1998

Does the boot fit? An examination of psychological profiles of inmate participants at the Montana state Swan River Correctional Training Center

Sandra J. MacIntosh
The University of Montana

Follow this and additional works at: http://scholarworks.umt.edu/etd

Recommended Citation

This Dissertation is brought to you for free and open access by the Graduate School at ScholarWorks at University of Montana. It has been accepted for inclusion in Theses, Dissertations, Professional Papers by an authorized administrator of ScholarWorks at University of Montana. For more information, please contact scholarworks@mail.lib.umt.edu.
INFORMATION TO USERS

This manuscript has been reproduced from the microfilm master. UMI films the text directly from the original or copy submitted. Thus, some thesis and dissertation copies are in typewriter face, while others may be from any type of computer printer.

The quality of this reproduction is dependent upon the quality of the copy submitted. Broken or indistinct print, colored or poor quality illustrations and photographs, print bleedthrough, substandard margins, and improper alignment can adversely affect reproduction.

In the unlikely event that the author did not send UMI a complete manuscript and there are missing pages, these will be noted. Also, if unauthorized copyright material had to be removed, a note will indicate the deletion.

Oversize materials (e.g., maps, drawings, charts) are reproduced by sectioning the original, beginning at the upper left-hand corner and continuing from left to right in equal sections with small overlaps. Each original is also photographed in one exposure and is included in reduced form at the back of the book.

Photographs included in the original manuscript have been reproduced xerographically in this copy. Higher quality 6" x 9" black and white photographic prints are available for any photographs or illustrations appearing in this copy for an additional charge. Contact UMI directly to order.

UMI
A Bell & Howell Information Company
300 North Zeeb Road, Ann Arbor MI 48106-1346 USA
313/761-4700  800/521-0600

Reproduced with permission of the copyright owner. Further reproduction prohibited without permission.
The University of MONTANA

Permission is granted by the author to reproduce this material in its entirety, provided that this material is used for scholarly purposes and is properly cited in published works and reports.

** Please check "Yes" or "No" and provide signature **

Yes, I grant permission  
No, I do not grant permission

Author's Signature

Date 8/15/98

Any copying for commercial purposes or financial gain may be undertaken only with the author's explicit consent.

Reproduced with permission of the copyright owner. Further reproduction prohibited without permission.
Does The Boot Fit?

An Examination of Psychological Profiles of Inmate Participants at the Montana State Swan River Correctional Training Center

by

Sandra J. MacIntosh

B.S., B.A., East Stroudsburg University, 1990
M.A., University of Montana, 1995

Presented in partial fulfillment of the requirements for the degree of
Doctor of Philosophy
University of Montana

1998

Approved by:

Deanna Schellinger
Co-Chair, Board of Examiners

Diane Zeller
Co-Chair, Board of Examiners

Dean, Graduate School

9-20-98

Date
Abstract

MacIntosh, Sandra J., M.A., 1998 Psychology

Does The Boot Fit? An Examination of Psychological Profiles of Inmate Participants at the Montana State Swan River Correctional Training Center

Directors: Allen Szalda-Petree, Ph.D.
             D. A. Schoening, Ph.D.

Shock incarceration (prison boot camp) programs were developed to ease prison overcrowding, protect the public, save money, punish the offender, deter future criminal activity, and rehabilitate offenders. Empirical research, conducted on boot camp programs presents contradictory evidence concerning the efficacy of these programs in regards to reducing prison overcrowding, saving money, and recidivism. It is recognized that the number of program non-completers in boot camps is quite high in many states. Research has indicated that completers have higher IQs, longer sentences, and believed more strongly in their ability to control events. To date, no empirical research examining personality profiles of potential boot camp participants has been conducted. This research addressed that issue. Subjects were male inmates, aged 18-35, in the Swan River Correctional Training Center (SRCTC) program, in Montana. The Minnesota Multiphasic Personality Inventory-2 (MMPI-2), the Raven Standard Progressive Matrices, the Barratt Impulsivity Scale, and a demographic form were used to ascertain profiles. It was predicted that there will be significant differences between boot camp completers and non-completers on measures of IQ, impulsivity, personality profiles, length of sentence, criminal history, history of substance abuse, level of motivation, and perception of difficulty of the SRCTC program. The hypotheses which reached statistical significance were the MacAndrew Alcoholism Scale-Revised (MAC-R), and the Antisocial Practices Content Subscale (ASP) of the MMPI-2. An unhypothesized variable, the type of crime committed, also reached significance. However, 8 variables which did not reach significance were directionally consistent with the hypotheses.
DEDICATION

THIS DOCTORAL DISSERTATION IS LOVINGLY DEDICATED TO

MY MOTHER

Marilyn Jane Strohm MacIntosh
1925-1960

AND MY SISTER

Marian Anne MacIntosh Greene
1952-1997
ACKNOWLEDGMENTS

I would like to thank all the people who have made this doctoral dissertation possible. Thank you Dr. Phyllis Ellsweig for helping me to realize my potential. Thank you to all of my family who have always placed a high value on education and supported me in my endeavors; Dad and Rae, Aunt Marian and Uncle Clint, Arthur, Katherine, Dennis, Susan, Robert, Gil, Kim, Hal, and Dange. Thank you to ALL my psychology professors, undergraduate and graduate. I cannot forget the support staff, particularly Mary Kamenski, Helen Utsund, and Joyce Nei.

Special thanks to my dissertation committee; Dr. Al Walters, Dr. Drew Schoening, Dr. Allen Szalda-Petree, Dr. Chris Fiore, Dr. Lynne Koester, and Dr. Diana Bjorgen.

In addition, I would like to thank Paul Zohn who helped me collect data and hung around the prison (while I collected data) longer than he really wanted to. Thanks to my enthusiastic research assistant Dana Malner, who professed to actually enjoy hand-scoring MMPI's.

Special thanks to the staff on the Reception Unit of Montana State Prison and the staff at Swan River Correctional Training Center who almost did hand stands to make subjects available to me. Your team work was invaluable.

Last, but not least, thank you to my supervisors and fellow interns at the American Lake VA. Your cheers spurred me on, particularly those of Janet Scarborough.

THANK YOU ALL
# Table of Contents

Abstract........................................................................................................ii
Dedication.................................................................................................iii
Acknowledgements.................................................................................iv
Table of Contents....................................................................................v
List of Tables...........................................................................................vii
Introduction...............................................................................................1
   Swan River Correctional Training Center.................................19

Theoretical Framework
   Research Question................................................................................23
   Proposed Research................................................................................24
   Hypotheses............................................................................................24

Method
   Study Design........................................................................................25
   Subjects..................................................................................................26
   Measures..............................................................................................27
      Raven Standard Progressive Matrices...........................................27
      Minnesota Multiphasic Personality
         Inventory-2..................................................................................30
      Barratt Impulsivity Scale 11.........................................................36

Results......................................................................................................37
   MacAndrew Alcoholism Scale-Revised (MAC-R)..........................38
   Antisocial Practices Content Subscale (ASP)...............................39
   Exploration.........................................................................................39

Discussion...............................................................................................45

References..............................................................................................55
Appendices

  Montana Department of Corrections Permission......57
  Consent Form........................................59
  Demographic Form....................................62
  Barratt Impulsivity Scale 11.......................64
List of Tables

1. Hypotheses............................................42
2. MMPI-2 Clinical Scales...............................43
3. Crimes Against People.................................44
INTRODUCTION

"I want to tell you about a place called Dodge C.I. You never want to go there, and I'll tell you why—
From the first minute you walk into that place
You got a big fat guard staring you in the face...
He said, 'Boy, you in the chain gang now
And if you don't know how to act,
I'm going to show you how.'"
(Boot camp inmate in Alabama)

State and federal prison populations rose 134% to a record 771,243 inmates in the time period between 1980 and 1990. By 1990, prisons were operating between 18% and 29% in excess of capacity (MacKenzie & Piquero, 1994). A 1993 report from the United States General Accounting Office presents grimmer statistics: "between 1980 and 1991, prison populations grew about 150%, reaching a total of 823,414 inmates." These statistics indicate that, in one year, there was an increase in inmate population of over 50,000. The Bureau of Justice Statistics maintains a data base which is accessible to the public by telephone. The most recent statistics available from them reveal that by the middle of 1994 there were 1,012,851 inmates incarcerated in federal and state prisons. Juveniles are contributing to this trend; between 1978 and 1989, juveniles in custody for delinquent behavior increased 35 percent although the youth population of the U.S. declined by 11 percent (Cronin, 1994). In the face of this crisis, states searched for ways to alleviate the pressure on prisons, and intermediate sanctions were viewed as a viable method of addressing the problem. Shock incarceration programs (also known as prison
boot camps) are one of the intermediate sanctions developed to ease prison overcrowding and reduce recidivism. In addition to overcrowding and recidivism, boot camps were perceived as meeting the goals of improving public safety, rehabilitating offenders, and saving money (Dickey, 1994).

Shock incarceration programs have a great deal of appeal, as a sentence to a boot camp program satisfies the public's demand for punishment and provides skills to offenders to help them reintegrate into society (Burton, Marquart, Cuvelier, Alarid, & Hunter, 1993). Boot camp programs can provide training in areas of academic success, vocational placements, and personal qualities which would facilitate an ability to function as a law abiding citizen. Despite the fact that it seems reasonable to examine personality characteristics of boot camp participants regarding success or failure while in the program, empirical research concerning this issue is not found in current psychological or correctional literature.

