MOTIVATION, SELF-EFFICACY, PROBLEM RECOGNITION, AND LOCUS
OF CONTROL AS OFFENDER TREATMENT RESPONSIVITY FACTORS

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A thesis submitted to
The Faculty of Graduate Studies and Research
in partial fulfillment of
the requirement for the degree of
Doctorate of Philosophy

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Carleton University
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submitted by

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Abstract

The present study examined the influence of the responsivity factors of motivation, self-efficacy, problem recognition, and locus of control on offender treatment participation and success. Responsivity factors were defined as those factors that are related to the ability and learning style of the offender that could influence their response to treatment (Andrews & Bonta, 1998). It was hypothesized that offenders who a) recognized that they have problems related to their antisocial behaviour (high problem recognition), b) wanted to address these problems (high motivation), c) believed that they can effectively address and modify their problem areas (high self-efficacy), and d) believed that events in their own lives are controlled more by internal rather than external forces would have better treatment participation and success. Key findings were that 1) effective correctional programming takes into consideration the principles of risk, need, and responsivity; 2) motivation and self-efficacy appear to be better predictors of program participation and success than problem recognition and having an internal locus of control; 3) external factors and an external locus of control must be considered by correctional researchers, and 4) having a high level of problem recognition may hinder program participation success.

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I. Introduction

The Context

Effective correctional treatment within a forensic setting is assumed to refer to treatment geared towards altering antisocial attitudes, behaviour, or personality in order to reduce reoffending (Greenwood, 1995). The mid- to late 1960s into the 1970s, however, spawned a series of debates regarding the effectiveness of correctional treatment (Andrews & Bonta, 1994, 1998). In the mid-1970's Martinson (1974) reviewed and summarized findings from over two hundred correctional treatment studies. Although several of the studies reviewed had, in fact, demonstrated positive effects of correctional treatment, Martinson generated the initial argument in the “nothing works” debate by suggesting that correctional treatment programs were largely ineffective.

In response to Martinson's conclusions, several authors performed their own reviews of correctional treatment studies. Gendreau and Ross (1979), pointing out that arguments on both sides of the debate were largely based on treatment evaluation studies published before 1967, sought to review the correctional treatment literature published between late 1973 and early 1978. The authors were successful in demonstrating the limitations of the “nothing works” arguments. They suggested that treatment effectiveness depended upon the type, amount, and variety/ combination of treatment as well as the outcome being studied (i.e., recidivism vs. interpersonal, familial, educational or vocational outcomes), the characteristics of various offenders, offender by type of treatment and treatment setting interactions, and community assistance and follow-up.

Gendreau and Andrews (1990) and Hollin (1999) summarized the nature of the debate by pointing out that, empirically speaking, both sides of the argument revolved around drawing conclusions based on the available literature. That is, the variability in outcomes, settings, and measures of success used within the numerous outcome studies made it difficult to collate the findings into a uniform conclusion about the effectiveness of correctional treatment.

The Evidence

The application of meta-analytic techniques to the offender treatment literature has allowed for a clearer assessment of the “nothing works” argument. Andrews, Zinger, Hoge et al. (1990) performed a meta-analysis¹ of a total of 80 studies of young offender and adult correctional treatment, yielding 154 comparisons. Their results indicated that appropriate correctional treatment (defined as treatment in accordance with risk, need and responsivity principles, discussed below) was more effective in reducing recidivism than unspecified correctional treatment, inappropriate treatment, and non-treatment oriented sanctioning. Similar results were found by Lösel (1995, 1996), Gendreau and Goggin (1996), and Dowden and Andrews (1999) among others. Lösel (1996) synthesized the research evidence and states that the average treatment reduces recidivism by approximately ten percentage points. However, treatment based on empirically valid theories, that address criminogenic needs and offender

1- For a review of the strengths and limitations of meta-analysis within the context of offender treatment, see Gendreau and Andrews (1990). Briefly, two main limitations of meta-analysis include: a) the selection, coding and classification of studies may be biased by the relative subjectivity/ objectivity of the rater; and b) meta-analysis is limited by the completeness of the reporting in the original studies. However, the benefit of meta-analysis is its ability to allow researchers aggregate the results of numerous studies in order to determine the overall size of a relationship between two variables.

characteristics, and are behavioural, cognitive-behavioural, or multimodal produce greater results. Gendreau and Goggin (1996) also indicate that programs that are cognitive-behavioural, highly structured, target criminogenic attitudes, values, and behaviours, and target higher-risk offenders, are effective in reducing recidivism by twenty-five to thirty percent.

Note that the cognitive-behavioural approach underscores both personal and environmental variables when accounting for behaviour (Liebert & Spiegler, 1990). Thus, personality or behaviour change would require modification of cognitions (i.e., cognitive restructuring) as well as addressing the individual's surroundings or context. Cognitive-behavioural therapy helps clients modify the cognitions that influence their problem behaviours (Meichenbaum, 1986) through several approaches such as identification of self-statements, problem-solving therapy, and stress inoculation training (Liebert & Spiegler, 1990).

Principles of Classification for Effective Correctional Treatment

Given the evidence supporting the efficacy of offender treatment programs in reducing recidivism, the research focus appeared to turn from debating the “nothing works” argument to the investigation of the factors associated with successful programs or “what works”. Andrews and Bonta (1994, 1998) have postulated three general principles of classification for effective correctional treatment. These are the principles of risk, need, and responsivity. The risk principle comprises two aspects: a) criminal behaviour is predictable and b) the level of treatment should be matched to the risk level of the offender (i.e., offenders at higher risk of recidivism should receive more intensive services in

order to reduce the likelihood of reoffending). The need principle suggests that offenders have various criminogenic and noncriminogenic needs. Criminogenic needs are those targeted for correctional treatment, are considered dynamic or changeable, and impact on recidivism risk. Usually, the higher the risk level, the higher the number of criminogenic needs (i.e., antisocial attitudes, antisocial associates, substance abuse, employment, etc.).

Finally, the responsivity principle suggests that treatment programs should be delivered in a manner that “is consistent with the ability and learning style of the offender” (p. 177, Andrews & Bonta, 1994). In other words, while risk level helps to single out those who would benefit most from intensive treatment, need suggests the treatment targets, and responsivity addresses the most appropriate mode of service (Andrews, 1996).

Focusing on Responsivity

Although offender characteristics such as interpersonal anxiety and sensitivity, verbal ability, and cognitive maturity are assumed to have an impact on the effectiveness of different modes of treatment (Bonta, 1995), relatively few studies have focused on the impact of other responsivity factors in relation to treatment effectiveness. The basic assumption underlying the responsivity principle is that offenders are a heterogeneous group. With heterogeneity comes the need for varied treatment approaches that are responsive to offender differences in intelligence levels, preferred communication styles, interpersonal confidence and any other factor that may impact an offender’s response to treatment. In other words, although responsivity factors may not be direct

treatment targets (i.e., interpersonal confidence or self-esteem), they may interfere with the achievement of treatment goals (i.e., group treatment sessions may not be as effective with shy offenders or those lacking interpersonal confidence).

Antonowicz and Ross (1994) found evidence supportive of the principles of need and responsivity in their review of forty-four rigorously controlled offender treatment studies published between 1970 and 1991. The authors found that six factors were associated with the effectiveness of programs. These were programs that a) were based on a sound conceptual model (i.e., cognitive-behavioural), b) used a variety of techniques, c) targeted criminogenic needs (i.e., factors known to be related to recidivism), d) adhered to the responsivity principle, e) included role-playing or modeling, and f) used social cognitive skills training (i.e., were behaviourally oriented and included a cognitive component). In this study, adherence to the principle of responsivity was judged to be present if behavioural or social learning techniques were used or if offender social maturity or cognitive style were considered.

Lösel (1995) systematically compared and integrated the findings of sixteen meta-analyses of offender treatment. All meta-analyses demonstrated a positive overall treatment effect but the most effective treatment programs were those that were theoretically well founded, cognitive-behavioural, and multi-modal. However, Lösel pointed out that there is insufficient knowledge of the differential effects of offender characteristics – particularly those that would be predictive of differential treatment responses. Bonta (1995) also indicated that there has been little research in this area, particularly with offenders. He suggests

that treatment would be more effective if offenders “who generally have poor social skills, have little internal motivation to change and are concrete-oriented in their thinking” (p.35) were given treatment that sets clear behavioural goals and provides several opportunities for success. In essence, Bonta suggests that “the responsivity principle focuses on personal characteristics that regulate an individual’s ability and motivation to learn” (p.35). Gendreau and Goggin (1996) suggested that offender treatment “should be designed to match the characteristics of the offender, the therapists and the program in such a way as to motivate the offender to participate and provide optimal conditions for learning pro-social behaviours” (p. 39). Hollin (1999) indicated that there is a need for research to establish a theoretical link between recidivism risk and treatment responsiveness.

Expanding the responsivity principle, Serin and Kennedy (1997) suggested that responsivity factors could be divided into two categories – internal and external. Internal responsivity factors include individual characteristics such as motivation, personality, cognitive functioning, and demographic factors. External responsivity factors include the characteristics of the therapist and the treatment setting. Thus, it is evident that responsivity factors are important to consider when assessing the effectiveness of correctional treatment. The following sections will focus more closely on several responsivity factors, which Serin and Kennedy would consider to be internal responsivity factors, and that may impact the effectiveness of correctional treatment. Specifically, motivation, self-efficacy, problem recognition, and locus of control factors will be reviewed in turn.

II. The Concept of Motivation

The above discussion demonstrates that responsivity factors are an important component of effective correctional treatment. One such factor, namely motivation, has recently been receiving more attention in the literature. Waltman (1995) suggests that client motivation is an important characteristic that has a more direct impact on treatment outcome than the treatment components themselves. Beckman (1980), Dean (1985), and Keijsers, Schaap, Hoogduin, Hoogsteijns, and de Kemp (1999) suggested that motivation is the first step toward responsiveness to treatment. However, motivation as a construct has been and still is difficult to both define and measure (Preston & Murphy, 1997). This, in part, may be due to the varied approaches to defining motivation (Jenkins-Hall, 1994). Within correctional settings, Tellier (1999), in a comprehensive review of the concept of motivation for behaviour change, found a lack of agreement on the definition of motivation, making its assessment complex. Stewart and Millson (1995) have also suggested that offender motivation for treatment is “an elusive responsivity factor in correctional populations” (p.5). De Leon, Melnick, and Kressel (1997) advise that “conceptual formulations of motivation and readiness are still developing” (p. 171) and Joe, Simpson, and Broome (1998) propose that “motivation is a complex and dynamic construct [including] both extrinsic and intrinsic dimensions” (p.1178).

Defining Motivation

Miller (1985) proposes that complexity in defining motivation is due to conceptual difficulty in separating motivation from treatment outcome since both

tend to be defined with reference to an observable behaviour change. Because of this, Miller conceptualized motivation as “the probability of engaging in behaviours that are intended to lead to positive outcomes” (p.99). In other words, since motivation is not directly observable, inferences about its contribution to an individual’s behaviour must be made based on observable actions directed towards some positive outcome. One can only assume that these outcomes are perceived to be positive by the individual themselves, not by therapists, counselors, or others close to the individual. This assumption appears to be supported by Miller’s referral to trait-oriented conceptualizations of motivation that regard failure to enter into, continue with, and succeed in treatment as a lack of proper motivation attributed to client characteristics such as personality traits, client resistance, and denial. Thus, client treatment failures are viewed as deriving from negative dispositional traits. On the other hand, a client is seen as motivated if she or he:

accepts the therapist’s view of the problem (including the need for help and the diagnosis), is distressed, and complies with treatment prescriptions. A client showing the opposite behaviors – disagreement, refusal to accept diagnosis, lack of distress, and rejection of treatment prescriptions – is likely to be perceived as unmotivated, denying, and resistant (p. 87-88, Miller, 1985).

This viewpoint challenges traditional correctional views of defensiveness, refusal to participate in treatment, and denial by implying that they may be due to inadequate offender motivation rather than genuine defensiveness, refusal, or denial. Preston and Murphy (1997) demonstrate an illustration of this dichotomy by simultaneously suggesting that client non-defensiveness and motivation are both client variables associated with treatment outcome.

Mechanistic versus Organismic Theories of Motivation

In an effort to further guide an operational definition of motivation, two general classes of theories will be reviewed briefly. Mechanistic theories of motivation understand the human organism as passive and at the mercy of interactions between physiological drives and environmental stimuli (Deci & Ryan, 1985). On the other hand, organismic theories view humans as more active, free to choose, and able to initiate behaviours. Organismic theories suggest that the intrinsic needs and physiological drives of organisms provide them with the energy to freely act upon the environment and manage their emotions and drives. Thus, stimuli do not cause behaviour but give the organism the opportunity to satisfy its needs. People's experiences are essential and the psychological meanings of stimuli are more important than the characteristics of the stimuli themselves (Deci & Ryan, 1985). Organismic theories appear to be complimentary to the cognitive-behavioural perspective which also asserts the importance of both personal and environmental variables in predicting behaviour (e.g., the relationship between thoughts, feelings, and actions; Liebert & Spiegler, 1990). As demonstrated in the previous section, the cognitive-behavioural approach appears to be most effective within offender treatment populations and, thus, supports an organismic approach to conceptualizing motivation.

Several authors espouse the organismic viewpoint in their definitions of motivation. For example, Liebert and Spiegler (1990) define motivation as the "desire to satisfy a particular need" (p.525). That is, needs supply motives that lead to thought and action (i.e., a need is a requirement while a motive is the

desire to satisfy that need). Weiten (1989) suggests that motives are the “needs, wants, interests, and desires that propel us in certain directions” (p. 348).

Zimbardo (1992) suggests that motivation is “the general term for all the processes involved in starting, directing, and maintaining physical and psychological activities. It is a broad concept that embraces the host of internal mechanisms involved in a) preferences for one activity over another, b) vigor, or strength of responses, and c) persistence of organized patterns of action toward relevant goals” (p. 424).

In sum, there appears to be a general consensus that motivation is the mechanism that propels goal-directed behaviour. However, Zimbardo (1992) points out that while behaviour is directly visible, motivation, in contrast, is an abstract concept. Thus, in order to explain observed behaviour change, inferences must be made about the underlying psychological and physiological variables that influenced the change. It is the inferences about goals, needs, and intentions that are encompassed by the concept of motivation.

Research on Offender Motivation

In relation to offender motivation, Grant and Gillis (1996, 1999) assessed the relationship between day parole performance and success on full release for a sample of over 1000 federal inmates. Part of the study considered motivation as a mediating factor for program participation at residential centres during day parole. The contribution of motivation to the successful outcome of both day parole and sentence completion was investigated. Offenders were considered to be motivated if they “were rated as not having a problem in their response to

supervision and ... were motivated during day parole” (p.28, Grant & Gillis, 1999). Unmotivated ratings were given to “offenders who presented with a supervision problem prior to day parole, and who were not motivated on release” (p. 28). The authors determined that motivation at the time of day parole release was related to day parole success. Sixteen percent of offenders rated as motivated prior to release failed on day parole relative to 48% of offenders rated as unmotivated. Further, similar results were found with post day parole failure (defined as any re-admission) – 21% of motivated and 30% of unmotivated offenders were readmitted to custody after full release. The authors also assessed change in motivation as a dynamic risk factor. Offenders who were initially rated as presenting a problem with supervision but were later rated as motivated during day parole had a 64% higher success rate than the unmotivated group. This positive change was assessed to contribute to a 30% reduction in readmissions and a 35% reduction in new offences. Although the authors included a copy of their coding manual, it is not clear how motivation was operationalized in this study other than by using response to supervision as a proxy rating. The authors suggest, however, that standardized measures of motivation may provide more reliable assessments of offender motivation. This study remains effective in demonstrating that factors potentially related to motivation, such as response to supervision and willingness to participate in treatment, have an impact on day parole success.

Stewart and Millson (1995) examined offender motivation for treatment as a responsivity factor and assessed the relationship between ratings of offender

treatment motivation and conditional release outcome. Data were gathered from the Community Offender Management Strategy - an assessment tool used by case management officers to determine the level of offender need in seven domains linked with criminal behaviour (i.e., employment, marital/ family, associates/ social interaction, substance abuse, community functioning, personal/ emotional orientation, and attitude). Case supervisors also provided ratings of an offender's motivation to address each need area. Motivation was rated as low, medium, or high depending on the extent to which the offender admitted the need for change and their willingness to do something about this need. That is, ratings of low motivation indicated the offender's rejection of the need to change or unwillingness to participate in recommended programs. A moderate rating was given to offenders who may not have fully accepted the needs assessment but were still willing to participate in recommended programs. A high motivation rating was given to offenders who were willing to actively address recommended need areas.

Stewart and Millson collected data from 2,400 offender assessments undertaken in almost all parole offices in the Correctional Service of Canada's Ontario Region over a two year period. Data was gathered on offenders' conditional release suspensions after an average release period of six months. The authors found that ratings of level of treatment motivation for all seven domains were significantly related to conditional release outcome. Specifically, offenders that were rated as highly motivated had better release outcomes than those rated moderately motivated and had much better outcomes than those rated

as low in motivation. When the authors combined ratings of offender motivation with level of need within each of the domain areas, the prediction of conditional release outcome was improved. They found that high need/ low motivation offenders were two to three times more likely to have their conditional release suspended than were the low need/ high motivation offenders. Further, offenders classified as high risk tended to have lower ratings of motivation than offenders rated as low-risk. Overall, the best conditional release outcomes were found in low-risk offenders who were rated as highly motivated. Interestingly, conditional release suspension rates did not differ between high-risk offenders rated as highly motivated and those whose motivation level was rated as low in all need domains. The authors concluded that, although there was evidence for treatment motivation as a responsivity factor, its relationship with conditional release outcome was not as strong as that of offender risk and need ratings with outcome. However, the authors do suggest that motivation for treatment should be considered a component of any assessment strategy. As with Grant and Gillis (1996, 1999), motivation was conceptualized here as offender admission or recognition of problems and the extent to which they were willing to participate in programming that targeted these problem areas.

As part of the Correctional Service of Canada's National Inmate Survey Robinson, Muirhead, and Lefaive (1997) found that violent offenders demonstrated higher motivation for programs and greater anticrime orientations than non-violent offenders. Further, relative to other inmates, sex offenders who demonstrated the highest level of motivation for programs were more likely to

endorse anticriminal orientations. The lowest level of program motivation was found among robbery offenders who also demonstrated the fewer anticriminal attitudes.

In sum, the above research demonstrates the types of inferences made about offender treatment motivation. That is, motivation was assessed as present if the offender appeared to recognize problem areas, was willing to address these issues, and did not present a problem upon supervision. Further, motivation was rated either by case supervisors or research assistants without input from the offenders themselves. However, since motivation appears to be a difficult concept to operationalize, ratings by offenders may have shed more light on the issues that they feel are important to address (i.e., treatment goals), the reason for believing these issues need to be addressed (i.e., motives), and the level of readiness to address these issues (i.e., willingness to change, self-efficacy for change).

Intrinsic versus Extrinsic Motivation

In order to better understand the goals, needs, and intentions that are encompassed by the concept of motivation, a distinction has been made between intrinsic and extrinsic motivation. Intrinsic motivation refers to motivation to engage in an activity for its own sake, in the absence of external rewards (Zimbardo, 1992). In other words, a behaviour that is undertaken in the absence of any purpose other than the immediate reward of engaging in it is considered intrinsically motivating (e.g., painting as a hobby). Conversely, extrinsic motivation refers to the motivation to engage in an activity for some external

consequence or reward. If the behaviour is instrumental in obtaining something else, then it is considered extrinsically motivating (e.g., working for a paycheck). Miller (1985) asserts that, according to intrinsic motivation theory (Deci & Ryan, 1985), when the perceived choice for treatment is high, voluntary compliance with treatment increases than when perceived choice for treatment is low. However, for perceived choice to exist, alternatives must be available. Also, treatment that decreases the perceived attractiveness of a behaviour while increasing the immediacy and salience of its negative consequences should increase motivation.

