focus of future analyses. Evaluating correctional programs solely on the criterion of recidivism has limited value as many factors affect recidivism rates. It may prove productive in many instances to focus on the quality of interactions and programming within correctional facilities as intermediate indicators of correctional programming. Measures assessing

how well correctional institutions and programs perform at those tasks directly within their control, such as providing safe, just, active, caring, controlled environments conducive to positive behavioral change are equally valid, necessary measures of correctional performance. Based upon these measures of program success, the environments of boot camps were clearly judged more favorably by the people who perhaps know correctional facilities best—their own staff.

REFERENCES

- Ajdukovic, D. (1990). Psychosocial climate in correctional institutions: Which attributes describe it? *Environment and Behavior*, 22, 420–432.
- Andrews, D. A., Zinger, I., Hoge, R. D., Bonta, J., Gendreau, P., & Cullen, F. T. (1990). Does correctional treatment work? A clinically relevant and psychologically informed meta-analysis. *Criminology*, 28, 369–404.
- Boone, H. N., Jr., & Fulton, B. (1995). *Results-driven management: Implementing performance-based measures in community corrections*. Washington DC: American Probation and Parole Association, 1995.
- Bottcher, J., Isorena, T., & Belnas, M. (1996). *LEAD: A boot camp and intensive parole program. An impact evaluation: Second year findings*. Sacramento: State of California, Department of the Youth Authority, Research Division.
- Clark, C. L., & Aziz, D. W. (1996). Shock incarceration in New York State: Philosophy, results, and limitations. In D. L. MacKenzie & E. E. Hebert (Eds.), *Correctional boot camps: A tough intermediate sanction*. Washington, DC: Government Printing Office.
- Cowles, E., & Castellano, T. (1995). *“Boot camp” drug treatment and aftercare intervention: An evaluation review*. Washington, DC: National Institute of Justice.
- Dilulio, J. J., Jr. (1993). Rethinking the criminal justice system: Toward a new paradigm. In *Performance measures for the criminal justice system*. Washington, DC: Bureau of Justice Statistics and Princeton University.
- Dilulio, J. J., Jr. (1991). *No escape: The future of American corrections*. New York: Basic Books.
- Federal Bureau of Prisons (1993). *Prison social climate survey: Staff version and*

- resident version*. Washington, DC: Government Printing Office.
- Feld, B. C. (1999). Juvenile and criminal justice systems' responses to youth violence. In M. Tonry & M. Moore (Eds.), *Youth violence. Crime & Justice*, 24, 189–261 . Chicago: University of Chicago Press
- Gendreau, P., & Andrews, D. A. (1996) . *Correctional program evaluation inventory*. Unpublished manuscript.
- Goffman, E. (1961). *Asylums: Essays on the social situation of mental patients and other inmates*. Chicago: Aldine.
- Gottfredson, D . M. (1987). Prediction and classification in criminal justice decision making. In M. Tonry & D. M. Gottfredson (Eds .), *Crime & Justice: An Annual Review of Research*, 9, 1–19.
- Gottfredson, G. D . (1984) A theory-ridden approach to program evaluation: A method for stimulating researcher-implementer collaboration . *American Psychologist*, 39 (10), 1101–1112.
- Gowdy, V. B. (1996) . Historical perspective. In D. L. MacKenzie & E. E. Hebert (Eds.), *Correctional boot camps: A tough intermediate sanction* . Washington, DC: Government Printing Office.
- Johnson, R. & Toch, H. (1982) . *The pains of imprisonment*. Beverly Hills, CA: Sage.
- Lipsey, M. (1992). Juvenile delinquency treatment: A meta-analytic inquiry into the variability of effects. In T. Cook et al. (Eds.), *Meta-analysis for explanation: A casebook*. New York: Russell Sage Foundation.
- Logan, C. H. (1992) . Well kept: Comparing quality of confinement in private and public prisons . *The Journal of Criminal Law and Criminology*, 83, 577–613.
- Logan, C. H. (1993). Criminal justice performance measures for prisons . In *Performance measures for the criminal justice system*. Washington, DC: Bureau of Justice Statistics and Princeton University.
- Lutze, F. E. (1998). Are shock incarceration programs more rehabilitative than traditional prisons?: A survey of inmates . *Justice Quarterly*, 15, 547–566.
- MacKenzie, D. L. (1997). Criminal justice and crime prevention . In L. Sherman, D. Gottfredson, D. L. MacKenzie, J. Eck, P. Reuter, & S. Bushway. *Prevent-*