Images of the boot camp experience have been provided to the public through the media. In 1987, the MacNeil/Lehrer News Hour showed new "booters" having their heads shaved. These criminals talked about their fear of prison and the sexual taunts they had received from inmates in the regular prison cell block nearby (Osler, 1991). A new recruit in Georgia is "...shouted at and referred to as a maggot, scumbag, boy, a fool, or a nobody, and repeatedly
threatened with transfer to the main facility where he may be sexually abused" (Sechrest & Crim, 1989). In Florida, the "pukes" must work together or be punished as a group. The MacNeil/Lehrer news clip ends "...with a large man in an inmate uniform looking into the camera and saying in a small voice, 'I'd rather die than come back here...this is a living hell'" (Osler, 1991). These visual images cater to "popular desires for a quick fix to crime through harsh punishment, discipline, and deterrence" (Osler, 1991). Boot camps can be seen as a tangible consequence for offenders in a time when the public may feel that prisons are characterized by inactivity and the opportunity to watch cable television and avoid work. In effect, boot camps fulfill the public's expectation of what prison should be like (Dickey, 1994).

Modern shock incarceration has roots in the 19th century. Aside from the informal practice of giving young offenders a choice of joining the army or serving time in prison, precedents do exist for a military-style prison. From 1888 to 1920, the New York state reformatory at Elmira was based on a military training model which included 5 to 8 hours a day of marching and executing the manual of arms. In 1981, the idea of reviving military-style incarceration was proposed in Georgia. The state of Oklahoma built a facility, based on Georgia's plan, more quickly than Georgia and opened in October of 1983, 2 months before Georgia's
boot camp became operational. (This conflicts with other documents which cite Georgia as having the first boot camp.) Officials from Mississippi were impressed by the facility in Oklahoma and the nation's third boot camp was opened in 1985 (Osler, 1991). The latest government survey, published by the U. S. General Accounting Office in April, 1993, stated that 26 states were operating a total of 57 boot camps for adults in the spring of 1992, with a combined capacity of 8,880 inmates. It appears that there are nine boot camp programs for juveniles with a combined capacity of 956 beds (Cronin, 1994). (Montana's boot camp, the Swan River Correctional Training Center, opened July 13, 1993, and was not included in this survey.) MacKenzie stated that boot camp programs have continued to grow, and by 1994, 36 states had programs operating (Corbett & Petersilia, 1994).

Boot camps are defined as correction programs for adult or juvenile offenders of no more than 6 months confinement involving:

1. Assignment for participation in the program, in conformity with State laws, by offenders other than offenders who have been convicted at any time for a violent felony or similarly adjudicated juveniles;
2. Adherence by inmates to a regimented schedule that involves strict discipline, physical training, and work;
3. Participation by inmates in appropriate education,
job training, and substance abuse counseling or treatment; and

4. Post-incarceration aftercare services for participants that are coordinated with the program provided during the period of confinement (U. S. Department of Justice, 1995).

Individual states have a great deal of latitude in the design of their shock incarceration programs and there is no overriding single theory or principle upon which these programs operate (Dickey, 1994). However, other researchers have stated that the similarity among all programs is the short period of imprisonment in a military "boot camp" type program involving discipline, participation in military drills, rigorous exercise, and maintenance of living quarters. (MacKenzie & Souryal, 1994). Individual programs differ in whether activities such as community service, work, education or counseling are incorporated into the daily schedule. Additionally, some states stress the need for intensive supervision upon release in order to facilitate the continuation of behavior changes brought about in the program (MacKenzie, Gould, Riechers & Shaw, 1990). In Georgia, the "...fundamental program concept is that a brief period of incarceration under harsh physical conditions, strenuous manual labor and exercise within a secured environment will 'shock' the younger and less seriously criminally oriented offender out of a future life

The five goals most often presented by prison boot camp programs are: 1. Specific Deterrence. The theory underlying boot camp is that the "shock" experience of an extremely regimented and unpleasant period of incarceration will produce a strong disincentive for an individual to engage in behavior which could lead to a return to prison. Some programs deliberately place the boot camps within the proximity of traditional facilities in order to show the realities of "hard time". 2. General Deterrence. The punishing aspects of boot camp (hard labor, constant exercise, summary punishment for minor infractions, and 5 a.m. wake up) are the factors most prominently featured in the media. 3. Rehabilitation. Almost all shock incarceration programs have been promoted politically with the promise that this new form of punishment will rehabilitate the offender, resulting in lower recidivism rates. The transference model of rehabilitation assumes that the personal discipline and regimented lifestyle imposed in the boot camp will create positive habits which can be transferred to life in society. Self-esteem, self-control, and the ability to cope with stress are some of the positive habits which are hoped to transfer. The treatment model of rehabilitation requires therapeutic programs, such as job skills training, education, substance abuse treatment, and/or anger management along with the military
regimen. 4. Punishment. Boot camp programs are rigorous, active, and painful, which satisfies a degree of the public's demand for retribution. 5. Reduce Overcrowding and Cut Costs. The political pressure to reduce prison overcrowding without reducing perceived punishment is high. Boot camps can accomplish this if participants in boot camp programs are those who would otherwise serve longer terms in prison (Osler, 1991).

A survey of the 26 programs in operation in early 1992 ranked the following goals, in order of importance: rehabilitation; reducing recidivism; drug education; reducing prison crowding; teaching work skills; safe prison environment; deterrence; education; drug treatment; punishment; and vocational education (MacKenzie, 1993).

Prison boot camp programs are primarily designed for young, male, first-time offenders who are convicted of non-violent crimes. In many jurisdictions, offenders must volunteer for the program and must not have any physical or mental impairment which would prevent them from completing the program (MacKenzie, et al., 1990). Most states developed eligibility criteria to restrict participation to this type of offender. For example, a 1992 survey of prison boot camps revealed that 61.5% of programs in operation limited participation to non-violent offenders. Fifty percent of programs restricted participation to individuals serving their first felony sentence as an adult. Minimum
age limits generally fell between 16 and 18 years of age, and maximum age limits most commonly ranged between 23 and 25 years old, although in Montana the upper age limit is currently 35 years old. Female offenders were allowed to participate in approximately 50% of the states with programs, although the number of beds available to females was limited (MacKenzie, et al., 1994).

Shock incarceration programs have appeal to the general public, and politicians as well. Elected officials have increasingly believed that they needed to appear tough on crime, and have received public support for correctional programming (Dickey, 1994). However, these programs are not without criticism. Critics express concern that the boot camp program fosters physical prowess and aggression in the name of discipline and at the expense of problem solving and skill development (Warnock, 1991). Devaluation of women has been noted (Keenan, Ruback & Hadley, 1994). Abuse of prisoners is a concern, and it is feared that the military style used by correctional officers, or drill instructors, may bring out their "dark side" or sadistic tendencies. Some inmates find confrontation and abuse emotionally damaging and counterproductive to building self-esteem. Sometimes, even more hostility is engendered toward the system (Sechrest, et al., 1989).

Prison boot camp programs begin with the process of immediately "breaking down" inmates. This is accomplished
through rigorous physical training and strict discipline. Inmates have their clothing and personal items taken away from them; they are provided with uniforms, toiletries, and their heads are shaved. Drill sergeants, who seem to appear out of nowhere, scream in their faces and order them to "Stand Up", "Squat Down", or "Give me Ten" (push-ups). Often, there are two or more sergeants yelling conflicting orders at one inmate. "No one knows what to do or who to listen to. The disciplinary process is in full effect, fueled by fear, confusion, and humility." (Davis, date unknown). The purpose of breaking down the inmates is to rebuild them, and their perceptions of themselves and society, into responsible, law-abiding citizens.

At an individual level, prison boot camp experience is intended to give the offenders an increased sense of responsibility, confidence, self-discipline, and self-respect. As a result of these changes, offenders are expected to make more positive adjustments when released (such as employment, relationships) and to be less involved in criminal activities (MacKenzie, 1991). However, most experts agree that without the help of the family, and without addressing social problems emanating from poverty, unemployment, poor schools, and racial discrimination, there is little likelihood that the "scare" or "drill" will last for any length of time. Programs which expose offenders to threats of force, intimidation, verbal abuse, or other
practices designed to shock them out of delinquent behavior do nothing to erase the social conditions under which these individuals must live upon release (Sechrest, et al., 1989). Shock incarceration programs break a person down through regimentation, then return them to an environment which is the exact opposite of the boot camp, unstructured and often lacking commanding directives for positive behavior. In the words of one former boot camp warden, "While they are in the camp they are told, 'you are somebody; it's important to us that you do well, that you are fed well and that you are clothed well.' Then they go back to utter depravity. It's like throwing them down a well." (Osler, 1991).