Research on Intrinsic/ Extrinsic Motivation

In a study of motivation for outpatient substance abuse treatment, De Leon, Melnick, and Kressel (1997) suggest that legal referral or involvement (e.g., due to pending court cases or court mandate) is the most consistent non-client (or extrinsic) predictor of continuance in substance abuse treatment. These clients averaged more days in treatment than did clients who voluntarily participated. Joe, Simpson, and Broome (1998) and Deci and Ryan (1985), however, suggest that while extrinsic motivators such as legal pressure or sanction can keep clients in treatment, intrinsic motivators are more fundamental to the recovery process. Joe, Simpson, and Broome (1998) assessed factors associated with the length of treatment stay in a study of 2265 clients from 18 long-term residential (LTR), 1791 clients from 16 outpatient drug-free (ODF), and 981 clients from 13 outpatient methadone treatment (OMT) programs across the United States. Pre-treatment motivation was assessed using three scales: Problem Recognition (a

measure of the level of personal acknowledgement or denial of behavioural problems that results from drug use), Desire for Help (addresses an awareness of an intrinsic need for change and a corresponding interest in getting help), and Treatment Readiness (addresses the degree of commitment to actively change through participation in a treatment program). The authors determined that “treatment readiness” (used interchangeably with “motivation”) was an important predictor of length of stay for the LTR and OMT clients. These authors also found evidence of a positive predictive relationship between pre-treatment motivation and therapeutic relationship and pre-treatment motivation and post-treatment outcome. Overall, the strongest predictor of length of stay was treatment readiness, even more so than the extrinsic motivators of legal status, arrest history, amount of previous drug treatment, and employment status.

Hoshmand (1987) investigated the differences between client self-judgments and therapist judgments of the severity of clients’ anger control problems, degree of dangerousness, and motivation for treatment. The client groups were composed of 52 male outpatients with a history of battering and 57 male and female outpatients without a battering history but with varying degrees of anger-related problems. Clients in the batterer group were court-referred to treatment as a diversionary alternative. With respect to motivation for treatment, both batterers and nonbatterers rated themselves significantly higher than their respective therapist ratings. Further, as a group, batterers received significantly higher therapist and self-ratings than the non-batterers in all three areas of judgment. While the author indicated that both client self-ratings and therapist

ratings of anger control, dangerousness, and treatment motivation were made using a zero to ten point scale, it is unclear what definition or criteria were used to assess treatment motivation. This study demonstrates the differential ratings of clients and therapists. The author suggests that the differences between therapist's and client-self-ratings of treatment motivation may have been due to the social context of the evaluation and because the batterer group were in treatment as a diversionary measure (i.e., had high extrinsic motivation). Further, the rating scale of 0-10 that was used was probably too broad and not sufficiently anchored in objective referents. The author suggests future research should use more open-ended procedures, multiple criteria that are anchored in observable behaviours and data co-constructed by therapists and clients, and include therapist variables that may be related to their judgment.

Gillis, Robinson, and Porporino (1996), within the context of correctional employment, found a positive relationship between offender's intrinsic work motivation and their self-reported ratings of work behaviours. For example, the higher the offenders' self-reported ratings of effectiveness in demonstrating initiative at work, working independently, and dealing with authority, the more meaningful they perceived their job to be. Also, self-reported ratings of effectiveness in cooperating with their supervisor, showing initiative, and dealing with authority was positively related to feelings of responsibility for work results. The authors concluded that offenders' motivational attitudes were related to generic job skills which may be transferable to other work settings. These results suggest that offender motivation (defined as positive attitudes toward work,

personal job satisfaction, feeling that their work makes a contribution) contributes to their work-related efficacy.

Thus, particularly within offender populations, the distinction between factors that are intrinsically and extrinsically motivating would appear to be important when evaluating treatment effectiveness.

III. The Concept of Self-Efficacy

Self-efficacy, a factor related to motivation that has its roots in the social learning/ cognitive behavioural perspective, was put forward by Albert Bandura. Bandura (1995) defines self-efficacy as “beliefs in one’s capabilities to organize and execute the courses of action required to manage prospective situations” (p.2). According to this self-efficacy theory, the way an individual thinks, feels, motivates themselves, and acts are influenced by their efficacy beliefs. Bandura reports that causal tests are consistent in their findings that efficacy beliefs contribute significantly to motivation and accomplishments. This concept is, by definition, personal to each individual’s perception (Liebert & Spiegler, 1990). In other words, if an individual perceives that they can manage and are capable of engaging in a particular task, they are more likely to do so. Further, once a task is undertaken, the amount of energy expended towards that task and persistence in the face of difficulty depends on their level of self-efficacy (Bandura, 1995; Longo, Lent, & Brown, 1992). The stronger the perceived self-efficacy, the more energy the individual will expend and the more persistence they will display.

Bandura (1995) also suggests that people will motivate themselves and, in anticipation of likely outcomes (outcome expectancies), guide their actions by “the exercise of forethought” supporting the premise that human motivation is cognitively generated. Thus, individuals will set goals and plan actions designed toward attaining these goals. In the context of self-change, Bandura hypothesized that all attempts at personality change are effective because they create and strengthen an individual’s perceived self-efficacy (Liebert & Spiegler, 1990). For

example, the more effective a treatment is, the more it will enhance clients' efficacy expectations. However, self-efficacy is considered to be situation specific. That is, it varies depending upon the particular behaviour called for rather than operating as a global personality trait or motive that would influence behaviour in diverse circumstances.

Research Evidence

Bandura argued that both response-outcome expectancies and self-efficacy expectancies must be considered when predicting or changing behaviour (Sappington, 1996). Longo, Lent, and Brown (1992) investigated the extent to which a) self-efficacy and outcome expectancies predicted clients' intentions to remain in counseling, b) motivation, self-efficacy, and outcome expectations predicted clients' actual return rate following an intake interview, and c) self-efficacy was related to state anxiety and self-esteem. One hundred and thirty-nine university counseling center clients completed a measure of a) self-efficacy in relation to their ability to manage counseling related tasks, b) counseling related outcome expectancies, c) perceived motivation, d) problem distress level, e) state anxiety, and f) self-esteem as explanations for the choice to endure counseling challenges. The authors acknowledged the variability in the literature surrounding the operationalization of "motivation" and provided their own definition as clients' reported intent to continue in counseling. The authors provided this definition while, at the same time, recognizing that goals or intentions and motivation technically represent different constructs (since goals are believed to contribute to motivation). The self-efficacy measure designed for the study contained 20 items that encompassed the various counseling related

challenges that clients may have had to negotiate and that may have influenced their decision to continue. Motivation and outcome expectancies were assessed using two scales from the Expectations About Counseling Questionnaire (EAC). The motivation scale incorporated eight items believed to address clients' desire to engage in and persevere in counseling. The outcome expectancies scale consisted of 11 items gauging client's expectations about the anticipated benefits of counseling.

Longo et al. (1992) determined that self-efficacy, outcome expectancies, and motivation were three distinct, yet positively interrelated, constructs. Further, both outcome expectancies and self-efficacy accounted for significant unique variance in motivation, above and beyond client gender, problem severity, and therapist experience. However, self-efficacy explained more unique variance than did outcome expectancies in predicting motivation and was the most effective variable in discriminating between clients who continued with counseling and those who did not. Thus, these results support social cognitive theory's assertion that predicts the positive relationship between self-efficacy and task motivation and outcome expectancies.

Brown, Carrello, Vik, and Porter (1998) examined changes in alcohol effect and self-efficacy expectancies as a result of a four-week cognitive-behavioural inpatient treatment program. Participants, 99 male and two female inpatients at a drug and alcohol program, completed an assessment battery pre- and post-treatment. The assessment protocol consisted of a 90-item Likert-style version of the Alcohol Expectancies Questionnaire (AEQ), the 42 item self-report

Alcohol Situational Confidence Questionnaire (SCQ), and a self-report questionnaire gathering demographic and substance use information. Results indicated that alcohol-related expectancies (i.e., expectancies of the positive effects of alcohol) were inversely related to self-efficacy at pre-treatment and changes in these expectancies at post-treatment were related to pre-treatment self-efficacy. That is, participants with lower pre-treatment self-efficacy demonstrated greater decreases in expectancies about the positive effects of alcohol than participants with higher pre-treatment self-efficacy. The authors conclude by suggesting that cognitive factors such as expectancies may be useful in matching clients to treatment.

Long, Hollin, and Williams (1998) examined 1) the usefulness of a distinction between subjective expectancies and fantasies in the prediction of post-treatment alcohol use and 2) whether outcome expectancies and fantasies are better than self-efficacy in the prediction of post-treatment drinking. Participants were forty-two clients participating in a two week, cognitive behavioural, day-patient program for problem drinkers. The program had a relapse prevention focus, matched clients to treatment (no explanation of this process was given), and incorporated motivational counseling. Results indicated that self-efficacy was predictive of treatment outcome. Drinking-related pre-treatment self-efficacy was strongly predictive of level of alcohol consumption at six and twelve month follow-up. That is, higher levels of pre-treatment self-efficacy were predictive of lower consumption at follow-up. Positive outcome expectancies, however, did not predict post-treatment drinking. Thus, outcome expectancies did not add to

the predictive ability of self-efficacy. The authors suggest targeting patients with low self-efficacy at intake for a preliminary intervention to increase their self-efficacy.

Sappington (1996) examined the relationship between adjustment in prison to both self-efficacy and response-outcome beliefs among a sample of 38 inmates in a maximum security prison for whom anger management classes had been recommended. The results indicated that both self-efficacy and response-outcome beliefs affected adjustment in prison. That is, individuals who believed that their behaviour did not affect their treatment and those who believed that they could not control their actions were likely to have more adjustment problems. Interestingly, the author also found that these beliefs were positively correlated with age and amount of time served in prison. In other words, older inmates and inmates who had served more time in prison felt that their actions did not affect their treatment in prison and that they could not control their actions.

Hogan (1990) explored the effectiveness of self-efficacy and motivation in predicting substance abuse relapse among a sample of sixty offenders admitted to a pre-release substance abuse program. Among other measures, self-efficacy was assessed with the Drug Taking Confidence Questionnaire, the Self Satisfaction subscale of the Tennessee Self Concept Scale was used as a measure of motivation, and urinalysis was used as an independent measure of relapse. Both self-efficacy and motivation were predictive of relapse after a three month period. That is, offenders with greater motivation for abstinence and higher self-efficacy had lower relapse rates than offenders with lower motivation and self-efficacy.

In sum, self-efficacy beliefs contribute to motivation and accomplishments in several ways: they determine the goals people set for themselves, how much effort they expend, how long they persevere in the face of difficulties, and their resilience to failures (Bandura, 1995). When faced with obstacles and failures, people who distrust their capabilities will lessen their efforts or give up quickly. Those who have a strong belief in their capabilities exert greater effort when they fail to master a challenge. Strong perseverance contributes to performance accomplishments. The above findings suggest that for correctional treatment programs to be optimally effective, the offender must believe that she or he is able to negotiate the requirements of treatment and that, by doing so, treatment will result in a favourable outcome(s).

IV. The Concept of Problem-Recognition

Of course, the first step in changing maladaptive behaviour is recognition that the behaviour is problematic. Saunders (1993) conceptualized the process of seeking therapy as comprised of four steps: 1) realizing the existence of a problem, 2) deciding that therapy would be a good way to try to solve the problem, 3) deciding to seek therapy, and 4) making contact with a mental health provider. Of these four steps, Saunders found that recognizing that there was a problem was the most difficult and time-consuming step for the majority of clients. Problem recognition was particularly difficult for the most and least distressed clients, suggesting the need for an optimal level of distress for problem recognition to occur. The extent to which clients acknowledge having problems has also been found to be predictive of their level of therapeutic engagement, even among those who were legally remanded to treatment (Joe, Simpson, & Broome, 1998). Miller (1985) suggests that it is the perceived severity of a problem that is potentially more important to treatment motivation than is actual symptom severity. He contends that motivated clients first accept that there is a problem, including the need for help. Second, they are distressed by the problem and, finally, they comply with the treatment regimen.

Research Evidence

In a study examining correlates of treatment motivation such as demographic factors, indicators of drug-problem severity, social resources, and perceptions of treatment, Longshore, Grills, Anglin, and Annon (1998) found that the only independent factor related to motivation was problem recognition.

Participants of this study were 122 African American drug users without substance use treatment histories. Treatment motivation was measured using eight Likert-type items assessing clients' interest in receiving treatment. Participants reported the extent to which their drug use was causing problems with the law, employment, health, family, and friends. Treatment motivation was found to correlate with four predisposing factors (gender, frequency of recent use, problem recognition, and perceived racism) and seven enabling factors (legal income, current employment, friend support for quitting use, conventional moral beliefs, perceived treatment benefit, perceived self-help benefit, and social stigma barrier). As stated, problem recognition was the factor most highly related to treatment motivation. Findings indicated that participants who scored higher on motivation for treatment believed that their drug-related problems were more serious. After controlling for problem recognition, perceived treatment benefit (i.e., outcome expectancies) also emerged as a significant predictor of treatment motivation. Participants who were more motivated had higher expectations of treatment benefit. Thus, the authors suggest that future research attempt to identify the correlates of problem recognition.

Jenkins-Hall (1994) examined four motivational factors (acceptance of the problem, attendance, promptness, and level of participation in therapy) as predictors of treatment effectiveness in a sample of 48 child molesters. The participants were outpatient clients of a multi-modal cognitive/ behavioural therapy program and were on parole and court-mandated into treatment. Treatment effectiveness was indicated if deviant sexual arousal was lowered from

pre- to post-treatment and by the mastery of cognitive/ behavioural strategies and concepts. The author contended that the major difficulty with court-mandated clientele is the extrinsic motivation to participate in treatment in order to meet the conditions set by the court. Responsivity factors such as intelligence, literacy, language, and psychoticism were addressed by only including participants who were at least low average in intelligence, literate, English speaking, and non-psychotic. Interestingly, another criteria for inclusion was that the offender admit to sexual or pre-sexual interest in or behaviour with a child. Overall, using client self-reports, therapist ratings, and behavioural indices of treatment change, results indicated that motivation was related to successful treatment outcome. However, motivational factors were more predictive of mastery over cognitive/ behavioural therapy approaches than of changes in sexual arousal patterns. Acceptance of responsibility for sexual deviancy (i.e., problem recognition) was consistently the most effective predictor of favourable treatment outcome.

In sum, the above research demonstrates that treatment effectiveness is impacted by the extent to which an individual recognizes their problematic behaviour. It has also been demonstrated that problem recognition plays a role in an individual's motivation to engage in treatment.

V. The Concept of Locus of Control

Rotter (1966) was the first to introduce cognitive elements as an addition to Social Learning Theory. His aim was to integrate findings from laboratory psychology with clinical experience to form a comprehensive personality theory. One of the constructs generated from this theory is that of locus of control. This construct was first used by Rotter (1966) to predict behaviour by measuring the extent to which an individual believed that events or outcomes in his/ her life were controlled by internal (i.e., their own actions) or external (e.g., fate, luck, powerful others, political institutions) forces. A person who views events in his/ her life as being within his/her control is considered to have an internal locus of control. A person who views events in his/ her life as being out of his/ her own control, occurring as a result of fate, luck or powerful others is considered to have an external locus of control. It is, then, a person's subjective locus of control that affects how he or she behaves. Rotter (1966) also believed that locus of control may change as a person's life circumstances change.

Research Evidence

Sizilagyi and Sims (1975) reported evidence to indicate that people who believe that they have internal control are more effective at their work. Similarly Lawler (1971) indicated that the more a person believes in internal control the more he/ she feels that his/ her performance will result in a desired outcome. Also, the more a person believes in external control the less likely he/ she will have a high performance to outcome expectancy. Logsdon, Bourgeois, and Levenson (1978) found a significant relationship between locus of control and

success or failure conditions on a preliminary task given to undergraduate students. Students who had a higher internal locus of control performed better than those with an external locus of control on a false biofeedback task.

Levenson (1975), Gore and Rotter (1963), and Strickland (1965) have all reported that African Americans who had engaged in human rights protests had more of an internal locus of control than their less active peers.

Unfortunately, very few research projects have involved the construct of locus of control among incarcerated offenders. Zamble and Porporino (1988) considered locus of control as a major construct that affects offenders' behaviour in prison. They found a positive relationship between locus of control and coping strategies. That is, the offenders with an internal locus of control demonstrated better coping in prison than did offenders with an external locus of control. Levenson (1974) found that the perception of control by powerful others among incarcerated offenders was related to the length of offenders' sentences. Graham (1991) found a significant change from an external to an internal locus of control in offenders after they had completed a sex offender program. Recently, Cortoni, Anderson, and Looman (1999) examined the relationship between locus of control and coping styles among sexual offenders. They used Levenson's (1974) Locus of Control Scale that has an internal locus of control subscale and two external locus of control subscales (Powerful Others and Chance Control). Results on the internal locus of control subscale did not correlate with the two external control subscales. Furthermore, offenders in their study reported having a greater external locus of control than internal locus of control. This result was

consistent with results previously obtained by Graham (1991) and Levenson (1974).

Thus, locus of control may be an important construct encompassed by the responsivity principle. That is, locus of control may be a factor that would impact treatment outcome. For example, offenders with an internal locus of control would be hypothesized to have better treatment participation and success since they are more likely than offenders with an external locus of control to believe that change is within their control. In accordance with the above research findings, it is also hypothesized that offenders with an internal locus of control will be more likely to have better post-program institutional adjustment (i.e., fewer institutional charges, less time in segregation) than offenders with an external locus of control.

VI. The Concept of Behaviour Change

The Transtheoretical Model of Change (Grimley, Prochaska, Velicer, Blais, & DiClemente, 1994; Prochaska, Velicer, Rossi, et al., 1994) provides one conceptualization of the structure of behaviour change, focusing on intentional change instead of societal, developmental, or imposed change. This model was initially developed within the context of smoking cessation research but has been successfully applied to a variety of health-risk behaviour such as exercise, sunscreen use, weight control, contraceptive and condom use, HIV risk reduction, mammography screening, and dietary fat reduction (Grimley, Prochaska, Velicer, et al., 1994). The Transtheoretical model integrates the following concepts to explain behaviour change: stages of change (a temporal organizational structure), processes of change, levels of change, and dependent variables that include the pros and cons of change and self-efficacy. This model will be reviewed here briefly due to its recent receipt of attention in the psychology literature. Following this overview, a critique of this model within the context of offender institutional treatment will be presented.

Stages of Change

In relation to the stages component of this model, research findings indicate that in order to change a maladaptive behaviour, an individual will move through several stages as they struggle to reduce or eliminate the behaviour (Prochaska, Velicer, Rossi, et al., 1994). The five stages of change are precontemplation, contemplation, preparation, action, and maintenance. Precontemplation is the stage at which an individual has no intention to change

their behavior in the foreseeable future (within the next six months). A six-month time frame was used because it was assumed that this is as far in the future as most people plan a specific behaviour change. Often individuals at this stage are unaware or underaware of their problems. In the contemplation stage, the individual is aware that a problem exists and is seriously thinking about overcoming it (within the next six months) but have not yet made a commitment to take action. Preparation is a stage that combines intention and behavioral criteria. Individuals in this stage are intending to take action in the near future (within the next month) and have unsuccessfully taken action in the past (year). Action is the stage in which individuals modify their behavior, experiences, or environment in order to overcome their problems (0 to 6 months after the initial change). Action involves the most overt behavioral changes and requires considerable commitment of time and energy. Maintenance is the stage in which people work to prevent relapse and consolidate the gains attained during action. For addictive behaviors this stage extends from six months to an indeterminate period past the initial action. The amount of time spent within each stage varies depending upon the individual. However, successful movement to the next stage is assumed to require the accomplishment of an invariant set of tasks.

