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**Predictors of Juvenile Recidivism: A Study of Young Offenders
who have attended a Wilderness Based Program**

by

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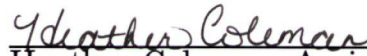
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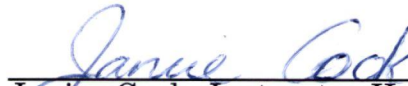
The undersigned certify that they have read, and recommend to the Faculty of Graduate Studies, for acceptance, a thesis entitled, "Predictors of Juvenile Recidivism: A Study of Young Offenders who have attended a Wilderness Based Program" submitted by Catherine D. M. Williams in partial fulfillment of the requirements for the degree of Master of Social Work.



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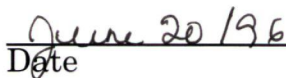

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ABSTRACT

Research related to recidivism in youth, particularly persistent young offenders, is limited in both quantity and quality. A greater understanding of persistent young offenders including the factors which predispose these youth to recidivism is needed before an effective response to youth crime can be established.

The purpose of this study was twofold: to develop a profile of persistent young offenders who attended a wilderness program and to determine what variables predicted recidivism in these youth after graduation from the program.

A secondary analysis was conducted incorporating 71 independent variables derived from youth court histories and questionnaires. Questionnaires were completed by 134 young male offenders who attended the Camp Trapping program for a four month period between October, 1989 and February, 1994. Recidivism data was derived from the youths' court histories maintained by the British Columbia Corrections Branch.

Univariate, bivariate, and multivariate analyses were conducted. Frequency and percentage distributions identified interesting variations among the sample of youth. Chi-square analyses revealed variables related to recidivism. Logistic regression was utilized to build prediction models of recidivism for youth after graduation from the program. The final logistic regression model included two variables.

Implications for both the Camp Trapping program and correctional services for youth are discussed as a result of the findings from this study.

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DEDICATION

To my sister Melissa, may you one day believe in yourself as much as you believe in me.

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Chapter One

INTRODUCTION

Youth crime is a longstanding social problem for which an effective response remains to be established. The Young Offenders Act replaced the Juvenile Delinquents Act in 1984 in an effort to effectively deal with the ubiquitous state of youth crime. Youth Court Statistics reported by Statistics Canada (1996) revealed that 110,000 cases were processed in the Canadian youth courts during 1994 and 1995, accounting for 21.7% of crime in Canada (Statistics Canada, 1994). Almost half of these cases involved property offences of which a greater number were committed by repeat offenders than first-time offenders (Statistics Canada, 1996).

The traditional response to youth crime has included the following approaches: incarceration, probation and parole, psychosocial casework, individual and/or family therapy, recreation programs, and community service work. The correctional community has yet to develop a consensual agreement upon an effective treatment approach. More recently, radical approaches have been developed which include restitution, boot camps, mini-bike clubs, and wilderness based programs (Fashimpar, 1991).

Wilderness programs, in particular offer an innovative alternative to traditional interventions and are receiving wider media attention in the midst of tremendous concern for young offenders. At present, approximately 100

wilderness based programs are operating in Canada and the United States. Of the few evaluative studies that have been conducted on wilderness based programs, the results have been inconclusive because of methodological shortcomings: small sample sizes, quasi-experimental or non-experimental research methods, various operationalizations of recidivism, unreliable measures of recidivism, and varying lengths of follow-up periods.

Research related to recidivism and youth crime is especially limited with respect to persistent young offenders. As the young offender moves towards persistent reoffending, the number of charges per case increases and the elapsed time between convictions decreases (Statistics Canada, 1996). Between 1994 and 1995, 41% of cases processed in Canadian youth courts resulting in a conviction involved repeat offenders (Statistics Canada, 1996). According to Statistics Canada (1996), repeat young offenders are more likely to be male than female, and are twice as likely to become persistent offenders. Research pertaining to this select group of young offenders is limited in both quantity and quality. Clearly, a greater understanding of this particular group of youth is necessary. This study employs a sample of persistent male young offenders who have attended a wilderness based program.

The prediction of recidivism in the field of correctional research originated in the 1920s. A prominent researcher of recidivism prediction, W. Lanne (1935; as cited in Pritchard, 1979), proposed that a record of significant predictors be tabulated in order to separate universal predictors from those

specific to certain samples. He summarized the results of eight studies investigating 12 samples of offenders. Unfortunately, Lanne's tabulation of predictors was not continued; the majority of recidivism prediction studies published since 1935 have neither been tabulated nor popularized as predictors of recidivism in the correctional literature.

Since that time, recidivism prediction research has progressed, primarily with respect to adult offenders. In the 1980s, various risk-prediction instruments were developed and gained recognition for establishing parole supervision levels and custody levels within institutions (Ashford & LeCroy, 1990). Recent research has established a number of demographic, judicial, psychological, psychiatric, and leisure related variables associated with recidivism. Few variables have consistently been linked to recidivism: younger age at first arrest or contact with a correctional service, at first court appearance, and at first offence.

This study examines the ability of 71 independent variables to predict the outcome of the dependent variable, recidivism, utilizing logistic regression analysis. Logistic regression allows the analysis of the effects of all independent variables on recidivism with minimal bias and loss of information (Walsh, 1987).

