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EFFECTS OF EMOTIONAL INTELLIGENCE TRAINING ON INCARCERATED
ADULT MALES INVOLVED IN PRE-RELEASE PROGRAMMING

by

Holly Branthoover Moore, MS.Ed.

Submitted in partial fulfillment of

the requirements for the degree

Doctor of Education

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School of Education

Duquesne University

May 2005

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Abstract

This dissertation summarizes a study conducted to explore the effectiveness of emotional intelligence (EI) training for adult male inmates. Acts of crime and violence cause psychological repercussions to crime victims and financial burdens on our society. Historically, those involved in the criminal justice system have strived to gather knowledge about criminal behavior in order to guide interventions. Furthermore, research on potential interventions has been encouraged in order to support evidence-based rehabilitative efforts that may ultimately impact recidivism. Emotional intelligence is a relatively new construct that may be related to social functioning. The purpose of this study was to investigate the effect of completing EI training on emotional intelligence scores for adult male inmates participating in a pre-release vocational training program in two medium security Mid-Atlantic state correctional facilities. This research examined Total EQ Scale scores and five Composite Scale scores (Intrapersonal, Interpersonal, Stress Management, Adaptability, and General Mood) as measured by a pretest and posttest on the Bar-On EQ-i. The treatment group received a standardized EI training program, The Emotionally Secure Community Adaptation Program (ESCAPE) in conjunction with a pre-release vocational training program and those in the control group received the pre-release vocational training program only. Subjects included 65 adult male inmates, ages 21-53, divided into a treatment group (N=31) and control group (N=34). A 2x2 mixed model analysis of variance (ANOVA) was used to test the hypotheses in this research. Although means increased from pretest to posttest, significant differences were found only for the main effect of Group on the Intrapersonal Scale and the main effect of Time on the Total EQ, Intrapersonal, Adaptability, and

General Mood Scales. No interaction effects were found to be significant. Results may be impacted by the type of sample, choice of testing instrument, and design of the EI training program. Recommendations for future research and program implementation are included.

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Chair: Rick A. Myer, Ph.D.

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CHAPTER I

INTRODUCTION

“The attempt to understand crime predates written history” (Schmallegger, 2004, pp. 13). Prehistoric skeletal remains show signs of cranial surgery, suggesting deviant behavior may have been attributed to spiritual possession (Schmallegger). In modern society, attempts to understand crime, its causes, and potential solutions spur much debate. This debate is important due to the serious financial and psychological impact that crime has on our society. According to the Bureau of Justice Statistics (2004), 6.9 million U.S. adults were involved in the correctional system, including incarceration, probation, and parole (Glaze & Palla, 2004). This number represents a never before reached high for correctional populations and is staggering in terms of cost. In 2001, the average annual operating cost was \$22,650 per state inmate and \$22,632 per federal inmate (Stephan, 2004). In terms of psychological impact, large numbers of people involved in the correctional system leave behind a trail of victims that may be impacted financially and/or emotionally as a result of their victimization. According to the National Crime Victimization Survey in 2002, 110.3 million households (15%) experienced one or more violent or property crimes. Given these statistics, it is not surprising that methods of crime prevention have been studied extensively.

Because past behavior is the best predictor of future behavior, MacKenzie (2000) suggests it is reasonable to attempt crime prevention using criminological interventions with known offenders. Research on correctional interventions is important to crime prevention by investigating programs that may reduce recidivism. Recidivism is defined as “the repetition of criminal behavior by those already involved in crime” (Schmallegger,

2004, p. 167). According to reports generated by the Bureau of Justice Statistics, of 272,111 inmates released in 1994, 67.5% were rearrested within three years (Langan & Levin, 2002). It is important to address the issue of recidivism through research on the effectiveness of criminological interventions (MacKenzie, 2000).

Criminological interventions fall on a continuum from punishment to rehabilitation, with the popularity of approaches to the crime problem often referred to as a pendulum (Seiter & Kadela, 2003). Prior to the 1970's, rehabilitative interventions were favored (Seiter & Kadela). However, the 1970's saw the pendulum swing towards punishment-focused interventions, a shift largely attributed to the seminal work of Martinson (1974). In his work, Martinson reviewed existing literature on criminological interventions and suggested that offender rehabilitation programs failed to prove effectiveness through quantifiable research and sound methodology. For the next 20 years, the "nothing works" stance based on Martinson's research governed policy in regard to correctional interventions.

During the "nothing works" era, this philosophy was challenged by researchers attempting to prove the effectiveness of correctional interventions through sound methodological research (MacKenzie, 2000). This quest for "what works" has resulted in the current trend toward evidence-based corrections, or providing financial and policy support only for correctional interventions proven effective through research (MacKenzie, 2000). With the focus on evidence-based corrections, the pendulum is again beginning to move from punishment focused interventions to research-based rehabilitative interventions (Cullen & Gendreau, 2001).

In the search for evidence-based correctional interventions, educational and vocational training has been identified as an effective correctional intervention (Wilson, Gallagher, & MacKenzie, 2000). However, Sung (2001) recommends addressing psychological inadequacies and emotional needs in addition to educational or vocational interventions. In the current research, emotional intelligence (EI) training was integrated into an existing vocational program in an attempt to address the emotional needs of program participants. Goleman (1998) refers to EI training programs as those “teaching competencies based on emotional intelligence” (p. 250).

Since the 1995 work by Goleman entitled *Emotional Intelligence*, the construct of EI has gained great popularity. Although the study of EI is in its infancy and at times even controversial, researchers are investigating theory, measures, and applications for the EI construct (Matthews, et al., 2002). In regard to application, EI training has gained popularity in schools (Cobb & Mayer, 2000; Goleman, 1995; Graczyk et al., 2000, Matthews et al., 2002; Topping, Holmes, & Bremner, 2000) and the workplace (Cooper & Sawaf, 1997; Dearborn, 2002; Goleman, 1999; Goleman, Boyatzis, & McKee, 2002; Riggio, 2002; Weisinger, 1998).

Another potential applicability of EI is with those in the criminal justice system. Research in this area is scant, but emerging. In a recent study of parole violators in Pennsylvania, emotional problems were identified as the largest contributor to parole failure (Bucklen, Zajac, & Gnall, 2004). A recent unpublished dissertation (Bora, 2003) directly relates the EI construct to several criminological theories. Two additional dissertations, Hodges (2003) and Smith (2001) find offenders have lower than the normed average EI scores. Research with delinquents has shown mixed and weak results,

but the studies contain multiple methodological limitations. To date, no published or available research describes EI training as an intervention with a correctional population.

Statement of the Problem

Criminal Justice System professionals, especially those in corrections, must continue to seek innovative treatment solutions to address the problem of recidivism. Vocational training is one intervention method that has shown positive results according to recidivism research (Sung, 2001; Wilson, Gallagher, & MacKenzie, 2000). However, recidivism persists, even for those who receive vocational training. Vocational training may not be successful if the person receiving the training cannot effectively relate with others in a work setting (Sung, 2001). Research shows that increasing emotional intelligence and related behaviors may improve relationships with others (Goleman, 1998). Combining these two concepts, vocational training and emotional intelligence training, in a correctional setting is not something that has been previously reported in the literature.

Purpose of the Study

The purpose of this study was to investigate the effect of completing emotional intelligence (EI) training on emotional intelligence scores for adult male inmates participating in a pre-release vocational training program in two medium security Mid-Atlantic state correctional facilities. This research examined Total EQ Scale scores and five Composite Scale scores as measured by the Bar-On EQ-i (Bar-On, 2002) for inmates participating in EI training in conjunction with a pre-release vocational training program and those receiving the pre-release vocational training program only. Specifically, the Bar-On EQ-i was utilized as a pre and post test to measure changes in EI scores.

Research Questions

The principal area of investigation in this research was to determine the effectiveness of emotional intelligence training for adult male inmates in a pre-release vocational training program. The general research question considered is:

What is the difference in Total EQ Scale scores and Composite Scale scores on the Bar-On EQ-i, a measure of emotional intelligence, for adult male inmates participating in EI training in conjunction with a pre-release vocational training program and those receiving the pre-release vocational training program only?

The general research question is broken into six specific research questions. Questions correspond to the Total EQ Scale score and Composite Scale scores on the Bar-On EQ-i:

1. What is the difference in emotional intelligence Total EQ Scale scores on the Bar-On EQ-i for adult male inmates participating in EI training in conjunction with a pre-release vocational training program and those receiving the pre-release vocational training program only?
2. What is the difference in emotional intelligence Intrapersonal Composite Scale scores on the Bar-On EQ-i for adult male inmates participating in EI training in conjunction with a pre-release vocational training program and those receiving the pre-release vocational training program only?
3. What is the difference in emotional intelligence Interpersonal Composite Scale scores on the Bar-On EQ-i for adult male inmates participating in EI training in conjunction with a pre-release vocational training program and those receiving the pre-release vocational training program only?

4. What is the difference in emotional intelligence Stress Management Composite Scale scores on the Bar-On EQ-i for adult male inmates participating in EI training in conjunction with a pre-release vocational training program and those receiving the pre-release vocational training program only?
5. What is the difference in emotional intelligence Adaptability Composite Scale scores on the Bar-On EQ-i for adult male inmates participating in EI training in conjunction with a pre-release vocational training program and those receiving the pre-release vocational training program only?
6. What is the difference in emotional intelligence General Mood Composite Scale scores on the Bar-On EQ-i for adult male inmates participating in EI training in conjunction with a pre-release vocational training program and those receiving the pre-release vocational training program only?

Significance of the Study

The results of this study are important to the counseling profession, criminal justice system, and government regulatory agencies. Acts of crime and violence cause psychological repercussions to crime victims. Additionally, crime and the resulting costs of incarceration have placed a financial burden on our society. Historically, the criminal justice system and government regulatory agencies have strived to gather knowledge about criminal behavior in order to guide criminological interventions. Furthermore, these agencies have encouraged research on potential interventions in order to support evidence-based rehabilitative efforts and ultimately impact recidivism.

Therefore, it is important to recognize the link between emotional intelligence and social functioning as described in the literature (Goleman, 1995). Building upon this link, Emory (2001) and Hodges (2003) reported preliminary findings that selected criminal justice system populations had lower than average emotional intelligence scores. The present study investigates EI training for inmates prior to release on parole, a key recommendation of Emory (2001) and Bora (2003), both writing about the link between EI and criminality/deviance. The results of this study may be useful in making recommendations about potential interventions with criminal justice system populations.

Definitions

Several key terms will be used throughout this study. These terms are defined for the purpose of this study as noted:

1. Emotional Intelligence Training is defined as participation in ESCAPE (Emotionally Secure Community Adaptation Program). ESCAPE includes weekly individual counseling/case management sessions as well as a 24-session psychoeducational group counseling experience conducted over approximately a six month period. A further explanation of the program is provided in Chapter III.
2. Emotional Intelligence is defined as scores on the six scales of the Bar-On EQ-i test of emotionally intelligent behaviors. The scales include Total EQ, Intrapersonal Composite, Interpersonal Composite, Stress Management Composite, Adaptability Composite, and General Mood Composite.

3. Pre-release vocational training program is a six-month program that is offered at seven state correctional facilities in a Mid-Atlantic state. Participants volunteer for the program and are screened by Department of Corrections staff using a standardized process. A private non-profit contract provider implements the program, which consists of vocational training in carpentry and building trades.
4. Experimental Group consists of adult male inmates in a medium security Mid-Atlantic state correctional facility volunteering to participate in a pre-release vocational training program and ESCAPE.
5. Control Group consists of adult male inmates in a medium security Mid-Atlantic state correctional facility volunteering to participate in a pre-release vocational training program, but not the ESCAPE component. The control group is located in the medium security correctional facility closest to the experimental group site. The pre-release vocational counseling program is standardized, although each site has a different instructor.

Assumptions

It was assumed that the administration of ESCAPE did not vary from group to group, even though participants cycled through the program at different times over a two-year period. This assumption was addressed by utilizing the same counselor for all counseling/case management activities during the implementation of the program. Additionally, the program was uniform for all program participants and is further described in Chapter III.

Another assumption of this study was that all participants in the treatment and control groups answered all questions on the Bar-On EQ-i truthfully and accurately. The assumption of truth was supported by question 133 on the instrument, which is not scored as part of any of the Bar-On EQ-i subscales. The question reads, “I have answered all the questions truthfully.” If the answer is “2” (Seldom true of me) or “1” (Very seldom or not true of me) the scores were rendered invalid and were not counted for the purposes of this study.

Delimitations

In a research study, delimitations imply limitations on the research design that the researcher has deliberately imposed (Rudestam & Newton, 2001). For the purposes of this study, the following delimitations applied:

This research was conducted with archival data originally collected from adult male inmates residing in two medium security Mid-Atlantic state correctional facilities and volunteering to participate in a pre-release vocational training program. As a result, it may be difficult to generalize findings to other offenders across a variety of settings.

The measures used in this study were believed to be closely and appropriately related to the construct under experimental consideration. It is possible, however, that other equally viable instruments existed, but were not used.

Limitations

In a research study, limitations refer to restrictions in the study that the researcher does not control (Rudestam & Newton, 2001). For the present study, the following limitations applied:

The participants in this study volunteered for the pre-release vocational training program. Even though all volunteers were screened for program acceptance by the Department of Corrections, volunteer participants may have certain personality characteristics that limit the ability of a researcher to generalize study results (LaFountain & Bartos, 2002).

The instrument used in this study, the Bar-On EQ-i is a self-report instrument. Use of a self-report instrument without other avenues of information about the study participant is at best a limited view of the person, and relies on the honesty of the reported answers.

The control group in this study was located at a different vocational training site than the treatment group. This was a limitation in that there were different vocational training instructors for the participant group and the control group and aspects such as personality and education/experience may have varied between instructors. The same counselor, however, completed all testing for both groups.

The instructors and site manager at both sites were aware that this study was being conducted. Additionally, Department of Corrections (DOC) staff was also aware that the study was being conducted. This lack of “blindness” in the study was unavoidable due to the levels of permission required by DOC procedures as well as the necessity for coordination of scheduling for testing and counseling to occur.

The time of program administration varied for the participants over the course of two years. Due to the nature of the vocational training program, only 10 participants could be trained at one time. In two years of programming, this resulted in approximately 4 cohorts of 10 participants. However, due to the need to rely on parole or pre-release

paperwork processing for the exact program completion date, participation time varied. Data was excluded if a participant exited the program with less than 5 months of participation. Additionally, all post testing was completed after six months of program participation, whether or not the release date occurred at that time.

Summary

Chapter I included an overview of the concepts of recidivism, criminological interventions, and emotional intelligence and offender populations. Also included was the purpose of the study, significance of the study, research questions, definition of terms used in the study, limitations, and delimitations of the study. Chapter II follows with a review of the literature related to the research questions posed in this chapter. Chapter III presents the methodology used in this study. Chapter IV describes the results of the application of the Bar-On EQ-i to research hypotheses. Chapter V provides discussion of the research findings, including the potential impact of study limitations, and recommendations for future research resulting from the analysis of data.

CHAPTER II

LITERATURE REVIEW

This review presents the relevant theoretical and empirical framework for the dissertation. It begins with an exploration of interventions used with correctional populations, including an historical context regarding interventions and a chronological progression of researched methods of intervention. Then, an overview of the concept of emotional intelligence is provided. Next, the review describes the models of emotional intelligence development, with a focus on the Bar-On mixed model of emotional intelligence. The final section examines emotional intelligence constructs in educational and occupational settings as well as in relation to deviance and criminal behavior.

The History of Corrections Intervention

By adding a wing for sentenced offenders to the Walnut Street Jail in 1790, William Penn and the Quakers of Pennsylvania created the United States first prison (Seiter & Kadela, 2003). Fittingly, the classical school of criminology was the predominant criminological theory at the time (Schmalleger, 2004). Classical criminology is rooted in the belief that humans are rational beings committing crime as a result of free will (Schmalleger). Accordingly, classical criminologists viewed punishment, particularly through determinate sentences, as an effective crime deterrent (Schmalleger). Criticisms of the classical school include failure to explain the causes of criminality and lack of scientific evidence to support philosophical claims (Schmalleger).

In the 1930's, a shift from the classical school to positivism occurred in criminological thinking (Cullen & Gendreau, 2001). Positivism, or the application of scientific techniques to the study of crime and criminals, was based in the biological

theories of Lombroso (Schmallegger, 2004). Although biological determinism as an explanation of criminal behavior was eventually forfeited, several general principals derived from the positivist school influenced thinking about crime and criminal interventions through the 1970's (Cullen & Gendreau). The general principals included (a) crime had definite causes that could be identified through scientific study, (b) punishment was limited, or even counterproductive, as an effective means of criminal reform, (c) criminal interventions should follow a medical model and address the causes of crime, (d) change efforts should be channeled through the correctional system, and (e) interventions should be individualized (Cullen & Gendreau).

By the mid 20th century, psychological and social theories of crime and crime control were gaining favor (Schmallegger, 2004). These theories complimented the positivist medical model with its' individualistic and rehabilitative focus. As a result, the 1950's through 1970's saw significant attention given to prisoner preparation and transition into the community (Seiter & Kadela, 2003). Correctional interventions, such as prison labor, vocational training, and education programs grew as rehabilitative efforts (Cullen & Gendreau, 2001). Additionally, according to Cullen and Gendreau (2001), vocational and educational programs were supplemented with "psychological classification systems, therapeutic milieus, token economies, work release and furloughs, and college education" (p. 320). Rehabilitation, the prisoners' rights movement, and a moratorium on prison building reflected the direction of criminal interventions (Cullen & Gendreau, 2001; Haney & Zimbardo, 1998; Seiter & Kadela, 2003).