Processes of Change

Processes of change are those “covert or overt activities individuals use to alter their experiences and/ or environments in order to modify affect, behavior, cognitions, or relationships” (p. 208; Grimley, Prochaska, Velicer, et al., 1994). These processes are believed to represent the basic principles underlying the large

number of coping activities. Different processes are believed to be in use at different stages of change. For example, during precontemplation, less information is processed about the problem, less time and energy is devoted to self-reevaluation, fewer emotional reactions to negative aspects of the problem are experienced, there is less openness with significant others, and little effort is expended in shifting attention or the environment towards overcoming the problem. In contrast, during contemplation there is more openness to consciousness-raising techniques (i.e., observations, confrontations, interpretations); more use of bibliotherapy and other educational techniques; more openness toward dramatic relief experiences (i.e., raise emotions, lower negative affect if change occurs); increased consciousness of self and the nature of the problem; increased likelihood of reevaluating values, problems and self both cognitively and affectively. Similar cognitive, affective, and evaluative processes are continued into the preparation stage along with steps toward action (i.e., counterconditioning, stimulus control). In the action stage there are higher levels of self-liberation or willpower, an increased belief in autonomy to change, effective use of behavioural processes (i.e., counterconditioning, stimulus control) which modify the conditional stimuli that may prompt relapse, and increased reliance on support and understanding from others. During maintenance, an assessment of the conditions likely to prompt relapse is undertaken and alternative coping responses are planned. This may involve continued use of counterconditioning and stimulus control that are most effective if change

supports a sense of self that is valued by the individual and at least one significant other.

Prochaska, DiClemente, Velicer, Ginpil, and Norcross (1985) investigated the ability of fourteen measures to predict change in smoking status in a sample of 866 paid adult volunteers. Their results indicated that the change processes of self-reevaluation and helping relationship as well as self-efficacy and decisional balance variables were the most effective predictors. Interestingly, processes that were more environment-oriented (e.g., dramatic relief, social liberation, stimulus control) were predictive of failure or lack of progress whereas experientially-oriented processes (i.e., helping relationship, self-reevaluation, self-liberation, counterconditioning) were predictive of progress. The authors suggest that processes more oriented towards changing and individual's feelings and thoughts about smoking and themselves as smokers are more effective since they are under an individual's control. Conversely, processes that require reaction to "the whims of a changing environment" are not as effective. The authors also indicate that the accuracy of the predictions was limited "by the fact that transitory change variables (e.g., change processes) were used to hit a moving criterion variable, namely which stage of change subjects were in at any one point in time. The changing nature of the criterion variable results in more heterogeneous classification at any point in time, with some subjects solidly into a stage while others are about to move to another stage" (p.403).

Movement Between Stages

Traditionally, criterion measures assessing change have focused on target behaviours. However, according to the Transtheoretical Model, these measures are appropriate for only one component of change. That is, according to this model, there are four critical movements that occur during the course of change: (1) from precontemplation to contemplation, (2) from contemplation to preparation, (3) from preparation to action, and (4) from action to maintenance. The assessment of target behaviour is appropriate only for the movement from preparation to action – where the behaviour is actually changed. Thus, standard behavioural measures do not assess these three other transitions. During these three, change is also expected to occur in the attitudes and intentions toward change. In order to adequately assess these changes, alternative constructs have been introduced – decisional balance and self-efficacy.

Decisional Balance

Two decisional balance measures have become critical constructs in the Transtheoretical Model – the pros and cons of the behaviour in question. The balance between the pros and cons varies depending on which of the five stages an individual is in. In the precontemplation stage, individuals will judge the pros of the problem behaviour to outweigh the cons. In the action and maintenance stages, the opposite pattern will occur, with the cons judged as outweighing the pros.

Self-Efficacy

Self-efficacy is viewed as a predictor of change. Grimley, Prochaska, Velicer, and colleagues (1994) cite research on addictive behaviour that demonstrate the importance of this variable in understanding and predicting behaviour change. Generally, in the context of smoking cessation, self-efficacy varies across the stages of change – precontemplators report the lowest and maintainers the highest levels of self-efficacy. However, the implication of self-efficacy evaluations differs between early and later stages of change. For example, in precontemplation, individuals have not committed to change and their efficacy assessments may be more reflective of perceived inability rather than unwillingness. In the action stage, temptation may play a role in the assessment of self-efficacy. Generally, efficacy and temptation are believed to interact across the stages of change and temptation is believed to be inversely related to self-efficacy evaluations. Initially, at the precontemplation stage, there is a large gap between low self-efficacy and high levels of this temptation. This gap gradually narrows in contemplation and preparation stages. However, at the action stage, self-efficacy increases dramatically while temptation decreases gradually. During maintenance, self-efficacy is at its peak and remains high while temptation is at its lowest level.

Levels of Change

The final element in the Transtheoretical Model of change is the concept of the Levels of Change (Grimley, Prochaska, Velicer, et al., 1994). The Levels of Change are a hierarchical organization of five interrelated levels of behavior

problems: (1) symptom/ situational problems, (2) maladaptive cognitions, (3) current interpersonal conflicts, (4) family/ systems conflicts, and (5) intrapersonal conflicts. Initial intervention takes place at the symptom/ situational level since this tends to be the reason an individual seeks help and since change is assumed to occur more quickly at this conscious level. The lower down the hierarchy, the more likely that the determinants of the problem will be further from awareness and the more interrelated the problem is with the sense of self. In essence, the deeper the level that requires change, the longer and more involved the therapy will need to be, and the greater the client resistance. However, once change occurs at one level, it is likely to produce change at the other levels.

Summary and Critique

To summarize, the Transtheoretical Model of behaviour change views successful change as “the differential application of the processes of change at specific stages of change according to the problem level being addressed” (p. 218-220; Grimley, Prochaska, Velicer, et al., 1994). That is, “the stages of change, processes of change, decisional balance, and self-efficacy are intertwined and interacting variables in the modification of [health-risk] behaviour” (p. 396, Prochaska, DiClemente, et al., 1985).

It is unclear whether or not the model incorporates the concept of motivation as much as it does readiness to change. That is, given that an individual is at a certain stage of readiness to change a behaviour, can we assess what internal or external factors contributed to a) their level of motivation at that stage or b) their motivation to move between stages?

Further, this model and its research tends to focus on specific health risk behaviours. However, any thorough application to an offender population would require simultaneously looking at various criminogenic need areas and their interaction. Considering only one specific criminogenic need would be too narrow a focus. On the other hand, a concise yet thorough assessment of all criminogenic need areas using this approach may be too time consuming to be practical. As Marquis, Bourgon, Armstrong, and Pfaff state “inmates often have several criminogenic needs, and we can expect success only to the extent that we target all of these needs” (p.5, 1996). The scope would be broadened, however, if all criminogenic needs were systematically assessed with inquiries about a general readiness for lifestyle change that incorporate readiness for both attitudinal and behavioural change.

As noted above, the Transtheoretical model assumes intentional change as opposed to societal, developmental, or imposed change (Grimley, Prochaska, Velicer, et al., 1994). However, correctional populations, to a certain extent, are subject to imposed change. That is, based on an intake assessment of criminogenic needs, an offender is recommended for and required to participate in programming that targets those needs. Although they have the right to refuse treatment, it is understood that refusal will not be looked upon favourably by the Parole Board in their decisions regarding conditional release or transfer.

Further, the stages of change component of the Transtheoretical Model sets arbitrary timelines that are central to the determination of stage. That is, an individual who is not thinking about changing a problematic behaviour within the

next six months is considered to be in precontemplation. If they are considering change within the next six months, they are considered to be in contemplation. If they are considering change within the next month, they are considered to be in the preparation stage. Finally, the action stage requires that the change has occurred. Within correctional populations, these same timelines may not be appropriate in that offenders are not in control of when they receive treatment (e.g., depends on when the program is offered and what position they are in on the waiting list), how they receive the treatment (e.g., group vs. individual), and the type of treatment they receive (e.g., cognitive-behavioural vs. educational). Also, a proxy outcome of change can be taken within the institution but a true assessment of attitudinal or behaviour change must occur upon release to the community where they are more likely to encounter temptation.

The measurement of movement between stages is also ambiguous. For example, is the transition between precontemplation to contemplation equivalent, operationally, to that of the movement between action and maintenance (i.e., is movement between stages measured as equal intervals or by some other function)? Lastly, if change can be cyclical, then regression to a previous stage is not considered failure but as a step toward behaviour change making it both more difficult to quantify movement and more problematic in the context of offender populations since relapse would theoretically mean the potential increase in recidivism risk.

Given the issues mentioned above, and although the model has received attention within the general health literature, the Transtheoretical Model would

appear to be too ambiguous for direct use within a correctional treatment environment. This is particularly true if the research study is to consider the offender's holistic environment and need factors. However, some of the concepts provided by this model were adapted in the present study. The relationship between motivation, self-efficacy, problem recognition and locus of control with factors prominent within the criminal justice literature (e.g., risk/ need level, number of prior offences, type of offender) will be assessed. Problem recognition, a concept similar to the precontemplation stage, will be considered upon a continuum, not as an all or nothing measure as proposed in the Transtheoretical model.

VII. Concept Summary, Goals, and Hypotheses of this Study

Motivation is conceptualized as the source behind goal-directed behaviour (Liebert & Spiegler, 1990; Weiten, 1989; Zimbardo, 1992) and organismic theories of motivation assert that an individual is both active and able to initiate and change their behaviour (Deci & Ryan, 1985). The implication in the context of offender treatment is that offenders are able to modify their offending behaviour if they perceive change as a goal worth pursuing. Evidence was presented that motivation, as assessed by response to supervision, can effectively predict day parole success (Grant & Gillis, 1996, 1999). Further, motivation, measured by offenders' recognition of the need for change and willingness to address this need, was predictive of conditional release outcome (Stewart & Millson, 1995). However, even with the motivation to pursue the goal of behaviour change, Bandura's (1995) self-efficacy theory asserts that an individual must also feel that they are capable of and can manage the change and that change will lead to a desired outcome. Thus, the offender's thoughts, feelings, and actions, including the motivation to change, are all influenced by self-efficacy beliefs. Evidence of the importance of self-efficacy was presented regarding both its relationship to motivation (Hogan, 1990; Longo, Lent, & Brown, 1992), its uniqueness in evaluating treatment outcome (Brown, Carrello, Vik, & Porter, 1998; Hogan, 1990; Long, Hollin, & Williams, 1998), and its role in prison adjustment (Sappington, 1996). It was also demonstrated that problem recognition was an important predisposing factor in relation to treatment motivation (Longshore, Grills, Anglin, & Annon, 1998; Miller, 1985) and

therapeutic engagement (Jenkins-Hall, 1994; Joe, Simpson, & Broome, 1998; Saunders, 1993). Finally, it was demonstrated that individuals with an internal locus of control are more effective at their work (Sizilagyi and Sims, 1975), believe that their own performance lead to a desired outcome (Lawler, 1971), are more successful in performing certain tasks, and engage more in activities that assert their rights (Levenson, 1975; Gore and Rotter, 1963; and Strickland, 1965) relative to individuals with an external locus of control.

Figure 1 depicts the relationship between problematic behaviour, motivation, self-efficacy, problem recognition, locus of control, and behaviour change within the context of the cognitive-behavioural model. In order to change a problematic behaviour, an individual must first recognize that the behaviour is problematic. Then, the individual must be motivated to change this behaviour. Motivation, the mechanism behind goal directed behaviour, is influenced by self-efficacy and locus of control. Thus, offenders who recognize their problematic behaviour with higher levels of self-efficacy and an internal locus of control will be more likely than those with lower levels of self-efficacy and an external locus of control to report higher levels of motivation and will have better treatment participation and success. Treatment participation and success will then have a direct relationship to behaviour change.

In consideration of the above research findings on motivation, self-efficacy, and locus of control, and in the context of the cognitive-behavioural model, it was hypothesized that offenders who a) recognize that they have problems related to their antisocial behaviour (high problem recognition), b) want

to address these problems (high motivation), c) believe that they can effectively address and modify their problem areas (high self-efficacy), and d) believe that events in their own lives are controlled more by internal rather than external forces would have better program participation and success.

Figure 1

A Cognitive-Behavioural Perspective of the Relationship Between Problematic Behaviour, Motivation, Self-Efficacy, Problem Recognition, Locus of Control, and Behaviour Change

Presently, there appears to be a gap in the correctional treatment literature with respect to investigations of the influence of the responsivity factors of motivation, self-efficacy, problem recognition, and locus of control on offender programming and treatment. Although some researchers such as Serin and Kennedy (1997) have suggested that the responsivity principle includes motivation, personality, cognitive functioning, and demographic factors they did not thoroughly investigate the relationship between these constructs and their relationship to the responsivity principle.

Furthermore, to this researcher's knowledge no previous research has investigated the relationships between the constructs of motivation, self-efficacy, problem recognition and locus of control individually or in combination in relation to offender characteristics and treatment outcomes. Thus the goals of the present study were:

1. to investigate whether motivation, self-efficacy, problem recognition, and locus of control individually or jointly are related to or could be predicted by the following offender demographics/ risk factors:

- Age at the time of the interview
- Age at the time of admission to serve the current sentence
- Age at first conviction
- Education Level
- Marital status
- Race
- Current institutional security level

- Length of current sentence
- Number of current offences
- Number of past offences
- Number of violent vs. non violent offences.
- History of Sex offences.
- OIA risk/ need level
- Number of release revocations
- Time remaining before eligibility for day parole, full parole, statutory release, and warrant expiry
- Number of prior treatment programs completed/ incomplete
- Number of institutional charges and convictions (pre-, during-, and post-program)
- Length of time spent in segregation (voluntary, involuntary, and disciplinary; pre-, during-, and post-program)

The importance of these demographic and risk variables has been demonstrated in the forensic research literature. For example, the relationship between age at first offence and future criminality has been demonstrated by Farrington (1983); Mendelzys (1979); Mulvey and Lidz (1984); Rogers (1981); and Andrews and Bonta (1998). With respect to criminal history, Farrington (1983); Bonta (1997); Andrews and Bonta (1998); Gendreau, Little, Barnett and Lofaso (1985); Barnett, Blumstein, and Farrington (1987); Nuffield (1982); and Goggin (1996) determined that past criminality was a robust predictor of future criminal behaviour. In terms of violence, several authors have found that past

violence could predict future violence (Shah, 1978; Blumstein, Farrington, and Moitra, 1985; and Farrington, 1987)

Hypothesis: Because this portion of the study was exploratory no hypotheses were made. However, it was important to investigate whether these factors had an impact on motivation, self-efficacy, problem recognition, or locus of control in order to control for their effects in subsequent analyses.

2. To investigate whether treatment participation and success are predicted by the above listed offender demographics/ risk factors.

Hypothesis: It was hypothesized that treatment outcome would be predicted by certain offender demographics/ risk factors. Specifically, younger offenders, offenders admitted at a younger age and whose involvement with the law began at a young age would have poorer treatment outcomes relative to older offenders, those admitted at an older age and whose involvement with the law began at an older age (Andrews & Bonta, 1998). It was further hypothesized that high risk offenders would do poorer in treatment than lower risk offenders (Andrews & Bonta, 1998). Significant demographic factors were controlled for in subsequent analyses.

3. To investigate whether treatment participation and success were predicted by motivation, self-efficacy, problem recognition, and locus of control.

Hypothesis: It was hypothesized that treatment outcome would be predicted by offenders' motivation, self-efficacy, problem recognition, and locus of control variables. Specifically, offenders who have higher problem recognition with higher levels of self-efficacy and an internal locus of control would be more likely

than those with lower levels of self-efficacy and an external locus of control to have higher levels of motivation and would have better treatment participation and success. Further, offenders low on motivation, self-efficacy, and problem recognition with an external locus of control would be more likely to receive institutional charges or convictions post-program.

In summary, effective correctional programming takes into consideration the principles of risk, need, and responsivity. The present study was aimed at enhancing the current literature by investigating responsivity issues. The findings may have direct relevance to the matching of offenders to an appropriate treatment modality. That is, offenders low on motivation, self-efficacy, and problem recognition with an external locus of control may require some pre-treatment intervention to enhance these responsivity factors. For example, motivational counseling prior to treatment commencement may target these offenders in order to increase the likelihood of positive treatment outcome.

VIII. Methodology

Participants

A total of 405 male offenders detained by the Federal Canadian Correctional Services (CSC) were approached to participate in the present study. Of these offenders 57 (14.07%) refused to participate, 18 (4.44%) dropped out of the program and formed the comparison group, and 23 (2.68%) were omitted due to either not attending their intake interviews into the program, missing information on several scales in the assessment battery, or had an elevated score on the Impression Management (IM) subscale of the BIDR (Paulhus, 1998, PDS; Appendix I) that warranted excluding their responses. Thus, the total sample consisted of 325 offenders: 307 (94.46%) Completers and 18 (5.54%) Drop-outs. Table 1 summarizes the demographic characteristics of the participants reported by their status as Completers, Drop-outs, or Refusers. As indicated in Table 1, Completers, Drop-outs, and Refusers "current age" (i.e., mean ages at the time of data collection) were 36.20, 33.50, and 37.97, respectively. Their mean age at the most recent admission to the penitentiary system was 33.20, 30.06, and 34.18, respectively. Their mean age at first conviction as adults was 29.38, 25.27, and 28.36 respectively. Lastly, the highest educational level achieved were grades 8.31, 7.72, and 7.40, respectively.

In addition to the above-mentioned characteristics, separate analyses indicated that the racial make-up of the total sample was: Caucasian (69.80%), African-Canadian (17.20 %), Aboriginal (7.40%), Other (4.00%) and Unknown (1.50%). The majority of participants in all three groups were Caucasian (74.00%, 72.20%, & 70.40% for Completers, Drop-outs, and Refusers, respectively). In

Table 1

Participant Demographic Variables

	Completers			Drop-outs			Refusers			F
	n	M	SD	n	M	SD	n	M	SD	
Current age	307	36.20	9.89		33.50	8.70	55	37.97	10.20	ns
Age at most recent admission	304	33.20	9.71	17	30.06	6.71	54	34.18	9.09	ns
Age at first conviction	307	29.38	9.37	18	25.27	4.12	55	28.36	8.74	ns
Educational level	307	8.31	3.14	18	7.72	2.91	55	7.40	3.10	ns

general, 45.20% of the sample were either married or in a common law relationship, 54.20% were single (never been married, divorced or, or widowed), and marital status was Unknown for 0.60%.

Of the 325 participants, 15.69% were recruited from Anger Management programs, 32.00% from Substance Abuse programs, 47.38% were from Cognitive Skills programs, and 4.92% from other programs (e.g., sex offender, family violence). Briefly, Anger Management is geared toward teaching offenders how to recognize anger-related triggers and how to cope with these. Substance abuse interventions vary in intensity in order to meet the differing needs of offenders. These programs teach offenders skills that they can use to change their substance use and decrease the likelihood of reoffending. Cognitive skills programming aims to teach offenders problem-solving and decision-making skills. The majority of these programs are accredited.