There is some disagreement concerning the mechanisms of change that prison boot camp programs initiate. Some argue that recidivism will be reduced because offenders will be deterred from committing new crimes; others argue that the programs will rehabilitate offenders so they will not return to criminal activities upon release (MacKenzie, et. al., 1994). Research results concerning the impact of boot camp programs on recidivism are mixed. Shock incarceration programs are relatively new, and data are often drawn from small samples without control groups. The short life of recidivism may be especially misleading; short term data are a poor indicator of the long term rate of recidivism (Osler, 1991). For example, Florida conducted a 1-year-out follow up study and found that 5.6% of the boot camp graduates had
returned to prison, while 7.5% of traditionally incarcerated offenders of the same age and gender background were reincarcerated. However, using a 3-year period of study, Georgia found there was little difference in the recidivism rate between boot camp graduates and traditionally incarcerated offenders. An Oklahoma Department of Corrections analysis of similar convicts sentenced to boot camp or traditional prison showed that after 29 months nearly 50% of the boot camp graduates had returned to prison. In contrast, only 28% of the traditionally incarcerated offender group had been reincarcerated (Osler, 1991). A multisite evaluation of shock incarceration programs (Florida, New York, Louisiana, South Carolina, and Texas) found that at the end of the first month following graduation, less than 10% had been rearrested. However, after 12 months of community supervision, between 30% and 60% of the sample had been rearrested (MacKenzie, 1994). MacKenzie (1991) examined 273 offenders and found that there were no differences in the recidivism rates for offenders who served time in the shock incarceration program, for those who served time in a traditional prison, and those who were sentenced to probation with no prison time.

There are also conflicting research results concerning the types of crimes prison boot camp graduates are reincarcerated for. Florida graduates were less likely than prison parolees to have had their supervision status revoked
as a result of a new crime. They were revoked primarily for technical violations. (Typically, technical violations consist of consumption of forbidden substances (alcohol or drugs), not reporting to parole officers, not maintaining employment, moving without informing the parole officer, etc.) However, in Georgia, the results were the exact opposite. In New York, there was no significant difference found. This was surprising, as New York provides intensive supervision for their boot camp graduates, and prior research has indicated that more intense supervision is associated with higher rates of revocation due to technical violations (MacKenzie, 1994). However, it has been proposed that supervision failure, or arrests, may be a result of the intense supervision itself. "The closer the agent watches and checks up on the offender, the more often the agent will catch the offender in wrong doing." (MacKenzie, 1991).

The issue of whether or not shock incarceration programs actually reduce prison overcrowding, or save states' money is a complicated issue. The impact of boot camps on prison overcrowding is dependent on five factors: "1. the size of the pool of eligible offenders; 2. the probability that those offenders would be imprisoned if boot camp placement was not an option; 3. the rate at which inmates successfully complete the boot camp program; 4. the difference between the regular prison terms and the duration of the boot camp program, and 5. the recidivism rate of boot
camp inmates." (Dickey, 1994). The most important issue related to reducing prison overcrowding is the probability that boot camp participants would have been imprisoned if boot camp had not been an option. Some jurisdictions sentence offenders to boot camp as an intermediate option between prison and probation. This practice, in effect, "widens the net" of inmates and does not reduce overcrowding. It is estimated that in order for boot camps to have a "break even" effect, or a net impact of zero on prison overcrowding, 80% of participants should be offenders who would otherwise be incarcerated in a traditional prison setting. If the percentage is less than 80, the program can be expected to result in increased, rather than in decreased prison crowding. Unfortunately, "...most boot camp programs fall below the 80 percent threshold because few, if any, states send 80 percent of their nonviolent first time offenders to prison." (Dickey, 1994).

As previously stated, in the majority of states, offenders who qualify for boot camp programs are generally young, physically and mentally healthy, have no serious history of criminal activity, and have short sentences. This can be a problem when too few offenders are evaluated as appropriate for entry into programs and, therefore, the number of participants may be insufficient to have an impact on crowding (MacKenzie, et. al., 1994). On average, only 61.6% of program beds in Florida are filled. This is
indicative of the difficulty of finding inmates who are willing to participate in a shock incarceration program, especially when sentence reductions due to crowded prisons might make their sentence equally brief (Sechrest, et. al., 1989).

The General Accounting Office of the United States Government reports that, to the extent boot camps save money, "...these lower costs are not the result of lower daily operating costs per inmate but, rather, the reduced time the inmates are incarcerated." (Dickey, 1994). Of the 16 states which provided cost comparisons to the General Accounting Office (1993), nine states believed shock incarceration programs cost more than traditional prisons, and four states believed they cost approximately the same. In 1989, New York state reported higher costs for inmates in the boot camp programs and attributed this to the time spent in the program and the depth of services involved (Sechrest, et al., 1989). However, New York has been refining its procedures and in 1993 estimated it has saved over 124 million dollars since the inception of its' shock incarceration programs in 1987 (Cronin, 1994).

A major concern about shock incarceration programs is the generally high rate of attrition; about half the inmates selected for these programs do not graduate (Sechrest, et al., 1989). South Carolina reports that boot camp graduates were more likely to be nonwhite, were less likely to be
serving indeterminate sentences, and were more likely to have drug offenses. In Florida, a comparison of graduates to dropouts showed that completers were more likely to be nonwhite, were more physically fit initially, were slightly older, had sentences longer than two years, were much more likely to have completed high school, and were slightly less likely to report using drugs (Cronin, 1994). The Louisiana Intensive Motivational Program of Alternative Correctional Treatment (IMPACT) reported that 37.6% (103) of their inmates left the boot camp program before completion: 9 left for medical reasons, 63 left voluntarily, 17 left for disciplinary reasons, and 14 for unspecified reasons (MacKenzie, Gould, Riechers & Shaw, 1989).

In 1990, MacKenzie evaluated boot camp programs in eight states: Florida, Georgia, Illinois, Louisiana, New York, Oklahoma, South Carolina, and Texas. Each state had its own eligibility criteria, rules governing whether inmates could voluntarily participate in, or exit the program, and schedules of daily activities. The results of this study are as follows. In Florida, inmates did not volunteer for entry into the program and they could not voluntarily drop out. Fifty-two percent of these participants were dismissed from the program, primarily for disciplinary reasons. On the average, those who entered the program were 19 years old with 10 years of formal education, 56% were nonwhite, and were serving time for burglary, theft.
or drugs. They spent a little less than two hours per day in counseling or education programs.

In Georgia, offenders had to volunteer for entry, but could not be dismissed at their request. On average, offenders were 20 years old, 55% white, 53% from rural areas of the state and serving time for burglary, theft, and drug offenses. Only 9% were dismissed from the program. Georgia's program stood out as the one with the least amount of focus on rehabilitation. "Other than a short pre-release program, no time in the daily schedule was devoted to any therapeutic-type activities." (MacKenzie, 1994).

In Illinois, volunteerment was necessary in order for inmates to enter the program and they could voluntarily leave at any time. On average, offenders were black (61%), 21 years old with 11 years of formal education, and serving time for burglary or drug offenses. They spent an average of three hours per day in education or counseling programs, including substance abuse treatment. Illinois reported a 41% drop out rate (MacKenzie, 1994).

In Louisiana's program, voluntary participation was required and inmates were allowed to drop out by choice. Those who graduated from the program were, on the average, 23 years old, nonwhite (57%), and serving time for burglary, theft, or drug offenses. This state reported a 43% rate of non-completion (MacKenzie, 1994).

In New York, offenders had to volunteer for the program.
and could drop out at any time. The average graduates tended to be 21 years old with 10 years of education, black (43%) or Hispanic (35%), and serving time for drug offenses. New York's offenders spent the greatest amount of time, over five hours per day, in education, substance abuse treatment, and counseling activities. This program reported a 31% drop out rate (MacKenzie, 1994).

The average offender in the Oklahoma program was 20 years old with 10 years of education, 63% white, and serving sentences for burglary, theft, or drug offenses. Offenders spent approximately 3 hours per day in classes, primarily academic education. Only 10% of the entrants to this program were dismissed (MacKenzie, 1994).

South Carolina's program required voluntary participation and offenders were allowed to drop out at any time. Average participants were 19 years old with 12 years of education, 42% were nonwhite, and their offenses varied. They spent less than 2 hours per day in counseling and education, and most of this time was spent in academic education. They reported a 16% drop-out rate (MacKenzie, 1994).

The final state examined, Texas, reported that participants were sentenced to the program by a judge, and they could not voluntarily drop out. The program devoted less than one hour per day to any type of therapeutic treatment. The inmates were, on the average, about 21 years
old with a tenth grade education, 50% white, 32% black, 18% Hispanic, and serving time for burglary, theft, or drug charges. Texas reported a 10% dismissal rate (MacKenzie, 1994).

It is believed that voluntary participation in a difficult program may be a test of commitment to change and other components, such as self-confidence, that may be predictive of success (MacKenzie, et al., 1989). However, research conducted in the eight states described above indicates very mixed support for this tenet. Except for Florida, it appears that the states which do not allow voluntary withdrawal have the highest completion rates.

Considering the fact that many boot camps, including Montana's, cost more than traditional incarceration, the question of who will succeed at boot camp becomes important. As previously discussed, much research has focused on boot camp drop out and recidivism rates; however, almost no one has examined why. One study found that subjects who completed a shock incarceration program had higher IQs, longer sentences, and believed more strongly in their ability to control events (locus of control) (measurement instruments were not described) (MacKenzie, Shaw, & Souryal, 1992). It seems plausible to hypothesize that variables such as personality characteristics and levels of impulsivity would have an impact on whether or not boot camp participants complete the program. However, despite this
logic, an overview and update report on prison boot camp programs presented to the National Institute of Justice in October of 1994 stated that "...as far as we know, no one has looked at whether boot camps work best for offenders with a certain type of psychological profile." (Cronin, 1994). This study will attempt to address that issue.