In the late 1970's, criminological theory and policy again shifted with the emergence of what Schmallegger (2004) describes as Neoclassical Criminology, or the

modern-day application of classical punishment principals to contemporary crime and crime control policies. In 1974, Martinson published a seminal work assessing the effectiveness of correctional treatment. Martinson reviewed 231 correctional program evaluation studies between 1945 and 1967 concluding that rehabilitative efforts had no appreciable impact on reducing recidivism. Although significant, the Martinson study was only one of the contributing factors for the shift in thinking about correctional interventions. A demise of the medical model, a tough on crime attitude by the public and elected officials (Seiter & Kadela, 2003), and a media induced fear of crime (Haney & Zimbardo, 1998), also added to the reemergence of punishment as the prevailing criminological intervention.

The rise of Neoclassical thought has also been called the “justice model” or “just deserts model” of criminological sanctioning (Lipsey, 1988; Schmalleger, 2004). In this view, the role of the criminal justice system is to “apprehend and sanction offenders, not to rehabilitate them” (Lipsey, 1988, pp.64). By the mid-1990’s, policy implications of the just deserts model included a shift from indeterminate to determinate sentencing, the abolition of parole, large scale prison construction, and record numbers of imprisoned Americans (Cullen & Gendreau, 2001; Haney & Zimbardo, 1998; Seiter & Kadela, 2003; Schmalleger, 2004).

As philosophy and policy of crime and crime control are often described as a pendulum (Seiter & Kadela, 2003), that pendulum may again be swinging toward a rehabilitative focus. Authors such as Cullen and Gendreau (2001) and MacKenzie (2000) describe the “what works” or evidence based view of criminology that began to take root in the late 1990’s. Cullen and Gendreau (2001) cite two factors influencing the shift.

First, a Democratic administration in the White House and heading the National Institute of Justice allowed for more research funding on effective correctional interventions (Cullen & Gendreau). Second, data gathered from meta-analyses empirically confirmed that correctional rehabilitative interventions could be successful (Cullen & Gendreau). Such data was available, despite Martinson (1974), as researchers in psychology and outside of the United States continued to conduct evaluative research on correctional interventions as a backlash to Martinson (Cullen & Gendreau, 2001). The “what works” philosophy is firmly based in the idea of evidence-based corrections, also referred to as scientific criminology, or the use of methodologically sound research to assess the effectiveness of correctional interventions (Cullen & Gendreau, 2001; MacKenzie, 2000). Six principals central to the what works belief include: (a) scientific criminology is the basis for effective correctional intervention, (b) scientific criminology should be used to destroy knowledge that is not evidence-based, (c) scientific criminology should be used to construct knowledge of what works, (d) it is legitimate to produce knowledge that reduces crime, (e) scientific criminology is not limited to one theoretical perspective, and (f) scientific criminology will result in more good in the world than ignoring what really works (Cullen & Gendreau, 2001).

In the quest to disprove Martinson (1974), hundreds of studies were conducted on the effectiveness of individual correctional interventions (Hollin, 1999). Review of each individual study is beyond the scope of this dissertation. However, since the 1970’s multiple narrative reviews and meta-analyses have been conducted resulting in a comprehensive list of what has worked, what has not, what is promising, and what is still

unknown in regard to correctional interventions (MacKenzie, 2000). The following section summarizes correctional interventions as reported in the literature.

Methods of Intervention Used with Offenders

In comparative outcome research, two types of research review exist (Hollin, 1995). The first type, narrative review, is the traditional format for summarizing and synthesizing large numbers of research studies in a particular discipline (Hollin). Narrative reviews are indispensable in theory building, pointing to unanswered questions, and developing new directions for a discipline (Hollin). The second type, meta-analysis, provides a statistical, rather than summative, method to analyze data (Hollin). Meta-analysis involves recalculating data from different experiments into a new comprehensive statistical analysis (Hollin).

In response to the “what works” debate sparked by Martinson (1974), researchers of criminological interventions have relied heavily on meta-analysis, rather than narrative review, to argue for effectiveness of interventions. Although the main purpose of the available meta-analytic reviews is statistically proving effectiveness of interventions, a by-product is a comprehensive list of interventions used. The list of interventions and effectiveness results are included in the following literature review. For comprehensiveness, reviews or meta-analyses of juvenile studies or combination juvenile and adult studies are included. From these reviews, criminological interventions are categorized as (a) sanctions, (b) psychodynamic, (c) educational/vocational, (d) social learning, (e) cognitive/behavioral, and (f) additional interventions.

Sanctions

Although not a clinical intervention, sanctions, or forms of punishment, are the cornerstones of modern criminological interventions (Schmallegger, 2004). Schmallegger identifies the continuum of modern-day punishment (i.e., fines, probation, and incarceration) as philosophically rooted in the classical school of criminology. Martinson (1974) provided an early synthesis of punishment as an intervention. In his analysis, Martinson reviewed studies regarding the effectiveness of sentencing, including length of sentence and degree of security during incarceration. Martinson and Lipsey (1992) report on the efficacy of probation or parole versus prison and intensive versus regular probation supervision as correctional interventions. Gensheimer, Mayer, Gottschalk, and Davidson (1986) also include probation as an intervention in their meta-analysis.

Sentencing, security level, and probation are not the only sanctions used as criminological interventions. In 1990, Andrews, Zinger, Hoge, Bonta, Gendreau, and Cullen investigated sanctioning versus cautioning as an intervention, including the effect of sanctions based on high or low risk cases and more or less severe case disposition. Additionally, various authors (e.g., Andrews et al., 1990; Lipsey, 1992; MacKenzie, 2000) identify restitution or fines as a type of sanction. Finally, community sentencing, also known as community residential or half way house programs, exist not only as sanctioning programs (Lipsey 1992; McGuire & Priestly, 1995) but also as reentry programs after a term of incarceration (Seiter & Kadela, 2003).

Psychodynamic

In criminological intervention literature, interventions based on psychoanalytic theory are included in early meta-analyses (Andrews et al, 1990; Antonowicz & Ross,

1994; Garrett, 1985; Gensheimer et al, 1986; Martinson, 1974), but appear to be virtually non-existent in current literature. Martinson (1974) listed individual and group psychotherapy in community settings as an intervention. Garrett (1985) coded studies in her meta-analysis as psychodynamic if individual, group, and family counseling or therapy was based on a psychodynamic approach to behavior and attitude change. In 1990, Andrews et al. identified as ineffective interventions based on non-directive, client centered, or psychotherapeutic approaches. Antonowicz and Ross (1994) and McGuire and Priestly (1995) reviewed trends in criminological intervention meta-analyses, again dismissing psychotherapeutic models as ineffective. In their dismissal of psychotherapeutic intervention models, McGuire and Priestly (1995) include not only traditional therapy approaches, but also individual casework counseling.

Educational and Vocational

Corrections-based education, vocation, and work programs comprise an integral part of correctional interventions, mainly due to the researched effectiveness of such interventions (Wilson, Gallagher, & MacKenzie, 2000). Various authors (i.e. Andrews et al, 1990; Gensheimer et al, 1986; Lipsey, 1992; Martinson, 1974; Seiter & Kadela, 2003) include education, vocational training, and/or work experiences as criminological interventions. Wilson, Gallagher, and MacKenzie (2000) performed a meta-analysis of 33 adult educational, vocational, or work program studies conducted between 1975 and 2000. Their study provides a comprehensive and current list of education, vocational, and work programs typically offered to criminal justice system populations. Education programs described included adult basic education (ABE), general equivalency diploma (GED), and postsecondary education programs. Vocational training, correctional

work/industries, and multicomponent programs were also presented (Wilson, Gallagher, & MacKenzie, 2000).

Social Learning

In addition to education/vocational programs, social learning programs are frequently used correctional interventions (Van Voorhis, 2000). According to Van Voorhis (2000), social learning approaches often integrate tenants of behavioral therapies, but the emphasis is on modeling or providing participants a means to observe and imitate the goal behaviors of the therapy. In the available meta-analytic reviews, social learning models are also referred to as life skills training (Garrett, 1985; MacKenzie, 2000) intensive structured skills training (Andrews et al, 1990), skill oriented approaches (Lipsey, 1992), and modeling/role playing (Antonowicz & Ross, 1994; Gendreau, 1996; Gensheimer et al., 1986; Gottshalk, Davidson, Mayer, & Gensheimer, 1987; Izzo & Ross, 1990). In addition, Mayer, Gensheimer, Davidson, and Gottschalk (1986) conducted a meta-analysis of social learning treatments in the juvenile justice system, citing not only modeling as an intervention, but also behavioral approaches such as token economies, behavioral contracting, and positive reinforcement. The inclusion of behavioral treatments provides evidence of the overlap between social learning and behavioral programs. In summary, social learning programs are widely used due to efficiency, cost-effectiveness, and researched effectiveness (Van Voorhis, 2000).

Cognitive/Behavioral

Cognitive and cognitive behavioral therapies are considered one of the most successful criminological interventions available (Gendreau, 1996; Lester & Van Voorhis, 2000). Consequently, behavioral, or cognitive behavioral interventions are

reviewed more frequently than any other criminological intervention (Pearson, Lipton, Cleland, & Yee, 2002). According to Pearson, Lipton, Cleland, and Yee, one issue in identifying cognitive behavioral interventions is the lack of a clear category. The following paragraphs report interventions as concisely as possible, recognizing that various authors operationally define cognitive behavioral interventions differently.

In her early meta-analysis, Garrett (1985) included a behavioral category of interventions. In that category, she included the behavioral technique of contingency management. Contingency management, or contingency contracting, is defined as the development of a written contract under which behaviors by the client can earn specific rewards, or punishments (Pearson, Lipton, Cleland, & Yee, 2002). In addition to Garrett, Gensheimer et al. (1986), Gottshalk et al. (1987), and Pearson et al. (2002) list behavioral contracting or contingency planning as a behavioral intervention. Various authors identify other cognitive behavioral interventions such as token economies (Gendreau, 1996; Gensheimer et al., 1986; Gottshalk et al., 1987; Pearson, et al, 2002), positive reinforcement (Gensheimer et al., 1986; Gottshalk, et al, 1987), relaxation and systematic desensitization (McGuire & Priestly, 1995), Reasoning and Rehabilitation (MacKenzie, 2000), and Moral Reconciliation Therapy (MacKenzie).

In addition to mentioning specific cognitive behavioral interventions, many of the reviews and meta-analyses include a general category of behavioral or cognitive behavioral interventions (Andrews et al. 1990; Garrett, 1985; Gendreau, 1996; Izzo & Ross, 1990; Lipsey, 1995; MacKenzie, 2000; McGuire & Priestly, 1995; Pearson et al., 2002). Izzo and Ross (1990) and Lester and Van Voorhis describe the importance of Ellis' (1973) Rational Emotive Therapy (RET) in developing cognitive interventions.

Van Voorhis and Lester also include Yochelson and Samenow's (1976) cognitive restructuring as an important cognitive intervention. Regardless of specific program, Gendreau and Goggin (2000) advocate that, based on research, effective criminal justice interventions should be based on behavioral, social learning, or cognitive behavioral strategies.

Additional Interventions

In the narrative and meta-analytic reviews, some interventions were listed that merit inclusion in a review of criminological interventions, but do not fit into any of the above categories. One intervention mentioned frequently in intervention literature is the therapeutic community (TC), also known as milieu therapy (Garrett, 1985; MacKenzie, 2000; Pearson & Lipton, 1999). Pearson and Lipton (1999) define TC as "a group-based residential program with residents involved in all aspects of the group's operation, including administration and maintenance" (pp.387). Garrett (1985) lists guided group interaction/positive peer culture as another group intervention. According to Lester (2000), positive peer culture is often used as a group technique within TC's. Group counseling may also include confrontational groups like Scared Straight (Andrews et al., 1990; MacKenzie, 2000) or boot camps (MacKenzie, 2000)

In addition to group interventions, medical treatments are also used as a criminological intervention. Examples include megavitamin treatment (Garrett, 1985), plastic surgery (Martinson, 1974), castration (Martinson), medication or dietary change (McGuire & Priestly, 1995), and acupuncture (MacKenzie, 2000). Besides medical interventions, music therapy (Garrett, 1985), advocacy (Gensheimer et al., 1986), anger

and stress management programs (MacKenzie, 2000), victim awareness programs (MacKenzie), and drug courts are also noted as criminological interventions.

In summary, the 1996 National Institute of Drug Abuse (NIDA) Correctional Drug Abuse Treatment Effectiveness (CDATE) project identified 2,176 published and unpublished reports on criminological interventions published between January 1, 1968 and December 31, 1996 (Pearson et al., 2002). In the past 20 years, this enormous amount of research has been effectively synthesized and summarized using meta-analysis. Losel (1995) recognizes a limitation of these analyses as failure to provide content features of programs. Instead, programs are presented categorically. However, covering these categories provides a comprehensive view of criminological interventions, if not specific programs, per se. What was not discovered either categorically or specifically was any current published work on emotional intelligence (EI) training as a criminological intervention. However, several studies (Bora, 2003; Smith, 2000) suggest exploration of EI in this manner.

Emotional Intelligence

The term emotional intelligence was coined in the late 1980's (Mayer & Salovey, 1990; Payne 1985). In 1995, Goleman published a book entitled *Emotional Intelligence* that popularized the construct of an emotional intelligence (EI). Although the terminology is recent, concepts related to EI have been researched for decades (Goleman, 1995; Mayer, 1999; Bar-On, 2002). The following sections provide an historical overview of the EI construct, available models of EI development and training, and research relating emotion and EI to criminal behavior.

Historical Overview of EI

Gardner (1983) recognizes the work of Franz Joseph Gall in the late 18th century as possibly planting the first seeds for exploration of emotional intelligence. Franz Joseph Gall is known as the founder of phrenology, the study of skull dimensions in order to develop a person's mental profile (Gardner, 1983; Schmallegger, 2004). Although such work seems an unlikely precursor to EI, Gall did not believe in the existence of general mental powers, such as perception, memory, and attention. Instead, he suggested that different forms of these powers exist for each of several intellectual faculties, such as language, music, or vision (Gardner). Scientists such as Pierre Flourens and Pierre-Paul Broca challenged Gall's theories through brain surgery and lesion research, proving support for localization of brain function (Gardner).

As the effort to establish psychology as a science began to take hold in the late 1880's, philosophy was more of an influence than the early physicians (Gardner, 1983). This influence gave way to the intelligence testing movement. British mathematician, Sir Francis Galton, developed statistical methods to rank humans by physical and intellectual powers and correlate the measures with one another (Gardner). In 1904, Frenchmen Alfred Binet and Theodore Simon developed the first intelligence tests to assess the school readiness of Parisian children (Gardner, 1983; Hodges, 2003). Gardner (1983) describes the ensuing excitement in the scientific community as a result of the intelligence testing movement. Other intelligence tests were developed and used widely for purposes such as evaluating people for school, military, and industrial organization placement (Gardner, 1983; Mayer, 2001). During this time, intelligence was viewed as the ability to abstractly reason and act on this reasoning (Mayer, 2001). Kaufman (2000)

identifies intelligence tests currently being used as the Wechsler (WAIS-III), Woodcock Johnson (WJ-R), and the Kaufman Adolescent and Adult Intelligence Test (KAIT).

Occurring simultaneously, but separately, was the development of the modern study of emotions by such scientists as Darwin (Mayer, 2001). Despite this division between studies of intelligence and emotion, another precursor to the EI construct can be traced back to David Wechsler (1943) and his idea of nonintellective aspects of general intelligence. Wechsler defined nonintellective as affective and cognitive and believed that no measure of total intelligence would be complete without including these other facets. Contemporaries of Wechsler also contributed to preliminary EI study. Thorndike (1920) further suggested that social intelligence was a part of IQ. Additionally, Leeper (1948) proposed that emotional thought was related to logical thought and intelligence in general. However, by the 1960's, these concepts were largely dismissed by IQ theorists (Goleman, 1995).

One of the great debates related to intelligence testing is whether intelligence is a single general factor or a small set of independent primary mental faculties (Pfeiffer, 2001). The former theory is based on the work of British educational psychologist Charles Spearman and constitutes the majority of intelligence theories (Gardner, 1983; Pfeiffer, 2001). The latter theory is credited to the American psychometrician L. L. Thurstone (Gardner, 1983) and is being adopted by a growing number of intelligence researchers (Pfeiffer, 2001). Criticisms of the single general factor of intelligence and intelligence testing cite failure of tests to predict work or life success and racial bias of testing instruments (Fischer, Hout, Jankowski, Lucas, Swidler, & Voss, 1996; Goleman, 1995).

In the 1970's and 1980's, new research integrated intelligence and emotion into the domains of cognition and affect, exploring the association between thoughts and emotions (Mayer, 2001). Harvard University's Howard Gardner played a key role in this movement (Mayer). Gardner's theory of multiple intelligences is credited as the foundation of the study of emotional intelligence (Bar-On, 2002). Gardner posited seven intelligences: (a) linguistic, (b) musical, (c) logical-mathematical, (d) spatial, (e) body-kinesthetic, (f) intrapersonal, and (g) interpersonal. Gardner defines intrapersonal intelligence simply as "access to one's own feeling life" (pp. 239) and interpersonal intelligence as "the ability to notice and make distinctions among other individuals" (pp. 239). It is intrapersonal and interpersonal intelligences that are closely related to current emotional intelligence theories.

Mayer and Salovey (1990) are often credited with coining the term emotional intelligence. However, Matthews, Zeidner, and Roberts (2002) identify a German article entitled *Emotional Intelligence and Emancipation* written by Leuner in 1966 as the first formal mention of the term. Additionally, Payne (1986) uses the term emotional intelligence in an unpublished doctoral dissertation. Regardless of exact origin, the concept of an emotional intelligence became recognized as a new field of inquiry at this time (Mayer, 2001). Unequivocally, it was Goleman's (1995, 1998) work that propelled emotional intelligence into the public eye.