Eighty four percent (n= 273) of participants completed their programs, 13.60% (n=44) did not, and information was missing on the remaining 2.20% (n=7). Of the 44 who did not complete the program, Table 2 indicates that 18 (40.91%) dropped out (this is the Drop-outs group), eight were placed in segregation (18.18%), and 7 (15.91%) were either transferred to another institution or released on parole.

Measures

1. Treatment Motivation (Mo)

Based on the review of the motivation literature, motivation was defined for the present study as the mechanism driving goal directed behavior. Inferences

about motivation were measured using the Willingness to participate/ Preparedness subscale of the Nijmegen Motivation List 2 (NML2; Keijsers, Schaap, Hoogduin, Hoogsteijns, & de Kemp, 1999) and the Motivation Subscale of the Attitudes Toward Correctional Treatment Scale (Baxter, Burchill, & Tweeddale, 1992).

a) The Nijmegen Motivation List 2 (NML2): is a 25-item index designed to assess individuals' motivation for psychotherapy. The NML consists of 25 items included in three subscales (willingness to participate/ preparedness, distress, pressure from others). The willingness to participate/ preparedness subscale consists of 10 items. Items are responded to on a 6 point rating scale (Appendix

Table 2

Reasons for Current Program Non-completion

Reason	N	%
Drop-out	18	40.91
Segregation	8	18.18
Day Parole/ Statutory Release/ Transfer	7	15.91
Poor Attendance	4	9.09
Aggression/ Misbehaviour	3	6.82
Suspension	2	4.55
Health	2	4.55
Total	44	100.00

A). Test-retest reliability was reported to be 0.69, $p < .0001$ for this subscale and internal consistency (Cronbach's alpha) was 0.81 (Keijsers, et al., 1999). Factor loadings for items in this subscale ranged between 0.68 and 0.41 and between 0.75 and 0.43 on a second administration. Keijsers, et al. (1999) reported that the original version of the NML was repeatedly found to predict cognitive-behavioral treatment outcome. The NML significantly differentiated between improved and non-improved obsessive patients (Hoogduin & Duivenvoorden, 1988). The NML total score and willingness to participate/ preparedness subscale predicted treatment outcome in five studies with anxiety disordered patients (de Hann et al., 1997; Keijsers & Kampman, 1998; Keijsers et al., 1994 a, b). Low scores on willingness to participate/ preparedness were also significantly related to treatment drop-out. The NML2 total score and willingness to participate/ preparedness subscale were associated with a variable of another scale designed to measure if patients considered the particular treatment helpful in resolving their problems and with drop-out from treatment. Treatment helpfulness was significantly predicted by the willingness to participate/ preparedness subscale ($\beta = -0.34$, $t = -4.07$, $p = .0001$). Also, the willingness to participate/ preparedness subscale significantly predicted drop-out ($r = -0.39$, Wald = 14.61, $p < .0001$). Internal consistency was assessed for the present study and is discussed in the results section.

b) The Attitudes Toward Correctional Treatment Motivation Subscale (ATCT-M; Baxter, Burchill, and Tweedale, 1992, Appendix B): was designed to assess how individual offender characteristics interact with program characteristics to affect

treatment outcome. It is composed of 33 items, each rated on a 5-point scale ranging from “strongly disagree” to “strongly agree”. The scale produces five subscale scores as well as a total score. The five subscale categories include: a) motivation and perceived need for treatment, b) perceptions of treatment and the institution, c) perceptions of staff, d) optimism/ pessimism regarding treatment outcome, and e) comfort/ discomfort with self-disclosure in groups.

Data was compiled on 1,433 provincial offenders over a three-year period (Baxter, Marion, and Goguen, 1995). Internal consistency for all scales ranged from 0.70 to 0.87 and test-retest reliability coefficients ranged from 0.58 to 0.72. The relationship between the ATCT and assessment outcome was assessed with a sample of 1,327 offenders. These offenders were divided into three outcome groups: a) no treatment recommended, b) treatment recommended but declined, and c) treatment recommended and completed. The results indicated that better assessment outcome was associated with higher motivation and optimism scale scores.

To assess the relationship between the ATCT and treatment outcome, a sample of 476 offenders who entered the institutional addictions program or the anger management program was selected. Treatment outcome was rated for each offender by program officers on an eight-point scale ranging from unsatisfactory to excellent. Total scale score and all subscale scores were positively correlated with treatment outcome ratings for both programs. The highest correlations were found with the overall (0.24 for addictions program, 0.31 for anger management program) and motivation (0.26) scale scores. The offenders were also divided

into low, moderate, and high groups based on total and subscale scores.

Significant differences were found between these three groups, for both programs, in their overall and motivation scores. The “high” group had significantly better program outcome ratings than “low” and “medium” groups on motivation, optimism and total scores. For the present study, only the motivation subscale was used.

2. Self-Efficacy

Self-efficacy was incorporated into the present study and treatment specific self-efficacy was defined as offenders’ self-reported ratings of the degree of confidence they have in their ability to successfully negotiate treatment tasks such as role-playing, group discussion, and “homework” assignments. Self-efficacy was measured two ways using: a) the Perceived Self-Efficacy Scale (Coppel, 1980; Appendix C), a global self-efficacy measure, and b) the self-efficacy questions (SEQ) that were generated for the present study (Appendix D) and are treatment-specific.

a) The Perceived Self-Efficacy Scale (PSE, Coppel, 1980): was developed based on Bandura’s conceptualization of self-efficacy. Respondents were initially asked to rate 22 self-descriptive statements indicative of general self-efficacy on a 5-point scale ranging from “Not at all like me” to “Very much like me”. The initial pool of 25 statements were based on face validity. Based on a study of 166 undergraduates the perceived self-efficacy scale demonstrated excellent internal consistency (coefficient alpha= 0.91). In addition, a test-retest reliability coefficient of $r = 0.86$ was obtained over a two-week interval ($n=90$). Internal

consistency was assessed for the present study and is discussed in the results section.

b) Self-efficacy questions (SEQ): were generated for the present study and were based on specific treatment-related tasks that each offender would need to negotiate. Specifically, eight items reflecting common treatment tasks were rated on a 5-point scale reflecting the offender's degree of confidence in his ability to successfully negotiate each task (ranging from 1= not at all confident to 5= extremely confident). Thus, scores for SEQ questions could range from eight to forty. A total score was obtained by summing the ratings for each SE question. This methodology is commonly used in self-efficacy research (Longo, Lent, & Brown, 1992; Longshore, Grills, Anglin, & Annon, 1998). Again, internal consistency reliability was assessed and is discussed in the results section.

3. Problem Recognition (PR) Questions (Appendix E):

Offender problem recognition was defined as the extent of agreement between parole officers' actuarial assessment of offender needs at intake to the federal system and the offender's self-reported ratings of his own needs. Actuarial assessment of offender needs is based on a component of the Offender Intake Assessment (OIA) developed by the Correctional Service of Canada (Motiuk, 1994) called the Case Needs Identification Analysis (CNIA). At intake into the federal correctional system, all offenders are assessed according to the OIA. The OIA process has two main components: a) the Criminal Risk Assessment (CRA; 152 items) and b) the Case Needs Identification and Analysis (CNIA; 199 items).

For the CRA, an offender's criminal risk level is rated as high, medium or low based on review of static risk information concerning the offender's criminal history, severity record, sex offence history, review of legislated criteria to prevent statutory release, and the results of the Statistical Information on Recidivism Scale (SIR). For the CNIA, the offender's criminogenic needs are identified based on a review of seven need domains/ areas: employment, marital/family, associates, substance abuse, community functioning, personal/emotional, and attitude. For each area, case managers flag risk factors and rate the severity of need. They also provide details and programming recommendations and note any immediate concerns (suicide, physical & mental health; Brown, 1998a).

Motiuk (1994) found evidence for the OIA's validity after examining the relationships between the individual need level ratings and the number of indicators endorsed within each of the seven need domains. All relationships were found significant and ranged from 0.54 (community functioning) to 0.78 (substance abuse). Each of the CNIA's seven need domains has also been found to be related to offender recidivism. Motiuk (1998) reported evidence for the predictive validity of the domain ratings assessed by the CNIA. The seven need domains (employment, marital/family, etc.) significantly correlated with the criteria of returns to prison. All correlations were beyond the $p < .001$ level. Boland, Henderson, and Baker (1998); Dowden and Brown (1998); Gates, Dowden and Brown (1998); Gendreau, Goggin and Gray (1998); Goggin, Gendreau and Gray (1998); Law (1998); Paolucci, Violato, and Schofield (1998); and Robinson, Porporino and Christopher (1998) all provided further evidence of

the validity of the CNIA and the importance of including the seven domains included in the CNIA. Brown (1998b) synthesized the results of independent reviews of each of the seven case needs domains. Separate meta-analytic findings of the relationship between recidivism and the seven need domains produced average unweighted effect sizes ranging from 0.11 (personal/ emotional) to 0.18 (associates/ social interaction).

For the present study, the percentage of CNIA indicators endorsed by the parole officer within each of the seven need domains was calculated, along with the overall percentage of indicators endorsed for the entire scale. Offenders' self-reported problem recognition was assessed using the Problem Recognition questions (Appendix E) designed for this study and based on CNIA indicators for each of the seven need domains. Offenders rated themselves on each question using a five point scale (ranging from 1 = completely disagree to 5 = completely agree). There are five questions for each of six need domains and six questions relating to community functioning. Thus, the range of ratings for each need domain was 5 to 25 (or 6 to 30 for community functioning). Ratings for each need areas were summed to produce a score that was converted into a percentage and an overall percentage was calculated combining all seven need area ratings. Internal consistency reliability was calculated for the PR questions and is discussed in the results section.

A problem recognition index (PRI), or the percentage agreement between the CNIA and self-reported PR questions, was obtained by dividing offenders' self-reported level of endorsement by the level of endorsement found on the

CNIA for each need area and overall. Technically, a PRI value of one would be obtained if the offender and CNIA levels of endorsement for each need area were equal. The value of PRI would be greater than one if the offender endorsed more need areas and less than one if the CNIA determined more need areas (or more indicators within each area).

4. Locus of Control (LC) (Appendix F)

Locus of Control is defined as the extent to which an individual believes that events or outcomes in his/ her life are controlled by internal (i.e., their own actions) vs. external (e.g., fate, luck, powerful others, political institutions) forces. The Levenson Locus of Control scale (1974; Appendix F) consists of 24 items scored on a five-point scale ranging from strongly disagree to strongly agree. This scale has three subscales: Internal control (I; 8 items), Powerful others (P; 8 items), and Chance (C; 8 items). These subscales distinguish between an internal locus of control and an external locus of control (either belief in chance expectancies or powerful others orientations). Alphas for these three subscales ranged from 0.64 to 0.78, test-retest reliability coefficients ranged from 0.64 to 0.78. Results of factor analysis confirmed the existence of the three distinct subscales. Part of the results (presented above in the Locus of Control section) obtained by Cortoni, Anderson, and Looman (1999) lend support to the reliability of the Levenson scale. They found that results on the Internal Locus of control subscales did not correlate with the two external control subscales.

This scale was used for the present study to measure the Internal and External Locus of Control dimensions. The Powerful Others and Chance Control

subscales were used as separate measures of an external locus of control while the Internal Control subscale was used as a measure of an internal locus of control.

5. Demographic and Risk Variables

Information was collected from offenders' Offender Management System (OMS) files. The OMS is an electronic record-keeping system used by the Correctional Service of Canada. It consists of information on each offender's criminal, institutional, social, treatment, and parole histories. This system was used to gather the demographic and risk variables of:

- Age at the time of the interview
- Age at the time of admission to serve the current sentence
- Age at first conviction
- Education Level
- Marital status
- Race
- Current institutional security level
- Length of current sentence
- Number of current offences
- Number of past offences
- Number of violent vs. non violent offences.
- History of Sex offences.
- OIA risk/ need level
- Number of release revocations

- Time remaining before eligibility for day parole, full parole, statutory release, and warrant expiry
- Number of prior treatment programs completed/ incomplete
- Number of institutional charges and convictions prior to program
- Length of time spent in segregation prior to program (voluntary, involuntary, and disciplinary)

6. Program Participation and Success Ratings

Program delivery officers were asked to assess offenders' program participation in several areas designed to assess program participation and success (Appendix

G). Assessment criteria include the following:

- Program completion
- Drop-out of the program
- Time spent (in number of sessions) prior to dropping out of the program
- Attendance
- Promptness
- Level of participation
- Mastery of program content
- Disruptive behavior
- Completion of homework/ assignments
- Overall evaluation of offender program success

7. Post-program Outcome Measures

Independent post-program measures of institutional adjustment were also collected (Appendix H) an average of 4.51 months (ranging from 1.00 to 8.32

months) after program completion. Indices of offender institutional adjustment included during- and post-program a) number of charges, b) number of convictions, c) time spent in segregation, and d) number of post-program transfers to higher security.

8. Social Desirability

The Paulhus Deception Scale (1998, PDS; Appendix I) was used as a measure of social desirability, or the tendency to give socially desirable responses. It is a 40-item, self-report instrument designed to identify individuals who distort their responses. It takes approximately five to seven minutes to complete, can be used within clinical or nonclinical settings, and measures two major forms of socially desirable responding. The first is Impression Management (IM). This scale provides information on the tendency of some respondents to consciously respond to items in an attempt to make themselves appear favourably to whomever interprets their results. The second scale, Self-Deceptive Enhancement (SDE) provides information on the tendency of some respondents to provide agreeable self-profiles that are due to an overly confident, yet inaccurate, self-regard.

Internal reliability for the PDS has been demonstrated for total and subscale scores using several normative groups. In general, Cronbach's alpha was 0.75 for SDE, 0.84 for IM, and 0.85 for the total scale. Among a sample of 603 offenders, Cronbach's alpha was 0.72 for SDE, 0.84 for IM, and 0.86 for the total scale. As for concurrent validity, there was a low correlation of 0.20 between the SDE and IM subscales. However, there were good correlations with

two other scales designed to measure a similar construct (0.73 between the total PDS scale and the Marlowe-Crowne Social Desirability Scale and 0.64 with the Edwards Social Desirability Scale).

In the present study, total score mean was 11.61 (sd= 6.25). Means for the Self-deceptive Enhancement and Impression Management subscales were 6.41 (sd= 3.70) and 5.20 (sd= 3.77), respectively. Offenders who scored high in IM (2 standard deviations greater than the mean or greater than 12.74) were omitted from analyses due to the potential bias of their responses.

Procedure

Offenders on the top of waiting lists to participate in institutional programs were approached, given a brief description of the study, and asked if they would be willing to volunteer their participation. An oral review of the informed consent form emphasized that participation was completely voluntary, that they were free to withdraw at any time, and that participation would not have any consequences to their treatment, risk assessments, or any other correctional decision (Appendix J). Participants were then given the above self-report battery prior to treatment commencement and were debriefed at the end of completing the questionnaires (Appendix K). Offender files were later reviewed to retrieve data from their FPS sheet and the OIA as well as other demographic/ risk information from the OMS system (Appendix L).

An average of 4.51 months after program completion, offender files were re-reviewed in order to look for indices of behavioural adjustment within the institution (i.e., post-program outcome measures).

IX. Results

The results are presented according to the sequences of goals previously set out for this study. However some important introductory and other demographic data will be presented first.

1. Demographic and Risk Variable Comparisons between Completers, Drop-Outs, and Refusers

Forty-four inmates did not complete the program (Table 2, above) either because of drop-out (40.91%), placement in segregation (18.18%), release or transfer (15.91%), poor attendance (9.09%), aggression or misbehaviour (6.82%), suspension (4.55%), or health reasons (4.55%). Tables 1 (above), 3, 4 and 5 present comparisons between Completers, Drop-outs, and Refusers on various risk factors. Table 1 indicates that there were no significant differences between Completers, Drop-outs and Refusers on age at the time of interview for this research, age of admission to serve the current sentence, age at first conviction, and educational level. Table 3 displays the percentages of Completers, Drop-outs, and Refusers by institutional security level. This table indicates that the majority of Completers, Drop-outs, and Refusers were housed in medium security institutions (72.30%, 72.20%, and 80.00%, respectively). The second largest subgroup of Completers and Drop-outs were housed in minimum security institutions (23.10% and 16.70%, respectively). These proportions are reflective of actual proportions within Correctional Service of Canada (CSC) institutions (Correctional Service of Canada, 2000). The second largest subgroup of Refusers (12.70%) were housed in maximum security institutions.

Table 3

Percentages of Completers, Drop-outs, and Refusers By Institutional Security Level

	Minimum	Medium	Maximum	Total
Completers	23.10	72.30	4.60	100
(n=305)	91.00	79.60	60.90	80.80
Drop-outs	16.70	72.20	11.10	100
(n=18)	3.80	4.70	8.70	4.70
Refusers	7.30	80.00	12.70	100
(n=57)	5.10	15.80	30.40	14.50
Total	20.50 100	73.40 100	6.10 100	100 100
Actual Proportions as of April, 2001	22.02	63.39	14.59	100

Note: χ^2 test was uninterpretable

Table 4 displays the results of comparisons between Completers, Drop-outs, and Refusers on criminal risk and need levels as determined by the Offender Intake Assessment (OIA) (Motiuk, 1994). There was a significant difference between groups on risk level but not on need level with the Drop-out group having proportionately more high risk offenders than the other two groups while the Completers group had proportionately more low risk offenders than the other two groups. This table indicates that 7.20%, 36.20%, and 56.70% of the Completers were identified as low-, moderate-, and high-risk to re-offend, respectively. Table 4 also indicates that 0%, 5.60%, and 94.40% of the Drop-outs were identified as being low-, moderate-, and high-risk, respectively. Among Refusers 0 %, 30.90%, and 69.10% were identified as low-, moderate-, and high-risk, respectively. With respect to need level, Table 4 indicates that 5.90%, 33.60%, and 60.60% of the Completers were identified as having low-, moderate, and high-needs, respectively. Furthermore, 0%, 16.70%, and 83.30% of the Drop-outs were identified as having low-, moderate-, and high-needs, respectively. Finally, 0%, 29.10%, and 70.90% of Refusers were identified as having low-, moderate-, and high-needs, respectively.