- crime: What works, what doesn't, what's promising*. A report to the U.S. Congress prepared for the National Institute of Justice.
- MacKenzie, D. L., Brame, R., McDowall, D., & Souryal, C. (1995). Boot camps and recidivism in eight states. *Criminology*, 33, 327–357.
- MacKenzie, D. L., & Herbert, E. E. (1996). *Correctional boot camps: A tough intermediate sanction*. Washington, DC: Office of Justice Programs.
- MacKenzie, D. L., & Rosay, A. (1996). Correctional boot camps for juveniles. In *Juvenile and adult boot camps*. Laurel, MD: American Correctional Association.
- MacKenzie, D. L., & Shaw, A. (1990). Inmate adjustment and change during shock incarceration: The impact of correctional boot camp programs. *Justice Quarterly*, 7, 125–150.
- MacKenzie, D. L., & Shaw, A. (1993). Impact of shock incarceration on technical violations and new criminal activities. *Justice Quarterly*, 10, 463–487
- MacKenzie, D. L. & Souryal, C. (1995). A “Machiavellian” perspective on the development of boot camp prisons: A debate. *University of Chicago roundtable*. Chicago: University of Chicago Press.
- MacKenzie, D. L., Styve, G. J., & Gover, A. R. (1998). Performance-based standards for juvenile corrections. *Corrections Management Quarterly*, 2, 28–35.
- Moos, R. H. (1971). Differential effects of the social climates of correctional institutions. *Journal of Research in Crime and Delinquency*, 7, 71–82.
- Moos, R. H. (1974). *Correctional institutions environment scale manual*. Palo Alto, CA: Consulting Psychological Press.
- Morash, M., & Rucker, L. (1990). A critical look at the ideal of boot camps as a correctional reform. *Crime and Delinquency*, 36, 204–222.
- Office of Juvenile Justice and Delinquency Prevention (1994). *Conditions of confinement: Juvenile detention and correctional facilities*. Washington, DC: Government Printing Office.
- Peters, M. (1996a). *Evaluation of the impact of boot camps for juvenile offenders: Denver interim report*. Washington, DC: Office of Juvenile Justice and Delinquency Prevention.

- Peters, M. (1996b). *Evaluation of impact of boot camps for juvenile offenders: Cleveland interim report*. Washington, DC: Office of Juvenile Justice and Delinquency Prevention.
- Peters, M. (1996c). *Evaluation of impact of boot camps for juvenile offenders: Mobile interim report*. Washington, DC: Office of Juvenile Justice and De- linquency Prevention.
- Sechrest, D. (1989). Prison “boot camps” don’t measure up. *Federal Probation*, 53, 15–20.
- Toch, H. (1977). *Living in prison: The ecology of survival*. New York: Macmillan.
- Wright, K. N. (1985). Developing the prison environment inventory . *Journal of Research in Crime and Delinquency*, 22, 257–277.
- Wright, K. N. (1991). A study of individual, environmental, and interactive ef- fects in explaining adjustment to prison. *Justice Quarterly*, 8, 217–242.
- Wright, K. N., & Goodstein, L. (1989). Correctional environments. In L. Goodstein & D.L. MacKenzie (Eds.), *The American prison: Issues in re- search and policy*. New York: Plenum.
- Zamble, E. & Porporino, F. (1990) . Coping, imprisonment and rehabilitation: Some data and their implications . *Criminal Justice and Behavior*, 17, 53–70.

APPENDIX

Table A1
Description of Environmental Conditions Scales

Scale	Scale Description and Cronbach's Alpha
Control	This nine-item scale examined staff's perceptions of how much discipline the institution demands of its residents (coefficient $\alpha = .72$)
Freedom	This seven-item scale assessed staff perceptions of the amount of choice present in the daily lives' of residents (coefficient $\alpha = .70$).
Justice	This 11-item scale examined perceptions of how fairly the institution is run (coefficient $\alpha = .77$).
Care	This scale used 10 items to assess the amount of care and amicability staff members believe there is between the institution and the juveniles in their custody (coefficient $\alpha = .73$).
Activity	This seven-item scale measured how busy residents typically are in their daily activities (coefficient $\alpha = .79$).
Individual Emphasis	This four-item scale measured staff perceptions of how much individual attention the residents receive (coefficient $\alpha = .54$). The alpha coefficient for this scale did not meet the standard for inclusion in the data analysis.
Environmental Danger	This scale, using eight items, measured staff perceptions of how much general institutional danger each facility poses to residents (coefficient $\alpha = .71$).
Resident Danger	This scale measured perceptions of how much of a threat residents are to the safety of other residents (coefficient $\alpha = .85$).
Staff Danger	This scale measured perceptions concerning how much danger staff believe residents pose toward the safety of staff members (coefficient $\alpha = .75$).
Preparation for Release	This seven-item scale measured staff's perceptions of residents' readiness to make a smooth transition back into society upon their release from custody (coefficient $\alpha = .68$).
Risk to Residents	This scale contained seven items concerning the existence of hazardous conditions within each facility, which could potentially affect residents (coefficient $\alpha = .71$).
Planning	This scale used 11 items to measure staff perceptions of the amount of planning residents have made toward their futures (coefficient $\alpha = .69$).
Programs	This scale used 11 items to measure how beneficial staff members believe the residents' experiences in the institution have been (coefficient $\alpha = .90$).
Quality of Life	This nine-item scale assessed perceptions of the quality of food, living spaces, and the amount of privacy, etc. residents received (coefficient $\alpha = .67$).
Structure	This 10-item scale measured staff perceptions of the amount of regimentation residents are subject to in their daily activities (coefficient $\alpha = .80$).

Table A2

Description of Work Experiences/Attitudes Scales

Scale	Scale Description and Cronbach's Alpha
Support of Staff	This scale measured staff perceptions of the relationships between staff members and facility administrators, supervisors, and other staff members (coefficient $\alpha = .88$).
Staff Communication	This scale used seven items to evaluate how effective lines of communication are between the various levels of staff (coefficient $\alpha = .93$).
Personal Stress	This 14-item scale determined the amount of stress, depression, anxiety, and anger staff members have experienced in the past six months (coefficient $\alpha = .91$).
Juvenile Culpability	This six-item scale measured staff's perceptions of how culpable the residents are in their behavior (coefficient $\alpha = .61$); e.g., "Most of these kids are good kids, they have just had a tough life."
Job Satisfaction	This scale used 15 items to measure staff satisfaction with their jobs, coworkers, supervisors, facility administration, and training (coefficient $\alpha = .89$).