Goleman's original work in 1995 is considered an introduction of the construct of emotional intelligence (EI) to the general public, not a scholarly work (Matthews et al., 2002; Mayer, et al., 2000). However, Matthews et al. (2002) ascribe importance to Goleman's work, viewing him as a catalyst in the generation of ideas about EI.

Goleman's conceptualization of EI has been criticized for several reasons. First, his definition is viewed as overly expansive and lacking in uniformity (Matthews et al., 2002). In his 1995 work, Goleman defines emotional intelligence as personal attributes including self-control, zeal and persistence, self-motivation, emotional impulse control, and the ability to read other's feelings and handle relationships smoothly (Goleman, 1995). Later in the same work, Goleman includes emotional skills of "self-awareness, identifying, expressing, and managing feelings, impulse control and delaying gratification, and handling stress and anxiety" (pp. 259). Because of the assortment of attributes included in Goleman's conceptualization of EI, Matthews et al. report that aspects of cognition, personality, motivation, emotions, neurobiology and intelligence are represented. Other criticisms include failure of Goleman's EI traits to positively correlate with one another, challenging the underlying assumption of one EI construct (Matthews, et al., 2002). Finally, Goleman has made strong claims regarding the importance of EI for life success, but offered little empirical support (Matthews, et al., 2002).

At approximately the same time as Goleman, Mayer, Salovey, and colleagues began publishing scientific articles about emotional intelligence in peer-reviewed journals (Matthews et al, 2002; Mayer & Salovey, 1990). Additionally, Bar-On began his work on a related construct, emotional quotient, although much of his work is unpublished (Bar-On, 2000; Matthews et al., 2002). The work of these researchers will be more closely examined within the framework of the models of emotional intelligence derived from their studies and resulting publications.

Prior to examining available models of emotional intelligence, various controversies related to the study of emotional intelligence are worth noting. Although

the idea of EI is popular, the infancy of the field results in limited scientific investigation of the EI construct (Matthews, et al., 2002). Additionally, a universal definition of EI does not exist (Bar-On, 2002). It also remains uncertain whether EI is an independent construct, or a repackaged combination of personality, intelligence, or applied psychological research (Matthews, et al.). Debate continues over viewing EI as a pure ability model versus a model mixed with personality traits and dispositions. Further debate involves measurement of the construct through self-report versus performance based measures (Palmer, Manocha, Gignac, & Stough, 2003), as well as lack of a suitably reliable and valid assessment instrument for EI (Pfeiffer, 2001).

Models of Emotional Intelligence

Recent EI research has progressed along two distinct paths, mixed models of ability/social competence and pure ability models (Cobb & Mayer, 2000). Because of the explosion of EI writings and research, other models and instruments of EI exist, but only the work of Bar-On and Mayer, Salovey, and colleagues is included, as these are the most prolific models available. The work of Bar-On (1997, 2000) and the earlier referenced work of Goleman (1995, 1998) reflect mixed models, whereas the work of Mayer, Salovey, and colleagues (2000) reflect an ability model. The following section offers descriptions of both models, including definitions, measures, and strengths and weaknesses.

Mixed Models of Emotional Intelligence.

Bar-On's (2000, 2002) emotional quotient model of EI is similar to Goleman's model in that it mixes emotion-related competencies, personality traits, and dispositions, hence the "mixed model" label (Palmer, Manocha, Gignac, & Stough, 2003). However,

Bar-On's work is considered scholarly rather than journalistic (Matthews, et al., 2002). Bar-On (2002) broadly defines his model of EI as addressing the emotional, personal, social, and survival dimensions of intelligence, which are often more important for daily functioning than the more traditional cognitive aspects of intelligence (Bar-On, 2002). As a further explanation, Bar-On (2000) reports that his model is based on the wider area of study known as emotional and social intelligence. He believed that applying his instrument, the Bar-On Emotional Quotient Inventory (EQ-i), in various settings would provide more information about emotionally and socially competent behavior and in turn about the underlying construct of emotional and social intelligence. Bar-On stresses that the EQ-i was developed to measure emotional and social intelligence, not personality traits or cognitive capacity (Bar-On, 2000). In addition, Bar-On (2002) considers his model multifaceted and relating to potential for performance, rather than performance itself, and process-oriented rather than outcome oriented.

The majority of Bar-On's work involves validating the EQ-i, the first commercially available operational index for the assessment of EI (Matthews, et al, 2002). The operational definition of EI for the Bar-On EQ-i (2002) is "an array of non-cognitive capabilities, competencies and skills that influence one's ability to succeed in coping with environmental demands and pressures" (pp. 14). The Bar-On EQ-i is a self-report instrument assessing total EQ and five broad composites of EI: (a) intrapersonal, (b) interpersonal, (c) adaptability, (d) stress management, and (e) general mood. Each composite is further divided into subscales. The intrapersonal composite includes emotional self-awareness, assertiveness, self-regard, self-actualization, and independence. The interpersonal composite includes interpersonal relationships, social

responsibility, and empathy. The adaptability composite includes problem solving, reality testing, and flexibility. The stress management composite includes stress tolerance and impulse control. The general mood composite includes happiness and optimism, although recent writings (i.e. Bar-On, 2000) describe the general mood composite as more of a facilitator of EI than a true composite. The EQ-i is considered a measure of self-reported behaviors, rather than an ability assessment of EI (Caruso, 2000). Interestingly, Bar-On (2002) cites a case study regarding validity of the Bar-On EQ-i when examining prisoners under consideration for parole. Bar-On contends that prisoners with higher scores have a better chance of not returning to prison.

Although commended for its thoroughness and use of large, diverse samples in test development and validation, the Bar-On EQ-i and Bar-On's model of EI have also been criticized (Mayer et al., 2000; Matthews et al., 2002). Despite Bar-On's claim that the EQ-i does not measure personality, many components overlap with established personality questionnaires such as the California Psychological Inventory (CPI) and the Five Factor Model of personality (Matthews, et al.). Additionally, research on the factor structure of the Bar-On EQ-i conducted by Palmer et al. (2003) failed to support the dimensional structure of the EQ-i that closely match the theoretical model of social and emotional intelligence.

Ability Models of Emotional Intelligence.

The work of Mayer, Salovey, and colleagues (often including Caruso) has been most influential in the scientific genesis of the EI construct (Matthews, et al., 2002). Salovey and Mayer (1990) are credited with the first English, peer-reviewed account of emotional intelligence and have continued to be the most widely published authors on the

subject (Matthews, et al.). Mayer, Salovey, and Caruso (2000) use the term emotional intelligence in a manner that “stresses the concept of an intelligence that processes and benefits from emotions” (pp. 105). These researchers further view EI as composed of “mental abilities, skills, or capacities” that may be “operationalized and measured as distinct from previously described intelligences” (pp.105). Mayer et al. (2000) further describe EI as operating across both the cognitive and emotional systems in a mostly unitary fashion subdivisible into four branches including abilities to (a) perceive emotions, (b) access and generate emotions so as to assist thought, (c) understand emotions and emotional knowledge, and (d) reflectively regulate emotions so as to promote emotional and intellectual growth. In summary, the Mayer, Salovey, Caruso model of EI emphasizes that EI exists and qualifies as a standard intelligence (Cobb & Mayer, 2000). This model does not make claims that EI predicts success in other areas of life (Cobb & Mayer, 2000).

As with Bar-On’s model, measures of EI exist that are based on the Mayer, Salovey, and Caruso model, the Mayer, Salovey, and Caruso Emotional Intelligence Test (MSCEIT) and the Multifactor Emotional Intelligence Scale (MEIS). The MEIS was originally developed in the mid 1990’s as an ability measure of EI (Mayer, Caruso, & Salovey, 2000). The MEIS was basically revised into the MSCEIT in 1999 (Matthews, et al., 2002). The MSCEIT yields an overall EI score and subscales scores for perception, facilitation, understanding, and management. Rather than a self-report of behaviors, the MEIS and MCEIT contain stimuli such as pictures of faces, passages of music, abstract designs, short stories/vignettes, and clusters of trait terms (Matthew et al).

A benefit of the MEIS and subsequent MSCEIT is that they allow for multivariate, empirical studies to ascertain whether the ability conceptualization of EI is scientifically defensible (Matthews, et al). Also, the instruments are reliable, correlate well with other ability measures, find adults scoring higher than adolescents as in traditional intelligence tests, and present some data demonstrating predictive validity (Matthews et al.). Conversely, measurement properties for the instruments remain questionable as well as the relationship between this model and other models of intelligence and emotional functioning (Matthews, et al.)

Practical Applications of Emotional Intelligence

The popularity of EI coupled with the promise of real world relevance has resulted in the application of EI in educational and occupational settings (Bar-On & Parker, 2000; Matthews et al., 2002). Matthews et al. identify the lack of studies researching successful EI intervention programs as a criticism of the rush toward EI application. The final section of this review provides a brief overview of existing literature on EI application in education and workplace settings. However, a more detailed focus is given to criminal justice applications of EI.

Educational Applications of EI

Authors have noted the increasing interest in emotional and social development of students within the school system as concerns about student emotional development grow due to behavioral problems and a perceived loss of value and self-control (Cobb & Mayer, 2000; Goleman, 1995; Graczyk et al., 2000, Matthews et al., 2002). In addition, social and emotional learning programs, also called character education, are commonly believed amenable to remediation in a school setting (Mayer & Geher, 1996). For these

reasons, a wide array of social and emotional learning programs have been developed. In a summary of intervention programs by Topping, Holmes, and Bremner (2000), the authors discovered 700 items referencing EI school intervention programs. Programs were categorized as behavior analysis and modification, counseling and therapeutic, social skills training, peer mediated, cognitive and self-managed, multiple, and miscellaneous (Topping et al., 2000). However, as the Topping et al. study discovered, the categorization of program content was unclear and often overlapping and evaluation evidence of program success is limited.

Despite the belief that EI is an important educational concept, very little research has been done to support such claims. Additionally, available research shows mixed results in the relationship between EI and academic success. In the technical manual for the EQ-i, Bar-On (2002) reports two unpublished studies related to EI and academic success. One study of 1000 US military academy students showed students who self-reported academic success scored higher on the EQ-i, but no data was presented for actual academic success. The second study, a 1996 unpublished thesis by Swart (as cited in Bar-On, 2002), categorized 448 South African students as academically successful or unsuccessful as measured by GPA. After administering the EQ-i, results indicated that academically successful students had higher Total EQ scores.

In contrast to the above studies, Newsome, Day and Catano (2000) tested 180 introductory psychology students with the EQ-i (Bar-On, 2002). After examining year-end GPA, no significant correlation was found between EI and GPA. In 2003, O'Connor and Little conducted a similar study to Newsome et al. finding more hopeful results. O'Connor and Little (2003) tested 90 introductory psychology students with the EQ-i

(Bar-On, 2002), the MSCEIT (Mayer, Salovey, & Caruso, 2002), a personality measure, and a cognitive ability measure. After examining current and cumulative GPA scores, these researchers found weak correlations between EI and GPA. Also in 2003, Barchard conducted a study of 150 upper division undergraduate student using a cognitive measure, personality measures, and various EI measures and scales. After examining year-end grades, Barchard found that some measures of EI could predict academic success, but not if relevant cognitive and personality characteristics are taken into account.

Finally, in two recent studies (Parker, Creque, Barhart, Harris, Majeski, Wood, Bond, & Hogan, 2004a; Parker, Summerfeldt, Hogan & Majeski, 2004b), EI was found to be more strongly associated with academic success. In the Parker et al. (2004a) study, the EQ-i (Bar-On, 2002) Youth Version was administered to 667 high school students. After examining end of the year academic records, academic success was strongly associated with dimensions of EI such as Interpersonal Composite, Adaptability Composite, and Stress Management Composite. Parker et al. (2004b) administered the EQ-i Short Version to 372 first year full time university students. After examining end of the year academic records, results again showed a strong association with dimensions of EI such as Intrapersonal Composite, Adaptability Composite, and Stress Management Composite. Given these mixed results and the infancy of research on EI and academic success, more research is indicated to determine the applicability and efficacy of EI interventions in the school setting.

Occupational Applications of EI

As with EI and education, volumes have been written about EI in the workplace, but empirical support for the application is scarce. Many authors have claimed that EI is essential to workplace success (Cooper & Sawaf, 1997; Goleman, 1999; Weisinger, 1998), particularly for leaders and managers (Dearborn, 2002; Goleman, Boyatzis, & McKee, 2002; Riggio, 2002). Goleman (1999) listed 25 emotional competencies for the workplace, including categories of personal and social competence. Use of EI competencies has become commonplace for career placement and selection purposes in many areas of the Western world (Matthews, et al., 2002). Matthews et al. summarizes the current research on necessary workplace skills stating that general intelligence is the single, strongest predictor of objective performance, but that EI qualities such as personal reliability, integrity and the ability to work with others are also important.

In the EQ-i technical manual, Bar-On (2002) reports several unpublished studies as support for EI and workplace issues. One such study involved employees coping abilities when faced with occupational stress. The study involved 862 adults who completed the EQ-i (Bar-On, 2002) and a coping measure. A moderate positive correlation (.453) was found between emotional intelligence and task oriented coping styles and a moderate negative correlation (-.335) was associated with emotional intelligence and emotion oriented coping styles, a conclusion that Bar-On (2002) considers support for literature on workplace coping.

Bar-On (2002) reports several additional studies relating to EI in the workplace. His findings after surveying groups of professional in the United States and Canada suggest correlations with EI to job performance and EI to work satisfaction. In a criterion

group validity study, Bar-On (2002) tested two groups, a Young President's Organization (YPO) and a sample of chronically unemployed using the EQ-i. He reported higher average scores for members of the YPO and lower average scores for the chronically unemployed. However, all these studies must be viewed with caution. As unpublished studies, no peer review process was employed and all studies were presented in the context of development or reliability and validity testing for the EQ-i.

As presented in a 2001 paper, Janovics and Christiansen (as cited in Matthews et al., 2002) tested 176 employed undergraduate students with three measures of EI. Findings indicated no practical value in predicting workplace performance with two EI measures and modest correlations with the third. In a 2004 study, Donaldson-Feilder and Bond studied EI in 290 participants across five business organizations in England. These researchers measured EI, job satisfaction, physical well-being, and general mental health. EI was not found to significantly predict any other measures. In contrast, Law, Wong, and Song (2004) analyzed 165 data sets that included a measure of EI and supervisor, peer, and self ratings for job performance. EI was found to be a good predictor of job performance, after controlling for personality dimensions.

Although much has been written about EI and the workplace, research in this area, as with schools, is limited and results are mixed. According to Matthews et al. (2002), much of the available research is unpublished, lacking in sound methodology, based on case studies and anecdotal accounts, and conducted within companies, rather than by independent researchers. The existing research, again like EI and schools, shows mixed results. However, as this is a relatively new construct and some positive results are indicated, research will undoubtedly continue in this area.

Emotional Intelligence, Deviance, and Criminality

Another area where the construct of EI is beginning to receive attention is in regard to deviance and criminality (Matthews et al., 2002). However, as with schools and the workplace, little research has been conducted in support of such a relationship. Existing research linking EI to deviance or criminality comes primarily in the form of unpublished work and doctoral dissertations. The final section of this chapter summarizes studies relating EI to deviancy or criminality. The studies are presented in chronological order and for thoroughness include studies of both adolescents and adults.

Emotional Intelligence and Deviance

In 2004, Roy investigated the concept of emotional intelligence in relation to the presence of antisocial behavior in adolescents. In this research, Roy utilized the Adolescent Multifactor Emotional Intelligence Scale (AMEIS) as the measure of EI. The sample consisted of 50 high school students, ages 14-18, from a rural upstate New York high school. The 25 participants in the experimental group were identified as chronically aggressive, or involved in two or more school disciplinary actions of expulsion or suspension. Disciplinary actions were in response to assault, theft, physical or drug abuse, destruction of property, or sexual aggression. The 25 members of the control group attended the same high school and were not considered chronically aggressive due to lack of disciplinary actions against them.

Roy hypothesized that there would be no significant difference in AMEIS scores between the experimental and control groups. This hypothesis was accepted as the findings showed no significant difference in AMEIS scores for the two groups. Although this study found no difference in AMEIS scores between the experimental and control

groups, Roy noted several limitations that severely restricted the study. Limitations included small sample size, inability to match populations, and subjective operationalization of chronic aggressiveness.

In 2003, Lance also studied the relationship between emotional intelligence and deviant behavior. In this research, Lance tested EI using the Tapia's Emotional Intelligence Inventory (TII). The EII was developed by Tapia and Burry-Stock in 1998 and based on the Mayer, Salovey, and Caruso model of EI. However, the measure also incorporates part of the Emotional Intelligence Inventory (EII) designed by Acker, Baggett, Davis, Kuhajda, Weaver-Stern, Sutarso, and Tapia (1996). The EII integrates premises of both Bar-On (2000) and Goleman (1995) and measures four areas of EI including: (a) perception, appraisal, and expression of emotion, (b) emotional facilitation of thinking, (c) understanding and analyzing emotions, employing emotional knowledge, and (d) reflective regulation of emotions.

The sample in this research included 152 high school students, ages 14-18, from a public high school and junior high, as well as an alternative high school in a small, northern Utah city. In addition to the TII, participants were administered Vazsonyi's Normative Deviance Scale (NDS). After administration of the instruments, data were analyzed for a relationship between EI and juvenile delinquency as measured by the EII and NDS. Analyses were conducted for Total EI as well as the four subscales of the EII including: (a) empathy, (b) handling relationships, (c) utilization of feelings, and (d) self-control.