Table 5 presents means and standard deviations for Completers, Drop-Outs, and Refusers on various risk and institutional adjustment factors. This table indicates that groups significantly differed on the mean total number of offences, mean total number of prior offences, mean total number of nonviolent offences, mean total number of institutional offence charges, and mean total number of institutional offence convictions, and total number of times spent in disciplinary

Table 4

 χ^2 Comparison between Completers, Drop-outs, and Refusers on the OIARisk/Needs Variables

	Completers		Drop-outs		Refusers		χ^2
	N	%	n	%	n	%	
Criminal Risk Level							14.95**
Low	22	7.20	0	0	0	0	
Moderate	111	36.20	1	5.60	17	30.90	
High	174	56.70	17	94.40	38	69.10	
Need Level							ns
Low	18	5.90	0	0	0	0	
Moderate	103	33.60	3	16.70	16	29.10	
High	186	60.60	15	83.30	39	70.90	

** $p < .01$

OIA = Offender Intake Assessment (OIA) (Motiuk, 1994)

Table 5

Comparison between Completers, Drop-outs, and Refusers on Risk andInstitutional Adjustment Variables

	Completers			Drop-outs			Refusers			F
	n	M	SD	n	M	SD	n	M	SD	
Mean total # of offences	307	5.60	5.86	18	7.56	7.23	55	8.38	8.09	5.07**
# of current offences	307	3.99	4.01	18	5.44	5.91	55	5.09	4.93	ns
# of prior offences	307	1.61	4.27	18	2.11	4.39	55	3.29	6.66	3.01**
# of nonviolent offences	307	3.50	5.41	18	5.28	7.07	55	5.91	7.82	4.37*
# of violent offences	307	2.25	2.29	18	2.17	1.86	55	2.64	2.05	ns
Length of current sentence (months)	307	54.11	45.81	18	67.04	72.93	55	51.43	45.00	ns
# of months until day parole eligibility	307	-8.55	36.96	18	- 17.37	38.64	-	-	-	ns
# of months until full parole eligibility	307	0.39	38.73	18	-9.56	44.39	-	-	-	ns
#of months until statutory release	259	20.18	16.51	14	16.81	24.66	-	-	-	ns
#of months until warrant expiry	262	38.95	26.79	15	33.01	37.69	-	-	-	ns
# of day parole releases granted	84	1.70	1.55	5	3.20	3.03	12	1.50	1.00	ns
# of full parole releases granted	44	1.30	0.67	3	1.33	0.58	6	1.33	0.52	ns
# of statutory releases granted	86	2.21	1.46	9	2.56	1.51	29	2.52	1.92	ns
Total # of releases granted	138	2.83	2.21	11	3.91	3.53	37	2.68	2.10	ns

Table 5 (Continued)

	Completers			Drop-outs			Refusers			F
	n	M	SD	n	M	SD	n	M	SD	
Total # of transfers to higher security	180	1.36	1.25	15	1.33	1.35	36	1.36	1.44	ns
Total # of transfers to lower security	180	0.89	1.02	15	1.20	1.26	36	0.83	1.18	ns
Total # of transfers granted	180	3.25	2.59	15	3.53	2.17	36	3.72	3.01	ns
Total # of transfers granted	180	3.25	2.59	15	3.53	2.17	36	3.72	3.01	ns
Total # of institutional offence charges	307	6.64	13.00	18	13.72	16.01	55	12.35	17.21	5.71**
Total # of institutional offence convictions	307	4.47	9.30	18	10.06	11.87	57	7.88	10.91	5.30**
Total # of weeks in segregation	307	6.01	16.34	18	10.79	19.68	57	12.42	32.73	ns
Total # of times in voluntary segregation	307	0.29	0.82	18	0.61	1.33	55	0.55	1.30	ns
Total # of times in involuntary segregation	307	1.08	2.35	18	1.89	3.45	55	1.53	3.37	ns
Total # of times in disciplinary segregation	307	0.01	0.11	18	0.17	0.51	55	0.02	0.13	8.03**
Total # of times in segregation	307	1.38	2.79	18	2.67	4.70	55	2.09	3.90	ns

* $p < .05$, ** $p < .01$

segregation. On the variables that significantly differed between groups, as would be expected, Completers had lower means relative to Drop-outs and Refusers.

A separate analysis indicated that the Refuser group had a lower mean number of prior treatment programs completed ($M = 0.04$, $SD = 0.27$) relative to Completers ($M = 1.57$, $SD = 1.82$) and Drop-outs ($M = 1.22$, $SD = 1.11$).

In sum, Refusers do not differ from Completers and Drop-outs on the demographic variables of current age, age at admission, age at first conviction, or educational level. Differences in risk and institutional adjustment variables seem to be related to either Completers or Drop-outs. Two exceptions were the differences in institutional security level (proportionately more Refusers were found within maximum security institutions) and number of prior offences (Refusers had the highest mean number).

2. Investigation of the Reliability and Validity of Measures

The reliability and validity of the measures used in this study were investigated where such reliability and validity information was lacking among offender populations. The scales evaluated were the: NML2, PSE, SEQ, and PR. Reliability was assessed through item-total scale, item-subscale, and subscale-total scale correlations and internal consistency coefficients. Content validity was assessed by obtaining expert ratings from four forensic psychologists within the Correctional Service of Canada (CSC). Further, post-hoc convergent and discriminant validity was assessed.

Table 6

Item-Total Scale Correlations and Internal Consistency Alphas of MeasuresPreviously Unused with Offender Populations

Scale	Item-Total Scale Correlations	Internal Consistency (Alpha)
NML2	.56**-.76**	.84
PSE	-.24** - .70**	.84
SEQ	.61** - .79**	.82

** $p < .01$

a) Reliability

Table 6 shows the item-total scale correlations and internal consistency coefficients for the NML2, PSE, and SEQ. All item-total scale correlations were significant, ranging from $r=0.24$ to $r = 0.79$, with internal consistency coefficients above 0.80 indicating that these scales have acceptable reliability.

Table 7 shows the item-subscale correlations, subscale -total scale correlations, and internal consistency alphas for the Problem Recognition (PR) scale. All item-subscale correlations were significant, ranging from $r = 0.16$ to $r = 0.78$, with the exception of one item in the Marital/ Family subscale. Also, all subscale-total scale correlations were significant. Internal consistency coefficients ranged from 0.53 to 0.79. These results indicate acceptable reliability of the PR scale.

b) Validity

Content validity was assessed by obtaining ratings from four forensic psychologists within CSC on the relevance of each item within each scale. As Table 8 demonstrates, all items on the NML2, the PSE, and the SEQ received the minimum required 75% endorsement by the psychologists and, thus, no items were dropped from the analyses. For the NML2, the PSE, and the SEQ, 70%, 64%, and 75% of items, respectively, received 100% endorsement. Further, post-hoc convergent and discriminant validity was assessed (Table 9). Evidence for convergent validity was provided by the correlations between the NML2 and the ATCT – the two motivation measures – as well as the correlation between the two

Table 7

Scale Correlations and Internal Consistency Alphas for the Problem RecognitionScale

Subscale	Item-Subscale Correlations	Subscale-Total Scale Correlations	Internal Consistency (Alpha)
Employment	.41** - .73**	.51**	.72
Marital/ Family	.08 - .59**	.32**	.53
Associates/ Social Interaction	.23** - .68**	.60**	.66
Substance Abuse	.68** - .78**	.54**	.79
Community Functioning	.16** - .65**	.29**	.72
Personal/ Emotional Functioning	.31** - .65**	.39**	.66
Attitude	.23** - .54**	.17**	.54
Total Scale	-	-	.4655

** $p < .01$; Note: all Item-subscale correlations significant at $p < .01$ except for 1

marital/ family item

Table 8

Psychologists' Endorsement of Scale Items

	Psychologist 1	Psychologist 2	Psychologist 3	Psychologist 4	% Endorsement
NML2					
1.	✓	✓	✓	✓	100
2.	✓	✓	✓	✓	100
3.	✓	✗	✓	✓	75
4.	✓	✓	✓	✓	100
5.	✓	✓	✓	✓	100
6.	✓	✓	✓	✗	75
7.	✓	✓	✓	✗	75
8.	✓	✓	✓	✓	100
9.	✓	✓	✓	✓	100
10.	✓	✓	✓	✓	100
PSE					
1.	✓	✓	✓	✓	100
2.	✓	✗	✓	✓	75
3.	✓	✗	✓	✓	75
4.	✓	✓	✓	✓	100
5.	✓	✓	✓	✓	100
6.	✓	✗	✓	✓	75
7.	✓	✓	✓	✓	100
8.	✓	✗	✓	✓	75
9.	✓	✓	✓	✓	100
10.	✓	✓	✓	✓	100
11.	✓	✗	✓	✓	75
12.	✓	✗	✓	✓	75
13.	✓	✓	✓	✓	100
14.	✓	✓	✓	✗	75
15.	✓	✓	✓	✓	100
16.	✓	✓	✓	✓	100
17.	✓	✓	✓	✓	100
18.	✓	✓	✓	✓	100
19.	✓	✓	✓	✓	100
20.	✓	✓	✓	✓	100
21.	✓	✓	✓	✗	75
22.	✓	✓	✓	✓	100
SEQ					
1.	✓	✓	✓	✓	100
2.	✓	✓	✓	✓	100
3.	✓	✓	✓	✗	75
4.	✓	✓	✓	✓	100
5.	✓	✓	✓	✗	75
6.	✓	✓	✓	✓	100
7.	✓	✓	✓	✓	100
8.	✓	✓	✓	✓	100

Table 9

Correlations between Responsivity Indices

	NML2	ATCT	PSE	SEQ	PR
NML2	-				
ATCT	.43**	-			
PSE	.01	-.27**	-		
SEQ	.18**	.08	.42**	-	
PR	.02	-.13*	-.03	-.14*	-

** $p < .001$

and the PSE. Hypothesized correlations were found between the motivation and self-efficacy measures.

3. Relationship between Treatment Responsivity and Demographics/ Risk

Variables

As a preliminary step, data reduction of the demographic and risk variables was completed. A factor analysis was performed, to reduce into a more manageable number, the 30 demographic and risk variables that may have been correlated with either responsivity variables or program participation and success variables. This was done to minimize the likelihood that spurious associations would be found simply due to the number of analyses performed. A factor analysis of the 30 demographic and risk variables led to nine factors with eigenvalues greater than one (eigenvalues represent variance, thus, eigenvalues less than one are not as important from a variance point of view; Tabachnick & Fidell, 1983). A varimax rotation was performed in order to maximize the variance of the loadings across variables within factors (Tabachnick & Fidell, 1983). Seven clear demographic/ risk factors emerged (Table 10). The majority of the 30 variables loaded onto each factor with a range of 0.63 to 0.96. The greater the overlap between a variable and a factor, the more that variable is a pure measure of the factor. Thus, these loadings are considered very good. Tabachnick and Fidell (1983) suggest that loadings in excess of 0.71 (50% variance) are considered excellent and greater than 0.63 (40% variance) are considered very good.

Table 10

Factor Loadings For the Demographic and Risk Variables

Factor 1 Institutional Misbehaviour	Factor 2 Offence History	Factor 3 Time Served	Factor 4 External Motivators	Factor 5 Risk/ Need	Factor 6 Age	Factor 7 Violence
<ul style="list-style-type: none"> • # of prior programs incomplete – at fault • # of pre-program institutional charges • # of pre-program minor institutional charges • # of pre-program serious institutional charges • # of pre-program institutional convictions • # of pre-program times in involuntary segregation 	<ul style="list-style-type: none"> • # of offences on FPS • # of non-violent offences on FPS • # of prior offences on FPS • # of releases revoked 	<ul style="list-style-type: none"> • Sentence length (days) • # of days till statutory release • # of days until warrant expiry 	<ul style="list-style-type: none"> • # of days until day parole eligibility • # of days until full parole eligibility 	<ul style="list-style-type: none"> • Current security classification • Static factors (risk) • Dynamic factors (need) 	<ul style="list-style-type: none"> • Age at first conviction • Age at admission to serve current sentence 	<ul style="list-style-type: none"> • History of sexual or related offences • # of violent offences • # of current offences

Simple and multiple regression analyses were then performed to determine which of the seven demographic/ risk factors (independent variables) accounted for any variance in each of the treatment responsivity variables of motivation, self-efficacy, problem recognition, and locus of control constructs (dependent variables). Significant demographic/ risk factors (Table 11) were partialled out of the corresponding responsivity variables and the residual variance (i.e., the variance unaccounted for by the demographic/ risk factors) was retained for use in subsequent analyses.

Table 11 indicates that:

a) Both Factors 1 (Institutional misbehaviour) and 3 (Time served) accounted for a significant amount of variance on the Perceived Self-Efficacy (PSE) scale and the Internal Control subscale of the LOC scale. Factor 1 accounted for 1.40% and 1.40% of the variance on the PSE and Internal Control subscale, respectively. Factor 3 accounted for 2.00% and 2.40% on the same scales, respectively.

b) Factor 2 (Offence history) accounted for 1.50% of the variance on the Attitude Toward Correctional Treatment- Motivation subscale (ATCT-M) and 2.00% of the variance on the Powerful Others Subscale of the Locus Of Control (LOC) scale.

c) Factors 4 (External motivators) and 7 (Violence) did not significantly account for any variance in any of the treatment responsivity variables.

d) Factor 5 (Risk/Need) appeared to have the most impact on responsivity variables as it was partialled out of five out of the eight scales (accounted for 3.70% of variance in ATCT-M, 3.20% of variance in PSE, 1.80% of variance in

Table 11

Relationship of Demographic/ Risk Factors to Treatment Responsivity Variables(R²/r)

Responsivity Variables	Factor 1	Factor 2	Factor 3	Factor 4	Factor 5	Factor 6	Factor 7	All Factors
	Institutional Misbehaviour	Offence History	Time Served	External Motivators	Risk/ Need	Age	Violence	
NML2	.00	.00	.00	.00	.00	.02*	.00	.04
	-.03	-.04	.01	-.03	.06	.12	-.04	
ATCT-M	.00	.02*	.00	.00	.04**	.01*	.00	.07**
	.03	-.12	.04	-.02	.19	.11	.01	
PSE	.01*	.00	.02**	.00	.03**	.00	.00	.07**
	-.12	-.05	.15	.06	.18	.01	.06	
SEQ	.00	.00	.01	.01	.02**	.01	.00	.06*
	-.06	-.03	.09	-.09	-.13	-.08	-.01	
PRI	.00	.01	.00	.00	.05**	.01	.01	.07*
	-.05	-.10	-.01	.03	-.22	-.07	-.08	
LOC – Internal Control	.01*	.00	.02*	.00	.00	.01	.00	.06*
	.00	-.01	.00	-.05	-.02	.08	.03	
LOC – Powerful Others	.00	.02**	.00	.01*	.00	.00	.00	.05
	.01	.00	-.02	.09	.07	.01	.02	
LOC – Chance Control	.00	.00	.00	.01	.02*	.03**	.00	.05
	-.05	-.01	.02	.05	.00	.00	-.01	

* $p < .05$, ** $p < .01$

SEQ, 4.80% of variance in PRI, and 1.80% of variance in the Chance Control subscale of the LOC). However, this factor did not account for a significant amount of variance on the motivation for treatment (NML2) scale or the Internal Control and Powerful Others subscales of the LOC.

e) Factor 6 (Age) accounted for accounted for 1.50% of variance in NML2, 1.20% of variance in ATCT-M, and 2.50% of variance in the Chance Control subscale of the LOC, but did not account for a significant amount of variance on the rest of the responsivity variables.

4. Relationship between Treatment Participation and Success Variables and Demographic/ Risk Factors

Simple and multiple regression analyses were performed to determine whether demographic/ risk factors (independent variables) could significantly account for any variance in treatment participation and success variables (dependent variables).

Treatment participation and success were measured using two criteria: a) program officers ratings of treatment participation and success and b) during- and post-program outcome measures of institutional adjustment. In order to obtain program participation and success indicators, program delivery officers were asked to rate offenders on several program participation variables (see Appendix H). Ratings were given on a 5-point Likert-type scale. Table 12 indicates that Completers were rated significantly higher than Drop-outs on all positive program indicators. However, as would be expected, Drop-outs scored significantly higher

Table 12

Comparisons Between Completers and Drop-Outs On Treatment Participation andSuccess Variables

Program Participation & Success Variables	Completers		Drop-outs		F
	M	(SD)	M	(SD)	
Attendance	4.35	0.91	2.71	1.44	40.08**
Promptness	4.33	0.88	3.07	1.27	25.79**
Offender's level of participation	3.82	1.00	2.86	1.03	12.44**
Mastery of program content	3.55	0.97	1.83	0.94	36.05**
Disruptive behaviour	1.66	0.94	2.43	0.94	8.95**
Completion of homework assignments	4.31	0.84	2.14	1.03	86.67**
Overall evaluation of program success	3.52	1.01	1.54	0.88	48.66**
Post-program Outcomes					
Length of time in segregation – during-program	0.18	13.17	-3.09	1.86	ns
Length of time in segregation – post-program	0.03	13.17	0.48	22.11	ns
# of charges during program	0.02	0.86	0.27	0.88	6.26**
# of charges post-program	0.02	1.09	0.30	1.76	4.13*
# of convictions during program	0.01	0.66	0.20	0.84	10.49**
# of convictions post-program	0.01	0.89	0.22	1.06	4.01*
# of post-program transfers to higher security	0.00	0.22	0.05	0.34	ns

* $p < .01$

on the rating indicative of Disruptive behaviour. Drop-outs also had significantly more during- and post-program charges and convictions. Further, Table 13 shows that Completers and Drop-outs differed on the NML2 (motivation) and PSE (global self-efficacy) with Completers scoring higher on both.

The variance associated with demographic/risk factors that were significantly related to treatment participation and success and post-program outcome variables was partialled out and the residual variance (i.e., the variance unaccounted for by the demographic/ risk factors) was retained for use in subsequent analyses. Table 14 shows the relationship between demographic/risk factors and offenders' participation and success ratings. This table indicates that:

a) Factor 1 (Institutional misbehaviour) accounted for a significant amount of variance on four of the seven treatment participation and success criteria. It accounted for 6.00%, 3.30%, 3.80%, and 2.40% of the variance in Attendance, Promptness, Disruptive behaviour, and Completion of homework, respectively.

b) Factor 2 (Offence history) accounted for a significant amount of variance on two of the seven treatment participation and success criteria: 2.50% and 1.70% of the variance in Attendance and Completion of homework, respectively.

c) Factors 3 (Time served), 4 (External motivators) and 7 (Violence) did not significantly account for any variance on any of the treatment participation and success criteria.

Table 13

Comparison Between Completers and Drop-Outs on Responsivity Measures

Responsivity Variables	Completers (n=307)		Drop-outs (n=18)		F
	M	(SD)	M	(SD)	
NML2	49.57	8.23	45.46	10.05	4.15*
ATCT-M	31.49	4.25	30.72	4.70	ns
PSE	78.13	11.88	71.47	11.42	5.36*
SEQ	27.83	6.62	25.17	7.29	ns
PRI	1.83	.63	1.58	.34	ns
LOC –Internal Control	29.84	3.98	28.85	4.27	ns
LOC –Powerful Others	19.69	5.27	21.5	5.32	ns
LOC –Chance Control	20.35	5.27	21.89	3.86	ns

* $p < .05$, ** $p < .01$

Table 14

Relationship of Demographic/ Risk Factors to Treatment Participation & SuccessVariables (R^2 / r)

Program Participation & Success Variables	Factor 1 Institutional Misbehaviour	Factor 2 Offence History	Factor 3 Time Served	Factor 4 External Motivators	Factor 5 Risk/ Need	Factor 6 Age	Factor 7 Violence	All Factors
Attendance	.06** -.25	.03** -.16	.00 -.01	.01 -.07	.03** -.16	.05** .23	.00 -.05	.13**
Promptness	.03** -.18	.00 .01	.00 .05	.01 -.08	.01 -.09	.04** .20	.00 .06	.08**
Level of participation	.00 -.06	.00 -.02	.01 .09	.00 -.04	.02* -.12	.03** .16	.00 -.00	.06*
Mastery of program content	.01 -.07	.00 -.01	.00 .05	.01 .10	.03** -.17	.00 .02	.01 -.08	.06*
Disruptive behaviour	.04** .20	.01 .10	.00 -.06	.00 .01	.04** .20	.03** -.16	.01 .08	.08**
Completion of homework	.02** -.15	.02* -.13	.00 -.02	.00 .04	.02* -.14	.02* .14	.01 -.08	.09**
Overall evaluation	.01 -.07	.00 -.01	.01 .08	.00 .06	.05** -.23	.00 .07	.01 -.07	.09**

* $p < .05$, ** $p < .01$

d) Factor 5 (Risk/Need) accounted for a significant amount of variance on six of the seven treatment participation and success criteria. That is, the Risk/Need factor accounted for 2.60%, 1.50%, 3.00%, 4.00%, 1.90%, and 5.20% of the variance in Attendance, Level of participation, Mastery of program content, Disruptive behaviour, Completion of homework, and Overall evaluation, respectively.

e) Factor 6 (Age) accounted for a significant amount of variance on five of the seven treatment participation and success criteria. The Age factor accounted for 5.10%, 4.00%, 2.60%, 2.50%, and 2.00% of the variance in Attendance, Promptness, Level of participation, Disruptive behaviour, and Completion of homework, respectively.