The scarcity of adequate research in the area of recidivism prediction for persistent young offenders is attributed to the lack of availability of the following: samples of exclusively persistent young offenders, experimental

groups, funding, and access to youth criminal records for sufficient follow-up periods.

The present study employs a sample of persistent male young offenders who attended a wilderness based program, Camp Trapping, operating in northern British Columbia since 1971. A secondary analysis of questionnaires completed by 154 graduates of the Camp Trapping program from October, 1989 to February, 1994 allows for up to a five year and five month follow-up period. Youth who are accepted into the program are persistent offenders having received approximately eight to ten findings of guilt, primarily for property offences.

There has been an ongoing debate over whether or not attempts at prediction of criminal behaviour is ethical. Incorrect decisions made on the basis of prediction instruments may falsely influence the perception of an offender by himself and others (Wilkins, 1969). While there is valid concern for labelling youth, the limited understanding of the factors which predispose youth to recidivate necessitates recidivism prediction research. However, given that exploration in the area of recidivism prediction is still required, such research need not be conducted for the purpose of making decisions that directly effect individual youth. This study makes inferences based on a sample of persistent young offenders, although these inferences are not intended to identify individual recidivists, but to contribute to the understanding of the factors which predispose persistent young offenders to

reoffend.

In conclusion, claims made by clinicians, criminology theorists, and researchers regarding the effectiveness of particular treatment methods are questionable due to the methodological limitations which plague the existing literature. It is difficult to establish an effective response to youth crime, particularly to persistent youth crime given the limited and inconclusive research available.

The present exploratory study develops a profile of persistent young offenders who have attended the Camp Trapping wilderness program. It determines several variables to be empirically linked to recidivism. It further determines significant relationships between recidivism and variables that have been unexplored to date. Logistic regression is employed to examine these relationships and then to build a prediction model of recidivism for youth who attended the Camp Trapping program.

The following chapter presents a review of the literature and previous studies on wilderness as a learning place, wilderness as correctional treatment, and the variables associated with recidivism. Chapter Three provides an overview of the Camp Trapping program. Chapter Four details the methods of the present study, Chapter Five presents the results, and Chapter Six discusses the conclusions and implications derived from the study's findings.

Chapter Two

LITERATURE REVIEW

Wilderness as a Learning Place

Historical Overview

From the dawn of time, humanity has learned to survive by carefully studying their natural surroundings. As civilization evolved, technologies advanced, and economies grew, people became less dependent upon and more alienated from their intimate interrelationship with nature (Hazelworth & Wilson, 1990; Miles, 1986/87).

In recent years, a powerful environmental lobby has emerged to challenge our traditional belief of nature's vast extent and indestructible renewability. Alongside this growth of environmental awareness has come the development of outdoor education.

Outdoor education has been formally practiced in North America for over 150 years beginning with Henry David Thoreau who, among many things, was an academic teacher and taught school in Massachusetts during the mid 18th century. Valuing highly the lessons only an immersion in nature could provide, he often led his students on forays in the nearby countryside. He is thought to be the first outdoor educator.

More recently, groups comprised of children and adolescents, most notably Boy Scouts and Girl Guides, were established to teach youth about the

outdoors; these groups multiplied quickly and are now engrained as a western tradition. Although these programs focus on nature, its history, and its conservation, they are based primarily in urban centers. It was not until the latter half of the 20th century that a new form of outdoor education, wilderness education, was created that would be taught in a wilderness setting.

Wilderness education was born at the same time that conservationists were fighting for governmental protection of nature. The claim of being an outdoor enthusiast was ardently sought after in the 1960s and 1970s and wilderness schools offered a safe and easy way to experience nature under the expert supervision of a guide.

Publication of Rachel Carson's *Silent Spring* in 1962 marked a transition for the conservation movement. Up to that point in time, the movement focused on a utilitarian conservation of forests, wildlife, soils and other resources, as well as the preservation of parks and wilderness areas (Miles, 1986/1987). Carson brought to the heart of the public what conservationists had long known: the world was an ecological system in which human activity was hazardous to the natural communities upon which humans were dependent. This is the point in time when conservation became known as environmentalism and outdoor education as environmental education. Existing programs broadened their focus to include pollution, energy conservation, population growth, ecological disruption, global interdependency, and resource depletion. The models used by outdoor educators were inadequate to deal

effectively with all of these concerns and consequently wilderness education was born.

The renowned Outward Bound program was the first of its kind. It was developed by Kurt Hahn, a German educator, and Lawrence Holt, a British shipping officer. Holt observed that the men who worked on the newer technologically advanced ships did not possess the ingenuity or perseverance that his past crews had held. He attributed this fact to the lack of physical and mental challenges the latter crews experienced. The original purpose of the school was to train and prepare men for life at sea.

In 1962, the first American Outward Bound school opened in Colorado, United States. Its purpose was to contribute to the personal growth of its participants by placing them in a physically, emotionally, and mentally demanding environment. The program was designed with a stream of obstacles, each one more difficult than its predecessor, which induce stress and anxiety in the participants. James (1980; as cited in Miles, 1986/1987) refers to this process as an anxiety resolution model of education which creates a supportive environment for resolving anxiety through mastery (James; 1980, as cited in Miles 1986/87). In the beginning, Outward Bound was not considered outdoor education by the traditional outdoor educators of the time because its goals did not include education 'for' the outdoors so much as 'in' the outdoors.