Findings did not indicate a statistically significant relationship between EI and deviancy as measured by the Total EI and subscale scores. Although statistical

significance was not found, several relationships were noteworthy. Small negative relationships between Total EI and deviancy, Handling Relationships and deviancy, and Self-Control and deviancy were found, suggesting as EI increases, deviancy decreases. Interestingly, a small positive relationship was found between Utilization of Feelings and deviancy, suggesting as the ability to understand emotions increases, deviancy increases. Again, in this study, limitations were numerous. Convenience sampling, selection threats, low participation, use of resource students to read and interpret test questions, and lack of instrument validity are all concerns.

In one of the few published studies related EI and deviance, Mortuary, Stough, Tidmarsh, Eger, and Dennison (2001) examined emotional intelligence in adjudicated adolescent sex offenders in Australia. Participants were administered four measures including The Trait Meta Mood Scale (TMMS), The Toronto Alexithymia Scale (TAS), the Inventory of Interpersonal Problems (IIP-32), and the Interpersonal Reactivity Index (IRI). The sample included 64 participants, 15 in the experimental group and 49 in the control group. All participants were 14-17 year old males. Participants in the experimental group were court ordered to attend the Male Adolescent Programme for Positive Sexuality (MAPPS) for crimes including rape, aggravated rape, attempted rape, sexual penetration of another individual under 17 years, indecent assault, attempted indecent assault, and gross indecency. Control group participants were recruited from a nearby secondary school.

Findings were reported after data analysis of the four measures. No significant differences were discovered between the experimental and control groups on any scales from the TAS and IRI. On the TMMS, the experimental group scored significantly higher

than the control group on the attention to feelings factor. On the IIP-32, the experimental group scored significantly higher than the control group on the too aggressive scale. Limitations included small sample size and variability among groups. However, it is interesting to note that in contrast to the Roy (2004) and Lance (2003) studies, significance differences were found between the participant and control groups in this study. Of particular interest is that this study utilized adjudicated delinquents, as opposed to identifying delinquents through school record or self-report.

Emotional Intelligence and Criminality

In 2004, Hodges examined emotional intelligence of adults incarcerated in Florida. Hodges used the Mayer, Salovey, and Caruso Emotional Intelligence Test (MSCEIT) in order to test EI and collected various demographic factors for further analysis of EI in regard to these factors. From a random sample of 1,000 inmates, plus 241 special education inmates, analyses were based on a final sample of 287, including 198 men and 89 women.

Hodges hypothesized that there would be no significant difference in EI and special education identification, type of crime (i.e., violent or nonviolent), academic functioning (based on scores on the Test of Adult Basic Education [TABE]), and number of disciplinary reports. Of these hypotheses, significant correlations were discovered only for EI and academic functioning. The significance with academic functioning and EI may have been impacted by the choice of EI instrument. The MSCEIT is an ability measure of EI and participants would need some academic skill to take the test. Inmates may also have experienced vocabulary limitations, even though test questions were read to participants. Hodges reports research identifying poor academic functioning as typical in

inmate populations, so the resulting correlations are not surprising in light of the lower academic functioning and possible impairment to taking the test.

Additional hypotheses stated that there would be no significant difference between EI and the demographic variables including: (a) age, (b) age at initial incarceration, (c) ethnicity (i.e., African-American or White), (d) gender, and (e) number of incarcerations. In regard to the demographic variables, only ethnicity proved significantly correlated with EI. In regard to ethnicity, African-Americans scored lower than whites, but were nominally represented in the sample, potentially affecting scores. Additionally, according to Hodges, African-Americans enter the prison system in Florida with lower TABE scores than Whites, indicating significant differences may be related to academic functioning, rather than ethnicity. Moreover, Hodges suggests further research in the area of cultural perceptions and emotional intelligence, before any conclusions are made regarding the demographic variable of ethnicity.

In addition to the above findings, descriptive data also yielded notable results. The mean EI score for the inmate population in this study was 82.59. As the MSCEIT has a normed standard mean of 100 and a standard deviation of 15, the participants in this study were slightly more than one standard deviation from the mean of 100. For the participants in special education, the mean EI score was even lower at 74.07. Although the scores were not statistically significant between the groups, both means were below the normed mean of 100.

Hodges mentions two limitations of her study as potential manipulation of responses by offenders and poor academic skills of offender populations. In this study, of significance are the mean EI score and the location of the study. EI scores for participants

were more than one standard deviation below normed mean scores for the instrument, and suggest the need for further research on EI of known offenders. The utilization of an incarcerated population for the research may yield more reliable results than EI testing where criminality (or deviance) is self-reported or operationalized in a manner other than court adjudication.

In 2003, Bora explored EI and self-reported deviance in adults utilizing secondary data analysis of data collected by Gibbs and Geiver (2002). Emotional intelligence was measured using the Mayer, Salovey, Caruso Emotional Intelligence Test (MSCEIT). Deviance was measured using a questionnaire to determine frequency of alcohol use, class cutting, smoking, theft, damage to others' property, and drug use. The sample in this research consisted of 248 undergraduate students in social science liberal studies courses.

Bora questioned what aspects of EI would be most highly associated with deviance. Using the MSCEIT, four branches of EI were examined including: (a) emotional perception, (b) emotional facilitation, (c) emotional understanding, and (d) emotional management. Emotional management was the only branch ability with a statistically significant, although modest, effect on deviance. However, the effect of the overall EI model reached statistical significance. Bora further examined the impact of the four branches with GPA and gender as control variables. Statistical significance was not reached once the effects of gender and GPA were taken into account.

Bora notes limitations of the study as substantial measurement error of both the independent and dependent variables exist. But, it is important that the overall impact of the models tested was statistically significant, determining that EI does play a moderate

role in deviance. Bora also includes EI training as a policy implication of research findings in this area.

In his study, Bora (2003) also conducted a qualitative analysis of EI by discerning common themes between the EI construct and theoretical literature in criminology. He discovered direct connections between emotions or emotional intelligence in social process, control, and strain theories of criminality. Bora concluded that emotional intelligence can play a part in criminological theory and could demonstrate a significant contribution to criminology by enhancing current understanding of deviancy through further research.

In 2002, Gibbs and Geiver studied the association between EI and deviant behavior. These researchers administered the Mayer, Salovey, Caruso Emotional Intelligence Test (MSCEIT), a self-reported deviancy scale, and a demographic questionnaire to 248 university students. A path analysis was conducted on the variables of deviance, EI, gender, and grade point average (GPA). The path coefficients showed that EI has a statistically significant, negative influence on deviance when controlling for school performance and gender. Limitations of the study include small sample size and lack of a representative sample.

Smith (2001) conducted an exploratory study of EI and adult parolees. The Bar-On EQ-i was used as the testing instrument. In addition to the EQ-i, demographic data of (a) gender, (b) age, (c) ethnicity, (d) education, (e) marital status, (f) raised by, (g) separated from parents, (h) death of parents, (i) sexual abuse, and (j) physical abuse were collected. The sample included 56 parolees, 46 males and 10 females, from the caseload of one parole officer in a midwestern city.

Smith (2001) hypothesized that people engaged in criminal behavior would have a low level of emotional intelligence when compared to the norms. After the data was collected from participants, results were reported via the Group Report for the Bar-On EQ-i and a correlation analysis was conducted for demographic variables. The Bar-On EQ-i has a normed standard mean of 100. A score of 100 represents average emotional functioning, with scores below 100 representing below average and scores above 100 representing above average.

Smith (2001) found that as a group, participants scored lower than the norms for Total EQ, Intrapersonal Composite, and Interpersonal Composite. Males scored lower than the norms for Total EQ and the Interpersonal Composite. Females did not score lower than the norms on any scale. Whites did not score lower than the norms on any scale. Blacks scored lower than the norms for Total EQ, Intrapersonal Composite, and Interpersonal Composite.

In regard to demographics in Smith's (2001) study, each factor was also correlated for Total EQ, Intrapersonal Composite, and Interpersonal Composite. For gender, a significant correlation was found for males and females on the Interpersonal Composite, with females scoring higher than males. For ethnicity, a significant correlation was found for all three scales, with blacks reporting lower scores than whites. For education, a significant correlation was found for the Intrapersonal Composite, with higher levels of education resulting in higher scores. For death of parent, a significant correlation was found for the Interpersonal Composite, with those losing a parent scoring lower. For sexual abuse, a significant correlation was found for the Intrapersonal

Composite, with those abused scoring lower. No other demographic variables were found to be associated with EI scales at a significant level.

Limitations of Smith's (2001) study included lack of randomness, small sample size, lack of consistency of responses, and use of a self-report instrument. Like the Hodges (2004) study, of significance are the mean EI score and the location of the study. Smith found generally lower EI mean scores, suggesting the need for further research on lower EI of known offenders. Like Hodges, Smith also found a significant correlation between EI and ethnicity, suggesting the need for further research in regard to emotional intelligence and ethnicity or cultural perceptions. Again, this study was conducted with adults who were already involved with the criminal justice system and use of such a population may yield more reliable results than other methods of classifying criminality or deviance. Smith also recognizes the potential for EI training with offender populations.

Summary

This review of the literature presented research to support the significance of the study as well as the research questions of the study. This chapter provided a history of criminological interventions and a categorization of interventions used with offenders. After providing this context, development of the EI construct was outlined, including models and measures of EI development. EI in educational and occupational settings was discussed and research presented regarding theory and application of EI in these areas. The chapter concludes with a review of literature relevant to EI, deviance, and criminality and reflects the infancy of such research. Of the studies presented, all were conducted within the last five years, most were unpublished, and most were doctoral dissertations.

For both adolescents and adults, results appear to be stronger with studies including participants that were adjudicated, incarcerated, or on parole at the time of the study in contrast to those who self-reported deviance or were not involved with the criminal justice system. Several demographic variables were found to correlate with EI, particularly ethnicity, with correlation occurring in two studies. However, study limitations impede conclusions based on these correlations, but imply the need for further investigation of EI and ethnicity.

In addition to quantitative analyses, one study conducted a qualitative study of EI and its connections to criminological theories. Direct connections were discovered between emotions or emotional intelligence in social process, control, and strain theories of criminality. The reviewed studies do not include any research on EI interventions with deviants or adults involved in the criminal justice system setting, although a few of the studies recommend such investigations.

CHAPTER III

METHODS

Research Methods and Procedures

As previously stated, the purpose of this study was to investigate the effect of emotional intelligence (EI) training on emotional intelligence scores for adult male inmates participating in a pre-release vocational training program in two medium security Mid-Atlantic state correctional facilities. Permission to use existing data was granted by the contracted provider of the vocational training program (see Appendix A) in order to address the purpose of the study and the research questions outlined in Chapter I. This chapter describes the research sample, instruments, procedures, hypotheses, and data analysis methods used to collect and analyze the existing data set.

Sample

The target population for this research consisted of adult male general population inmates incarcerated in state correctional institutions in Mid-Atlantic States who were eligible for pre-release programming. The current research involved an existing sample of 65 participants drawn from an established pre-release program. All participants were adult male general population inmates at two medium security state correctional institutions in a Mid-Atlantic state. The existing data included participants who were divided into experimental and control groups, with 31 total participants in the experimental group and 34 total participants in the control group. The experimental group participants resided at one institution and the control group participants resided at another institution. All participants were screened for the pre-release vocational training program by Department of Corrections (DOC) staff using the criteria outlined in Appendix B.

Sampling Issues

In sampling, selection refers to the manner in which the group of people for a study is drawn from the study population (Trochim, 2000). In this study, the existing data was from participants selected by volunteering. Volunteers were aware that a research study was being conducted. Selection was volunteer rather than random because eligible inmates requested the pre-release vocational training program or were approached by DOC staff and asked to volunteer for the program. After volunteering, all inmates successfully completed the DOC screening process to participate in the program. In the field of counseling, volunteers often serve as research subjects (LaFountain & Bartos, 2002). The benefit of using volunteers is that they are accessible to the researcher in instances where it is not possible or probable to use random sampling (LaFountain & Bartos, 2002). However, the use of a volunteer sample increases the possibility of selection bias, particularly in prison-based populations due to potential differences in motivation and commitment levels for volunteer samples (Wilson, Gallagher, & MacKenzie, 2000).

Another issue related to sampling is the assignment of selected participants to the different groups or treatments (Trochim, 2000). For the purposes of this research, convenience guided assignment. Randomness could not occur as inmates entered the vocational training program in their institution of residence. Inmates were not transferred between institutions for program participation. The benefit of convenience in any area of sampling is the ease of access to the participants (Urban, 2001). However, convenience assignment is a nonrandom procedure, limiting the application of any finding to the population of interest (van Belle, 2002).

All inmates who met the DOC criteria at the identified sites were offered the opportunity to participate in the vocational training program. The existing data for the 31 participants in the experimental group site included all participants entering the pre-release vocational training program after September 15, 2002. These participants received the emotional intelligence training in conjunction with vocational training. The existing data for the 34 participants in the control group included all participants entering the pre-release vocational training program after April 1, 2003.

Program Procedures

After participants were selected and screened for the program, the DOC counselor passed his demographic information to the Reentry Counselor, the contact at the vocational training program. The Reentry Counselor met with each participant and asked him to sign a consent form to participate in the program, observing all DOC requirements for involvement in research. After signing the consent to participate, The Reentry counselor administered a pretest, the Bar-On-EQ-i (Bar-On, 2002), and entered the results into the Bar-On-EQ-i computer software. Scoring occurred electronically, generating a Developmental Report (Bar-On, 2002). The Developmental Report provided a Total EQ Scale score as well as five Composite Scale scores: (a) intrapersonal, (b) interpersonal, (c) stress management, (d) adaptability, and (e) general mood. The report included an in-depth interpretation of the scores, individual strengths and weaknesses, and suggested actions to improve the emotionally intelligent behaviors of the participant.

After scoring the pretest, the Reentry Counselor conducted a biopsychosocial assessment for each participant. The pretest and assessment process resulted in each participant setting three individual counseling goals. In order to address these goals,

participants attended weekly individual counseling and weekly psychoeducational group counseling for six months. Post-testing with the Bar-On-EQ-i (Bar-On, 2002) was conducted at the end of the six-month program. The control group received the pretest and posttest only.

Emotional Intelligence Training Program

The emotional intelligence training program provided to the experimental group in this study was ESCAPe, The Emotionally Secure Community Adaptation Program. ESCAPe involved a six-month emotional intelligence training program, offered to participants in addition to vocational training instruction in the building trades. ESCAPe was a pilot program designed to address the principles of correctional intervention (Gendreau & Goggin, 2000) and guidelines for emotional competence training (Goleman, 1998). See Appendix C for a more detailed description of ESCAPe. After testing and assessment, participants in ESCAPe received individual and group counseling. Individual sessions occurred at least once weekly for 50 minutes, focusing on the three identified goals. Individual counseling allowed for customization in addressing participant emotional intelligence deficits as identified by the pretest instrument. Psychoeducational group counseling occurred 90 minutes weekly for a 24-week period. The curriculum for group counseling was standardized for all participants. See Appendix D for the group topic outline. Group counseling provided a teaching opportunity for the constructs of emotional intelligence (i.e., intrapersonal awareness, interpersonal awareness, stress management, adaptability, and general mood). In addition, group participation provided an opportunity to model and role play these constructs. ESCAPe lasted for two years with service being provided to a total of 31 participants in the experimental group.

Qualifications of the Reentry Counselor

The qualifications of the Reentry Counselor for this research project included a Bachelor's degree in criminal justice and near completion of the requirements for a 60 credit Master of Science in Education degree with a specialization in community counseling. The Reentry Counselor had completed all coursework, using her work on the research project to fulfill the 600 hour internship requirement for the degree. The Reentry Counselor received additional training on issues such as personal safety, security procedures, key control, professionalism and ethics for correctional settings, goal setting/treatment plan writing, and administration of the Bar-On EQ-i.

Qualifications of Researcher

The qualifications of the researcher include having completed a 54-credit Master's degree program in community counseling and the requirements for doctoral candidate status in a 60-credit doctoral program in counseling, education, and supervision. Additionally, this experimenter worked as a direct-service counselor in various correctional settings including a juvenile residential facility, an adult maximum secure facility, and an adult community corrections facility. In total, this experimenter has approximately 10 years of counseling experience with forensic populations. Supervisory experience includes training and supervising all new counselors hired in a secure facility, designing a counseling manual to be used statewide for the training of correctional counselors, and supervising practicum and internship students as a requirement for the doctoral program. Furthermore, this experimenter previously developed a psychoeducational group counseling experience for inmates in a secure facility.

Research Design

The research design for this study is described as an “interpretable nonequivalent-groups design” (Heppner, Kivlighan, & Wampold, 1999, p. 157). An illustration of this design follows:

Non R	O ₁	X ₁	O ₂
Non R	O ₃		O ₄

This design was chosen over other possible research designs for several reasons. First, the interpretable nonequivalent-groups design is a quasi-experimental design (Heppner, et al., 1999) and accounts for the lack of random assignment in the study. Second, according to Heppner et al., interpretable nonequivalent groups design compare a treatment group to a control group, as is the case in this study. Finally, the interpretable nonequivalent-groups design includes both a pretest and posttest as will be accomplished in this study with the Bar-On EQ-i.

LaFountain and Bartos (2002) note the appropriateness of this design to control for known sources of internal validity including history, maturation, testing, instrumentation, selection, and mortality. According to Heppner et al (1999), using a pretest-posttest nonequivalent group design strengthens a researcher’s confidence in attributing posttest differences between groups to experimental manipulation. However, the design is questionable in controlling the internal validity threat of regression and is not known to control for the selection by threat interaction (Heppner et al, 1999; & LaFountain & Bartos, 2002). For this research, the independent variable was participation in ESCAPE. The dependent variable was level of EI change for participants as measured by the Bar-On EQ-I (Bar-On, 2002) on the Total EQ, Intrapersonal

Composite, Interpersonal Composite, Stress Management Composite, Adaptability Composite, and General Mood Composite Scales.