Table 15 displays the relationship between the demographic/risk factors and post-program outcome measures of institutional adjustment. This table indicates that:

a) Factors 1 and 6 (Institutional misbehaviour and Age) accounted for a significant amount of variance on the same five post-program outcome measures of post-program length of time in segregation (9.70% and 2.80%, respectively), number of charges during program (4.70% and 4.60%, respectively), number of charges post-program (2.60% and 2.70%, respectively), number of convictions during program (1.10% and 2.10%, respectively), and number of convictions post-program (4.80% and 3.40%, respectively).

b) Factor 2 (Offence history) accounted for a significant amount of variance on five of the seven post-program outcome measures: number of charges

Table 15

Relationship of Demographic/ Risk Factors to Post-Program Outcome Measures(R²/r)

Post-Program Outcome Measures	Factor 1 Institutional Misbehaviour	Factor 2 Offence History	Factor 3 Time Served	Factor 4 External Motivators	Factor 5 Risk/ Need	Factor 6 Age	Factor 7 Violence	All Factors
Length of time in segregation – during-program	.00 .05	.00 -.03	.00 -.04	.00 .01	.02* .13	.01 -.10	.00 -.03	ns
Length of time in segregation – post-program	.10** .31	.01 .08	.00 -.01	.00 .02	.02** .15	.03** -.17	.00 .06	.17**
# of charges during program	.05** .22	.02* .13	.00 -.03	.00 .00	.08** .28	.05** -.22	.00 .05	.17**
# of charges post-program	.03** .16	.01* .11	.00 -.04	.00 .04	.04** .21	.03** -.17	.00 .04	.11**
# of convictions during program	.01* .11	.02* .13	.02* -.15	.01 -.08	.05** .22	.02** -.15	.00 -.01	.13**
# of convictions post-program	.05** .22	.02* .12	.00 -.04	.00 .03	.04** .20	.03** -.19	.00 .06	.12**
# of post-program transfers to higher security	.00 -.00	.07** .27	.06** .25	.06** -.24	.05** -.23	.00 -.02	.03* .16	.18**

* $p < .05$, ** $p < .01$

c) during program (1.70%), number of charges post-program (1.30%), number of convictions during program (1.80%), number of convictions post-program (1.50%) and number of post-program transfers to higher security (7.20%).

d) Factors 3 (Time served) accounted for a significant amount of variance on two of the seven post program outcome measures: number of convictions during program (2.20%) and number of post-program transfers to higher security (6.00%).

e) Factors 4 (External motivation) and 7 (Violence) each accounted for a significant amount of variance on the post-program outcome measure of number of post-program transfers to higher security (5.70% and 2.70%, respectively).

f) Factor 5 (Risk/Need) accounted for a significant amount of variance on all seven post-program outcome-measures: length of time in segregation during program (1.60%), length of time in segregation post-program (2.10%), number of charges during program (7.50%), number of charges post-program (4.20%), number of convictions during program (4.90%), number of convictions post-program (3.40%) and number of post-program transfers to higher security (5.30%).

5. Relationship between Treatment Participation and Success and Responsivity Variables

Simple and multiple regression analyses were performed to determine whether treatment participation and success (dependent variables) were predicted by motivation, self-efficacy, problem recognition, and locus of control

(independent variables). These relationships were assessed using the residual variance for both groups of variables (i.e., the variance in treatment participation and success and responsivity variables that was unaccounted for by demographic/risk variables). This was done in order to ensure that the relationship between these groups of variables would be more of a true relationship, unrelated to potential spurious factors.

Treatment participation and success were measured using the same criteria used in the previous analysis (i.e., program officer ratings of treatment participation and success and during and post-program measures of institutional adjustment). Table 16 shows the relationship between responsivity variables and offenders' treatment participation and success as rated by program officers. This Table indicates that:

a) Motivation for treatment (NML2) accounted for a significant amount of variance on six of the seven treatment participation and success criteria. All relationships were positive (Table 16). The NML2 did not significantly account for any variance in the Disruptive behaviour variable. Of note, the NML2 accounted for 6.10%, 3.30%, and 3.20% in the Completion of homework, Attendance, and Promptness ratings, respectively.

b) The Attitudes Towards Correctional Treatment Scale (ATCT-M) accounted for a significant amount of variance on all seven treatment participation and success criteria. The relationship between the ATCT-M and six of the program participation and success indicators were positive, the exception being a negative relationship with the disruptive behaviour indicator (Table 17). Of

Table 16

Relationship between Responsivity and Treatment Participation & SuccessVariables (R²)

	Motivation		Self-Efficacy		PRI	Locus of Control			All Scales
	NML2	ATCT -M	PSE	SEQ		LOC – IC ^a	LOC – PO ^b	LOC – CC ^c	
Attendance	.03**	.01*	.00	.03**	.00	.01	.02*	.02*	.10**
Promptness	.03**	.02*	.00	.01	.00	.00	.02*	.02*	.05
Level of Participation	.02*	.05**	.00	.09**	.02*	.01	.03**	.05**	.17**
Mastery of Program Content	.02*	.04**	.00	.04**	.02*	.01	.07**	.09**	.17**
Disruptive Behaviour	.00	.01*	.00	.00	.00	.00	.01	.00	.02
Completion of Homework	.06**	.03**	.01	.05**	.00	.02*	.06**	.06**	.16**
Overall Evaluation	.02*	.03**	.00	.04**	.01	.00	.06**	.06**	.13**

a LOC – Internal Control Subscale; b LOC – Powerful Others Subscale; c LOC –

Chance Control Subscale; * $p < .05$, ** $p < .01$

Table 17

Correlations between Responsivity Variables and Program Participation andSuccess Ratings

	NML2	ATCT	PSE	SEQ	PRI	LOC- IC	LOC- PO	LOC-CC	LOC Total
Attendance	.18**	.11	.00	.18**	.01	.11	-.14*	-.14*	-.11
Promptness	.18**	.12*	.00	.09	-.03	.05	-.12*	-.12*	-.11
Level of Participation	.13*	.22**	-.01	.30**	-.14*	.08	-.17**	-.23**	-.16**
Mastery of Program Content	.12*	.21**	-.04	.20**	-.13*	.09	-.27**	-.30**	-.26**
Disruptive Behaviour	-.05	-.12*	.07	.00	-.03	-.00	.07	.06	.05
Completion of Homework	.25**	.16**	.07	.23**	-.01	.15*	-.24**	-.24**	-.19**
Overall Evaluation	.13*	.18**	-.02	.19**	-.11	.06	-.24**	-.24**	-.22**

* $p < 0.05$ level (2-tailed)** $p < 0.01$ level (2-tailed)

particular interest is that this indicator of motivation accounted for 4.60%, 4.20%, and 3.30% of the variance in Level of participation, Mastery of program content, and Overall evaluation, respectively.

c) The Perceived Self-efficacy Scale (PSE), a measure of general self-efficacy, did not significantly account for any variance on any of the seven treatment participation and success criteria.

d) The Self-Efficacy Questions (SEQ), a measure of treatment-related self-efficacy, accounted for a significant amount of variance on five of the seven treatment participation and success criteria. These relationships were all in the positive direction (Table 17). The SEQ did not significantly account for any variance in Promptness or Disruptive behaviour variables. Of all responsivity variables, the SEQ accounted for the most amount of variance (9.00%) in the Level of participation rating. It also accounted for 5.30%, 4.00%, and 3.70% of the variance in Completion of homework, Mastery of program content, and Overall evaluation, respectively.

e) The Problem Recognition Index (PRI) accounted for a significant amount of variance in two of the seven treatment participation and success variables: Level of Participation (2.00%) and Mastery of program content (1.60%). The correlations for both of these relationships were negative (Table 17).

f) The Locus of Control (LOC) scale is composed of 3 subscales: Internal Control, Powerful Others, and Chance Control. The Internal Control subscale accounted for a significant amount of variance in the Completion of homework variable (2.20%). The correlation between these two variables was positive (.15,

Table 17). The Powerful Others and the Chance Control subscales (indices of external locus of control) accounted for a significant amount of variance in all program participation and success variables excluding Disruptive behaviour. All of the correlations for these relationships were negative (Table 17). Of note, the Chance Control subscale accounted for 8.80% of the variance in Mastery of program content, 5.70% in Overall evaluation, and 5.50% in Completion of homework. The Powerful Others subscale accounted for a significant amount of variance in Mastery of program content (7.20%), Completion of homework (5.80%), and Overall evaluation (5.80%).

g) All responsivity variables were considered in combination to determine whether, together, they accounted for a significant amount of variance in program participation and success variables. Together, responsivity variables accounted for a significant amount of variance, ranging from 9.70% to 16.80%, in all program participation and success variables excluding those of Promptness and Disruptive behaviour.

Table 18 shows the relationship between responsivity variables and during- and post-program outcome measures of institutional adjustment. This table indicates that:

a) Motivation for treatment (the NML2) accounted for a significant amount of variance on number of institutional charges after program completion (1.80%), number of institutional convictions during the program (2.30%), and number of institutional convictions after program completion (1.60%). The correlations for these three relationships were all negative (Table 19).

Table 18

Relationship between Responsivity Variables and Post-Program OutcomeMeasures of Institutional Adjustment (R^2)

	Motivation		Self-Efficacy			Locus of Control			
	NML2	ATCT -M	PSE	SEQ	PRI	LOC - IC ^a	LOC - PO ^b	LOC - CC ^c	All Scales
Length of Time in Seg. During Program	.00	.00	.00	.01	.00	.01	.00	.01	.03
Length of Time in Seg. Post Program	.00	.01	.00	.00	.01	.00	.01	.01	.05
# Institutional Charges During Program	.00	.01	.02*	.01	.01	.00	.01	.00	.04
# Institutional Charges Post Program	.02**	.02**	.00	.00	.00	.00	.00	.01	.05
# Institutional Convictions During Program	.02**	.01	.01	.00	.00	.00	.01	.01	.06
# Institutional Convictions Post Program	.02*	.03**	.01	.00	.00	.00	.00	.01	.06
#Post-Program Transfers to Higher Security	.00	.00	.00	.00	.00	.00	.00	.00	.02

a LOC – Internal Control Subscale; b LOC – Powerful Others Subscale; c LOC –

Chance Control Subscale, * $p < .05$, ** $p < .01$

Table 19

Correlations between Responsivity Variables and Post-Program OutcomeMeasures of Program Participation

	NML2	ATCT	PSE	SEQ	PRI	LOC- IC	LOC- PO	LOC- CC	LOC Total
Length of Time in Seg During Program	.03	.02	.05	.10	-.03	.09	-.05	-.09	-.04
Length of Time in Seg Post Program	.04	-.07	-.00	.06	.07	.04	.09	.08	.09
# Charges During	-.02	-.10	.12*	.08	.08	.06	.08	.06	.09
# Charges Post	-.13*	-.16**	.03	.01	.04	-.01	.05	.08	.06
# Convictions During	-.15*-.09	-.09	.11	.07	.03	.04	.08	.10	.11
# Convictions Post	-.13*	-.16**	.11	.05	.05	-.03	.04	.08	.04
# Post-program Transfers to Higher Security	-.07	-.04	-.00	-.06	.04	-.01	.04	.01	-.02

* $p < 0.05$ level (2-tailed)** $p < 0.01$ level (2-tailed)

b) The Attitudes Towards Correctional Treatment Scale (ATCT-M)

accounted for a significant amount of variance in the number of institutional charges after program completion of the (2.40%) and number of institutional convictions after program completion (2.60%). The correlations for these two relationships were both negative (Table 19).

c) The Perceived Self-efficacy Scale (PSE) accounted for a significant amount of variance in the number of institutional charges during the program (1.50%). The correlation between these two variables was positive (.12, Table 19).

d) Neither the Self-Efficacy Questions (SEQ), the Problem Recognition Index (PRI), nor any of the Locus of Control (LOC) subscales accounted for any significant amounts of variance in any during- or post-program outcome measures of institutional adjustment.

e) Again, all responsivity variables were considered in combination to determine whether they accounted for a significant amount of variance in during and post-program outcome measures of institutional adjustment. They did not.

X. Discussion

The aim of the present study was to address the gap in the correctional treatment literature with respect to the influence of responsivity factors on offender treatment participation and success. Responsivity factors were defined as those factors that are related to the ability and learning style of the offender that could influence their response to treatment (Andrews & Bonta, 1998). The focus of this research was on the responsivity factors of motivation, self-efficacy, problem recognition, and locus of control. Treatment participation and success was measured in two ways: 1) program officer ratings of program participation and success and 2) post-program outcome measures of institutional adjustment. It was hypothesized that offenders who a) recognized that they have problems related to their antisocial behaviour (high problem recognition), b) wanted to address these problems (high motivation), c) believed that they could effectively address and modify their problem areas (high self-efficacy), and d) believed that events in their own lives were controlled more by internal (within their control) rather than external (outside of their control) forces would have better program participation and success ratings and have better post-program institutional adjustment.

In order to investigate this hypothesis, three specific steps were taken. First, the relationship of the responsivity variables with various demographic and risk variables (e.g., age at conviction, risk/ need level) was investigated to eliminate any potential impact that these demographic/ risk variables could have on the responsivity variables. Second, the relationship between treatment

participation and success variables and demographic/ risk variables was also investigated to eliminate the impact of the demographic/ risk variables on treatment participation and success indicators. It was then possible to investigate the relationship between responsivity variables and treatment participation and success variables without the potential influence of demographic/ risk variables. Each of these steps will be discussed after a brief commentary on the sample characteristics.

Sample Characteristics

Three offender groups were identified: 1) Completers were those who completed their treatment program, 2) Drop-outs were those who began the treatment program but dropped-out of their own will prior to completion, and 3) Refusers were those inmates who refused to participate in the present study. The highest proportion of all three groups were located in medium security institutions. This may be because the highest proportion of federal offenders are housed in medium security institutions (approximately two-thirds of all federal inmates). There are proportionately more of these institutions, each with large populations, which offer more treatment programs relative to minimum and maximum security institutions. The second highest proportion of offenders in the Completers and Drop-outs groups were housed in minimum security institutions. For Completers, this was likely because: a) they were closer to their release dates and, thus, they were on their “best behaviour”, b) they were more motivated for programs, and/ or c) they were better behaved. The high proportion of Drop-outs in minimum may be because a) they were given a definite release date and, so, had little motivation to continue with the program or b) alternative programming

was arranged for them within the community. The second highest proportion of Refusers was housed in maximum security institutions. This may be because a) these offenders were further away from their release dates, b) they were less motivated, c) had poorer attitudes, or d) were worse behaved and, thus, more likely to refuse to participate in research. Furthermore, these offenders would not be cascaded down in security level unless they first completed at least some of their required programs and may have had little incentive to participate.

A small percentage (7.00%) of Completers, Drop-outs, and Refusers were considered low-risk and the largest proportion of all three groups were in the high-risk category. This may be indicative of appropriate classification, using Andrews and Bonta's (1998) risk principle, by parole officers who offer treatment to higher risk offenders. However, 7.20% of Completers were considered low risk. These offenders may have been offered treatment because they were close to their release dates and required some programming prior to a Parole Board review.

Findings of differences between the groups on offence history indicators and pre-program institutional adjustment indicators suggest that Completers may not be as experienced with the correctional system as much as the other groups so their attitudes may be better and they may be more amenable to the institutional process and rules. The higher mean number of times in disciplinary segregation for Drop-outs may be because they may have poorer attitudes, may be associating with more antisocial offenders, or generally have poorer institutional adjustment.

Comparisons of program Completers versus Drop-outs demonstrated that Completers always scored higher on all responsivity measures except for the external control subscales of the LOC. However, statistically significant differences between Completers and Drop-outs were found only on motivation (NML2) and the global measure of self-efficacy (PSE). The mean score for Completers was higher on the PSE and twice as high on the NML2 relative to that of Drop-outs - these differences were in the hypothesized direction in that Completers were more motivated and had more global self-efficacy than Drop-outs. However, the size of the Drop-out sample may have been too small to detect statistically significant differences between the groups on the other responsivity measures.

Completers consistently scored higher than Drop-outs on all positive program officer ratings of program participation and success (e.g., attendance, level of participation, mastery of content, etc.). Again, this may be because Completers had better attitudes toward programs and were more motivated to complete them than Drop-outs. The exception was, as would be expected, that Drop-outs scored higher than Completers on the rating of Disruptive behaviour. There were no differences between Completers and Drop-outs on post-program measures of institutional adjustment. This may be because there were too few incidences of post-program institutional misbehaviour in the follow-up period (an average of 4.51 months). Also, the Drop-out group may not have been large enough to be able to detect a statistical difference.

The research findings will now be discussed by examining each of the three goals of the present research in turn beginning with the first: to investigate the relationship between responsivity variables and offenders' demographic/ risk factors.

1. Investigation of the relationship between responsivity variables with offenders' demographic/ risk factors.

No hypotheses were made about this portion of the study since it was mainly exploratory and of secondary importance to the present research. First, a factor analysis was performed to reduce 30 demographic and risk variables into a more manageable number to be used in future analyses. A seven factor solution emerged: Risk/ need, Age, Offence history, Violence, Institutional misbehaviour, Time served, and External motivators. The variables of current security classification, risk, and need loaded on the Risk/ need factor. Age at first conviction and age at admission to serve the current sentence comprised the Age factor. The offence history factor consisted of number of offences, number of non-violent offences, number of prior offences, and number of releases revoked. History of sexual or related offences, number of violent offences, and number of current offences all loaded on the Violence factor. The Institutional misbehaviour factor was composed of number of prior incomplete programs (at the fault of the offender), number of pre-program institutional charges and convictions, and number of pre-program times in involuntary segregation. The variables of sentence length, number of days until statutory release, and number of days until warrant expiry made up the Time served factor. Finally, the External motivators

factor consisted of the variables of number of days until day parole eligibility and number of days until full parole eligibility.

The importance of these factors, and the variables they comprise, has been demonstrated in the forensic research literature. For example, Farrington (1983) reported a positive relationship between age of first offence and a) total number of youth convictions and b) length of criminal career. Mendelzys (1979) found that the older the offender at first offence, the lower the probability of further criminal involvement. Mulvey and Lidz (1984) reported a positive relationship between age and violent behavior: the younger individuals committed more violent behavior and were at higher risk for re-offending. Rogers (1981) and Andrews and Bonta (1998) have also suggested that age is a strong predictor of recidivism.

With respect to criminal history, Farrington (1983) found that "chronic" offenders had six or more convictions prior to reaching the age of 25. He also found a positive relationship between number of convictions at the ages of 10-17 and number of convictions at the age of 17-24. Bonta (1997), Andrews and Bonta (1998), and Gendreau, Little, and Goggin (1996) reported that past criminality was a robust predictor of future criminal behaviour. Similarly, Barnett and Lofaso (1985) and Barnett, Blumstein, and Farrington (1987) demonstrated that future rate of offending was best predicted by the number of past crimes. Nuffield (1982) found a link between the number of previous prison terms served and recidivism. In terms of violence, Shah (1978) reported that the probability of assaultiveness increases with each act of violence. Blumstein, Farrington, and Moitra (1985) reported presence of a positive relationship between seriousness of

the first conviction and number of subsequent convictions. Farrington (1987) reviewed studies on juveniles and concluded that a relatively serious first offense predicted later serious juvenile offending.