SWAN RIVER CORRECTIONAL TRAINING CENTER

The Swan River Correctional Training Center (SRCTC) is Montana's prison boot camp, located near Swan River, in western Montana. This facility is, currently, geographically removed from the state prison. However, inmates who participate in the boot camp program typically spend time in the Reception Unit of Montana State Prison (MSP) before entering boot camp. The proposal for this training facility was presented to the 53rd Legislature as Senate Bill #323, and was approved in 1993. SRCTC opened July 13, 1993. As of December 31, 1995, 279 inmates have been admitted to the program (27 of these were re-admissions). Participation is voluntary and inmates may quit at any time. One hundred twenty four inmates successfully completed the program. SRCTC does not distinguish between participants who quit the program and those who fail due to disciplinary reasons. Of the 153 inmates who did not complete the program, 141 quit, and 16 were discharged for medical reasons.

SRCTC is a 90 to 120 day discipline and treatment
program based on a military model. The program is grueling and intimidating for the inmates. Potential participants are screened medically before being admitted into the program. Offenders who successfully complete the program are sent to a Great Falls pre-release center, followed by/or in coordination with an intensive supervision program and finish their sentence time on probation. Offenders who do not complete the program are returned to Montana State Prison.

PROGRAM SELECTION CRITERIA

1. Must be less than 35 years old.
2. No physical limitations that would preclude strenuous physical activity.
3. Has no mental impairments.
4. Must not be on any psychotropic medications.
5. Must not be designated a 'dangerous offender' by the court.
6. Must be voluntary and be willing to sign a contract of participation.
7. May not be admitted more than twice.
8. Sex offenders may be considered provided they have received a sex offender evaluation by a member of MSOTA (Montana Sex Offender Treatment Association) prior to reception, and that they are accepted in an out-patient program upon completion of Boot Camp.
9. Must be classified minimum custody.
10. Must not have a history of escapes on their record.

Preference will be given to those individuals serving their first incarceration and/or who are court recommended. Also certain parole violators and inmates classified as appropriate by the Department of Corrections, when space is available and the Board of Pardons or the sentencing court approves. Inmates whose criminal histories, classification, attitudes and institutional behavior suggest probable risk to the community and the program will not be admitted, nor will those who are serving lengthy sentences. (Sich, 1995).

Medical conditions which preclude admission the SRCTC program include: uncontrolled epilepsy; uncontrolled diabetes; any pulmonary diseases which would limit participation in strenuous activities; cardiac problems; diagnosed back injuries; diagnosed knee problems that would prevent participation in strenuous activities; AIDS; anyone needing immediate major dental care; and any physical disability that would prevent the trainee from participating in strenuous physical activity. The infirmary staff at Montana State Prison is responsible for this medical clearance.
SRCTC consists of the following major components:
1. Physical Training. This portion of the program consists of strenuous exercise designed to develop optimum physical conditioning of the offender.
2. Work Assignments. This portion of the program consists of manual labor assignments which shall be of a productive nature whenever possible.
3. Personal Development Counseling. This may include, but is not limited to, Criminal Thinking Errors, Chemical Dependency, Anger Management, Victimology, and the Seven Habits of Highly Effective People.
4. Education. This may include GED education and the teaching of job, parenting, and living skills. Offenders testing below the 7th grade level will generally be required to participate in the Educational Program.
5. Military Drill and Ceremony. This includes marching drills, compliance with a rigid code of dress and appearance, and the use of military courtesy in speech and actions." (SRCTC Administrative Rules, 1993).

According to the September, 1995, schedule for inmates participating in the boot camp program, offenders in the initial phase of the program spend approximately 30 hours
per week (4 hours per day) in therapeutic or educational programs. In the final phase, the average is approximately 25 hours per week.

As previously cited, the non-completion rate for inmates who volunteer for SRCTC is high. Considering the fact that it is more expensive for inmates to be at boot camp ($75.00 per day) than at Montana State Prison ($40.00 per day), this is cause for question and concern. It appears that a scientific examination of psychological profiles of completers and non-completers could be very beneficial to the SRCTC program. Consequently, this proposed research project has been met with a great deal of interest and cooperation from staff at MSP and SRCTC.

RESEARCH QUESTION

To date, it appears that personality profiles of completers and non-completers of prison boot camp programs have not been scientifically examined. Are there typical profiles which would be predictive of success or failure? Are there psychological factors, such as intelligence, personality characteristics, a history of drug and/or alcohol abuse, and levels of impulsivity which would be predictive of success or failure? In addition, are there other factors such as age, race, marital status, parental status, and length of sentence which would also be predictive of success or failure?
PROPOSED RESEARCH

I proposed a post-facto study of Montana State Prison inmates who voluntarily participated in the Swan River Correctional Training Center (SRCTC) program. Completers were those who successfully completed the program. Non-completers were those who failed the program (disciplinary dismissal), voluntarily quit the program, or were discharged due to medical reasons.

HYPOTHESES

1. Inmates who complete the SRCTC program will exhibit MMPI-2 personality profile T scores which are significantly lower than inmates who do not complete the program on the following Clinical Scales: 1 Hypochondriasis; 2 Depression; 3 Hysteria; 4 Psychopathic Deviate; 6 Paranoia; 8 Schizophrenia; and 9 Hypomania.

2. Non-completers will show significantly higher levels of impulsivity as measured by the Barratt Impulsivity Scale-II.

3. Inmates who complete the boot camp program will have significantly higher levels of intelligence than non-completers as measured by the Raven Standard Progressive Matrices.

4. Inmates who have longer sentences will have a higher rate of completion than those with shorter sentences.

5. Inmates who self-report higher levels of symptomatology of chemical dependence on the MacAndrew Alcoholism Scale-Revised (MAC-R) of the MMPI-2 will have a lower rate of
completion than those who have lower levels of symptomatology.
6. Inmates with higher levels of motivation to succeed at SRCTC, as measured by the self-report demographic form, will have higher completion rates than inmates with lower levels of motivation.
7. Inmates who perceive SRCTC as being a difficult and strenuous program, as measured by the self-report demographic form, will have higher rates of completion than those whose perceptions do not accurately reflect the actual degree of difficulty.
8. Inmates who have fewer criminal charges as an adult will have higher completion rates than those who have lengthier adult criminal histories.
9. Boot camp completers will show significantly lower T scores on the MMPI-2 Harris-Lingoes Authority Problems Subscale (Pd2), and on the Antisocial Practices Content Subscale (ASP) than will non-completers.

**METHOD**

*Study Design*

The proposed statistical analysis for this research consisted of a discriminant function analysis. This would allow the researcher to use continuous variables to predict a discrete outcome (success or failure at boot camp). Levels of intelligence, or cognitive ability, were measured by the Raven's Standard Progressive Matrices. Levels of
impulsivity were measured by the Barratt Impulsivity Scale-II. Personality characteristics were measured by the Minnesota Multiphasic Personality Inventory-2 (MMPI-2), and a T score of 65 or greater indicated clinical significance. A self-report demographic form ascertained criminal histories, sentence lengths, motivation levels, and perceptions of the boot camp program. Substance abuse tendencies were measured by the MacAndrew Alcoholism Scale-Revised (MAC-R) of the MMPI-2.

Subjects

The subjects used in this research were Montana State Prison (MSP) inmates who were housed in the Reception Unit of MSP and had voluntarily agreed to participate in the Swan River Correctional Training Center (SRCTC) program. Permission to use prospective "booters" as subjects had been granted by: Rick Day, Director, Department of Corrections; Sally Johnson, Administrator of Professional Services; Mike Ferriter, Administrator of Community Corrections; Dave Ohler, State Attorney; Mike Mahoney, Warden, Montana State Prison; and Drew Schoening, Ph.D., Chief of Psychological Services at MSP (See Appendix A).

Subjects were asked to sign a consent form to participate in the research which, among other things, clearly stated that participation in this study was entirely voluntary and would not affect their eligibility for or experiences at boot camp in any manner. In addition, it was
made clear that they were free to discontinue participation in the study at any time, with no consequences (See Appendix B).

There was a great deal of variability concerning how many prospective booters were sent to SRCTC each month. It has been as few as 3 or as many as 20. The original data collection time frame was from May of 1996 until November 1, 1996, in the hopes of yielding an N of approximately 64. Due to limited boot camp admissions from MSP, this date was extended to November of 1997, and yielded an N of 62. Incomplete data packages or invalid profiles were not counted in the statistical analysis. It was predicted that the compliance rate for this research project would be much higher than a community sample, as these inmates were locked up for approximately 21 hours per day and tended to welcome any diversion.

Measures

The instruments which were used in this proposed study were a demographic form (See Appendix C), the Raven Standard Progressive Matrices, the Minnesota Multiphasic Personality Inventory-2 (MMPI-2), and the Barratt Impulsivity Scale-II (BIS-II).

Raven Standard Progressive Matrices

The Standard Progressive Matrices were originally developed in the mid 1930's by Raven and Penrose and was constructed to measure the eductive component of 'g'
(general factor) as defined in Spearman's theory of cognitive ability (Raven, Court, & Raven, 1992). Eductive ability is the ability to develop new insights, the ability to perceive, and the ability to identify relationships. According to Spearman, 'g' has a second component, reproductive ability. This encompasses the ability to recall and accurately use a store of explicit verbalized concepts. Vocabulary tests tend to have the greatest predictive validity of this measure of intelligence; however, this would also be the most predictive measure of academic ability.