That first course established what was to become the standard prototype

of all Outward Bound programs to follow. Each course involved physical conditioning, skills training, rock climbing, hiking, kayaking, mountaineering, a training expedition, a solo of three days, and a final marathon. Outward Bound grew rapidly during the 1960s with all schools following the model established by Kurt Hahn. The wilderness components varied according to the opportunities of each geographical area. By 1971, over 5,000 students were annually attending Outward Bound courses.

Paul Petzoldt, a mountaineering instructor at the Colorado Outward Bound school believed that there was a need not only for personal growth, but for instruction aimed at developing outdoor leaders who could educate 'for' the wilderness. Subsequently, in 1965, he established an alternative wilderness school to Outward Bound which is still known as the National Outdoor Leadership School (NOLS).

This school used many of the same wilderness adventure activities as the Outward Bound school, but its educational goals were broader. In addition to learning about themselves and gaining confidence through coping with the stress of the wilderness and prolonged group involvement, NOLS students were to learn about wilderness travel, low impact camping, backcountry ethics and wilderness leadership skills. He believed the best insurance of preservation was to educate wilderness users so that they could both enjoy and conserve nature. Although it was a small operation in comparison with Outward Bound, it became the pre-eminent outdoor 'leadership' school.

Soon after the introduction of these popular wilderness schools, outdoor programs emerged as part of post secondary education departments in the 1970s. Two decades later people of all ages and backgrounds are still enrolling in wilderness schools in search of knowledge about themselves and their natural environment. Variations of the Outward Bound model have since been developed and used with educators, business executives, and a variety of groups including troubled youth.

Perspectives on the Therapeutic Effects of Wilderness

Rachel Carson, in her essay *A Sense of Wonder*, discussed her perspective on wilderness experiences (as cited in Miles 1986/1987). She stated that the wilderness nurtures one's sense of wonder and contributes to a necessary humility: conditions important for a high quality of life and perspective on the human relationship to nature. Embraced by the natural landscape, one may listen to one's thoughts, reflect and contemplate the mysteries of the universe.

Wilderness settings have often been claimed to be therapeutic (Boyden & Harris, 1978; Feingold, 1979; Gibson, 1979; Scott, 1974; Slosky, 1973; Smith, 1977; as cited in Scherl, 1989; Marx, 1988; Berman & Davis-Berman, 1989). Scherl (1989) was one of the first to attempt to explain on a conceptual level how and why the wilderness promotes psychological well being and why individuals change as a consequence of being in that environment. She

purported that the value of the wilderness setting is in its facilitation of self-relevant feedback which in turn can contribute to personal growth. The suggestion was made that in the wilderness this feedback is more engrossing and powerful.

Mason (1987) and Miles (1986/1987) share the perception that wilderness experience, unlike traditional therapeutic approaches challenge the whole person. The wilderness experience can be described as a single body/mind/spirit experience (Mason, 1987; Miles, 1986/1987). Mason (1987) purports that in the wilderness, the intellectual, emotional, and physical self must work together with the environment, creating a holistic experience. She suggested that the wilderness is unique as it is free of the entanglements that inhibit and confuse personal knowledge of one's self, one's relationship to others, and one's environment.

Outward Bound and other adventure oriented wilderness programs derive from a self-theory framework (Idia, 1975). Self-theory proposes that stress must be experienced in order for one to define one's self-concept. Adventure oriented programs provide participants with activities designed to induce stress. How participants respond to stressful experiences is an integral aspect in the development of self-concept. By confronting stressful situations the participant has an opportunity to re-evaluate and discover him/herself and his/her potentialities (Gillett, Thomas, Skok, & McLaughlin, 1991; Idia, 1975).

Wilderness based programs, like social work, function from a person-in-

environment perspective. Participants in a wilderness based setting encounter stressors in their life situation. Within wilderness based programs participants are provided with opportunities to discover different options available in responding to and dealing with these stressors. As a consequence of overcoming stressful situations in the wilderness environment, the participant is able to generalize changes in self-concept to their attitudes and behaviors in their daily settings of home, work or school, and the community (Harris, Mealy, Matthews, Lucas, & Moczygemba, 1993; Lidia, 1975).

Davis-Berman and Berman (1989) suggest that person-in-environment transactions may be intensified in a wilderness experience to produce more rapid therapeutic change. Talbot and Kaplan (1986) also value the benefits of a wilderness experience through its provision of person-in-environment interactions where the individuals capabilities and purposes are well-balanced with the opportunities and constraints imposed by the physical environment.

A Review of the Research on the Therapeutic Effects of Wilderness

Research conducted on the therapeutic effects of wilderness stemmed from the popularity of wilderness experience. Consequently, the majority of studies on the therapeutic effects of wilderness are exploratory in nature and utilized quasi-experimental or non-experimental methods.

Talbot and Kaplan (1986) presented results from a ten year research program that examined the dynamics and effects of wilderness experiences on

participants. Results illustrated that both wilderness users and non-users shared the perception that wilderness experiences have the potential to provide psychological benefits not found elsewhere. In their study, Talbot and Kaplan found a direct connection between individuals' perceptions of their physical surroundings and evolving perceptions of themselves and their purposes in life. In their analysis of the study's questionnaire data, the authors discovered a positive correlation between the perceptions acquired through wilderness experiences and the individuals' view of their abilities, interests, and views of the larger world.