Regression analyses were performed to determine whether these seven demographic/ risk factors could significantly account for any variance in each of the responsivity variables of motivation, self-efficacy, problem recognition, and locus of control. The Risk/ need factor emerged as the most influential on five of the eight responsivity variables (motivation through the ATCT-M, both self-efficacy scales, the problem recognition index, and the Chance Control subscale of the Locus of Control scale) followed by Age which was significantly related to three responsivity variables (both motivation scales and the Chance Control subscale of the Locus of Control scale). Institutional misbehaviour, Offence history, and Time served each accounted for a significant amount of variance in two responsivity variables (self-efficacy as measured by the PSE and Internal Control subscale of the Locus of Control scale for the Institutional misbehaviour and Time served factors; motivation as measured by the ATCT-M and the Powerful others subscale for the Offence history factor). The variance associated with demographic/ risk factors was removed from each of the corresponding responsivity variables and the residual variance in responsivity variables was used in the following analyses.

Thus, the findings of this portion of this study are in line with a long and varied history of correctional studies. The Risk/ Need factor, a general factor incorporating Correctional Service of Canada's ratings of risk and need, appeared

to have the most impact on responsivity variables followed by the Age factor. This emphasizes the importance of considering criminal risk factors and need levels in conjunction with any investigation of responsivity. The following section will review findings related to the second goal of the present study: to investigate whether treatment participation and success could be predicted by offender demographics/ risk factors.

2. Investigation of the relationship between treatment participation and success variables with offenders' demographic/ risk factors.

Treatment participation and success were measured in two ways: a) program officer ratings of program participation and success and b) during- and post-program outcome measures of institutional adjustment.

First, the relationship between the seven demographic/ risk factors from the above-mentioned factor analysis and program participation and success variables was investigated. There appeared to be three factors that were significantly related to program officer ratings of program participation and success. These were the Risk/ need, Age, and Institutional misbehaviour factors which were related to six (attendance, level of participation, mastery of program content, disruptive behaviour, completion of homework, and overall evaluation), five (attendance, promptness, level of participation, disruptive behaviour, and completion of homework), and four (attendance, promptness, disruptive behaviour, and completion of homework) program officer ratings of program participation and success, respectively. Second, the relationship between the seven demographic/ risk factors and during- and post-program outcome measures

of institutional adjustment was investigated. Again, the Risk/ need, Age, Institutional misbehaviour, and Offence history factors emerged as most associated with seven (length of time in segregation during- and post-program, number of charges during- and post-program, number of convictions during- and post-program, and number of post-program transfers to higher security), five (length of time in segregation post-program, number of charges and convictions during- and post-program), five (length of time in segregation post-program, number of charges and convictions during- and post-program), and five (number of charges and convictions during- and post-program and number of post-program transfers to higher security) of the seven during- and post-program outcome measures. The variance within each treatment participation and success variable that was attributed to the demographic/ risk factors was removed and the residual variance in treatment participation and success variables was retained for future analyses.

Based on the results of previous research, two specific hypotheses were made with respect to the relationship between demographic/ risk variables and treatment participation and success variables. These were a) that younger offenders, offenders admitted at a younger age and whose involvement with the law began at a young age would have poorer treatment outcomes relative to older offenders, those admitted at an older age and whose involvement with the law began at an older age (Andrews & Bonta, 1998) and b) that high risk offenders would do poorer in treatment than lower risk offenders (Andrews & Bonta, 1998). As can be seen by the above results, both of these hypotheses appear to be

supported. These findings again underscore the importance of considering demographic and risk factors, particularly those of Risk/ Need and Age, when investigating treatment participation and success. These results support the treatment literature indicating the increased likelihood of treatment success when risk and need principles are considered in offender program classification (Andrews & Bonta, 1998).

In the following section the third and most important goal of the present research will be discussed - to investigate whether treatment participation and success were predicted by motivation, self-efficacy, problem recognition, and locus of control.

3. Investigation of the relationship between treatment participation and success and responsivity variables.

To investigate the relationship between responsivity factors and treatment participation and success as measured by a) program officer ratings of program participation and success and b) during- and post-program outcome measures of institutional adjustment, each responsivity factor was regressed separately and in combination to determine whether they were predictive of each treatment participation and success indicator.

a) Motivation, Self-efficacy, Problem Recognition, and Locus of Control as Predictors of Program officer ratings of program participation and success

Motivation was conceptualized as the source behind goal-directed behaviour (Liebert & Spiegler, 1990; Weiten, 1989; Zimbardo, 1992). The NML2 and the ATCT-M are scales designed to assess an individual's motivation for

treatment. The NML2 assessed general treatment motivation while the ATCT-M assessed treatment motivation within a correctional setting. Findings indicated that motivation, assessed by both scales, accounted for a significant amount of variance in all program participation and success indicators (attendance, promptness, level of participation, mastery of program content, disruptive behaviour, completion of homework, and overall evaluation) with the exception of the NML2 on disruptive behaviour. These results suggest that program officers consider motivation as a desirable factor in offender treatment ratings. This makes sense since it would be expected that offenders with higher levels of motivation would be more willing to participate, put more effort into the program, and, thus, get better ratings than those with lower levels of motivation. The finding that motivation is predictive of treatment success with offenders compliments the results of Grant and Gillis (1996, 1999) who found motivation to be predictive of day parole success and Stewart and Millson's (1995) findings that motivation was predictive of conditional release outcome.

Interestingly, the only responsivity factor predictive of Disruptive behaviour was the ATCT-M, and this association was in the negative direction, suggesting that this scale may be a more sensitive measure of motivation within a correctional setting than the NML2.

Bandura's (1995) self-efficacy theory asserts that, for behaviour change to occur, an individual must feel that they are capable of and can manage the change and that change will lead to a desired outcome. Thus, the offender's thoughts, feelings, and actions, including the motivation to change, are all influenced by

self-efficacy beliefs. The PSE, as a measure of global self-efficacy, was not predictive of program participation and success ratings. However, the SEQ, which was treatment-specific, was predictive of all program participation and success ratings with the exception of Promptness and Disruptive behaviour – the two variables that could be most influenced by external factors. That is, promptness may not be completely within an offender's control since, at any given time, institutional routines could lead to delays or even absences from the program. Although disruptive behaviour would appear to be within an offender's control, it is also subject to social or peer pressure since appearances, alliances, and associates are all very strong influences within the institutional environment.

These findings suggest that measures of self-efficacy need to be context-specific rather than global to be good predictors of program participation and success and support previous research indicating that self-efficacy is important when evaluating treatment outcome (Brown, Carrello, Vik, & Porter, 1998; Hogan, 1990; Long, Hollin, & Williams, 1998) and has a role in prison adjustment (Sappington, 1996).

Problem recognition was conceptualized as the extent to which an offender recognizes his antisocial behaviour as problematic. It was operationalized as the extent of agreement between parole officers' actuarial assessment of offender need at intake to the federal system and offenders' self-reported ratings of their own needs. The index that was developed for the present study did not appear to be predictive of any program participation and success ratings except for Level of participation and Mastery of program content. This

would seem logical since an offender's level of participation and mastery of program content should be reflective of the extent to which they feel that they have a problem. Whereas completion of homework could be more related to education or reading ability and attendance and promptness could be influenced by institutional functioning (e.g., late counts, doctor/ dentist/ lawyer/ psychologist appointments, parole board hearings, family visits, etc. - all of which are essential and important to the offender but may not be to others). The direction of relationship was negative indicating that the higher the offender's problem recognition, the lower the level of participation and mastery of program content. This suggests that offenders may feel that their problems are severe to the extent that they are not going to be resolved by treatment programs. In a sense, they may be overwhelmed at the extent of their problems. These attitudes would be relayed to their program officer and may be demonstrated during their program participation – leading to poor ratings. Analyses using the two components of the Problem Recognition Index (i.e., the Problem recognition questions and the CNIA) yielded similar results.

A person who views events in his/ her life as being within his/her control is considered to have an internal locus of control. A person who views events in his/ her life as being out of his/ her own control, occurring as a result of fate, luck or powerful others is considered to have an external locus of control. It is, then, a person's subjective locus of control that affects how he or she behaves (Rotter, 1966). Levenson's (1974) Locus of Control scale was used in the present study and consists of three subscales: Internal Control, Powerful Others (external), and

Chance Control (external). The Internal Control subscale of the LOC accounted for a significant amount of variance only on the Completion of homework rating. This, again, appears to be intuitive since the completion of homework and other assignments would be more within an offenders' personal control than other indicators of program participation and success. In other words, attendance and promptness may be influenced by institutional functioning. Level of participation may be related to shyness or intimidation from other inmates. Mastery of program content could be related to education or reading level.

Both of the external locus of control subscales (i.e., the Powerful Others and Chance Control subscales of the LOC) accounted for a significant amount of variance on all program participation and success ratings with the exception of Disruptive behaviour. These relationships were all in the negative direction indicating that the greater the external locus of control, the lower the ratings of program participation and success. This may indicate that offenders who believe in external factors that control their behaviour may express such views during program participation. This would negatively impact program officers' ratings since officers may view this as an attempt by the offender to abdicate responsibility for their own actions. Such views by an offender are contrary to Correctional Service of Canada goals that attempt to teach offenders to be responsible for their own actions.

The results of the LOC, together, appear to indicate that offenders' participation and success is attributed more to external sources of control than to their own actions. This may be true, in part, since from the minute an offender

enters the correctional system they are regulated by routines that they cannot influence (i.e., their wake-up, exercise time, personal contact and visits, certain appointments, etc.). Since their freedom of choice and movement is limited, parole officers, correctional officers, program officers, psychologists, and the parole board become strong influences in their lives. The more an inmate believes in external control the less likely he will have a high performance to outcome expectancy since they believe that nothing they do would make a difference to the “system”.

These findings support previous research by Levenson (1974) who found that the perception of control by powerful others among incarcerated offenders was related to the length of offenders’ sentences. Graham (1991) found a significant change from an external to an internal locus of control in offenders after they had completed a sex offender program. Zamble and Porporino (1988) considered locus of control as a major construct that affects offenders’ behaviour in prison and found that offenders with an internal locus of control demonstrated better coping in prison than did offenders with an external locus of control. Finally, Cortoni, Anderson, and Looman (1999) found that incarcerated offenders reported having a greater external locus of control than internal locus of control.

It was hypothesized that treatment outcome would be predicted by all four responsivity variables individually and in combination. Specifically, offenders who had higher problem recognition with higher levels of motivation and self-efficacy and an internal locus of control would be more likely than those with lower levels of motivation and self-efficacy and an external locus of control to

have better treatment participation and success. Motivation, self-efficacy, problem recognition, and locus of control were all regressed in combination on each program participation and success ratings. Results indicated that, together, the responsivity variables accounted for a significant amount of variance on all program participation and success ratings with the exception of Promptness and Disruptive behaviour. These results suggest that there is some merit to considering responsivity factors in combination. When considered in combination, the responsivity variables accounted for the most variance in Level of participation (16.80%), Mastery of program content (16.70%), Completion of homework (15.80%), Overall evaluation (13.00%), and Attendance (10.00%) suggesting that responsivity variables could be used to predict which offenders would do better in, and get the most out of, treatment. On the other hand, those offenders low on these responsivity variables could be targeted in order to increase their motivation and self-efficacy, and make locus of control more internal prior to their program commencement using techniques such as motivational interviewing.

In sum, results indicate that responsivity factors are important constructs, above and beyond demographic and risk variables, that should be considered prior to program commencement in order to ensure program completion and maximum retention of program content. This is the short-term impact of assessing responsivity but it is equally important to look at long-term influence of offender responsivity characteristics.

b) Motivation, Self-efficacy, Problem Recognition, and Locus of Control as Predictors of Post-program Outcome Measures of Institutional Adjustment

It was hypothesized that offenders low on motivation, self-efficacy, and problem recognition with an external locus of control would have poorer institutional adjustment as indicated by institutional charges or convictions during- and post-program. The findings of this study seem to partly support these hypotheses. Specifically, problem recognition (the index and each separate component) and having an internal locus of control did not appear to be as important as hypothesized. However, motivation, self-efficacy, and having an external locus of control were useful. Both motivation scales (NML2 and, ATCT-M) and the global self-efficacy scale (PSE) were the only responsivity measures to account for any variance in any of the post-program measures of institutional adjustment. The motivation measures were negatively correlated to the post-program outcome measures of number of charges post-program and number of convictions during- and post- program. Thus, the higher the motivation, the lower the number of post-program charges and during- and post-program convictions again suggesting that motivation for treatment may be the most important of the four responsivity factors. Self-efficacy was positively related to the number of charges during the program. This may indicate that pre-program treatment self-efficacy may result in some offenders being cocky about their ability to be successful in treatment without genuine behaviour change. The fact that post-program charges were not significant may mean that this cockiness was reduced through treatment.

All four responsivity factors, in combination, were not predictive of post-program institutional adjustment above and beyond the predictive ability of demographic and risk variables.

XI. Summary and Recommendations

It was assumed that in order to change a problematic behaviour, an individual must first recognize that the behaviour is problematic. Then, the individual must be motivated to change this behaviour. Motivation, the mechanism behind goal directed behaviour, was thought to be influenced by self-efficacy and locus of control. Thus, offenders who recognize their problematic behaviour with higher levels of motivation and self-efficacy and an internal locus of control would be more likely than those with lower levels of motivation and self-efficacy and an external locus of control to have better treatment participation and success. Treatment participation and success would then have a direct relationship to behaviour change.

In essence, the findings of this research are supportive of a cognitive-behavioural framework for conceptualizing the impact of responsivity factors on behaviour. That is, offenders' thoughts, feelings/ attitudes, and behaviours in treatment are all linked. It was assumed that an offender's thoughts (problem recognition), feelings (motivation, self-efficacy, and locus of control) would impact his behaviour (treatment participation and success). The results of the present study support the importance of having high motivation and self-efficacy. However, the presence of an external locus of control was more influential while the importance of an internal locus of control was not supported. That is, the higher an offender's external locus of control, the poorer the program outcome. Also, the higher the problem recognition, the lower the ratings suggesting that we need to be able to make offenders' problem recognition more realistic.

In general, these results suggest that motivation and self-efficacy may be the two most sensitive responsivity factors. It is possible that offenders who have poor program success and institutional adjustment had poor pre-program levels of motivation or are not able to sustain their initial pre-program level of motivation due to changes in institutional environment or changes in circumstance (e.g., denial of parole, transfers, etc.). In other words, poor institutional adjustment could be reflective of the offender's frustration at not obtaining the results that were sustaining his initial pre-program level of motivation. These findings may indicate that motivation is not constant or static but fluctuates depending on the offender's environment. This finding supports that of Grant and Gillis (1996, 1999) who assessed change in motivation as a dynamic risk factor. The implication is that practitioners would need to determine how to increase or maintain pre-program levels of after program completion. It may also be interesting to assess motivation at different points within the treatment process and post- program to achieve a better understanding of how, when and why it fluctuates in order to best address these potential fluctuations.

Further, the results appear to indicate that problem recognition was not necessary in order for treatment participants to obtain good participation and success ratings. On the contrary, it would appear that the more an offender recognizes his problematic behaviour, the less his level of participation and mastery of the program content. This could be an indication that offenders with several problem areas may be overwhelmed by the extent of effort or change that they must undergo, thus dismissing the ability of programming to help them. In

turn, this view would have an impact on their attitudes toward what is required of the program and the ratings they are given. On the other hand, it may be that future research would need to find another indicator of problem recognition. Lastly, an external locus of control would appear to have a stronger influence within a correctional setting. Perhaps if offenders' locus of control could be addressed, making it more internal, they would get more out of programming and be able to achieve even better results. Future research may also investigate the consistency between program officer ratings and whether having a scale more concretely anchored would influence the ratings.

The higher the offender's motivation and self-efficacy, the better the program outcome. The longer-term impact of motivation, self-efficacy, problem-recognition, and locus of control on institutional adjustment was not well supported. This may be due to the length of follow-up in the present research. Future research may wish to investigate this portion of the relationship after perhaps six months to one year in order to increase the likelihood of obtaining a greater number of offenders who receive segregation, charges, convictions, or transfers. This may also be accomplished with research that focused on high risk/need offenders located within maximum security institutions. Investigations within and outside of a correctional setting, as well as within other treatment settings, using female and young offender samples could extend the generalizability of these cross-sectional results.

In summary, the aim of the present study was to enhance the current literature by investigating responsivity issues. Key findings were that 1) effective

correctional programming takes into consideration the principles of risk, need, and responsivity; 2) motivation and self-efficacy appear to be better predictors of program participation and success than problem recognition and having an internal locus of control; 3) external factors and an external locus of control must be considered by correctional researchers; 4) having a high level of problem recognition may hinder program participation success and 5) considering all four responsivity factors in combination can lead to good predictability above and beyond the predictive ability of the commonly used demographic and risk factors.

These findings may have direct relevance to the matching of offenders to an appropriate treatment. For example, if an offender does not feel that he would benefit from a group counselling approach, he may be offered individual or peer counseling as an alternative. Also, if motivation, self-efficacy, problem recognition and locus of control were assessed within each offender's pre-program assessment battery, offenders low on motivation and self-efficacy, with an external locus of control and very high problem recognition could be targeted for pre-treatment counselling. The goal of this counselling would be to increase their motivation for treatment and their self-efficacy for both short-term (program success), long-term (institutional adjustment) and longer-term (overall behaviour change) outcomes. This would perhaps be a more economical approach rather than creating new or varied programs that would cater to each offender's preferred treatment modality. Lastly, offering post-program booster sessions may also extend treatment gains.

XII. References

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XIII. Appendices

Appendix A: The Preparedness subscale of the Nijmegen et al. Motivation List(NML2)

(Nijmegen et al., 1999)

	Not at all applicable					Very applicable
1. I will do anything to get rid of my problems.	①	②	③	④	⑤	⑥
2. I urgently need help in solving my problems.	①	②	③	④	⑤	⑥
3. I'm certain that I shall also practice at me own time the things I learn in the program.	①	②	③	④	⑤	⑥
4. I expect to benefit more from the program if I actively participate in it.	①	②	③	④	⑤	⑥
5. I'm willing to put work or other activities aside in order to attend the program sessions.	①	②	③	④	⑤	⑥
6. I will keep attending the program, no matter what.	①	②	③	④	⑤	⑥
7. I'm prepared to work on myself for a while.	①	②	③	④	⑤	⑥
8. I'm willing to postpone other activities and appointments to attend the program.	①	②	③	④	⑤	⑥
9. I made the right decision in attending the _____ program.	①	②	③	④	⑤	⑥
10. I believe that this program will help me get rid of some of my problems.	①	②	③	④	⑤	⑥

Appendix B: Attitudes Toward Correctional Treatment Scale
(Baxter, D.J., Burchill, M., and Tweedale, M., 1992)

Name _____ **Date** _____

We would like you to tell us whether you **agree** or **disagree** with some statements listed on the following pages. Please write **1, 2, 3, 4, or 5** in the blank next to each statement using the scale below:

Strongly Disagree	Disagree	Uncertain	Agree	Strongly Agree
1	2	3	4	5

Give your own opinions about each statement: There are no right or wrong answers on this questionnaire.

Example:

_____ 1. All politicians are crooks.

If you **strongly disagree** with this statement (you think it is completely wrong), you should write "1" in the blank. If you **strongly agree** with the statement, write "5". If you tend to agree or disagree but don't feel quite so certain about your opinion, write in "2" for **disagree** or "4" for **agree**. If you are unable to make up your mind about a statement, or if you have no opinion at all about a statement, write "3".