The Progressive Matrices test was never originally intended to be used on its own as a measure of general intelligence. However, factor-analytic studies have repeatedly demonstrated that these matrices are one of the best single measures of 'g' available (Raven, Raven, & Court, 1991). Correlations with full-length "intelligence" tests have been 0.6 to 0.8. Correlations between the Mill Hill Vocabulary Scale and the same "intelligence" tests have been 0.8 to 0.95. This implies that full-length intelligence tests are primarily measures of reproductive ability (Raven, et al., 1991). The Raven Standard Progressive Matrices was chosen for this research project primarily because it is relatively language and culture fair, appears to be non-discriminatory regarding academic history, and due to its' ease of administration in a group.
format.

The Standard Progressive Matrices were originally developed for use in homes, schools, and workplaces where levels of motivation and testing conditions varied widely. It was also designed to cover the broadest possible range of mental ability, and to be useful with people of all ages, regardless of their education, nationality, or physical condition. The scale is made up of 5 sets of 12 diagrammatic puzzles which exhibit serial change in two dimensions simultaneously. Each puzzle has one part missing, and the examinee must choose the missing part from 6 or 8 choices. Each set begins with a problem which is as nearly self-evident as possible and becomes progressively more difficult. "The five sets provide five opportunities to grasp the method of thought required to solve the problems and five progressive assessments of a person's capacity for intellectual activity" (Raven, et al., 1992). The length of the test was carefully constructed to accurately assess a person's maximum capacity for coherent perception and orderly judgment without being too time consuming or exhausting.

The Raven Standard Progressive Matrices have been extensively normed to many populations, particularly non-English speaking persons. The norms used in this study will be those most appropriate to the inmate population used in this study; United States, English-speaking adult males.
The raw scores achieved on the Raven are converted to percentile rankings which are then grouped into:

GRADE I  "Intellectually Superior", if a score lies at or above the 95th percentile
GRADE II  "Definitely Above the Average in Intellectual Capacity", if a score lies at or above the 75th percentile
GRADE III  "Intellectually Average", if a score lies between the 25th and 75th percentiles
GRADE IV  "Definitely Below Average in Intellectual Capacity", if a score lies at or below the 25th percentile
GRADE V  "Intellectually Impaired", if a score lies at or below the 5th percentile

Minnesota Multiphasic Personality Inventory-2 (MMPI-2)

The MMPI was designed by Starke Hathaway, Ph.D., and J. Charnley McKinley, Ph.D who were working in the University of Minnesota Hospitals. It was first published in 1943. The primary purpose of the instrument was to provide a group administered paper and pencil personality inventory which would provide an efficient and reliable way of arriving at psychodiagnostic labels.

The original MMPI was a very widely used instrument. However, there were concerns about the adequacy of the original standardization sample, archaic or obsolete language used in the statements, and the limitation of the
items used in the instrument itself. Therefore, the instrument was revised, and the MMPI-2 was published in 1989 (Graham, 1993).

The MMPI-2 is intended for use with subjects who are 18 years of age or older. It is a 567 item true-false inventory in which respondents are asked to decide whether or not the statements generally apply to them. Normative tables are based on inpatient or outpatient status, male or female, and age groups.

Four validity scales have been incorporated in the MMPI-2 primarily to assess the test-taking attitude of respondents, but can also be used as inferences about extratest behavior. The first validity scale is the Cannot Say (?) Scale, which consists of items left unanswered, or double-anwsered. This can be a reflection of carelessness, confusion, a lack of experience for a meaningful response, or an attempt to avoid admitting undesirable things without blatantly lying. Graham (1993) recommends that protocols with more than 10 items blank should be interpreted with caution, and protocols with 30 or more unanswered should be deemed invalid.

The second validity scale is the L scale which was designed to detect a deliberate and somewhat unsophisticated attempt on the part of respondents to portray themselves in a favorable manner. There are fifteen items on this scale. T scores of less than 50 usually indicate that the
respondent answered items honestly and was self-confident enough to admit to minor faults and shortcomings. T scores of 55 to 65 suggest defensiveness. T scores above 65 suggest that the respondent is not being honest and/or exhibiting levels of denial or defensiveness which make the protocol uninterpretable.

The third validity scale is the F scale which was originally designed to detect deviant or atypical ways of responding to test questions. There are 64 items on this scale. T scores below 50 indicate that test items were answered as most normal persons would, and respondents are likely to be socially conforming and relatively free of disabling psychopathology. T scores between 50 and 65 may indicate problems in specific areas such as health or interpersonal relationships. T scores between 65 and 79 are sometimes associated with deviant social or political beliefs. However, scores in this range may also be indicative of severe neurotic or psychotic disorders. T scores between 80 and 99 suggest malingering, a cry for help, or resistance to the testing procedure. T scores above 100 are indicative of persons who may have responded randomly to items, or a respondent's attempt to "fake bad". The possibility of an invalid response should be considered with F Scale scores this elevated.

The fourth validity scale is the K scale which was developed to detect subtle attempts by examinees to present
themselves in a favorable or unfavorable light. There are 30 items on this scale. T scores of less than 40 may be indicative of persons who responded true to most items on the MMPI-2, or attempted to portray themselves in an unfavorable manner. T scores in the average range, 40 to 55, suggest a healthy balance between self-evaluation and self-criticism. T scores above 55 indicate that the respondent may have approached the test more defensively than the average person. T scores above 65 strongly suggest a "fake good" response set which should invalidate the profile.

A valid MMPI-2 protocol will produce T scores on 10 different clinical scales which can be interpreted to determine typical personality characteristics and levels of psychopathology. The clinical scales are as follows:

1. Hypochondriasis (Hs)
2. Depression (D)
3. Hysteria (Hy)
4. Psychopathic Deviate (Pd)
5. Masculinity-Femininity (Mf)
6. Paranoia (Pa)
7. Psychasthenia (Pt)
8. Schizophrenia (Sc)
9. Hypomania (Ma)
0. Social Introversion (Si)

Although there is some argument concerning clinical
significance of T scores on individual scales, in accordance with the MMPI-2 manual, for the purposes of this study, a T score of 65 or above will be considered clinically significant.

It has been suggested that a systematic analysis of subgroups of items within the standard clinical scales can add significantly to the interpretation of MMPI-2 profiles. Harris and Lingoes constructed the most comprehensive content scales based on six of the 10 clinical scales (2, 3, 4, 6, 8, and 9). They did not develop subscales for scales 1 or 7 because they felt they were homogeneous in content. The Harris-Lingoes Subscales are as follows:

D1 Subjective Depression
D2 Psychomotor Retardation
D3 Physical Malfunctioning
D4 Mental Dullness
D5 Brooding
Hy1 Denial of Social Anxiety
Hy2 Need for Affection
Hy3 Lassitude-Malaise
Hy4 Somatic Complaints
Hy5 Inhibition of Aggression
Pd1 Familial Discord
Pd2 Authority Problems
Pd3 Social Imperturbability
Pd4 Social Alienation
Pd5  Self-alienation
Pa1  Persecutory Ideas
Pa2  Poignancy
Pa3  Naivete
Sc1  Social Alienation
Sc2  Emotional Alienation
Sc3  Lack of Ego Mastery, Cognitive
Sc4  Lack of Ego Mastery, Conative
Sc5  Lack of Ego Mastery, Defective Inhibition
Sc6  Bizarre Sensory Experiences
Ma1  Amorality
Ma2  Psychomotor Acceleration
Ma3  Imperturbability
Ma4  Ego Inflation

In general, it is not recommended to interpret the Harris-Lingoes Content Subscales unless their parent scales are elevated above a T score of 65 (Graham, 1993).

In addition to the clinical scales and the content subscales, supplementary scales have also been developed. In general, inclusion on the MMPI-2 was based on existing reliability and validity studies. The supplementary scales are as follows:

Anxiety (A)
Repression (R)
Ego Strength (Es)
MacAndrew Alcoholism Scale-Revised (MAC-R)
Addiction Acknowledgment (AAS)
Addiction Potential (APS)
Marital Distress (MDS)
Overcontrolled Hostility (O-H)
Dominance (Do)
Social Responsibility (Re)
College Maladjustment (Mt)
Masculine Gender Role (GM)
Feminine Gender Role (FM)
Post-Traumatic Stress Disorder (PK)
Post-Traumatic Stress Disorder (PS)

Subtle-Obvious Subscales

These scales can be helpful adjuncts to the previously listed ones (Graham, 1993).

Barratt Impulsivity Scale-11 (BIS-11)

Impulsiveness is a personality trait which relates to the control of thoughts and behavior, and is believed to impact upon everyday behaviors. The Barratt Impulsiveness Scale, originally developed in 1959, was the first instrument designed specifically to measure impulsiveness which was not a part of an omnibus test battery such as the Thurstone Temperament Schedule. The BIS has been correlated with a wide range of impulsiveness and other personality measures, and has formed the basis for research on impulsiveness for thirty years. The BIS has been revised many times to achieve a more specific measure of
impulsiveness. The total scores on all forms of the BIS have been significantly correlated with each other ranging from .65 to .98 (Barratt & Stanford, 1995).

The BIS-11 is a 30 item self-report measure which allows respondents to endorse ratings of rarely/never, occasionally, often, or almost always/always (See Appendix D). To date, analyses of the BIS-11 indicate that there are three well defined impulsiveness factors which emerge: motor (Im), cognitive (Ic), and nonplanning (Inp). Motor impulsiveness was defined as acting without thinking; cognitive impulsiveness involved making quick decisions; and nonplanning impulsiveness was characterized as "present orientation" or lack of "futuring" (Patton, in press).