Hazelworth and Wilson (1990), found variable results in their research on the effects of an outdoor adventure camp on self-concept of teenagers. Of the four different camp sessions that they studied, session one's campers showed no significant change in self-concept for any of the categories in the Tennessee Self-Concept scale. The other three sessions showed significant positive change in self-concept in different categories of the scale. However, the utility of the study is questionable as the four different camp sessions studied did not share the same treatment focus or goal. For example, session one focused on group cooperation, respect for others, and the development of camping and orienteering skills while session three focused on behavioral contracts developed between campers and staff. The contract may have affected the campers' moral-ethical self-concept which is one of the categories on the scale where positive significant change was found.

Davis-Berman and Berman (1989) investigated the effects of a two week wilderness hiking trip on 23 adolescents receiving out-patient psychiatric services. A locus of control, self-efficacy, self-esteem, and behavioral symptom inventory administered pretest and posttest revealed most significant areas of change were found in self-esteem, self-awareness, self-assertion and acceptance of others.

A study by Marsh, Richards and Barnes (1986) examining the effects on self-concept of 27 groups (N=361 participants aged 16-31, 75% male) after participation in a 26 day Outward Bound program, discovered increases in the multiple dimensions of self-concept as measured by the Self-Description Questionnaire (SDQ) III and the Rotter Locus of Control (LOC) Scale. Both the SDQ III and all course registration materials were completed by participants one full month before commencing the program (Time 1), again on the first day of the course (Time 2), and lastly, on the final day of the 26 day course (Time 3). The LOC was completed at Times 2 and 3.

Gillett, Thomas, Skok & McLaughlin (1991) examined the effect a 6 day wilderness camping and hiking experience had on the self-concept, nature appreciation, and attitude toward the environment of 61 grade 12 students. The experimental and control groups were pretested and posttested with the Tennessee Self-Concept Scale (TSCS), the Coopersmith Self-Esteem Inventory (SEI), and both an environmental attitude and knowledge questionnaire. Results from the TSCS indicated a significant increase in the experimental

group for the Identity and Behavior subscales and the total self-concept score ($p < .05$). The SEI results found significant increases for General and Total self-concept scale scores ($p < .01$). An increase was found in the environmental knowledge of participants, but not in attitude.

While there is evidence of therapeutic effects of wilderness experience as reviewed above, there is a need for further research to determine the characteristics of wilderness experience that elicit such effects.

Wilderness as Correctional Treatment

Perspectives on Wilderness as Correctional Treatment

The correctional field remains in debate over the most effective manner to deal with the ubiquitous state of youth crime. While many experts in the field believe that reliance on traditional approaches such as individual and family counselling, probation, casework, and institutionalization are necessary to deal with delinquency, many others believe a more radical approach may be a necessary component of an effective response (Marx, 1988; Doppelt, 1978).

Such an approach may be best expressed through the adage 'people learn best by doing' (Pfeiffer & Ballew, 1988). The effectiveness of experiential learning is derived from the maxim that nothing is more relevant to us than ourselves. One's own reactions, observations, and understanding of something are more important than someone else's opinion. The experiential model allows both cognitive and affective behavioral involvement. One remembers best what one learns from experience rather than from reading or being told.

Wilderness experience is experiential learning. Most programs provide learning opportunities for specific types of learning. After wilderness participants have completed or attempted to complete an assigned task, they process what took place. The learning from this phase is then generalized to situations in the real world. Through discussion participants learn about the possible effects of a variety of behaviors. The goal is for participants to be able to choose among behaviors when confronted with similar situations or

challenges in the future.

Both physical activity and wilderness experience are believed to deter delinquent behavior. In the seventies, success rates for those programs were far from conclusive. The psychological benefits of aerobic exercise and increased fitness include reductions in anxiety, tension, and depression, and increased self-esteem (MacMahon, 1990). Two decades later there is greater certainty that these elements are conducive to rehabilitating offenders yet adequate research remains scarce.

A Review of the Research on Wilderness Programs as Correctional Treatment

Kelly and Baer's (1971) classic study of recidivism and young offenders was the first to demonstrate the potential of wilderness programs as correctional treatment. The experimental research compared the recidivism rates of two matched groups of young offenders; the experimental group (n=60) attended Outward Bound schools and the control group (n=60) received traditional dispositions. One year after parole, 20% of the experimental group recidivated compared to 42% of the control group. Kelly and Baer found the following variables most indicative of future recidivism: younger age at first court appearance, younger age of first commitment, one parent in the home, increased number of commitments to the Division of Youth Service, and type of offence.

Castellano and Soderstrom (1992) used a quasi-experimental design to

also assess the effects of participation in a wilderness program on the recidivism of young offenders. Their study revealed a reduction in recidivism for one year for those youth who were classified as having successfully completed the program; however, the reduction was no longer discernible after two years. Of note, the authors contend there was a reduction in the seriousness of subsequent arrests and adjudications.