Instrumentation

The Bar-On EQ-i (Bar-On, 2002) is a self-report instrument that measure's emotional intelligence, or one's ability to deal with daily environmental demands and pressures. The Bar-On EQ-i is appropriate for individuals 16 and older, with a North American sixth grade reading level (Bar-On, 2002). This test was a suitable choice for testing participants in this research, as all were older than 16 and required to read at an eighth grade reading level for participation in the vocational training program.

Administration of the Bar-On EQ-i takes approximately 30-40 minutes, although there are no time constraints (Bar-On, 2002). The EQ-i consists of 133 questions on a 5-point Likert-type scale, with 1 equaling "very seldom or not true of me," 2 equaling "seldom true of me," 3 equaling "sometimes true of me," 4 equaling "often true of me," and 5 equaling "very often true of me or true of me" (Bar-On, 2002). Using the 133 items, a Total EQ Scale and five Composite Scale Scores have been constructed. The following sections provide a description of each scale.

Total EQ Scale

The Total EQ Scale "gives a general indication of how emotionally intelligent the respondent is; it encapsulates how successful the individual is in coping with environmental demands and presents a "snapshot" of his or her present emotional well-being" (Bar-On, 2002, p. 41).

Intrapersonal Composite Scale

According to Bar-On, (2002), the Intrapersonal Composite Scale assesses the inner self and includes the subscales of self-regard, emotional self-awareness, assertiveness, independence, and self-actualization. Self-regard is the ability to respect and accept oneself as basically good. Emotional self-awareness is the ability to recognize one's feelings. Assertiveness is the ability to express feelings, beliefs, and thoughts and defend one's rights in a nondestructive manner. Independence is the ability to be self-directed and self-controlled in one's thinking and actions and be free from emotional dependency. Self-actualization is the ability to realize one's potential capacities.

Interpersonal Composite Scale

The Interpersonal Composite Scale taps interpersonal skills and functioning and includes the subscales of empathy, social responsibility, and interpersonal relationship. Empathy is the ability to be aware of, to understand, and to appreciate the feelings of others. Social responsibility is the ability to demonstrate oneself as a cooperative, contributing, and constructive member of one's social group. Interpersonal relationship is the ability to establish and maintain mutually satisfying relationships that are characterized by intimacy and by giving and receiving affection (Bar-On, 2002).

Stress Management Composite Scale

The Stress Management Composite Scale reflects how a person will handle stress without losing control and includes the subscales of stress tolerance and impulse control. Stress tolerance is the ability to withstand adverse events and stressful situations without falling apart by actively and positively coping with stress. Impulse control is the ability to resist or delay and impulse, drive, or temptation to act (Bar-On, 2002).

Adaptability Composite Scale

Bar-On (2002) describes the Adaptability Composite Scale as revealing how successfully one is able to cope with environmental demands by sizing up and dealing with problematic situations and includes reality testing, flexibility, and problem-solving subscales. Reality testing is the ability to assess the correspondence between what is experienced and what objectively exists. Flexibility is the ability to adjust one's emotions, thoughts, and behavior to changing situations and conditions. Problem solving is the ability to identify and define problems as well as to generate solutions and implement potentially effective solutions.

General Mood Composite Scale

The General Mood Composite Scale measures one's ability to enjoy life as well as one's outlook on life and overall feeling of contentment and includes optimism and happiness subscales. Optimism is the ability to look at the brighter side of life and to maintain a positive attitude even in the face of adversity. Happiness is the ability to feel satisfied with one's life, to enjoy oneself and others, and to have fun (Bar-On, 2002).

Reliability and Validity

According to Bar-On (2002), normative data for the EQ-i were based on samples from Argentina (n=446), Germany (n=168), South Africa (n=1,152), Nigeria (n=267), Israel (n=418), India (n=235), and North America (n=3,831). Significant main effects were shown for both age and gender, confirming the appropriateness of computing standard scores on the basis of these demographic characteristics.

The Bar-On EQ-i received favorable reviews by Cox (1999) and Guion (1999), reviewers for the *Buros Mental Measurements yearbook*. According to Bar-On (2002),

internal consistency for the EQ-i was estimated by Cronbach's coefficient alpha and a .76 reliability coefficient was achieved for the overall Bar-On EQ-i score. A test-retest reliability coefficient of .85 at one month and .75 at four months for the Bar-On EQ-i was also established (Bar-On). Guion (1999) notes that the alpha reliability for the test scales are adequate, though unimpressive. Bar-On has presented substantial evidence for the validity (i.e., content, face, factorial, construct, convergent, divergent, criterion-group, discriminant, and predictive) of the Bar-On-EQ-I (Guion, 1999). In his review of the instrument, Cox (1999) describes the validity of the Bar-On EQ-i as adequate, but notes as a possible weakness that some of the validation procedures were not conducted with North American Samples. Both Cox (1999) and Guion (1999) depict the emotional intelligence construct as the largest weakness of the instrument itself, citing the relative newness of the construct.

In 2003, Palmer, Manocha, Gignac, and Stough conducted an independent analysis of the factor structure of the Bar-On EQ-i. These researchers also rated the EQ-i favorably, but noted anomalies in the factor structure, prompting the additional research. The Palmer et al. study involved 377 participants who were solicited by newspaper advertisements in Australia. The sample consisted of 270 females and 103 males with an age range of 15-79 years. Participants were administered the Bar-On EQ-i, with the results being analyzed through exploratory and confirmatory factor analysis. The dimensional structure of the Bar-On EQ-i as reported by Bar-On (2002) is Total EQ and five Composite Scales. The research by Palmer et al. did not support this structure, but instead supported a Total EQ and six Composite Scales including: (a) emotional disposition, (b) interpersonal, (c) impulse control, (d) problem solving, (e) emotional self-

awareness, and (f) character. Although the researchers advise of the need for further research and replication in this study, they note the continued appropriateness of the use of the instrument clinically as a general index of coping capacity in clients.

Research Questions and Hypotheses

The principal focus of investigation in this research was to determine the effectiveness of emotional intelligence training for adult male inmates in a pre-release vocational training program. The general research question was:

What is the difference in emotional intelligence Total EQ Scale and Composite Scale scores on the Bar-On EQ-i, a measure of emotional intelligence, for adult male inmates participating in EI training in conjunction with a pre-release vocational training program and those receiving the pre-release vocational training program only?

The general research question is divided into six specific research questions and related hypotheses. Questions correspond to the Total EQ score as well as the five Composite scores on the Bar-On EQ-i.

1. What is the difference in emotional intelligence Total EQ scores on the Bar-On EQ-i for adult male inmates participating in EI training in conjunction with a pre-release vocational training program and those receiving the pre-release vocational training program only?

Ho 1: There will be no significant difference in emotional intelligence Total EQ scores on the Bar-On EQ-i for adult male inmates participating in EI training in conjunction with a pre-release vocational training program and those receiving the pre-release vocational training program only.

2. What is the difference in emotional intelligence Intrapersonal Composite scores on the Bar-On EQ-i for adult male inmates participating in EI training in conjunction with a pre-release vocational training program and those receiving the pre-release vocational training program only?

Ho 2: There will be no significant difference in emotional intelligence Intrapersonal Composite scores on the Bar-On EQ-i for adult male inmates participating in EI training in conjunction with a pre-release vocational training program and those receiving the pre-release vocational training program only.

3. What is the difference in emotional intelligence Interpersonal Composite scores on the Bar-On EQ-i for adult male inmates participating in EI training in conjunction with a pre-release vocational training program and those receiving the pre-release vocational training program only?

Ho 3: There will be no significant difference in emotional intelligence Interpersonal Composite scores on the Bar-On EQ-i for adult male inmates participating in EI training in conjunction with a pre-release vocational training program and those receiving the pre-release vocational training program only.

4. What is the difference in emotional intelligence Stress Management Composite scores on the Bar-On EQ-i for adult male inmates participating in EI training in conjunction with a pre-release vocational training program and those receiving the pre-release vocational training program only?

- Ho 4: There will be no significant difference in emotional intelligence Stress Management Composite scores on the Bar-On EQ-i for adult male inmates participating in EI training in conjunction with a pre-release vocational training program and those receiving the pre-release vocational training program only.
5. What is the difference in emotional intelligence Adaptability Composite scores on the Bar-On EQ-i for adult male inmates participating in EI training in conjunction with a pre-release vocational training program and those receiving the pre-release vocational training program only?
- Ho 5: There will be no significant difference in emotional intelligence Adaptability Composite scores on the Bar-On EQ-i for adult male inmates participating in EI training in conjunction with a pre-release vocational training program and those receiving the pre-release vocational training program only.
6. What is the difference in emotional intelligence General Mood Composite scores on the Bar-On EQ-i for adult male inmates participating in EI training in conjunction with a pre-release vocational training program and those receiving the pre-release vocational training program only?
- Ho 6: There will be no significant difference in emotional intelligence General Mood Composite scores on the Bar-On EQ-i for adult male inmates participating in EI training in conjunction with a pre-release vocational training program and those receiving the pre-release vocational training program only.

Data Analysis

Data analysis used the Developmental Report from the Bar-On EQ-i software. First, raw scores were calculated and reported for Total EQ and the five Composite Scale scores. According to Bar-On (2002), of the 133 test items, 117 are linked to one or more of the five Composites. Fifteen subscales are also reported, but are not the focus of the current study. The points (1-5) were added for each item. Fifteen items are related to the Positive Impression and Negative Impression scales and the last item is not scored as it is related to the instructions (i.e., to answer honestly to every item). Raw scores were then converted to standard scores (mean of 100, standard deviation of 15). Standard scores varied slightly based on age/gender norm category. The instrument offered an inconsistency index, positive impression, and negative impression scale in order to invalidate test responses.

After the Developmental Report was generated, standard scores were entered into the Statistical Package for the Social Sciences 11.0 (SPSS). Using SPSS, data was organized using frequency distributions and reliability was calculated for the Bar-On EQ-i with the current research data. A 2 x 2, mixed model, analysis of variance (ANOVA) was then used to test the statements of hypotheses in this research. Based on the description of ANOVA in LaFountain and Bartos (2002), ANOVA is the correct statistical test for this research because there is a nominal level independent variable and one interval level dependent variable. Utilization of a mixed model ANOVA is appropriate because it allows for testing both within and between groups (Shannon & Davenport, 2001). Main effects were calculated for treatment and control group.

Interaction effects were calculated for treatment and control groups at pretest and posttest. A $p \leq .05$ level of significance was utilized for all analyses in this study.

Prior to performing the ANOVA, tests were conducted to ascertain any violations of the assumptions of ANOVA. ANOVA's have three assumptions: (a) independence of observation, (b) normality, and (c) homogeneity of variance, or equal variances of the dependent variable for each treatment group (Lane, 2003). Because a mixed-model ANOVA includes a repeated measure (Shannon & Davenport, 2001), additional assumptions of sphericity and equal dispersion matrices were tested. ANOVA is robust; meaning some of the assumptions may be violated without compromising the validity of the test, with regard to some assumptions, but not others. ANOVA is robust in regard to violations of normal distribution, if the data are not overly skewed. However, if the data are skewed, transformation using SPSS can correct the skew in order for analysis to be conducted. For the assumption of independence, ANOVA is not robust. ANOVA is robust if the assumption of homogeneity of variance is violated, only if the subgroups are equal. If for any reason the subgroups had been unequal (i.e., attrition from the study), a Games-Howell correction would be conducted to adjust the probability level to control for Risk of Type I error. ANOVA is also robust in regard to equal dispersion matrices, again if subgroups are large enough and equal. Violation of these assumptions would affect the ability to interpret the ANOVA results.

The guideline for sample size when comparing two means, such as in an ANOVA, is 32 subjects per group (van Belle, 2002). As this study has two groups, 64 subjects are needed for adequate power. The final sample for this research was exactly 64

subjects. As a result, adequate power was reached and statistical calculations may be conducted with confidence.

ANOVA's are expressed as an F-value (Lane, 2003). If the F-value was found to be significant, the null hypothesis was rejected (Lane). In addition to calculating statistical significance, effect size was also calculated. Effect size is considered a computation of practical significance as calculating effect size reduces the impact of a small sample. Post hoc analysis was not necessary for this study, as there are only two groups being compared.

Conclusion

This research was conducted using an existing data set. The research utilized a quasi-experimental pre-test, treatment, post-test, control group research design. Participants were vocational training program participants who resided in medium security state correctional facilities in a Mid-Atlantic state. Pre-testing and post-testing occurred with the Bar-On EQ-i, a well documented, reliable, and valid measure of emotionally intelligent behaviors. The treatment group participated in emotional intelligence training via ESCAPE, a program consisting of individual and psychoeducational group counseling and focusing on increasing EI skills. The control group received the pretesting and posttesting only. Data was analyzed using a mixed-model ANOVA. Post hoc analysis was unnecessary for this research due to the inclusion of only two groups for comparison.

CHAPTER IV

RESULTS

This chapter presents the results of the data analyzed for this study. The purpose of this study was to investigate the effect of completing emotional intelligence (EI) training on emotional intelligence scores for adult male inmates participating in a pre-release vocational training program in two medium security Mid-Atlantic state correctional facilities. The research used archival data to examine Total EQ Scale scores and Composite Scale scores as measured by the Bar-On EQ-i (Bar-On, 2002) for inmates participating in EI training in conjunction with a pre-release vocational training program and those receiving the pre-release vocational training program only. The Bar-On EQ-i was utilized as a pre and post test to measure changes in EI scores. The scores used for this research included: (a) Total EQ, (b) Intrapersonal Composite, (c) Interpersonal Composite, (d) Stress Management Composite, (e) Adaptability Composite, and (f) General Mood Composite.

Population

The volunteer sample for this study consisted of 65 males residing at two medium-security adult correctional facilities in a Mid-Atlantic state who volunteered to participate in pre-release vocational program. The participants were divided into treatment and control groups, with 31 participants in the treatment group and 34 participants in the control group. Age was the only available demographic variable.

Data Organization

In order to make meaningful conclusions about data, it is helpful to organize the data using summary statistics (Jackson, 2003). According to Jackson, a frequency

distribution is one way to complete such organization. A frequency distribution is defined as, “a table in which all of the scores are listed along with the frequency with which each occurs” (Jackson, 2001, p.68). Because the frequency distribution lists all scores, the data can be checked for incorrect scores. Calculating a frequency distribution also allows data to be checked for missing data. Rosenthal (2001) describes missing data as any case that does not have a valid value for the variable in question. For the current study, a frequency distribution was calculated for each of the hypotheses with no errors or omissions discovered.

Reliability

For instrument scales such as the Bar-ON EQ-i (2002), reliability may be viewed in terms of consistency, with more consistent results resulting in a more reliable instrument (Shannon & Davenport, 2001). According to Jackson (2003), reliability is measured using correlation coefficients, a measure of the degree of relationship between two sets of scores. Correlation coefficients vary between -1.00 and +1.00, with scores larger than .70 being considered a strong relationship (Jackson, 2003). Reliability can be determined through internal consistency, or assessing the consistency of items within a measuring instrument (Shannon & Davenport, 2001). A common measure of internal consistency, the Cronbach’s coefficient alpha (Shannon & Davenport) was calculated to determine the internal consistency of the Bar-ON EQ-i for the data in this study. The resulting Cronbach’s alpha was .871, indicating a strong internal consistency for the data set.

Assumptions

In this research, a mixed-model Analysis of Variance (ANOVA) was used for statistical analysis. Before reporting the results of this analysis, assumptions of ANOVA were investigated. For ANOVA, there are three statistical assumptions, independence of observation, normality, and homogeneity of variance. Because a mixed-model ANOVA includes a repeated measure (Shannon & Davenport, 2001), additional assumptions of sphericity and equal dispersion matrices exist. The following section describes the consideration of each assumption in relation to the data from this study.

Assumption of Independence of Observation

ANOVA assumes all conditions or cells contain independent samples of participants (Jackson, 2003). Lane (2003) further describes independence of observation as one observation not affecting the choice of a second observation. In other words, if participants are in only one group or condition, observations are considered independent (Jackson, 2003; Lane, 2003). In the current research, participants were assigned to either the treatment or control group, with no overlap between groups. It is therefore assumed that that independence of observation was achieved.

Assumption of Normality

A second assumption of ANOVA is that the population from which the samples have been selected are normally distributed (Rosenthal, 2001). If the assumption of normality is violated, ANOVA is robust, or able to withstand violation (Lane, 2003). A Kolmogorov-Smirnov test of normality used to test for the assumption in relation to each of the scales both pretest and posttest: (a) Total EQ, (b) Intrapersonal Composite, (c) Interpersonal Composite, (d) Stress Management Composite, (e) Adaptability Composite,

and (f) General Mood Composite. The results of the Kolmogorov-Smirnov test were not significant for any scale except pretest (Sig. =.017, $p < .05$) and posttest (Sig. =.006, $p < .05$) for the control group on the Intrapersonal Composite. This violation should not affect results, as the ANOVA is robust in this instance (Lance, 2003).

Assumption of Homogeneity of Variance

A third assumption of ANOVA is that the scores in each of the various groups have approximately the same variance (Huck, Cormier, & Bounds, 1974). If the groups contain equal numbers, the ANOVA is considered robust (Huck, Cormier, & Bounds). In this research, the groups were virtually equal (31 and 34 members). However, a Levene's test was used to test for the assumption in relation to each of the scales both pretest and posttest: (a) Total EQ, (b) Intrapersonal Composite, (c) Interpersonal Composite, (d) Stress Management Composite, (e) Adaptability Composite, and (f) General Mood Composite. Table 1 lists the results of the Levene's test of homogeneity and indicates the only significant score was on the Intrapersonal Composite, posttest. Homogeneity of variance was not violated for any other scale. Due to the equality of groups, the significant score should not affect data interpretation, as ANOVA is considered robust in this instance.