The items on the BIS-11 are scored on a 1 to 4 point scale with almost always/always given a score of 4. Higher scores are related to higher levels of impulsivity. The total score for the three factors will be used in this research.

RESULTS

The results are based on the statistical analyses of questionnaires completed by male inmates who participated in the boot camp program at the Swan River Correctional Training Center in Montana. Data collection began in May of 1996 and ended in November of 1997. Despite the fact that the data collection time frame was extensive, the final number of subjects was 62. The contributing factors to this
limited subject size included the fact that the state of Montana did not have a great number of participants for their boot camp program, the county jails began sending inmates directly from the jails and they could not be included in this research, and some inmates were not willing to participate in this study. However, the majority of inmates who went to SRCTC from MSP (62 of 98) did participate in this research, and these subjects should not be considered a sample of that population, but the bulk of the population itself.

The majority of the hypotheses posited in this research did not reach statistical significance. Please refer to Tables 1-3 for specific statistical analyses. It should be noted that hypothesis number six dealt with a Likert type scale self assessment of the perceived degree of difficulty of the boot camp program. All subjects endorsed the highest possible perceived degree of difficulty on this question. Therefore, any analysis or presentation of information was deemed unnecessary. The two hypotheses which did reach statistical significance are described below.

MACANDREW ALCOHOLISM SCALE-REVISED (MAC-R)

It was hypothesized that inmates who had never had chemical dependency difficulties, or who had learned to control their dependency issues would demonstrate a higher success rate at the prison boot camp program than those inmates who continued to struggle with chemical dependency
issues. This was measured by the MacAndrew Alcoholism Scale-Revised (MAC-R) of the MMPI-2. A one-tailed t-test indicated that there was a statistically significant difference between boot camp completers and non-completers on this measure, with boot camp completers scoring lower on the MAC-R than non-completers \((t(df) = -2.246; p < .05)\). See Table 1 for means and standard deviations.

**ANTISOCIAL PRACTICES CONTENT SUBSCALE (ASP)**

It was predicted that completers of the SRCTC would show statistically significantly lower T scaled scores on the Antisocial Practices Content Subscale (ASP) of the MMPI-2. This scale is a measure of people who are likely to have been in trouble with the law, who resent authority, who have generally cynical attitudes about other people, and who may express anger and hostility through temper tantrums. This hypothesis was borne out through the use of a one-tailed t-test with completers scoring lower on this scale than non-completers \((t(df) = -2.513; p < .05)\). See Table 1 for means and standard deviations.

**EXPLORATION**

Due to the exploratory nature of this research, a logistical regression analysis was completed to investigate the possibility of variables, other than those hypothesized, being predictive of completion or non-completion of the boot camp program. Of the 71 data variables considered, two emerged as predictive. The first one was the Antisocial
Practices Contents Subscale of the MMPI-2, which was presented in the previous paragraph. The second variable to emerge was the type of felonious crime committed. A chi square analysis was performed for this variable and resulted in statistical significance ($X = 5.53; \text{d.f.} = 1; p < .05$)
It appears that inmates who committed, and were sentenced for, crimes against people completed the program at a significantly higher rate than inmates who were sentenced for other crimes. These categories for other crimes included crimes against property, white collar crimes, drug and/or alcohol charges, and escape or bail jumping convictions. See Table 3 for details.

The results of the data analyses for this research showed that the means for most of the hypotheses were in the desired direction. This type of result led to the consideration that the power of the statistical procedure was not strong enough; therefore a simple power analysis was conducted on the data, instead of a discriminate function analysis as originally proposed. With an N of 27 in the smallest group (completers) and an alpha level of .05, there would be an 80% chance of identifying an effect size, or extent of the difference between the means, of .70. The effect sizes from this study ranged from .20 to .65. With effect sizes this small, one would need approximately 310 inmates in each group (completer and non-completer) to detect reliable differences. Therefore, the lack of
statistical significance in this study could easily be due to a limited number of subjects. However, a profile of the variables shows that the results of eight hypotheses were in the desired direction, two were not, five were indeterminate, and one hypothesis was discarded due to the fact that all the responses were exactly the same. See Tables 1 and 2 for statistical analyses.
## TABLE 1

<table>
<thead>
<tr>
<th>VARIABLE</th>
<th>COMPLETERS</th>
<th>NON-COMPLETERS</th>
<th>DIRECTION CONSISTENT W/ HYPOTHESIS</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>(N=27)</strong></td>
<td><strong>(N=35)</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>MacAndrew Alcoholism Scale-Revised (MAC-R)</td>
<td>X=60.96</td>
<td>X=66.57</td>
<td>YES * p&lt;.05 t=-2.25</td>
</tr>
<tr>
<td>Antisocial Practices Content Subscale (ASP)</td>
<td>X=55.48</td>
<td>X=61.94</td>
<td>YES * p&lt;.05 t=-2.51</td>
</tr>
<tr>
<td>Barratt Impulsivity Scale 11</td>
<td>X=52.67</td>
<td>X=52.91</td>
<td>Indeterminate t=-.06</td>
</tr>
<tr>
<td>Raven Standard Progressive Matrices</td>
<td>X=40.73%</td>
<td>X=33.03%</td>
<td>YES t=1.32</td>
</tr>
<tr>
<td>Length of Sentence in Years</td>
<td>X=13.67</td>
<td>X=11.26</td>
<td>YES t=1.20</td>
</tr>
<tr>
<td>Boot Camp Difficulty (Likert Scale 1-7)</td>
<td>X=6.15</td>
<td>X=5.94</td>
<td>YES t=.79</td>
</tr>
<tr>
<td>Number of Criminal Charges</td>
<td>X=2.44</td>
<td>X=2.71</td>
<td>Indeterminate t=-.57</td>
</tr>
<tr>
<td>MMPI-2 Authority Problems Subscale</td>
<td>X=55.70</td>
<td>X=59.40</td>
<td>YES t=-1.22</td>
</tr>
<tr>
<td>SCALE</td>
<td>Number of Cases</td>
<td>Mean</td>
<td>Standard Deviation</td>
</tr>
<tr>
<td>-----------------------</td>
<td>-----------------</td>
<td>-------</td>
<td>--------------------</td>
</tr>
<tr>
<td>Hypochondriasis</td>
<td>Completers 27</td>
<td>47.37</td>
<td>10.11</td>
</tr>
<tr>
<td></td>
<td>Non-completers 35</td>
<td>50.37</td>
<td>7.31</td>
</tr>
<tr>
<td>Depression</td>
<td>Completers 27</td>
<td>55.33</td>
<td>10.77</td>
</tr>
<tr>
<td></td>
<td>Non-completers 35</td>
<td>53.71</td>
<td>12.93</td>
</tr>
<tr>
<td>Hysteria</td>
<td>Completers 27</td>
<td>48.78</td>
<td>8.06</td>
</tr>
<tr>
<td></td>
<td>Non-completers 35</td>
<td>49.89</td>
<td>8.62</td>
</tr>
<tr>
<td>Psychopathic Deviate</td>
<td>Completers 27</td>
<td>63.78</td>
<td>9.80</td>
</tr>
<tr>
<td></td>
<td>Non-completers 35</td>
<td>65.54</td>
<td>11.09</td>
</tr>
<tr>
<td>Paranoia</td>
<td>Completers 27</td>
<td>59.81</td>
<td>9.92</td>
</tr>
<tr>
<td></td>
<td>Non-completers 35</td>
<td>59.57</td>
<td>13.96</td>
</tr>
<tr>
<td>Schizophrenia</td>
<td>Completers 27</td>
<td>56.56</td>
<td>12.77</td>
</tr>
<tr>
<td></td>
<td>Non-completers 35</td>
<td>59.06</td>
<td>15.22</td>
</tr>
<tr>
<td>Hypomania</td>
<td>Completers 27</td>
<td>58.96</td>
<td>12.86</td>
</tr>
<tr>
<td></td>
<td>Non-completers 35</td>
<td>61.20</td>
<td>12.56</td>
</tr>
</tbody>
</table>
TABLE 3

CRIMES AGAINST PEOPLE (CAP)

<table>
<thead>
<tr>
<th>Total</th>
<th>CAP-YES</th>
<th>CAP-NO</th>
</tr>
</thead>
<tbody>
<tr>
<td>Completers</td>
<td>27</td>
<td>13</td>
</tr>
<tr>
<td>Non-completers</td>
<td>35</td>
<td>7</td>
</tr>
</tbody>
</table>

(Significant @ .05)
DISCUSSION

A battery of assessment instruments was administered to 62 convicted felons incarcerated in the Montana State Prison (MSP) who had agreed to participate in the Montana State Swan River Correctional Training Center (SRCTC) program. This type of program is commonly referred to as a shock incarceration program, or prison boot camp. These boot camp programs began in the United States in 1983 (Osler, 1991) as one of the sanctions developed to ease prison overcrowding and in an attempt to reduce criminal recidivism. In addition to overcrowding and recidivism, boot camps were perceived as meeting the goals of improving public safety, rehabilitating offenders, and saving public money (Dickey, 1994). These prison boot camps were also seen as a tangible consequence for offenders in a time when society expressed concerns about prisons being characterized in the media as places inactivity, television watching, and work avoidance. In effect, boot camps helped fulfill the public's expectation of what prison should be like (Dickey, 1994).