Another quasi-experimental study by Wright (1983) was conducted on the effects of a wilderness program on the self-esteem, self-efficacy, locus of control, cardiovascular fitness, and problem-solving skills of 47 young offenders. The experimental group (n=35) attended a 26-day Outward Bound program and the control group (n=12) waited for placement in the program. The Tennessee Self Concept scale, modified Internal-External scale, Generalized Expectancy for Success Scale, and modified Harvard Step Test were administered to both groups as a pretest and posttest. The results revealed a significant difference between the experimental and control groups in self-esteem, internality (perception of personal control), and fitness at the end of the program.

Winterdyk and Roech's study (1982) of 60 adjudicated males found improved self-confidence, better peer relationships, and reductions in the severity and frequency of delinquency. However, it was noted that any progress observed at the post period disappeared at the 4 to 6 month follow-up point.

Willman and Chun's study (1973) concluded that 38% of young offenders who attended a wilderness program (n=178) recidivated during the 6 month follow-up period compared to 72% of the control group (n=75).

The above studies suggest that wilderness experience can evoke positive changes in young offenders in the short term. Clearly more investigation is warranted. None of the above research included long term follow-up nor does it contribute to the understanding of what factors predispose youth involved in wilderness programs to recidivism.

Methodological Limitations of Research on Wilderness Correctional Programs

Despite the recognition of the potential for wilderness programs for youth at risk, these programs remain peripheral to the community of correctional services. In part, this can be attributed to the fact that there have been few sound evaluative studies conducted on the treatment effectiveness of services for young offenders. Random assignment and comparison groups were rarely utilized in studies. Whitehead and Lab (1989) conducted a meta-analysis of studies of treatment outcome for young offenders. It was discovered that only one evaluation of a wilderness program met the minimum standards required in an evaluative study. However, the minimum standards were not indicated in the dissemination of their results.

In the early 1980s, it was estimated that more than 100 wilderness based programs for young offenders existed in North America, but less than a

dozen official evaluations were conducted in Canada (Winterdyk & Roesch, 1982). Now, more than a decade later, adequate evaluations continue to be rare.

Evaluation literature on wilderness based programs for youth is limited in both quantity and quality (Gibson, 1979; Wright, 1983; Winterdyk & Roesch, 1982). In addition to the lack of adequate funding for evaluation, the limitations in freedom to use randomization in selection and assignment have produced design weaknesses (Wright, 1983). The majority of evaluations of Outward Bound programs are plagued with design and methodological problems, such as very small sample sizes, poor criteria measures, limited or no follow-ups for psychological or sociological variables such as recidivism and want of a clear definition of independent and dependent variables. Evaluative designs and procedures must be improved before proper decisions can be made in regards to the future of wilderness programs as correctional treatment for young offenders.

Characteristics and Principles of Effective Treatment Programs

Several researchers have conducted meta-analyses of numerous evaluative studies and have concluded that there exists identifiable characteristics and principles of effective treatment programs. These researchers have come to different conclusions based on their reviews of the results of large numbers of evaluations. The following characteristics and

principles determined by researchers to be those of effective programs are summarized in *The Response To Juvenile Crime in the United States: A Canadian Perspective* from the Canadian Research Institute for Law and the Family (Hornick, Bala, & Hudson, 1995).

Lipsey (1991; as cited in Hornick et al., 1995), in his review of over 400 evaluation studies of juvenile justice programs, found that programs using behavioral and skill-oriented approaches and a combination of treatment methods were effective. These programs were found to be even more effective when employed within a community rather than an institutional setting. Schorr (1989) concluded that programs should be comprehensive, intensive, flexible, and engage staff capable of forming relationships with young offenders based on mutual respect and trust. Garbarino and his colleagues (1992) suggest that programs must encourage active coping, cognitive competence, self-efficacy, and support positive and stable relationships within and outside the family.

Key elements of effective community-based corrections programs identified by Coates (1989; as cited in Hornick et al., 1995) include: a small sized program, a positive relationship between program staff and youth, a well integrated community, and a strong involvement by the community, specifically the drawing of board members and volunteer workers from the local population.

Similarly, Altschuler and Armstrong (1992; as cited in Hornick et al.,

1995) have identified useful approaches to youth corrections, including: an involvement of private agencies and citizens in community corrections through the use of both paraprofessionals and volunteers; an emphasis placed on resource brokerage and advocacy by community corrections agencies rather than direct delivery of all services to offenders; a classification procedure to gauge the likelihood of a reoffence; and a match of offenders to service needs.

Both Greenwood and Zimring (1985; as cited in Hornick et al., 1995) and Aultschuler and Armstrong (1992; as cited in Hornick et al., 1995), have identified critical components of successful programs for youth to include continuous case management, emphasis on reintegration and reentry services, opportunities for youth achievement and program decision making, clear and consistent consequences for misconduct, enriched education and vocational programming, and diverse forms of counselling. Programs perceived as effective for more serious young offenders maintained security through smaller numbers of clients, adequate staff, and program content rather than relying on mechanical and physical constraints.

In a recent study, the National Council on Crime and Delinquency (1994; as cited in Hornick et al., 1995) identified characteristics of both effective and ineffective juvenile justice programs. Those identified as effective shared the following characteristics: comprehensive, dealing with many aspects of the youths' lives simultaneously and as needed; intensive, often involving multiple contacts on a daily or weekly basis with at-risk youth; alternative, often

operating outside the formal juvenile justice system and delivered by private agencies; positive, focusing on the strengths and not the weaknesses of young people; and inclusive, regarding youth on the basis of their social context rather than in isolation. Programs having these characteristics are seen by the National Council on Crime and Delinquency as more likely to succeed, especially if they are continued over a reasonably long period and are delivered by energetic and committed staff who carry out the program according to its design.