Assumption of Sphericity

The assumption of sphericity is present when using repeated measures (Shannon & Davenport, 2001). The condition of sphericity, also called homogeneity of covariance, assumes that the levels of the within-subjects variables are equally related to each other (Shannon & Davenport; Shepman, 1999). The Mauchly's Test of Sphericity is used to test the null hypothesis that all covariances are equal (Shannon & Davenport). In order to

meet the assumption, the null must be accepted (Shannon & Davenport; Shepman, 1999). The assumption of sphericity only applies when using a research design with more than two levels of the within subjects factor (Shepman, 1999). Therefore, sphericity testing was not necessary for the data in the current research because the within subjects factor in this research included only two levels, pretest and posttest.

Table 1

Levene's Test for Homogeneity of Variance

Scale		F	Significance
Total EQ	Pretest	.143	.707
	Posttest	.817	.370
Intrapersonal EQ	Pretest	1.780	.187
	Posttest	4.784	.032*
Interpersonal EQ	Pretest	.355	.554
	Posttest	.055	.816
Stress Management	Pretest	1.197	.278
	Posttest	.768	.384
Adaptability	Pretest	.605	.440
	Posttest	.534	.648
General Mood	Pretest	.003	.960
	Posttest	.530	.489
p<.05			

Assumption of Equal Dispersion Matrices

The assumption of equal dispersion matrices presumes that sample data were drawn from populations that have equal dispersion matrices and is related to the assumptions of normality and homogeneity of variance (Huck, Cormier, & Bounds, 1974). According to Huck, Cormier, and Bounds, this assumption is not often tested because ANOVA is robust to violation when samples sizes are large (50+) and groups are equal. Like sphericity, the assumption of equal dispersion matrices is met when the null is accepted (Huck, Cormier, & Bounds). Data for the current research was analyzed using a Box's Test of Equality of Covariance Matrices. Scores on the Box's Test were as follows: (a) Total EQ, $p=.017$; (b) Intrapersonal Composite, $p=.192$; (c) Interpersonal Composite, $p=.852$; (d) Stress Management Composite, $p=.280$; (e) Adaptability Composite, $p=.289$; and (f) General Mood Composite, $p=.050$. At a significance level of $p<.05$, the null hypothesis was rejected for all but the Total EQ scale. However, this should not impact data interpretation due to the robustness of ANOVA to this violation.

Analysis of Variance Results

After determining the accuracy of the data, reliability of the instrument, and testing for the assumptions of ANOVA, descriptive statistics, pretest T-test results, and ANOVA results were calculated. The following sections examine each hypothesis individually, including descriptive statistics, T-test results, and ANOVA results. In addition to statistical significance, scores were calculated for effect size, or practical significance. Effect size is defined as "the proportion of variance in the dependent variable that is accounted for by the manipulation of the independent variable" (Jackson, 2003, p. 176). Scores of .20 are considered small, .50 medium, and .80 large effect sizes

(Jackson, 2003). As this study utilized an existing data set, the only demographic variable available was that of age. Table 2 lists the descriptive statistics for the demographic variable of age.

Table 2

Means for the Demographic Variable of Age

Group	Mean Age	Range	Standard Deviation	N
Participant Group	32.00	21.00 – 53.00	8.37	31
Control Group	28.65	21.00 – 47.00	7.20	34
Total	30.25		7.90	65

Total EQ Score

Ho 1: There will be no significant difference in emotional intelligence Total EQ scores on the Bar-On EQ-i for adult male inmates participating in EI training in conjunction with a pre-release vocational training program and those receiving the pre-release vocational training program only. This hypothesis was tested by using participants' self-report pretest and posttest measure on the Total EQ scale of the Bar-On EQ-i (Bar-On, 2002).

The dependent variables were pretest and posttest measures of the Total EQ score. The descriptive statistics for Hypothesis 1 are presented in Table 3. For the participant group, the mean on the pretest was 111.45 with a standard deviation of 12.68. This score increased on the posttest to a mean of 116.45 with a standard deviation of 10.87. For the control group, the mean on the pretest was 107.09 with a standard deviation of 12.76. This score also increased on the posttest to a mean of 110.50 with a standard deviation of

13.40. Prior to calculating ANOVA results, T-tests were computed for Total EQ pretest scores in order to determine if the groups differed significantly prior to the treatment.

Results of the T-test indicated that the means did not differ significantly at the $p < .05$ level ($p = .172$).

Table 3

Means and Standard Deviations for Pretest and Posttest Measures of Total EQ Scores

Source	Group	N	Mean		Std. Deviation	
			Pretest	Posttest	Pretest	Posttest
Total EQ	Participant	31	111.45	116.45	12.68	10.87
	Control	34	107.09	110.50	12.76	13.40

Table 4 depicts the results of the analysis of variance, showing support for the null hypothesis. When examining the between subjects, main effect of Group, results failed to reveal a statistically significant difference ($p = .079$). In other words, Total EQ did not vary significantly between the two groups. However, the within subjects factor of Time was statistically significant ($p = .000$), indicating change on Total EQ Scale scores was significant over time. A significant difference at the .05 level ($p = .488$) was not found for the interaction effect (i.e., Time by Group), signifying that any change in Total EQ Scale scores over time did not depend of the group to which the participant belonged.

Table 4

Summary of Analysis of Variance with Total EQ Scores

Source	df	F	η	P
Between Subjects				
Group	1	3.192	.048	.079
within-group				
Error	63	(270.293)		
Within Subjects				
Time	1	13.628**	.178	.000
Time * Group	1	.486	.008	.488
Within-group				
Error	63	(42.097)		
**p<.05				

Intrapersonal Composite Score

Ho 2: There will be no significant difference in emotional intelligence Intrapersonal Composite scores on the Bar-On EQ-i for adult male inmates participating in EI training in conjunction with a pre-release vocational training program and those receiving the pre-release vocational training program only. This hypothesis was tested by using participants' self-report pretest and posttest measure on the Intrapersonal Composite scale of the Bar-On EQ-i (Bar-On, 2002).

The dependent variables were pretest and posttest measures of the Intrapersonal Composite score. The descriptive statistics for Hypothesis 2 are presented in Table 6. For

the participant group, the mean on the pretest was 110.90 with a standard deviation of 10.96. This score increased on the posttest to a mean of 117.35 with a standard deviation of 9.15. For the control group, the mean on the pretest was 107.53 with a standard deviation of 13.12. This score also increased on the posttest to a mean of 109.91 with a standard deviation of 13.12. Prior to calculating ANOVA results, T-tests were computed for Intrapersonal Composite scale pretest scores in order to determine if the groups differed significantly prior to the treatment. Results of the T-test indicated that the means did not differ significantly at the $p < .05$ level ($p = .248$).

Table 5

Means and Standard Deviations for Pretest and Posttest Measures of Intrapersonal Composite Scores

Source	Group	N	Mean		Std. Deviation	
			Pretest	Posttest	Pretest	Posttest
Intra.	Participant	31	110.90	117.35	10.96	9.15
	Control	34	107.53	109.91	12.26	13.12

Table 6 depicts the results of the analysis of variance, indicating the need to reject the null hypothesis. When examining the between subjects, main effect of Group, results revealed a statistically significant difference ($p = .046$). In other words, Intrapersonal Composite scores varied significantly between the two groups. The within subjects factor of Time was also statistically significant ($p = .000$), indicating change on the Intrapersonal Composite scores was significant over time. A significant difference at the .05 level ($p = .062$) was not found for the interaction effect (i.e., Time by Group), signifying that

any change in Intrapersonal Composite scores over time did not depend of the group to which the participant belonged.

Table 6

Summary of Analysis of Variance with Intrapersonal Composite Scores

Source	df	F	η	P
Between Subjects				
Group	1	4.146**	.062	.046
within-group				
Error	63	(228.812)		
Within Subjects				
Time	1	17.050**	.213	.000
Time * Group	1	3.618	.054	.062
Within-group				
Error	63	(37.109)		

**p<.05

Interpersonal Composite Score

Ho 3: There will be no significant difference in emotional intelligence Interpersonal Composite scores on the Bar-On EQ-i for adult male inmates participating in EI training in conjunction with a pre-release vocational training program and those receiving the pre-release vocational training program only. This hypothesis was tested by using participants' self-report pretest and posttest measure on the Interpersonal Composite scale of the Bar-On EQ-i (Bar-On, 2002).

The dependent variables were pretest and posttest measures of the Interpersonal score. The descriptive statistics for Hypothesis 3 are presented in Table 8. For the participant group, the mean on the pretest was 108.03 with a standard deviation of 14.16. This score increased slightly on the posttest to a mean of 108.94 with a standard deviation of 11.91. For the control group, the mean on the pretest was 101.13 with a standard deviation of 16.18. This score also increased on the posttest to a mean of 104.29 with a standard deviation of 12.21. Prior to calculating ANOVA results, T-tests were computed for Interpersonal Composite scale pretest scores in order to determine if the groups differed significantly prior to the treatment. Results of the T-test indicated that the means did not differ significantly at the $p < .05$ level ($p = .074$).

Table 7

Means and Standard Deviations for Pretest and Posttest Measures of Interpersonal Composite Scores

Source	Group	N	Mean		Std. Deviation	
			Pretest	Posttest	Pretest	Posttest
Inter	Participant	31	108.03	108.94	14.16	11.91
	Control	34	101.13	104.29	16.18	12.21

Table 8 depicts the results of the analysis of variance, showing support for the null hypothesis. When examining the between subjects, main effect of Group, results failed to reveal a statistically significant difference ($p = .077$). In other words, Interpersonal Composite scores did not vary significantly between the two groups. The within subjects factor of Time was not statistically significant ($p = .091$), indicating change

on the Interpersonal Composite scores was not significant over time. A significant difference at the .05 level ($p=.346$) was not found for the interaction effect (i.e., Time by Group), signifying that any change in Interpersonal Composite scores over time did not depend of the group to which the participant belonged.

Table 8

Summary of Analysis of Variance with Interpersonal Composite Scores

Source	df	F	η	P
Between Subjects				
Group	1	3.234	.049	.077
within-group				
Error	63	(333.090)		
Within Subjects				
Time	1	2.943	.045	.091
Time * Group	1	.903	.014	.346
Within-group				
Error	63	(45.198)		
** $p<.05$				

Stress Management Composite Score

Ho 4: There will be no significant difference in emotional intelligence Stress Management Composite scores on the Bar-On EQ-i for adult male inmates participating in EI training in conjunction with a pre-release vocational training program and those receiving the pre-release vocational training program only. This hypothesis was tested by

using participants' self-report pretest and posttest measure on the Stress Management Composite scale of the Bar-On EQ-i (Bar-On, 2002).

The dependent variables were pretest and posttest measures of the Stress Management Composite score. The descriptive statistics for Hypothesis 4 are presented in Table 10. For the participant group, the mean on the pretest was 109.87 with a standard deviation of 15.74. This score increased on the posttest to a mean of 112.48 with a standard deviation of 12.77. For the control group, the mean on the pretest was 109.06 with a standard deviation of 13.34. This score also increased on the posttest to a mean of 112.65 with a standard deviation of 14.84. Prior to calculating ANOVA results, T-tests were computed for Stress Management Composite scores in order to determine if the groups differed significantly prior to the treatment. Results of the T-test indicated that the means did not differ significantly at the $p < .05$ level ($p = .823$).

Table 10 depicts the results of the analysis of variance, showing support for the null hypothesis. When examining the between subjects, main effect of Group, results failed to reveal a statistically significant difference ($p = .918$). In other words, Stress Management Composite scores did not vary significantly between the two groups. The within subjects factor of Time was also not statistically significant ($p = .056$), indicating change on Stress Management Composite scores was not significant over time. A significant difference at the .05 level ($p = .760$) was not found for the interaction effect (i.e., Time by Group), signifying that any change in Stress Management Composite scores over time did not depend of the group to which the participant belonged.

Table 9

*Means and Standard Deviations for Pretest and Posttest Measures of Stress Management**Composite Scores*

Source	Group	N	Mean		Std. Deviation	
			Pretest	Posttest	Pretest	Posttest
Stress	Participant	31	109.87	112.48	15.74	12.77
	Control	34	109.06	112.65	13.34	14.84

Adaptability Composite Score

Ho 5: There will be no significant difference in emotional intelligence

Adaptability Composite scores on the Bar-On EQ-i for adult male inmates participating in EI training in conjunction with a pre-release vocational training program and those receiving the pre-release vocational training program only. This hypothesis was tested by using participants' self-report pretest and posttest measure on the Adaptability Composite scale of the Bar-On EQ-i (Bar-On, 2002).

The dependent variables were pretest and posttest measures of the Adaptability Composite score. The descriptive statistics for Hypothesis 5 are presented in Table 12. For the participant group, the mean on the pretest was 113.94 with a standard deviation of 13.28. This score increased on the posttest to a mean of 118.81 with a standard deviation of 12.69. For the control group, the mean on the pretest was 110.00 with a standard deviation of 14.54. This score also increased on the posttest to a mean of 114.41 with a standard deviation of 14.92. Prior to calculating ANOVA results, T-tests were computed for Adaptability Composite scores in order to determine if the groups differed

significantly prior to the treatment. Results of the T-test indicated that the means did not differ significantly at the $p < .05$ level ($p = .260$).

Table 10

Summary of Analysis of Variance with Stress Management Composite Scores

Source	df	F	η	p
Between Subjects				
Group	1	.011	.000	.918
within-group				
Error	63	(321.843)		
Within Subjects				
Time	1	3.790	.057	.056
Time * Group	1	.094	.001	.760
Within-group				
Error	63	(82.267)		
** $p < .05$				

Table 11

Means and Standard Deviations for Pretest and Posttest Measures of Adaptability

Composite Scores

Source	Group	N	Mean		Std. Deviation	
			Pretest	Posttest	Pretest	Posttest
Adapt.	Participant	31	113.94	118.81	13.28	12.69
	Control	34	110.00	114.41	14.54	14.92

Table 12 depicts the results of the analysis of variance, showing support for the null hypothesis. When examining the between subjects, main effect of Group, results failed to reveal a statistically significant difference ($p=.188$). In other words, the Adaptability Composite did not vary significantly between the two groups. However, the within subjects factor of Time was statistically significant ($p=.003$), indicating change on the Adaptability Composite was significant over time. A significant difference at the .05 level ($p=.877$) was not found for the interaction effect (i.e., Time by Group), signifying that any change in Adaptability Composite scores over time did not depend of the group to which the participant belonged.

General Mood Composite Score

Ho 6: There will be no significant difference in emotional intelligence General Mood Composite scores on the Bar-On EQ-i for adult male inmates participating in EI training in conjunction with a pre-release vocational training program and those receiving the pre-release vocational training program only. This hypothesis was tested by using

participants' self-report pretest and posttest measure on the General Mood Composite scale of the Bar-On EQ-i (Bar-On, 2002).

Table 12

Summary of Analysis of Variance with Adaptability Composite Scores

Source	df	F	η	p
Between Subjects				
Group	1	1.774	.027	.188
within-group				
Error	63	(317.224)		
Within Subjects				
Time	1	9.882**	.136	.003
Time * Group	1	.024	.000	.877
Within-group				
Error	63	(70.696)		

**p<.05

The dependent variables were pretest and posttest measures of the General Mood Composite score. The descriptive statistics for Hypothesis 6 are presented in Table 14. For the participant group, the mean on the pretest was 104.52 with a standard deviation of 11.83. This score increased on the posttest to a mean of 108.90 with a standard deviation of 10.75. For the control group, the mean on the pretest was 101.38 with a standard deviation of 12.77. This score also increased on the posttest to a mean of 103.56 with a standard deviation of 12.22. Prior to calculating ANOVA results, T-tests were computed

for General Mood Composite scores in order to determine if the groups differed significantly prior to the treatment. Results of the T-test indicated that the means did not differ significantly at the $p < .05$ level ($p = .311$).

Table 13

Means and Standard Deviations for Pretest and Posttest Measures of General Mood Composite Scores

Source	Group	N	Mean		Std. Deviation	
			Pretest	Posttest	Pretest	Posttest
Mood	Participant	31	104.52	108.90	11.83	10.75
	Control	34	101.38	103.56	12.77	12.22

Table 14 depicts the results of the analysis of variance, showing support for the null hypothesis. When examining the between subjects, main effect of Group, results failed to reveal a statistically significant difference ($p = .118$). In other words, the General Mood Composite did not vary significantly between the two groups. However, the within subjects factor of Time was statistically significant ($p = .013$), indicating change on the General Mood Composite scores was significant over time. A significant difference at the .05 level ($p = .395$) was not found for the interaction effect (i.e., Time by Group), signifying that any change in General Mood Composite scores over time did not depend of the group to which the participant belonged.

Table 14

Summary of Analysis of Variance with General Mood Composite Scores

Source	df	F	η	p
Between Subjects				
Group	1	2.517	.038	.118
Within-group				
Error	63	(231.535)		
Within Subjects				
Time	1	6.464**	.093	.013
Time * Group	1	.733	.012	.395
Within-group				
Error	63	(54.034)		
**p<.05				

Summary

A 2 x 2 mixed model ANOVA was used to test the hypotheses in this research. The independent variable was Group, either a vocational education program with emotional intelligence training or a vocational education program only. The dependent variable was the participants' scores on the scales of the Bar-ON EQ-i (Bar-On, 2002) (i.e., Total EQ, Intrapersonal Composite, Interpersonal Composite, Stress Management Composite, Adaptability Composite, and General Mood Composite).

Data were organized using frequency distributions. Reliability of the Bar-On EQ-i (Bar-ON, 2002) was acceptable after calculating a Cronbach's coefficient alpha

with the current data. With few exceptions, scores met the assumptions needed to perform the analysis of variance. Exceptions were for the Intrapersonal Composite scale for normality and homogeneity of variance and Total EQ for sphericity. However, due to adequate sample size and equality of groups, ANOVA is robust in this case for any such violations and results can be interpreted without concern.