Much of the research conducted on prison boot camp programs has focused on recidivism, with very mixed results (Osler, 1991). Additional evaluations of shock incarceration programs in eight states (Florida, Georgia, Illinois, Louisiana, New York, Oklahoma, South Carolina, and Texas) indicated that there were great variations in the demographics of the "typical booter", and the rate of inmate
completion of the programs (MacKenzie, 1994). Despite the interest in researching the outcomes of shock incarceration programs, almost no one has examined why some inmates graduate and others do not. One study found that subjects who completed a prison boot camp program had higher IQ's, longer sentences, and believed more strongly in their ability to control events (locus of control) (MacKenzie, et al., 1992). It seemed logical to hypothesize that psychological characteristics could have an impact on completion rates. However, an overview and update report on prison boot camp programs presented to the National Institute of Justice in October of 1994 stated that "...as far as we know, no one has looked at whether boot camps work best for offenders with a certain type of psychological profile." (Cronin, 1994). That statement strongly supported the original focus of this research.

The Swan River Correctional Training Center (SRCTC) program opened in the State of Montana in July of 1993, and functioned as a unit geographically separated from Montana State Prison (MSP) in Deer Lodge. SRCTC is a 90 to 120 day discipline and treatment program based on a military model which is grueling and intimidating for the inmates. Judges and the court system can make recommendations for inmates to participate in this program; however, the inmates themselves must volunteer and meet program criteria to be accepted. Inmates are screened medically before being admitted into
the program. Offenders who successfully complete the boot camp program are sent to a Great Falls pre-release center, followed by/or in conjunction with an intensive supervision program and finish their sentence time on probation. Offenders who do not complete the program are returned to Montana State Prison to finish their sentence.

Despite the fact that there appears to be a large incentive to complete the SRCTC program, primarily an early release from prison, more than half of the inmate participants do not graduate from the program. A few inmates were returned to MSP for medical reasons; however, the vast majority of non-completers simply quit.

Considering the fact that it was more expensive for inmates to be at boot camp ($75.00 per day) than at Montana State Prison ($40.00 per day), this was cause for question and concern. Hence, this study was designed to attempt to answer the question of whether or not there were any significantly discernable psychological differences between completers and non-completers of the boot camp program.

The results of this study indicate that there was a statistically significant difference between completers and non-completers of the MSP boot camp program on the MacAndrew Alcoholism Scale-Revised (MAC-R) of the MMPI-2, with non-completers scoring higher on this particular measure. This scale was designed to measure tendencies for abusing alcohol and other mind altering substances. However, it has also
been suggested that this scale measures general antisocial tendencies and not specifically substance abuse. In addition, it has been "...reported that young male prisoners scored relatively high on the MAC scale regardless of the extent to which they reported having drinking problems." (Graham, 1993). Therefore, considering the subject population of this study, it is difficult to ascertain whether this scale measured a tendency to abuse substances or an antisocial personality style in general.

An examination of the Antisocial Practices Content Subscale (ASP) of the MMPI-2 revealed that inmates who completed the SRCTC program showed statistically significantly lower levels on this measure. This particular scale is indicative of individuals who are likely to be in trouble with the law, who may enjoy hearing about the antics of criminals, who have generally cynical attitudes about other people and see them as selfish and dishonest, and who resent authority. These individuals may also express anger and hostility through temper tantrums, and may use nonprescription drugs (Graham, 1993). It is of interest to note that the MAC-R scale, which is primarily a measure of substance abuse tendencies, overlaps with antisocial traits, and the Antisocial Practices Subscale overlaps with substance usage. This further complicates the issue of teasing apart these particular characteristics.

An analysis of the type of crime inmate participants
committed indicated that those who had committed crimes against other people (homicide, assault) completed the SRCTC program at a statistically significantly higher rate than inmates who were incarcerated for other types of crimes. Other crime categories included crimes against property (theft, burglary), white collar crimes (fraud, forgery, bad checks, common scheme), drug and/or alcohol crimes, and escape or bail jumping offenses. It is unclear why this has happened. However, one supposition is the fact that, typically, the SRCTC more closely examines the suitability of these inmates for participation, particularly those who are convicted only for this type of crime. Twenty research participants who were convicted of crimes against other people enrolled in the SRCTC program, and 13 of these inmates graduated from the program. However, of the 13 inmates who were convicted only for this type of crime, 11 completed the boot camp program. It could be argued that these particular inmates knew that a special concession was being made for them, and they may have felt more invested in graduating. Another possibility is the fact that completers who committed crimes against people are qualitatively different types of individuals than non-completers. However, this remains speculative. The length of sentence for the booters who had only committed crimes against other people ranged from 5 to 30 years, with a mean of 12.46. The length of sentence for booters who committed crimes against
people and other crimes had a range of 5 to 50 years, with a mean of 15.14. This result does not confirm the general hypothesis that inmates with longer sentences would complete the boot camp program at a higher rate. (The inmate who was sentenced to 50 years did not graduate, and was returned to Montana State Prison to serve the remainder of his sentence.)

Although most of the hypothesized variables were not statistically significant, the results of 12 of the 14 variables considered were in the hypothesized direction. It can be useful to examine the direction of these differences to help conceptualize a "typical" profile of those who graduate and those who do not graduate from the SRCTC program. This may be beneficial in guiding future research and selection criteria for prison boot camps.

As compared to inmates who do not complete the Montana State prison boot camp program, a completer would be someone who does not worry excessively about their physical health and is generally more effective in daily life. They find themselves in conflict with authority less than non-completers do; however they may be equally undercontrolled. Individuals who graduate tend to be more alert, energetic, self confident and at ease. They experience less tension, anxiety, or guilt. SRCTC graduates would be more content with a dull, uneventful life and less likely to make impulsive decisions than their non-completing counterparts.
This research indicates that both groups of inmates tend to have difficulty incorporating the values and standards of society into their world views and tend to be rebellious towards authority figures. They may be impulsive, impatient, possess a limited frustration tolerance and strive for immediate gratification in an immature and childish manner. In addition, these people do not plan their behavior well, they demonstrate poor judgment, and tend to act without considering the consequences of their actions. Although both completers and non-completers show this "typical criminal profile", the graduates show these tendencies to a slightly lesser degree.

Although the results are directionally consistent with the hypotheses, at this point there is no discernible behavioral difference between completers and non-completers on a measure of paranoia. Both groups of inmates indicated that they perceive the environment as demanding and non-supportive, and are suspicious of the motives of others. They feel they're getting a raw deal out of life and tend to blame others for their personal difficulties. Anger and resentment are common, and these people often present in a hostile and argumentative manner.

Graduates of the prison boot camp program tend to more adaptable, compliant and accepting of authority than inmates who do not graduate. Both groups show approximately the same self-reported level of impulsivity on the Barratt
Impulsivity Scale 11, which has a great deal of face validity. However, on an instrument (MMPI-2) which measures impulsivity more subtly, completers tend to be less impulsive. Although both groups' mean score on the intelligence assessment is in the Average Range, completers' scores averaged higher than non-completers. Despite the fact that this measurement does not reach statistical significance, it is in the hypothesized direction, and is consistent with the findings of MacKenzie, et al., 1992.

Inmates who do not complete the SRCTC program may have a low frustration tolerance, display little interest in routine and detail and fail to see projects through to completion. They tend to have difficulty inhibiting expressions of impulses and have periodic episodes of irritability, hostility, and aggressive outbursts. In addition, they are more likely than completers to abuse nonprescription drugs.

The final conceptualized differences between completers and non-completers is that completers had prison sentences which were somewhat longer, and they perceived the boot camp program as more difficult than non-completers. They also tended to endorse a higher level of depressive symptoms. It could be argued that this depression was evidence of dissatisfaction with their current situation and served as a catalyst for change. As a group, completers committed a statistically significantly higher number of crimes against
people than any other category of offense.

It is unfortunate, but patently obvious, that some individuals will choose to commit acts which are deemed criminal. Society has no choice but to, at least temporarily, remove them from the midst of law abiding citizens. The question them becomes, "How long do they have to be removed, and how do we prevent recidivism?" Prison boot camps, or shock incarceration programs, have been one method of removing offenders from the general population and employing rehabilitation strategies to prevent recidivism. However, many states are experiencing such high drop out rates from the boot camp programs, the issues of rehabilitation and recidivism cannot be adequately addressed. Considering the expense of these programs, and nationwide budget cuts, it makes intuitive sense to attempt to provide shock incarceration programs to inmates who demonstrate the greatest potential for completion.

This research has attempted to provide some illumination upon what particular individual psychological characteristics could be predictive of success in a prison boot camp program. Unfortunately, due to the limited subject pool, many of the original questions remain unanswered. However, it does appear that in this research, most of the conceptualizations of characteristics which could be predictive of completion are on target. Clearly,
further research needs to be conducted in order to establish a comprehensive profile of who would make the best candidate and this information could be incorporated into the selection criteria. Due to the limited population of the State of Montana, it would probably be best to conduct this type of research in a state with a larger prison boot camp inmate pool.
References


Reproduced with permission of the copyright owner. Further reproduction prohibited without permission.