Paul Gendreau has done extensive research in the area of treatment for youthful offenders. Gendreau's (1996) exemplary studies and wealth of knowledge in this area warrant the inclusion of the following outline that details the eight principles he determined to be characteristic of effective intervention in *The Principles of Effective Intervention with Offenders*.

1. Intensive services that are behavioral in nature.
 - Intensive services occupy 40-70 % of the offenders time while in a program of 3-9 months in duration.
 - Behavioral strategies employing the principles of operant conditioning such as positive reinforcers which encourage a particular behavior: tangible reinforcers being money and material goods; intangible reinforcers being activities, praise, and approval. Three types of behavioral programs are prevalent in the offender behavioral treatment literature.

i) Token economies

- reinforcement system for motivating offenders to perform prosocial behaviors.

ii) Modelling

- offender observes another person demonstrating a behavior of which he can benefit by adopting.

iii) Cognitive-behavioral

- attempt to change offenders cognitions, attitudes, values, and expectations which maintain their anti-social behavior. Problem-solving, reasoning, self-control and self-instructional training are frequently used techniques. Cognitive therapists stress that a good therapeutic relationship ie., empathy, openness and warmth, is necessary for effective cognitive therapy.

2. Behavioral programs that target the criminogenic needs of high risk offenders.

- Treatment is matched with the offenders risk level.
- Higher risk offenders are much more likely to benefit from treatment than low risk offenders.

3. Responsivity.

Rooted in the notion that there can be potent interactions between

the characteristics of an individual and their settings or situations.

There are three components of responsivity.

- i) Match the treatment approach with the learning style and personality of the offender. For example, offenders who are impulsive are likely to function better in graduated token economy programs which initially provide considerable external control with concrete rules for appropriate behavior.
- ii) Match the characteristics of the offender with those of the therapist (eg. offenders who are more 'anxious' respond best to therapists exhibiting higher levels of interpersonal sensitivity).
- iii) Match the skills of the therapist with the type of program. Therapists who have a concrete conceptual level problem solving style will function best in a program that is highly structured.

4. Program contingency/behavioral strategies that are enforced in a firm but fair manner.

- Reinforcement contingencies must be under the control of therapists.
- Staff with meaningful input from offenders, design, maintain and

enforce contingencies.

- Positive reinforcers must exceed punishers by a minimum ratio of 4:1.
- Internal controls such as drug testing for substance abuse are judiciously used to detect possible anti-social activities of the clientele.

5. Therapists who relate to offenders in sensitive and constructive ways and who are trained and supervised appropriately. Four criteria relate to therapeutic integrity.

- i) Therapists are selected on the basis of interpersonal skills that are associated with effective counselling: namely clarity in communication, warmth, humor, openness, the ability to relate effect to behavior and to set appropriate limits. Counsellors with these skills can be effective sources of reinforcement while modelling prosocial skills.
- ii) Therapists have at least an undergraduate degree or equivalent with training on the theories of criminal behavior, and the prediction and treatment of criminal behavior.
- iii) Therapists receive 3 to 6 months formal and on-the-job/internship training in the application of behavioral interventions both general and specific to the program.
- iv) Therapists are re-assessed periodically on the quality of their

service.

- v) Therapists monitor offender change on intermediate targets of treatment.

6. Program structure and activities disrupt the delinquency network by placing offenders in situations where prosocial activities predominate.

7. Relapse prevention in the community.

It is essential that an 'out-patient' model of service delivery be applied after the offender has completed the formal phase of a treatment program be it in a prison (before release) or a community residential center.

There are five necessary steps to formulate a prevention program.

- i) Plan and rehearse alternative prosocial responses.
- ii) Monitor and anticipate problem situations.
- iii) Practice new prosocial behaviors in increasingly difficult situations and reward improved competencies.
- iv) Train significant others (family and friends) to provide reinforcement for prosocial behavior.
- v) Provide booster sessions to offenders after they have completed the formal phase of treatment.

8. High level of advocacy and brokerage.

Where possible it is desirable to refer offenders to community based

services that provide quality services to offenders. It is vital that community services be assessed in this light in as objective a manner as possible.

Recidivism

Many researchers contend that recidivism rates have remained relatively constant over the years regardless of the changes made within the correctional system (Lundman & Scarpitti, 1978; Brayshaw, 1978; Whitehead & Lab, 1989). Unfortunately, the methodological limitations of recidivism studies have rendered recorded recidivism rates suspect. Either way, one must suggest that efforts at rehabilitation have been ineffective to date.