		Strongly Disagree	Disagree	Uncertain	Agree	Strongly Agree
_____	1. I have one or more problems that I think could be helped by counselling or treatment.	1	2	3	4	5
_____	2. If people would only leave me alone, any problems I have would get better on their own.	1	2	3	4	5
_____	3. I don't think I need any treatment because I feel about the same as I always have.	1	2	3	4	5
_____	4. There are some things about myself that I would really like to change.	1	2	3	4	5
_____	5. I don't belong in a treatment centre.	1	2	3	4	5
_____	6. I would like to talk to a counsellor (for example, a psychologist or social worker) about something that is bothering me.	1	2	3	4	5
_____	7. I don't believe treatment programs can help me.	1	2	3	4	5
_____	8. I am pretty much satisfied with my life except for being in jail.	1	2	3	4	5
_____	9. I do not believe a psychologist or social worker can help me with my problems.	1	2	3	4	5

Appendix C: Perceived Self-Efficacy Scale
(Coppel, 1980)

Directions: People can have many different kinds of feeling about themselves and their lives. Below are some sentences which describe certain feelings that many people have. Read each statement carefully and think about yourself. Each statement will either be 1) NOT like you, 2) A LITTLE like you, 3) SOMEWHAT like you, 4) FAIRLY MUCH like you, or 5) VERY MUCH like you. Circle the number that indicates how you feel. There are no right or wrong answers. Be as accurate and honest as you can about your feelings.

	Not at all like me	A little like me	Somewhat like me	Fairly much like me	Very much like me
1. Once I know what I need to do, I can do it.	1	2	3	4	5
2. In a new situation I expect I can handle things.	1	2	3	4	5
3. I am a confident person.	1	2	3	4	5
4. I am not very effective in solving problems.	1	2	3	4	5
5. When I'm stressed, I can count on myself to cope successfully.	1	2	3	4	5
6. I am not a self-assured person.	1	2	3	4	5
7. I have control of my reactions to stress.	1	2	3	4	5
8. I can usually get what I want.	1	2	3	4	5
9. I rely on my inner strength to deal with problems.	1	2	3	4	5
10. The good things that happen to me are largely my own doing.	1	2	3	4	5
11. I'm proud of myself.	1	2	3	4	5
12. I do not have a high opinion of my abilities.	1	2	3	4	5
13. I wish I had more confidence in my ability to succeed in life.	1	2	3	4	5
14. People know they can expect a lot from me.	1	2	3	4	5

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	Not at all like me	A little like me	Somewhat like me	Fairly much like me	Very much like me
	1	2	3	4	5
15. I believe I use my skills to their best advantage.	1	2	3	4	5
16. I am responsible for the ways I have grown as a person.	1	2	3	4	5
17. I can influence the people in my life.	1	2	3	4	5
18. I can make my interactions with people end up the way I expect them to.	1	2	3	4	5
19. I am quick to learn new things about ways to deal with problems.	1	2	3	4	5
20. I am not afraid to make mistakes.	1	2	3	4	5
21. I know what people expect from me.	1	2	3	4	5
22. I question my abilities in difficult situations.	1	2	3	4	5

Appendix D: Self-Efficacy Questions (SEQ)

If you were to participate in a treatment program in the institution, please rate how confident you would be in the following situations:

	Not at all Confident		Somewhat Confident		Extremely Confident
1. Talking in front of a group.	①	②	③	④	⑤
2. Role-playing or play-acting in front of a group.	①	②	③	④	⑤
3. Telling someone you don't really know about what is bothering you.	①	②	③	④	⑤
4. Doing homework assignments.	①	②	③	④	⑤
5. Discussing the details of your offence in front of the group.	①	②	③	④	⑤
6. Keeping a journal of your thoughts, feelings, and behaviours.	①	②	③	④	⑤
7. Disagreeing with another member of the group.	①	②	③	④	⑤
8. Taking tests on what you have learned.	①	②	③	④	⑤

Appendix E: Problem Recognition Questions (PR)

For each question, please circle the number that best represents the extent to which you agree or disagree with the statement using the scale given below. If you really feel the question does not apply to you, circle the Not Applicable category (N/A).

	Completely Disagree	Disagree	Uncertain	Agree	Completely Agree	N/A
1. I think I need a high-school diploma to find a good job.	1	2	3	4	5	N/A
2. I usually work less than six months out of the year.	1	2	3	4	5	N/A
3. I don't feel that I have to work.	1	2	3	4	5	N/A
4. I often quit a job before having another one lined up.	1	2	3	4	5	N/A
5. I have been fired from a job before.	1	2	3	4	5	N/A
6. I have always been close to my parents.	1	2	3	4	5	N/A
7. I have always been close to my brother(s) or sister(s).	1	2	3	4	5	N/A
8. It was common to see adults fighting or hitting each other in my childhood home.	1	2	3	4	5	N/A
9. I have never had a relationship last more than one year.	1	2	3	4	5	N/A
10. I think that I am a very good parent.	1	2	3	4	5	N/A
11. I have a lot of close friends.	1	2	3	4	5	N/A
12. I prefer not to have too many friends.	1	2	3	4	5	N/A
13. Almost all of the people I know have a criminal record.	1	2	3	4	5	N/A

	Completely Disagree	Disagree	Uncertain	Agree	Completely Agree	N/A
14. If it weren't for the people I was hanging around with, I would never have committed my crime.	1	2	3	4	5	N/A
15. Most of the people I hang around with drink quite a lot.	1	2	3	4	5	N/A
16. I started drinking before I was 16 years old.	1	2	3	4	5	N/A
17. Before I was put in prison, I drank every day.	1	2	3	4	5	N/A
18. Before I was put in prison, I used drugs every day.	1	2	3	4	5	N/A
19. I had done drugs or drank alcohol just before I committed my crime.	1	2	3	4	5	N/A
20. Drugs or alcohol help me relax when I'm feeling stressed.	1	2	3	4	5	N/A
21. I have always had a place to stay.	1	2	3	4	5	N/A
22. I have never been evicted from my home.	1	2	3	4	5	N/A
23. I don't have any dental or physical health problems.	1	2	3	4	5	N/A
24. I have never used any form of social assistance.	1	2	3	4	5	N/A
25. I have never had any overdue bills.	1	2	3	4	5	N/A
26. I have never needed to have a bank account.	1	2	3	4	5	N/A
27. I am not better than anyone else in here.	1	2	3	4	5	N/A
28. I usually find myself doing things on a spur of the moment.	1	2	3	4	5	N/A
29. I can always get people to do what I want.	1	2	3	4	5	N/A

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	Completely Disagree	Disagree	Uncertain	Agree	Completely Agree	N/A
30. I have never tried to hurt myself.	1	2	3	4	5	N/A
31. I have never had a mental health diagnosis.	1	2	3	4	5	N/A
32. The justice system is a joke.	1	2	3	4	5	N/A
33. Staff at this institution are very helpful.	1	2	3	4	5	N/A
34. Police officers are good people you can go to if you need help.	1	2	3	4	5	N/A
35. There is no point to all the programs that they want you to take in here.	1	2	3	4	5	N/A
36. I know exactly what I want to accomplish with my life.	1	2	3	4	5	N/A

Appendix F: Levenson Locus of Control Scale

For each statement, circle the appropriate answer according to how you feel about it.
Strongly Agree (SA) Agree (A) Undecided (U) Disagree(D) Strongly Disagree (SD).

1. Whether or not I get to be a leader of people depends mostly on my ability.	SA	A	U	D	SD
2. To a great extent my life is controlled by accidental happenings.	SA	A	U	D	SD
3. I feel like what happens in my life is mostly determined by powerful people.	SA	A	U	D	SD
4. My behaviour will determine when I am ready to leave prison.	SA	A	U	D	SD
5. When I make plans, I am most certain to make them work.	SA	A	U	D	SD
6. Often there is no chance of protecting my personal interests from bad luck happenings.	SA	A	U	D	SD
7. When I get what I want, it is usually because I'm lucky.	SA	A	U	D	SD
8. Even if I were a good leader, I would not be made a leader unless I play up to those in positions of power	SA	A	U	D	SD
9. How many friends I have depends on how nice a person I am.	SA	A	U	D	SD
10 I have often found that what is going to happen will happen.	SA	A	U	D	SD
11 My life is chiefly controlled by powerful others.	SA	A	U	D	SD
12 It is impossible for anyone to say how long I'll be in prison.	SA	A	U	D	SD
13 People like myself have very little chance of protecting our personal interests when they conflict with those of powerful other people.	SA	A	U	D	SD
14 It's not always wise for me to plan too far ahead because many things turn out to be a matter of good or bad fortune.	SA	A	U	D	SD
15 Getting what I want means I have to please those people above me.	SA	A	U	D	SD
16 Whether or not I get to be a leader depends on whether I'm lucky enough to be in the right place at the right time.	SA	A	U	D	SD

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17 If important people were to decide they didn't like me, I probably wouldn't make any friends.	SA	A	U	D	SD
18 I can pretty much determine what will happen in my life.	SA	A	U	D	SD
19 I am usually able to protect my personal interests.	SA	A	U	D	SD
20 How soon I leave prison depends on other people who have power.	SA	A	U	D	SD
21 When I get what I want, it's usually because I worked hard for it.	SA	A	U	D	SD
22 In order to have my plans work out, I make sure that they fit in with the desires of people who have power over me.	SA	A	U	D	SD
23 My life is determined by my own actions.	SA	A	U	D	SD
24 It's chiefly a matter of fate whether or not I have a few friends or many friends.	SA	A	U	D	SD

Appendix G: Program Officer's Rating Sheet

Offender Name:

FPS #:

Date of Program Commencement:

Date of Program Completion/ Termination:

1. Did the offender complete the program?

Yes ☐No ☐

2. Did the offender drop-out of the program?

Yes ☐No ☐

If YES: # of sessions prior to drop-out:

Please rate the following items on the scale provided to the right of the question, *regardless of whether or not the offender completed the program*. Circle the number on each scale that best suits the offender behaviour in each question.

3. Attendance.	Poor 1	2	Moderate 3	4	Excellent 5
4. Promptness.	Never Prompt 1	2	Moderately Prompt 3	4	Always Prompt 5
5. Offender's level of participation during the program.	Never Participated 1	2	Moderate Participation 3	4	Always Participated 5
6. Mastery of program content.	Poor 1	2	Moderate 3	4	Excellent 5
7. Disruptive behaviour.	Never Disruptive 1	2	Moderately Disruptive 3	4	Always Disruptive 5
8. Completion of homework or assignments.	Never Completed 1	2	Completed Half of the Time 3	4	Always Completed 5
9. Overall evaluation of offender program success.	Poor 1	2	Moderate 3	4	Excellent 5

Additional Comments or Notes:

Offender Name:

Subject #:

Number of institutional charges	
Number of institutional convictions	
Length of time spent in segregation	If time spent, for what?
Institutional transfers?	If yes, from what security level to what security level?
Does an Institutional Preventative Security (IPSO) file exist?	If yes, as of when and details if provided.

Additional comments from work reports, progress reports, etc.:

This image shows a single sheet of white paper with horizontal ruling lines. The lines are evenly spaced and run across the width of the page. There are no margins, text, or other markings on the paper.

Appendix I: Paulhus Deception Scale

Name: _____ Age: _____ Gender: ☐ Male ☐ Female Date _____
 (d/m/y): _____

Instructions: Read each statement and circle the number that best describes you,
 from *Not True* to *Very True* about you.

	Not True				Very True
1 My first impression of people usually turn out to be right.	1	2	3	4	5
2 It would be hard for me to break any of my bad habits.	1	2	3	4	5
3 I don't care to know what other people really think of me.	1	2	3	4	5
4 I have not always been honest with myself.	1	2	3	4	5
5 I always know why I like things.	1	2	3	4	5
6 When my emotions are aroused, it biases my thinking.	1	2	3	4	5
7 Once I've made up my mind, other people cannot change my opinion.	1	2	3	4	5
8 I am not a safe driver when I exceed the speed limit.	1	2	3	4	5
9 I am fully in control of my own fate.	1	2	3	4	5
10 It's hard for me to shut off a disturbing thought.	1	2	3	4	5
11 I never regret my decisions.	1	2	3	4	5
12 I sometimes lose out on things because I can't make up my mind soon enough.	1	2	3	4	5
13 The reason I vote is because my vote can make a difference.	1	2	3	4	5
14 People don't seem to notice me and my abilities.	1	2	3	4	5
15 I am a completely rational person.	1	2	3	4	5
16 I rarely appreciate criticism.	1	2	3	4	5
17 I am very confident of my judgments.	1	2	3	4	5
18 I have sometimes doubted by ability as a lover.	1	2	3	4	5
19 It's alright with me if some people happen to dislike me.	1	2	3	4	5
20 I'm just an average person.	1	2	3	4	5
21 I sometimes tell lies if I have to.	1	2	3	4	5
22 I never cover up my mistakes.	1	2	3	4	5

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	1	2	3	4	5
	Not True				Very True
23 There have been occasions when I have taken advantage of someone.	1	2	3	4	5
24 I never swear.	1	2	3	4	5
25 I sometimes try to get even rather than forgive and forget.	1	2	3	4	5
26 I always obey laws, even if I'm unlikely to get caught.	1	2	3	4	5
27 I have said something bad about a friend behind his or her back.	1	2	3	4	5
28 When I hear people talking privately, I avoid listening.	1	2	3	4	5
29 I have received too much change from a salesperson without telling him or her.	1	2	3	4	5
30 I always declare everything at customs.	1	2	3	4	5
31 When I was young, I sometimes stole things.	1	2	3	4	5
32 I have never dropped litter on the street.	1	2	3	4	5
33 I sometimes drive faster than the speed limit.	1	2	3	4	5
34 I never read sexy books or magazines.	1	2	3	4	5
35 I have done things that I don't tell other people about.	1	2	3	4	5
36 I never take things that don't belong to me.	1	2	3	4	5
37 I have taken sick-leave from work or school even though I wasn't really sick.	1	2	3	4	5
38 I have never damaged a library book or store merchandise without reporting it.	1	2	3	4	5
39 I have some pretty awful habits.	1	2	3	4	5
40 I don't gossip about other people's business.	1	2	3	4	5

Appendix J: Consent Form

The purpose of an informed consent is to ensure that you understand the purpose of the study and the nature of your involvement. The informed consent must provide sufficient information such that you have the opportunity to determine whether you wish to participate in the study.

Research personnel. The following people are involved in this research project and may be contacted at any time: Amel Loza-Fanous (Principal Investigator, 613-634-0028), Dr. R.D. Hoge (Faculty Sponsor, 613-520-2600 ext. 5773). Should you have any ethical concerns about this study, please contact Dr. Monique Sénéchal (Chair, Dept. of Psychology Ethics Committee, 613-520-2600, ext. 1155). Should you have other concerns about this study, please contact Dr. Kim Matheson (Chair, Dept. of Psychology, 613-520-2600, ext. 2648).

Purpose. The purpose of this study is to investigate whether incarcerated men's motivation, degree of confidence in their abilities, problem recognition, and beliefs about their control over their lives are related to some personal factors such as age, education level, marital status, ethnicity, length of current sentence, and risk factors such as number of current and past offences. Factors associated with treatment program outcomes such as program success or failure, drop-out of the program, the level of participation in the program, and attendance, will be also investigated.

Task requirements. You will be given a few short questionnaires before you take part in a treatment program. The questions will ask you about the reasons why you are going to take part in a treatment program and how you feel about it. The researcher would also be obtaining information about you from your institutional files as well as your file on the electronic system (the OMS). Electronic files will be reviewed twice: once before you start your treatment program and once afterward. Also, the researcher will be giving the program delivery officer a questionnaire that includes some questions about your participation in the program. These questions will focus on your attendance and participation in the program. If you drop out of the program information will still be collected from your files that would be valuable to this research.

Duration. Questionnaires should take approximately 30 to 45 minutes to complete.

Confidentiality. All information collected about you will be kept confidential from the institutional staff and nothing will be placed on your institutional files. Also, nobody will have access to information you provide or obtained from your file except people involved in this research such as the supervising committee. However, you must be aware that this confidentiality must be broken if you give any information indicating a plan to harm a particular person, including yourself, or divulge information pertaining to current abuse of a child.

Right to withdraw. Your participation is completely voluntary. You have the right to withdraw from the study at any time without any consequence to you. You may also refuse to answer any specific question. Your participation will have no impact on you in any way. It will not influence any programming, institutional, or sentence decisions. All your responses will be kept confidential and will not be given to anyone outside of the research study in any identifying way.

Thank you in advance for your participation.

Signatures

I have read the above form and understand the conditions of my participation. My participation in this study is voluntary, and if for any reason, at any time, I wish to leave the study I may do so without having to give an explanation and with no penalty whatsoever. Also, I am aware that the data gathered in this study are confidential with respect to my personal identity. By signing, I agree to participate in the study.

Participant Name

Participant Signature

Researcher Name

Researcher Signature

Date

Appendix K: Debriefing Form

Thank you for your participation in this study. The purpose of this study was to investigate whether incarcerated men's motivation, degree of confidence in their abilities, problem recognition, and beliefs about their control over their lives are related to some of their personal factors such as age, education level, marital status, number of dependents, ethnicity, length of current sentence, and their risk factors such as number of current and past offences. Also, factors associated with treatment program outcome such as program success or failure, drop-out, attendance, and degree of participation were also investigated.

Looking at these factors is fairly new within a correctional environment. Your participation in this study was very important. It is hoped that these results will assist treatment staff to consider those factors that will make treatment more useful for its participants.

You were asked in one of the questionnaires if you would like to see a counsellor/ psychologist to talk about any problem or issue you may have. If you wish to do that, please fill in the request form to see the counsellor or the psychologist and send it to the psychology department using the internal mail system. Any staff member will be able to direct you to these forms if you don't know where they are kept.

If you would like to discuss any issues related to this research you can address these concerns with The following people are involved in this research project and may be contacted at any time: Amel Loza-Fanous (Principal Investigator, 613-634-0028), Dr. R.D. Hoge (Faculty Sponsor, 613-520-2600 ext. 5773). Should you have any ethical concerns about this study, please contact Dr. Monique Sénéchal (Chair, Dept. of Psychology Ethics Committee, 613-520-2600, ext. 2691). Should you have other concerns about this study, please contact Dr. Kim Matheson (Chair, Dept. of Psychology, 613-520-2600, ext. 2648).

Appendix L: OMS File Review Protocol

Offender Name:	FPS #:
DOB:	Language:
Admission date:	Term commencement date:
Eligible DP date:	Eligible FP date:
Stat release date:	Warrant expiry date:

Age at the time of testing.	Calculated from DOB
Age at the time of admission to serve the current sentence	Calculated from FPS
Age at first conviction	Calculated from first entry in the FPS as an adult or young offender
Marital status (including current serious relationships of over six months)	OMS
Education Level	OMS
Number of dependents	OMS
Ethnicity (Caucasian, Aboriginal, Black, Asian, other)	OMS
Current institutional security level	OMS
Length of current sentence (total aggregate)	FPS sheet
Number of current offences	FPS sheet
Number of past offences	FPS sheet
Violent vs. non violent offender (current or past).	CSC classification on OMS
Sexual offender or non sexual offender	OMS
Number of release revocations	FPS sheet
OIA risk/ need level (low, medium, high)	OMS
Time remaining before parole eligibility date (in weeks)	OMS
Number of prior treatment programs completed	OMS
Number of institutional charges (current sentence, pre-program	OMS

and past)	
Length of time spent in segregation (current sentence, pre-program and past, in days; note type of segregation)	OMS

Other relevant information:

[illegible]