A significant difference at the .05 level was found for the main effect of Group on the Intrapersonal Composite scale. The null hypothesis was accepted for all other main effects. A significant difference at the .05 level was found for the main effect of Time for Total EQ, Intrapersonal Composite, Adaptability, and General Mood Composite scales. No interaction effects were significant. As there were only two groups, post hoc analyses were not indicated.

CHAPTER V

DISCUSSION

Chapter V presents a summary of the current research, including a restatement of the problem and the purpose of the study, methodology, and findings. After the summarization, conclusions of the research are presented. Finally, recommendations for future research are discussed.

Summary

Restatement of the Problem

Criminal Justice System professionals, especially those in corrections, must continue to seek innovative treatment solutions to address the problem of recidivism. Vocational training is one intervention method that has shown positive results according to recidivism research (Sung, 2001; Wilson, Gallagher, & MacKenzie, 2000). However, recidivism persists, even for those who receive vocational training. Vocational training may not be successful if the person receiving the training cannot effectively relate with others in a work setting (Sung, 2001). Research shows that increasing emotional intelligence and related behaviors may improve relationships with others (Goleman, 1998). Combining these two concepts, vocational training and emotional intelligence training, in a correctional setting is not something that has been previously reported in the literature.

Restatement of the Purpose of the Study

The purpose of this study was to investigate the effect of completing emotional intelligence (EI) training on emotional intelligence scores for adult male inmates participating in a pre-release vocational training program in two medium security Mid-

Atlantic state correctional facilities. This research examined Total EQ Scale scores and five Composite Scale scores as measured by the Bar-On EQ-i (Bar-On, 2002) for inmates participating in EI training in conjunction with a pre-release vocational training program and those receiving the pre-release vocational training program only. Specifically, the Bar-On EQ-i was utilized as a pre and post test to measure changes in EI scores.

Methodology

This research utilized an existing data source. The total sample for this study consisted of 64 participants divided into two groups with 31 participants in the experimental group and 34 participants in the control group. All participants were volunteers assigned via convenience to groups, as participants were assigned to the vocational training program in the prison where they resided and were unable to be transferred between prisons in order to achieve random assignment. Both groups participated in the standardized vocational training program. However, only the experimental group also participated in ESCAPe, an emotional intelligence training program.

Pretest and posttest measures were used to determine the difference in EI scores between the two groups. The instrument used to make these measurements was the Bar-On EQ-i (Bar-On, 2002) and included scales of Total EQ, Intrapersonal Composite, Interpersonal Composite, Stress Management Composite, Adaptability Composite, and General Mood Composite. After organizing the data, conducting instrument reliability, and testing for assumptions, scores on the EQ-i were analyzed using a mixed model analysis of variance test, allowing for comparison of both within and between group differences.

Findings

In this research, a significant difference between the groups was found for the Intrapersonal Composite Scale of the EQ-i. All other null hypotheses were supported. In respect to the within group differences, Total EQ, Intrapersonal Composite, Adaptability Composite, and General Mood were statistically significant for Time. No interaction effects were significant. Descriptive statistics for the demographic variable of age showed the experimental group mean ($m=32.00$) was higher than the control group mean ($m=28.65$). Also remarkable were the mean scores for every scale of the EQ-i for both the experimental and control groups. All means, both pretest and posttest were above the normed average of 100 of the instrument. Additionally, pretest mean scores for the experimental group were higher for every scale when compared to control group pretest mean scores.

Conclusions

The results of this research warrant the following conclusions. Based on the statistical analysis of the data, conclusions are discussed within the limitations of the research and sample used.

It may be concluded that the EI training program, as designed and implemented, was not effective. The only significant difference between groups occurred for the Intrapersonal Composite. Because the EI training program was designed as a pilot study, review of the EI training program and changes to the program's structure may be necessary to ensure the EI construct is begin adequately addressed. The choice of EI model (i.e., mixed model vs. ability model) may have impacted findings and indicate a potential area for future research.

Evidence for behavioral gains was seen in mean scores, as virtually every scale increased from pretest to posttest, however, gains did not reach the level of statistical significance. The lack of statistical significance could be explained by issues such as measurement error. Lack of gain could also be related to the Hawthorne effect, or participants responding in ways to confirm the research hypothesis (Heppner, Kivlighan, & Wampold, 1999). In the current research, participants were likely to guess the research hypothesis due to the program design (i.e., pretest, treatment, and posttest). Even though participants were assured confidentiality, inmates are inherently suspicious about the use of data (e.g., reports to the parole board). Such suspicions may make the Hawthorne effect even more likely in this research.

The mean scores for all pretest scales were higher for the experimental group. These scores may be meaningful in light of the demographic variable of age. The mean age of the participant group was 32.00, while the mean age of the control group was 28.65. According to EI research, EI is considered to improve with age (Goleman, 1998; Matthews et al., 2002). Perhaps the difference in age impacted EI scores.

Another conclusion of this study is that the minimal impact that the EI program had was related to more self-awareness than interpersonal awareness. As previously cited, the only significant difference between participants occurred for the Intrapersonal Composite. Again, this conclusion may speak to the need for EI training program revisions in order to more adequately address the interpersonal aspects of EI.

The elevated mean scores on the pretest of the Bar-On EQ-i were not the expected results. In studies by Hodges (2004) and Smith (2001), adults who were incarcerated or had been incarcerated scored lower than the normed standard for the EI testing

instrument. In the current research, all pretest score means were above the normed standard of 100. This finding is likely due to the restrictiveness of the sample used in this study. The subjects in this study had to meet strict DOC criteria in order for participation in the vocational training program. This selection process resulted in a sample that was not representative of general population inmates. Education level required for participation in this program may have had a significant impact on study results. Participants in the vocational training program are required to have at least a GED or be working on their GED. This level of academic achievement is higher than in samples utilized by Hodges (2004) and Smith (2001), whose studies found significance between EI and educational level.

Another conclusion of this research involves the within subject differences. In contrast to the between subject differences, which were only statistically significant for the Intrapersonal Composite, within subjects differences for Time were statically significant for Total EQ, Intrapersonal Composite, Adaptability Composite, and General Mood. Thus, participation in vocational training like the building trades instruction in this research may increase EI scores, regardless of an additional EI training component. Leaving the correctional institution on a daily basis, learning a trade, and receiving the instructor's attention during small group instruction are activities that may tend to impact the emotionally intelligent behaviors as measured by the Bar-On EQ-i. However, a design flaw of the research, in regard to lack of instructor blindness to the ongoing research, may also have contributed to within subject gains, as instructors may have wanted participants to perform well on the testing as a positive reflection on the instructor.

A final conclusion of this research addresses the lack of statistical significance in relation to confounding variables. When conducting field research, it is difficult to regulate all the variables that may have affected the participant in this research. Confounds may include numerous variables (i.e., motivation to treatment, the Hawthorne effect, academic levels, prior treatment experiences). According to Heppner, Kivlighan, and Wampold (1999), the choice of counselor may also confound treatment studies. Such confounds can be addressed by using the same counselor for all treatment. Even though this was done in the current study, the experience level and training of the counselor may still be considered a confound (Heppner, Kivlighan, & Wampold). Another potential confound related to the counselor was the likelihood that the counselor's skills improved over time, as the program was implemented over a two year period. Although a consistent treatment protocol was used, it is probable that the counselor improved in the execution of that protocol over time.

In addition to the counselor, this research included other important people, the vocational training instructors. In this research, the vocational training programs at the experimental and control sites were administered by different instructors. This was unable to be addressed, as the vocational training program was already in place and staff could not be reassigned. However, this is an additional confound to the data.

Recommendations

From this research, the following recommendations can be drawn. These recommendations relate to the need to conduct research on EI of offenders and EI intervention programs with offenders.

Recommendations for Future Research

This research contained methodological limitations that could be addressed in future research. Research on a larger, less demographically restricted sample may lead to a better understanding of EI in correctional populations. The sample for this research was also demographically limited (i.e., gender, race, age). After reviewing the literature, these demographic variables warrant further investigation. Use of random assignment of program participants, rather than use of intact groups, would result in a stronger research design. Additionally, inclusion of a 360° evaluation instrument, one that includes ratings from others rather than only the self-report of the participant, or the addition of a second measure would strengthen the measurement aspect of the study.

Further research is necessary on the construct of EI, in general. As previously mentioned, EI is considered a new construct and scientific investigation of the construct is limited. A comprehensive definition of EI and solid theoretical basis are needed. Further research could address some of the controversies surrounding the construct such as use of a mixed model versus an ability model.

Measurement is another area of research related to the construct of EI. Further reliability and validity studies are needed of available EI instruments. However, advances in EI measures appear to be directly linked to definition and theoretical considerations. Continued research could explore the administration of EI instruments via self-report, performance, or a combination of the two. In particular, future research of the factor structure of the Bar-On EQ-i is necessary, based on the Palmer et al. (2003) study in order to determine whether five or six composites comprise the Bar-On EQ-i factor structure.

Future research on EI and deviance or criminality should take care in choice of operational definition of deviance or criminality. In the review of the literature, mixed results were found for available studies with EI and deviance or criminality. However, significant findings were more likely with populations who were adjudicated, incarcerated, or paroled.

In this research, the main effect of Time was significant for the Total EQ, Intrapersonal, Adaptability, and General Mood scales. These significance levels may have been due to maturation, which is supported by the EI literature (Goleman, 1995). However, the concept of time is especially important for correctional populations. Specifically, such issues as time served and time to release may impact participant motivation. Motivation levels of participants, particularly those in the criminal justice system, may warrant further study.

Recommendations for Program Implementation

As evidenced by increased EI scores, this research seems to support that EI training could be effective for correctional populations. However, future EI intervention programs should take care to closely integrate the principals of effective correctional intervention (as summarized in Andrews, 1995; Antonowicz & Ross, 1994; Gendreau & Goggin, 2000; Mackenzie, 2000) as well as the guidelines for emotional competence training (Goleman, 1998). Although the ESCAPE program attempted to address these competencies, methodological limitations precluded fully meeting each competency. Additionally, as research continues to further define effectiveness of both correctional interventions and EI training, intervention attempts should be refined. Closely adhering to

effective correctional intervention and EI intervention principles may increase the effects of EI interventions.

To improve program competences based on effective correctional intervention, the program could be modified to rely less on a psychoeducational group counseling approach and integrate a therapeutic approach that is more cognitive-behavioral in nature. In addition, the number of program hours could be increased to allow for a more intensive treatment program, including the addition of a more comprehensive aftercare component. Another possibility is that the selection of individual counseling goals be directed related to the EI testing instrument, rather than participant choice of goals.

As previously mentioned, research in regard to correctional interventions is usually framed within a discussion of recidivism reduction. The current research did not attempt to link EI intervention to any outcome measure, recidivism or institutional adjustment. However, relating correctional EI interventions to outcomes may increase the relevance of such research.

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Appendix A
Approval Letter



A Division of Operation Outward Reach, Inc.

August 1, 2004

To Whom it May Concern:

Holly Moore has been granted permission to use existing data from the Staunton Farm Foundation Grant for her dissertation. In addition, she is permitted to publish excerpts from the copyrighted ESCAPE manual in her dissertation to provide an adequate description of the program.

Sincerely,

OPERATION OUTWARD REACH, INC.

A handwritten signature in black ink, appearing to read "Raymond Thompson".

Raymond Thompson
President

RT/js

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Registered Charity - "The official registration and financial information of Operation Outward Reach may be obtained from the Pennsylvania Department of State."

Appendix B

Pennsylvania Department of Corrections Criteria for Pre-Release Programming

According to the Pennsylvania Department of Corrections (PADOC, [2004]), an inmate may be eligible for pre-release programming (e.g., Operation Outward Reach)

after completing the following:

1. At least nine months in a state facility and completed at least one-half of the of his/her minimum sentence.
2. No detainers for an untried offense or for a sentence that carries a maximum term equal to or in excess of two years, excluding detainers for costs, fines, support, motor vehicle violations, or contempt of court. A detainer is defined as, “a request filed by a criminal justice agency with the facility where the inmate is incarcerated, asking the facility either to hold the inmate for the agency or to notify the agency when the inmate’s release is imminent” (PADOC, 2004, p. 2).
3. No Class I misconducts and no more than one Class II misconduct during the nine months prior to application, and have sustained no Class I misconduct and no more than one Class II misconduct from the time of application until status is granted.
4. Not be classified as a custody level 4 or 5.
5. Not have been sentenced as a capitol case (death).
6. Not have been sentenced for a Mandatory Gun Enhancement Sentence.
7. Received medical clearance, and if on the Mental Health Roster, the recommendation of the Chief Psychologist.

In addition to the above criteria, an inmate must have approval of the Regional

Deputy Secretary if convicted of aggravated assault, escape, kidnapping, and robbery (first degree felony). If convicted of arson, causing/aiding suicide, homicide by vehicle, involuntary manslaughter, murder, any sexual offense except prostitution, voluntary manslaughter, and criminal homicide, approval must be granted by the Regional Deputy Secretary and the Secretary of Corrections. If the offense is only an attempt/solicitation/conspiracy to commit any of these offenses, approval of the Deputy Regional Secretary is the only approval required.

Appendix C

Emotionally Secure Community Adaptation Program (ESCAPE) Description

Counseling Process

Consent Form

Prior to beginning any counseling services, each participant signs an informed consent form indicating that his participation in the program is voluntary. The consent form is read to the individual by the Re-entry Counselor, thereby ensuring that the contents of the consent are understood. The form briefly describes the purpose of ESCAPe (Emotionally Secure Community Adaptation Program) and mentions both the individual and group components of the program. Additional points touched upon include the follow-up process and the possibility that data gathered may potentially be used anonymously for research or publication purposes.

After the counselor and the participant review the form, the participant has the opportunity to ask any questions or raise any concerns regarding the counseling. All questions and concerns are addressed by the Re-entry Counselor. When the participant is satisfied and understands the nature of the program, he signs and dates the consent. To finalize this step of the counseling process, the Re-entry Counselor also signs and dates the consent. A photocopy of the signed form is given to the participant; the original is placed in the individual's counseling file.

At this time, confidentiality is emphasized. Participants are informed that information received by the Re-entry Counselor will not be shared with the prison or parole board. Stressing this point helps the participants to feel more at ease with disclosing accurate personal information by letting them know that what they discuss will not be used against them in any way. Exceptions to confidentiality are also stated at this time.

Testing

After the participant signs the informed consent, the next step of the counseling process is for the individual to take the Bar-On Emotional Quotient Inventory (Bar-On EQ-I, 2002). The Bar-On EQ-i is a 133 question, paper and pencil assessment tool that must be administered by an individual with a Master's level of education. For ESCAPE, the Re-entry Counselor administers the assessment. For standardization purposes, the counselor reads the instructions to the participant. The participant then answers the statements at his own pace, while still in the presence of the counselor. Typically, the inventory takes approximately 30 minutes to complete.

The Bar-On EQ-i (2002) is used to determine each participant's starting level in regard to the specific categories of emotional intelligence. After the individual completes the assessment, his responses are entered into a computer program that then creates an individualized developmental report. The scores provided run are comparable to the intelligence scale with a mean of 100 and a standard deviation of 15. Therefore, a total EQ score is given, indicating the person's self-report of overall emotionally intelligent behaviors. A score is also provided for each of the composite scales, which include (a) intrapersonal, (b) interpersonal, (c) stress management, (d) adaptability, and (e) general mood. For each composite scale, subscale scores are provided. The subscales of the intrapersonal EQ score are self-regard, emotional self-awareness, assertiveness, independence, and self-actualization. Subscales of interpersonal EQ score are empathy, social responsibility, and interpersonal relationships. The stress management subscales scores include stress tolerance and impulse control. The subscale scores for adaptability are

reality testing, flexibility, and problem solving. Finally, general mood subscale scores are optimism and happiness.

The developmental report provides a synopsis of what the individual's functioning within each subscale is likely to be, based upon his score for that subscale. At the end of the developmental report, suggestions are provided for improving the individual's three lowest subscales. The results are used to help pinpoint the participant's strengths and weaknesses. The Re-entry Counselor assists individuals in learning to use their strengths to their advantage, while weaknesses will be areas that the counselor and the participant work together to improve, in order to boost the overall level of intelligent behaviors emotionally.

Bio-psychosocial History

The third stage of the counseling process and the second stage of the assessment process is completion of a bio-psychosocial history. The bio-psychosocial history used for ESCAPe is a five-page questionnaire that explores family, emotional, medical, employment, and substance abuse history; past and present intimate relationships; level of social interaction; juvenile and adult legal history; personal strengths and weakness; and future plans of the participant.

The purpose of the bio-psychosocial history is to gain insight into the life of each participant and to uncover possible contributing factors to the current situation of each individual. While completing the five-page questionnaire, recurrent patterns and problematic issues, such as relationship difficulties with family and/or significant others; difficulty sustaining employment; detrimental housing conditions; and behavioral issues such as impulsivity, temper, substance abuse, distrust of others, and so forth often

surface. These issues will be beneficial in helping the participant later in the counseling process, when he is ready to start setting his individualized counseling goals.

The bio-psychosocial history is completed in interview fashion. The Re-entry counselor asks the questions and the participant can answer with a simple 'yes' or 'no' or a brief response. Some participants wish to provide more information and will, therefore, offer lengthier narratives for some of the topic areas. For example, one participant might be content to simply say that his father was present for only part of his childhood, while another participant may wish to elaborate by reporting that his father was in and out of his life and even offer details as to the nature of their relationship. In some cases, the participant may provide a simple 'yes' or 'no,' but the counselor sees fit to pursue more detailed responses. For example, if a participant said that, "Yes," he considered himself to be immature at times, but offered no further explanation, the Re-entry counselor would ask open-ended questions in order to establish what the participant considers to be immature and in what types of situations he tends to act in an immature manner.