Methodological Limitations of Recidivism Studies

A number of general concerns are shared by researchers regarding the methodological limitations of recidivism studies. The first pertains to the operationalization of recidivism which varies greatly. Numerous definitions and interpretations of recidivism exist (Izzo & Ross, 1990; Begun, 1976/1977; Cardwell, 1980) that hold unreliable measures (Harris et al., 1993; Lundman & Scarpitti, 1978) such as binary measures which may bias the assessment of outcome because they do not take into account the severity of recidivism (Gendreau, Grant, & Leipeiger, 1979). Recidivism definitions have included the return to a juvenile institution or the commitment to an adult institution for a new offence within one year after parole (Kelly & Baer, 1971), the first rearrest or parole revocation after release (Visher, Lattimore & Linister, 1991) or treatment (Davidson, Redner, Blakely, Emshoff, & Mitchell, 1987; Gross, Brigham, Hooper, & Bologna, 1980; Mitchell, 1983; Collingwood & Genthner,

1980; Lee & Olejnik, 1981; Lipsey, Cordray & Berger, 1981; Palmer & Lewis, 1980; Spergel, Reamer & Lynch, 1981; Behre, Edwards & Flemming, 1983; Buckner & Chesney-Lind, 1983; Lackson, 1983; Lewis, 1983; Locke, Johnson, Kirigin-Kamp, Atwater & Gerarrd, 1986; and Velasquez & Lyle, 1985; as cited in Basta & Davidson, 1988), a reconviction (Spence & Marzillier, 1981; Johnson & Goldberg, 1983; Jackson, 1983; Velasquez & Lyle, 1985; Winterdyk & Roesch, 1981; as cited in Basta & Davidson, 1988) ; a court referral (Barton, Alexander, Waldron, Turner & Warburton, 1985; Mitchell, 1983; Rausch, 1983; Severy & Whitaker, 1982; Stewart, Vockell & Ray, 1986; Locke et al., 1986; as cited in Basta & Davidson, 1988), and self-reports (Spence & Marzillier, 1981; Davidson et al., 1987; Mitchell, 1983; Wood, Green & Bry, 1982; as cited in Basta & Davidson, 1988). The Gendreau and Leipeiger (1978) scale of recidivism (Gendreau, Grant & Leipeiger, 1979) has also been utilized to define recidivism.

This inconsistency in operationalizing recidivism may reflect whether a study placed greater reliability upon arrests or upon convictions as indicators of recidivism (Wooldredge, 1988). Arrests may include cases where legal guilt is not supported (Blumsteint & Cohen, 1979; Maltz, 1984; as cited in Wooldredge, 1988). On the other hand, the exclusion of false arrests may ignore an even greater number of valid arrests that drop out of the criminal justice system for one reason or another.

Other factors which have created difficulties include the varying lengths

of time studies are conducted, the differing follow-up periods which typically range from three months to three years, the non-standardized policies amongst provinces or states for returning offenders to training schools or adult correctional centers that make comparative studies unreliable, and the want of differentiation between the type and severity of criminal offences in many of the recidivism studies (Cardwell, 1980).

The present delinquency crisis has run concurrently with what has been tagged as the 'nothing works' era. The correctional community has been floundering for years in search of an effective treatment, yet there has been no agreement on any one approach or prevention strategy. More recently, the criticisms of researchers regarding the existing studies of correctional treatment for youth have alluded that treatment concepts are not necessarily ineffective but that research methodology and treatment integrity have been inadequate (Basta & Davidson, 1988).

Conflicting research results studying the effects of delinquent sentencing on recidivism, have caused debate over what direction the correctional community should take in dealing with delinquency (Wooldredge, 1988). Opposing views are based on studies characterized by methodological shortcomings involving the length of follow-up periods, the use of arrest data, and the lack of proper control variables (Maltz, 1984 as cited in Wooldredge, 1988). Before a direction for the juvenile court can be determined, it is necessary to examine the relative impact of different sentencing strategies on

recidivism (Wooldredge, 1988).

Improvements need to be made in sample sizes, use of appropriate and multiple measures of recidivism, random assignment and/or use of appropriate control groups, and long term follow-up assessments (Dembo & Williams, 1991; Basta & Davidson, 1988).

Considering the preceding methodological limitations, the following improvements were implemented in the methods of the present study:

- i. The sample was derived from a census of a considerably large number of youth (N=134).
- ii. The Youth Court Histories from the British Columbia Corrections Branch were determined to be the most reliable measures of recidivism with the exception of reviewing each youth's individual records found at various locales throughout British Columbia. Recidivism was operationalized as a finding of guilt rather than an arrest resulting from charges laid after graduation from the Camp Trapping program.
- iii. Although the severity of the reoffence was not analyzed, the type of first offence as well as the type of reoffence were included for analysis.
- iv. A follow-up period of five years and five months was utilized to measure recidivism which is longer than any other in the existing

literature.

Predictors of Recidivism

Variables Associated with Prediction of Recidivism

For many years the problem of recidivism has attracted the attention of criminologists. As early as 1917, investigations have been carried out to gather more insight into the question of why some delinquents relapse into crime while others do not (Buikhuisen & Hoekstra, 1974). The first empirical investigation of predictors of recidivism was reported in 1923 by Hart who used statistical tests of significance to conclude that 30 of 69 variables for 680 prisoners sentenced to the Massachusetts Reformatory between 1912 and 1921 clearly differentiated the recidivists from the non-recidivists (Pritchard, 1979).

Since that time, hundreds of investigations have been carried out. Recent research has established a number of variables associated with recidivism: demographic data (age, education, profession), judicial data (criminal record, age when first convicted), psychological traits (extraversion, neuroticism), psychiatric traits (psychopathy, schizophrenia, alcoholism), and leisure activities (lack of interests, boredom) (Buikhuisen & Hoekstra, 1974).