Date: November 2, 1995

To: Rick Day, Director, Department of Corrections  
Sally Johnson, Administrator of Professional Services  
Mike Ferriter, Administrator of Community Corrections  
Dave Ohler, State Attorney  
Mike Mahoney, Warden, Montana State Prison

From: Drew Schoening, Ph.D., Director of Psychological Services

Re: Clinical Research at Montana State Prison

Please consider this a proposal and request for approval to conduct clinical psychological research at Montana State Prison. Two Psychological Assistants, Paul Zohn and Sandra MacIntosh, and myself would like to begin two major research projects as soon as we have your approval.

Proposed research: We would like to conduct two correlational studies, both focusing on inmate success or failure in one of two community corrections placements. In one study, we would correlate success or failure at Swan River Correctional Training Center with demographic, social, and psychological variables as collected through psychological interviewing and testing. In the second study, we would correlate success or failure at pre-release with demographic, social, and psychological variables as collected through psychological interviewing and testing.

Procedure: We would obtain informed consent from each inmate prior to voluntary participation in the research. The informed consent form would detail the nature of the study, confidentiality of information, the procedures of the study, and the option of discontinuing participation at any time without any negative consequences. We would interview and test inmates who are candidates for SRCTC or pre-release prior to their community placement. We would then track these inmates over a specified period of time with focus on success or failure at either placement. We would attempt to statistically correlate the demographic, social, and psychological variables with success or failure in a community correction placement. We would adhere to our own professional ethics for research with human subjects. Additionally, the Ethics Review Board at the University of Montana would review and approve the research proposal, as the Psychological Assistants are currently students.
Outcome: We would statistically analyze the findings in hopes of finding demographic, social, and psychological variables that are significantly correlated with success or failure at SRCTC or Pre-release. If the research results in significant correlations, we could develop objective measurements to assist in making community placement recommendations which would result in higher completion rates. Additionally, the research may lead us to the psychological factors that lead to failure and thus provide an opportunity to address those factors more directly prior to entering community corrections or while in community corrections.

Thank you,

Drew Schoening, Ph.D.

If this is acceptable, please sign below and pass it on to the next person for approval.

APPROVED BY: DATE:

Rick Day, Director 3/5/96

Sally Johnson, Administrator 1/5/96

Mike Ferriter, Administrator 2/15/96

Dave Ohler, Attorney 11/22

Mike Makoney, Warden 3/4/96
You have been invited to join in the first formal study of inmates who are sent to the Swan River Correctional Training Center (SRCTC) (boot camp). This study is being done by a University of Montana graduate student, Sandra MacIntosh, with the permission and cooperation of Montana State Prison. The purpose of this study is to examine factors which may lead to the completion or non-completion of participants in the boot camp program.

YOUR DECISION TO PARTICIPATE IN THIS STUDY IS COMPLETELY VOLUNTARY AND WILL IN NO WAY EFFECT YOUR ELIGIBILITY OR EXPERIENCES AT SRCTC, YOUR LENGTH OF SENTENCE, OR YOUR CHANCES FOR PAROLE OR PRE-RELEASE IN EITHER A POSITIVE OR NEGATIVE WAY.

In addition, your identity will remain entirely confidential throughout this study. You will be assigned a research number, if you participate in this study, and all the information you provide will be recorded under that number, and not your name. Data collected may be used in scientific reports, but all identifying information will be removed so that your personal identity will be protected. For the purposes of following your progress in the boot camp program, the researcher will have a list of names which correspond with your research number. This list will be kept in a safe, confidential place and will not be shared with anyone not involved with this study.
If you decide to participate in this study, it will take about 3 to 4 hours to complete the questionnaires. This time will be divided into two sessions, on two different days. You will not be given any information about your scores on the questionnaires until the study is completed. It is requested that if you do decide to participate, you make a commitment to complete the entire package of questionnaires. However, you are free to quit being a part of this study at any time with no penalty or consequences.

At the end of this study, a short wrap-up session will be held. It is not expected that there will be any mental health risks to individuals who participate in this research. However, some of the questions may be considered personal in nature and may cause some mild distress. If this happens, and you want to speak to a mental health counselor, one will be made available to you. For details, please speak to the researcher, or send a kite. In addition, although the University of Montana believes the risk of injury to be extremely slight, in the event that you are injured as a result of this research you should individually seek appropriate medical treatment. If the injury is caused by the negligence of the University or any of its employees, you may be entitled to reimbursement or compensation pursuant to the Comprehensive State Insurance Plan established by the Department of Administration under the authority of M.C.A., Title 2, Chapter 9. In the event of a claim for such injury, further information may be obtained from the University's Claims Representative or University Legal Counsel.
Individuals to contact at the University are: Sandra MacIntosh, 1444 Mansfield Ave. Missoula, MT. 59801, (406) 243-4523; or Dr. Herman Walters, at the same address and phone number.

If, after reading this consent form, you are willing to participate in this study, please read the following paragraph, and sign and date it. If you do not want to participate in this study, please return this form to the researcher and you may leave. Thank You.

In signing this consent form, I state that I have read and understand the description of the study and I have volunteered to participate. I have been given a chance to ask questions and these have been answered to my satisfaction. I may withdraw at any time, without any consequences. When this study is completed, information concerning the results will be made available to me, if I want it. Please request this information from Mental Health Services at MSP. I UNDERSTAND THIS STUDY IS VOLUNTARY, CONFIDENTIAL, AND WILL HAVE NO EFFECT ON MY ELIGIBILITY OR EXPERIENCES AT BOOT CAMP, MY LENGTH OF SENTENCE, OR MY CHANCES FOR PAROLE OR PRE-RELEASE IN EITHER A POSITIVE OR NEGATIVE WAY.

X ______________________________ AO # __________ Date _____________

Reproduced with permission of the copyright owner. Further reproduction prohibited without permission.
R # _____

Age _____ Race ___________________ Height _____ Weight _____

Marital Status: Married Divorced Single Common Law Widowed
(Circle One) Number of Children ____________

Highest Grade Completed _____ Degrees Earned (GED, HS Diploma, AA, BA)

Number of Felony Convictions as an Adult______________

Current Criminal Charge(s) ____________________________

________________________________________________________________________

Length of Sentence _______________________________________

Have you participated in a prison boot camp program before?
Yes______ No _______ Number of Times ____________
Where? ________________________________________________

Have you completed a prison boot camp program before?
Yes______ No _______ Where? ________________________

How difficult do you think the boot camp program will be for you?
1 2 3 4 5 6 7 (Circle one #)
Very Easy OK Very Hard

How much effort are you willing to put into completing the program?
1 2 3 4 5 6 7 (Circle one #)
None/Minimal Medium All I Can

Historically, how good have you been at completing difficult tasks?
1 2 3 4 5 6 7 (Circle one #)
Terrible OK Very Good

Have you ever been in a Chemical Dependency Treatment Program?

Inpatient:
Yes ____ No ____
# of times ______
# of times completed ______
Most recent completion:
Year ______
Most recent incompletion:
Year ______

Outpatient:
Yes ____ No ____
# of times ______
# of times completed ______
Most recent completion:
Year ______
Most recent incompletion:
Year ______
How physically fit are you?

1 2 3 4 5 6 7 (Circle one #)
Not Fit OK Very Fit

What is your main reason for going to boot camp? (Circle one)

Learn self discipline
Avoid being at MSP
Shorten length of time in prison
It's a good deal
Become physically fit
Change attitudes and behaviors
Counseling programs
Get off reception
PERSONAL EVALUATION - BIS II

NAME: ___________________ DATE: ________________

DIRECTIONS: People differ in the ways they act and think in different situations. This is a test to measure some of the ways in which you act and think. Read each statement and darken the appropriate circle on the right side of the page. Do not spend too much time on any statement. Answer quickly and honestly.

1. I plan tasks carefully. ............................................. 0 0 0 0
2. I do things without thinking. ..................................... 0 0 0 0
3. I am happy-go-lucky ............................................ 0 0 0 0
4. I have "racing" thoughts ....................................... 0 0 0 0
5. I plan trips well ahead of time ................................ 0 0 0 0
6. I am self-controlled ............................................ 0 0 0 0
7. I concentrate easily ........................................... 0 0 0 0
8. I save regularly ................................................ 0 0 0 0
9. I find it hard to sit still for long periods of time .......... 0 0 0 0
10. I am a careful thinker ......................................... 0 0 0 0
11. I plan for job security ......................................... 0 0 0 0
12. I say things without thinking ................................ 0 0 0 0
13. I like to think about complex problems ................... 0 0 0 0
14. I change jobs .................................................... 0 0 0 0
15. I act "on impulse" .............................................. 0 0 0 0
16. I get easily bored when solving thought problems .... 0 0 0 0
17. I have regular medical/dental check ups ................... 0 0 0 0
18. I act on the spur of the moment ............................ 0 0 0 0
19. I am a steady thinker ......................................... 0 0 0 0
20. I change where I live ......................................... 0 0 0 0
21. I buy things on impulse ...................................... 0 0 0 0
22. I finish what I start .......................................... 0 0 0 0
23. I walk and move fast ......................................... 0 0 0 0
24. I solve problems by trial-and-error ........................ 0 0 0 0
25. I spend or charge more than I earn ......................... 0 0 0 0
26. I talk fast ..................................................... 0 0 0 0
27. I have outside thoughts when thinking .................... 0 0 0 0
28. I am more interested in the present than the future .... 0 0 0 0
29. I am restless at lectures or talks .......................... 0 0 0 0
30. I plan for the future ......................................... 0 0 0 0

Copyrighted by E.S. Barratt & J. Patton.