Although, the bio-psychosocial history is designed to be completed with primarily short answers, participants are encouraged to provide lengthier narratives. One reason for this is that the additional discussion on the part of the participant will help strengthen the rapport between himself and the counselor as he becomes more comfortable with discussing his past. A second reason for encouraging narrative responses is to help the participant feel comfortable with speaking about himself. Many of these participants come from backgrounds that never enabled them to make the types of connections in which they could freely express their true thoughts and feelings. Even those participants had people in their lives with whom they could speak; now find themselves in an

environment where they are unable to trust any of their peers enough to unburden themselves. As they discuss their responses to the bio-psychosocial history and discover that the Re-entry Counselor provides them a therapeutic relationship, they may develop trust in the counselor and feel comfortable discussing more personal issues in the future.

Goal Setting

Prior to initiation of ESCAPE, an independently conducted study indicated that Operation Outward Reach (OOR) has a lower rate of recidivism than the general prison population, however, there were still a number of graduates of the OOR program who were returning to prison. These men were returning despite the fact that they were leaving the institution with marketable job skills that they did not possess prior to participating in OOR. The goal setting phase of ESCAPE helps each participant to examine personal weaknesses that may be improved upon in order to help him function better in society and, therefore, stay out of prison.

Each participant who participates in ESCAPE is asked to develop three individualized goals that he would like to work on as part of his individual counseling sessions. The Re-entry Counselor facilitates the goal setting process to help ensure that goals selected are beneficial goals for the participant. By allowing the participant to set his own goals, individual counseling sessions become tailored to the participant, thereby ensuring maximum benefit to each individual. Additionally, if a participant sets his own goals, he is more likely to be invested in working toward achieving them.

Goals typically focus on problematic areas that, once improved, will help the participant not only in his current environment, but also with his re-entry into society. If the individual has difficulty deciding upon goals that he would like to work on, the Re-

entry Counselor guides the goal setting process by using both the participant's bio-psychosocial history and his Bar-On EQ-i developmental report. The bio-psychosocial history provides a wealth of information on the participant's past and present relationships, substance abuse history, and personal weaknesses. Any of these areas can be focused on when deciding upon goals. The Bar-On EQ-i developmental report gives an indication as to what areas of emotional intelligence may be low for the individual. For example, if the participant scores below average in the area of impulse control and he agrees that this has been a problem for him in the past, he may want to consider setting a goal to reduce impulsivity.

Following are some examples of some of the individualized goals that participants who have already been through the goal setting phase of the program have set for themselves:

1. Reduce impulsivity
2. Reduce procrastination
3. Increase assertiveness
4. Increase patience
5. Increase acceptance of criticism
6. Improve communication
7. Improve anger control
8. Improve decision-making
9. Improve relationships with others
10. Improve relationship with mother
11. Improve relationship with brother

12. Develop relationship with daughter
13. Improve relations with police
14. Maintain positive attitude
15. Decrease negative self-talk

This is a small sampling of the more common goals that have been set thus far by participants in ESCAPe. Progress on any of these goals would be helpful to the individual, both while they are in prison and when they are released. While it is easy to see how goals such as “improve anger control” and “maintain positive attitude” would be helpful to the participant while he is still in prison, it is perhaps more difficult to understand how goals such as “improve relationship with mother” or “develop relationship with daughter” might be helpful to the individual while he is incarcerated. Strained relationships with any family member or any member of the participant’s support system can lead to negative feelings, such as anger, anxiety, or depression. Such negative feelings can, in turn, lead to fights, poor decision-making, or other negative actions that may result in the participant receiving a misconduct.

Perhaps even more importantly, however, these goals are intended to help the participant with his re-entry into society and decrease the likelihood that he will return to prison. For example, goals dealing with patience, decision-making, and assertiveness will benefit the individual whether he is dealing with parole agents, employers, co-workers, friends, or family members. In addition, at some time during that individual’s past, it is likely that impatience, poor decision-making, and lack of assertiveness were some of the key factors in their getting involved in the activities that brought them to prison in the first place. By improving upon such areas, it is hoped that they will be better equipped to

stay away from the people and activities that would put them at risk for being re-incarcerated.

After the individual's general goals have been set, specific objectives are set for each goal. Each objective is designed to be a small step toward attainment of the goal. For example, if one of the participant's goals is to improve his decision-making, the objectives to help him reach that goal may include:

1. Identify and describe past situations when decision-making was problematic
2. Identify negative consequences that resulted from poor decisions in those situations
3. Explore alternative decisions for those past situations
4. Describe how alternatives might have resulted in more satisfactory outcomes
5. Learn the steps of the decision-making model
6. Identify possible situations that might require decision-making while on parole
7. Work through the decision-making process for those situations
8. Demonstrate an ability to effectively use the decision-making/problem solving model

Once the participant's goals and objectives have been finalized, this goal plan becomes the focus of weekly counseling sessions. The Re-entry Counselor helps the individual to examine and work on each objective. Every 30 days, a goal review is conducted by the Re-entry Counselor to determine the progress the participant has made to that point on his goals. In the goal review process there are four levels that can be reached: (1) no change, (2) increased skill/knowledge, (3) positive behavior change, and

(4) goal achieved. If at the time of the review no progress has been made on a particular goal, the progress will be marked at level one, or no change. If the goal has been examined and discussed, but no action steps have yet been taken toward attaining the goal, progress will be marked at level two, or increased skill/knowledge. If the participant has begun taking action steps toward achieving the goal, progress will be marked at level three, or positive behavior change. Once the participant has completed all of the objectives for a particular goal and he no longer has difficulty in that area, or he has seen marked improvement, progress is marked at level four, or goal achieved.

As a general rule, the Re-entry Counselor refrains from giving the participant a level four for any goal until he has been paroled. For many of the goals set by individuals, it is not possible to see the true extent of progress while in the institution, which is a controlled environment. Once an individual has been released to his home plan or to a halfway house, where he has more freedoms, his natural actions will become more evident. If at the time of follow-up the participant reports that he believes he has achieved the goal or that the previously problematic area no longer poses any difficulty, he will be given a level four for that goal.

Counseling

Each individual volunteers to participate in the counseling component of the program. All participants meet weekly with the Re-entry Counselor for both individual and group counseling.

Individual Counseling

Each participant meets with the Re-entry Counselor a minimum of once weekly for individual counseling. Individual sessions last a minimum of 40 minutes. The one-on-one sessions focus primarily on the goals that the individual has set for himself. At times, personal difficulties that are not directly related to one of the participant's goals may arise. For example, one participant discovered that his wife was committing adultery. As this discovery was causing the crew member great emotional distress, this issue became the focal point of several individual sessions. For another participant, the death of a close family member resulted in emotional distress; therefore, several sessions were devoted to discussing issues that had arisen as a result of the death. Pressing issues that arise, that are not directly related to an individual's goals, such as the two just mentioned, are dealt with in individual sessions until they are sufficiently resolved. In other words, they will be discussed and dealt with until the participants (a) no longer see them as an issue, or (b) believe that the emotional distress related to the issues has abated enough that they no longer require priority status and that discussion of the initial individual goals can be resumed.

When possible, skill areas discussed in the past, whether they were touched upon in individual or group sessions, are incorporated in order to facilitate resolution of personal issues. The Counselor makes an effort when possible to link stress reactions in these situations to goal or EQ areas. For example, if one of the participant's goals is to improve his relationships with others, group topics such as anger management or assertiveness may be beneficial in helping him to achieve that goal.

During individual sessions, participants may use session time to ask general questions related to the program, parole, employment, relationships, or any other issue. For example, inquiries regarding stipulations of parole frequently arise. Questions are encouraged and welcomed. If possible, previously discussed topics are incorporated when addressing the questions. For example, the topic of decision-making may be reintroduced to help the individual make appropriate decisions and thereby avoid technical violations resulting from disregarding parole stipulations. The Re-entry Counselor is always willing to accommodate any participant who desires additional individual sessions.

Group Counseling

In addition to his weekly individual counseling sessions, each individual also participates in 24 psycho-educational group counseling sessions. Each session lasts one and a half hours. When a new crew member joins the group, he is given a list of group expectations. The expectations help to give structure to the group and to set boundaries by informing the participant what is expected of him during the course of the group. Expectations are also in place for the protection of group members. Expectations such as “maintain confidentiality,” “when others are speaking, allow them to finish,” and “keep interactions positive and constructive” are intended to provide participants with a sense of safety and help them to feel comfortable sharing in a group environment. A complete list of the group expectations can be found in week one of the section for group materials.

The group counseling is psycho-educational in nature and focuses on the various areas of emotional intelligence. The intrapersonal skills section of the group includes topics that are intended to increase levels of emotional self-awareness, assertiveness, self-

regard, independence, problem solving, and self-actualization. The interpersonal skills section includes discussion and activities intended to increase empathy and improve interpersonal relationships and social responsibility. The portion of the group devoted to stress management is designed to increase stress tolerance and impulse control. Reality testing and flexibility are focal points of the adaptability section of the group. The final section of the group is intended to improve the participants' general mood and optimism level. Specific group topics and a brief outline of the group plan for each week can be found at the beginning of the group section of this manual.

At the end of each group session, members are given an Activity for Discussion. All activities are designed to help the individuals to process the contents of that week's group and to apply and practice the skills learned. For example, the activity that is distributed at the end of the group session dedicated to decision-making asks the members to think of a decision they may have to make when they are on parole. They are then asked to work through the steps of the decision-making process, as related to the decision they might have to make. At the beginning of each group session, individuals take turns sharing with the other group members what they wrote for their activity from the previous week. All activities are then collected and added to each person's personal counseling file.

After each group member has discussed his Activity for Discussion, the group focus turns to the new topic for the week. The Re-entry Counselor facilitates the group by first providing members with educational information on the topic and then asking questions intended to encourage individual participation. At any time during the group, members are encouraged to offer personal examples that serve to illustrate the subject

being discussed. The Counselor models desired behaviors and provides an opportunity to practice in the group settings via individual, pair, or small group activities. In-group activities are incorporated into each session in order to further increase member participation. In certain instances, members are assigned to pairs or small group, in which they will collaborate on activities. The purpose of breaking the group down into dyads or smaller groups is to give the participants experience with working in a team setting to achieve a common goal.

Follow-up

The Re-entry Counselor conducts a follow-up on each participant who completes the program. Follow-ups take place at 30, 60, 90, 180, and 360 days after the individual is released. Follow-ups are intended to determine the effectiveness of the program in regards to (a) reducing recidivism, (b) helping participants obtain employment, and (c) easing the re-entry process for participants via attainment of their individual goals.

Once individuals leave the institution, they may not be interested in participating in follow-up phone calls. For this reason, ESCAPE offered a \$250 stipend to each individual who completed all five of the follow-ups during the developmental period of the program. The condition of receiving the money is that the Re-entry Counselor must speak directly with the ESCAPE graduate. If a graduate does not answer or return the counselor's calls, a letter will be sent to the location at which he is staying. If the individual does not respond to the letter by the date provided, he will be disqualified from receiving the \$250 stipend and his follow-ups will be conducted through his parole agent. Additionally, due to institutional restrictions participants returned to prison do not collect the \$200.00.

Prior to the participant leaving the institution, the Re-entry Counselor gathers his release information. Some individuals are paroled home, while others are given pre-release and will be staying in a halfway house for a period of time. For those who are going straight to a home plan, information is collected on the home plan sponsor (who the participant will be staying with), the address, and the home phone number. For those who must stay at a halfway house, in addition to home plan information, the name, address, and phone number of the halfway house must also be obtained.

Follow-ups are in the form of a phone call during which the Re-entry Counselor inquires about the following: (a) if the individual is still out of prison, (b) if he is working and where, (c) how is adjusting to parole, and (d) how he is doing in regard to the three personal counseling goals that were set during his one-on-one sessions.

The length of the follow-up calls varies based upon the individual. Some graduates wish to simply answer the questions as briefly as possible, while others wish to elaborate on what they are doing and the difficulties or successes that they are having. For some individuals, the follow-up may last 5 minutes; for others, it may last 30-40 minutes or longer.

Graduates of the ESCAPe program are able to contact the Re-entry Counselor between scheduled follow-ups if there are issues that they want to discuss. They may call the Re-entry Counselor's office directly; however, for most graduates that is a long-distance call. Therefore, if an individual prefers, he may call ESCAPe's toll-free number and leave a number at which the Re-entry Counselor can call him back.

Counselor Qualifications

It is recommended that persons using this manual have a minimum of a master's level degree in counseling, social services, psychology, or some related field. This program is predominantly cognitive behavioral in nature, so it is also recommended that those using this manual have a background knowledge of that theoretical orientation.

Appendix D
ESCAPE Group Schedule

Group 1: Introductory Group Session

- Counselor Introduction, group purpose, rules expectations
- Ice-Breaker Activity
- Activity for Discussion
- Feedback

Group 2: Intrapersonal Skills Section (emotional self-awareness)

- Review Activity for Discussion
- In-group exercise
- Activity for Discussion
- Feedback

Group 3: Intra-personal Skills Section (emotional self-awareness, continued)

- Review Activity for Discussion
- Group discussion of anger
- In-group exercises
- Anger management techniques
- Activity for Discussion

Group 4: Intra-personal Skills Section (Assertiveness)

- Review Activity for Discussion
- Assertive, aggressive, and passive behaviors
- In-group activity
- Activity for Discussion
- Feedback

Group 5: Intra-personal Skills Section (Self-regard)

- Review Activity for Discussion
- Discussion of self-regard, including self-image and self-respect. It is important to have an accurate self-image and to do some positive things to be worthy of self-respect.
- In-group activity: “How Well Do You Know Yourself?”
- Activity for Discussion
- Feedback

Group 6: Intra-personal Skills Section (Independence through decision making) Stress Management Section (Problem Solving)

- Review Activity for Discussion

- Discussion about decision-making
- Types of decisions: trivial, small, large, significant
- Decision-making plan:
 1. Identify the Problem
 2. Brainstorm Solutions
 3. Evaluate the Solutions
 4. Choose a Solution
 5. Implement the Solution
 6. Review the Progress
- Examples
- Activity for Discussion
- Feedback

Group 7: Intra-personal Skills Section (Self-actualization through goal-setting)

- Review Activity for Discussion
- Discussion of goal setting and objective planning
- Discussion of evaluating goals and objectives: Plan SMART techniques
- Activity for Discussion
- Feedback

Group 8: Interpersonal Skills Section (Empathy)

- Review Activity for Discussion
- Discussion of empathy
- In-group brainstorming activity
- Activity for Discussion
- Feedback

Group 9: Interpersonal Skills Section (Interpersonal Relationships)

- Review Activity for Discussion
- Discussion of the “four horseman” of Relationship Results
- Discussion of listening
- In-group activity
- Activity for Discussion
- Feedback

Group 10: Interpersonal Skills Section (Interpersonal Relationships)

- Review Activity for Discussion
- Discussion of the importance of listening to communication
- Discussion of “I Messages”
- In-group activity

- Activity for Discussion
- Feedback

Group 11: Interpersonal Skills Section (Interpersonal Relationships)

- Review Activity for Discussion
- Discussion of trust and how it is related to issues after release
- In-group activity: “Building Trust”
- Activity for Discussion
- Feedback

Group 12: Interpersonal Skills Section (Interpersonal Relationships)

- Review Activity for Discussion
- Discussion of conflict and conflict resolution
- Discussion of “escalators” and “de-escalators”; being right; and solution seeking
- Feedback

Group 13: Interpersonal Skills Section (Interpersonal Relationships)

- Discuss Home Planning Question sheet.
- Discussion of Home Planning issues:
 1. Children (Both 12 and under and 12 and over)
 2. Partner
 3. Employer
 4. Parole Agent
 5. Friends
 6. Other Family Members
- In-group activity
- Feedback

Group 14: Interpersonal Skills Section (Interpersonal Relationships)

- Skits/Discussion
- Feedback

Group 15: Interpersonal Skills Section (Interpersonal Relationships)

- Skits/Discussion
- Feedback

Group 16: Interpersonal Skills Section (Social/Personal Responsibility)

- Discussion of the need to take responsibility for situations in your life

- Examples of social responsibility
- Activity for Discussion
- Feedback

Group 17: Stress Management Section (Stress Tolerance)

- Review Activity for Discussion
- In-group activity: “Luck of the Draw”
- Activity for Discussion
- Feedback

Group 18: Stress Management Section (Impulse Control)

- Review Activity for Discussion
- Discussion of impulsiveness, gratification, and delaying gratification
- Discussion of how goal planning is related to delaying gratification
- Activity for Discussion

Group 19: Adaptability Section (Reality Testing)

- Review Activity for Discussion
- In-group exercise: “Changing Obstacles”
- Discussion of the importance of seeing situations in reality; being “tuned in” to behaviors that need to be changed; admitting mistakes; the ease/difficulty of admitting when you are wrong
- Discussion of the danger of mistake “patterns”
- Activity for Discussion
- Feedback

Group 20: Adaptability Section (Flexibility)

- Review Activity for Discussion
- Discussion of change and flexibility
- Discussion of how change relates to stress and how stress management techniques can be used.
- Activity for Discussion
- Feedback

Group 21: General Mood Section (Happiness)

- Review Activity for Discussion
- Discussion of irrational thoughts and beliefs
- Discussion of Choice Theory
- In-group activity

- Activity for Discussion
- Feedback

Group 22: General Mood Section (Happiness)

- Review Activity for Discussion
- Continuation of discussion of choice in thoughts, feelings, and actions.
- Activity for Discussion
- Feedback

Group 23: General Mood Section (Optimism)

- Review Activity for Discussion
- Discussion of optimism
- Activity for Discussion
- Feedback

Group 24: Closing Session

- Review Activity for Discussion
- Closing statements, process, and feedback.