Of the 22 variables Buikhuisen and Hoekstra (1974) studied in relation to 451 male offenders five years after release from a juvenile prison, ten items differentiated significantly between recidivists and non-recidivists. There is more recidivism among offenders who are unmarried, come from broken homes, experience negative atmospheres at home, have siblings with criminal records, have been reared for a substantial amount of time in institutions, have moved

relatively often before they were sentenced to imprisonment, have been subjected to psychiatric reports, have had many previous convictions, have spent relatively long periods of time in prison, and have been ordered detained at the Queen's pleasure (Buikhuisen & Hoekstra, 1974). However, they concluded that only two of these ten variables were found to strongly contribute to recidivism: the number of previous convictions and the number of times the offender had moved before he was sentenced to prison.

Of the variables found to be associated with recidivism, a few have consistently been linked, either theoretically or empirically, to recidivism throughout the literature: namely, age at first offence, age at first court appearance, and age at first arrest or contact with a correctional service (Tracy, Wolfgang & Figilo, 1990).

Gendreau and Little (1994; as cited in Gendreau, 1994) found, in a meta-analysis of the adult offender recidivism literature, criminal history to be a potent predictor of recidivism. Less obvious and less robust predictors were family factors such as rearing practices and indices of educational and employment achievement. Weak predictors were social class, intellectual functioning, and personal distress (eg., anxiety and low self-esteem).

An earlier study by Gendreau, Grant and Leipeiger (1979) found self-esteem measured prior to release from correctional institutions to be the best predictor of recidivism.

Pritchard (1979) reviewed 71 studies to examine the relationship

between demographic predictors and recidivism including 177 independent samples. The study concluded that the most stable predictors of recidivism included 'age of first arrest,' 'living arrangement,' 'current income,' 'history of opiate use,' and 'history of alcohol abuse.' The results of this study do not indicate the strength of predictability for the variables. Pritchard suggests that some items which have been infrequently tested in the past, such as 'type of prior offences' and 'number of prior probation orders,' may be worth investigating in future studies.

Loeber and Dishion (1983) also reviewed prediction studies on delinquency and revealed that the parents' family management and techniques (especially supervision and discipline techniques), the child's conduct problems, parental criminality, and the child's poor academic performance were found to be principal predictors of delinquency.

Baird, Storrs, and Connelly (1984; as cited in Visser et al., 1991) identified eight factors associated with continued criminal involvement for juveniles: age at first adjudication, both the frequency and the severity of prior criminal behavior, prior institutional commitments, alcohol and drug abuse, poor family relationships, negative peer influences, and school problems. However, no follow-up data or tests of the predictive accuracy of these factors were provided.

More sophisticated studies incorporating information of the young offender's family generally support Baird, Storrs, and Connelly's (1984; as

cited in Visher et al., 1991) contentions. These family influences include criminal parents or siblings, poor parenting (often involving ineffective supervision), and family conflict or disruption in family structure (Blumstein, Cohen, Roth, & Visher, 1986; Elliot, Huizinga, & Ageton, 1985; Greenwood, 1986; Loeber & Stouthamer-Loeber, 1986; as cited in Visher et al., 1991). These studies also found that deprived background (low social class, poor housing, large family size), poor school performance, early antisocial behavior (lying, stealing, acting out), and prior victimization were characteristics of serious youthful offenders.

Ashford and LeCroy (1990; as cited in Visher et al., 1991), in a study of 107 juvenile parolees in Arizona, found that prior arrests were again the strongest predictors of recidivism. Other important predictors included age at first arrest, parole violations, and family dynamics.

The above studies look at predictors of recidivism in adults, low risk or serious young offenders only. Low risk offenders are those youth who have received a finding of guilt for less than three offences. After three offences, the probability of committing a fourth is about 72% (Winer, 1989; as cited in Visher et al., 1991). Consequently, youth who have received a finding of guilt for three or more offences are considered high risk offenders. Gruenwald and West (1989) also determined persistent offenders to be those youth with a minimum of three prior adjudicated offences.

Relatively little research has focused on the recidivism of high-risk

youth. Visher, Lattimore & Linster (1991) conducted a prediction study on the timing of recidivism of serious young offenders. They included a variety of socioeconomic and criminal history variables that have been theoretically or empirically linked to offending in their analyses. They found criminal history variables, variables describing the current commitment, variables describing the youth's substance abuse and school problems, several family background variables, and variables describing the county-level property, violent crime and crime clearance rates and county of confinement affected recidivism in the follow-up period. Of their sample of 1,949 male adolescents and young adults under the age of 25, 88% were rearrested or had their parole revoked within the three year follow-up period. The mean time before rearrest was 306 days for, most commonly, a violent offence or robbery (33.7%).

Multivariate analyses have rarely been employed to study recidivism (Kassebaum, Ward & Wilner 1971; as cited in Pallone & Hennessey, 1977; Buikhuisen & Hoekstra, 1974). An exceptional study conducted by Pallone and Hennessey (1977) explored the relationships between recidivism and 19 predictor variables reflective of offender characteristics among 105 young adult male offenders 22 months after their parole from a medium-security prison. Significant bivariate relationships were found between the criterion and marital status, religious group membership, nature of the offence, number of drug-related charges associated with the 'target offence,' and number of prior sentences. Stepwise multiple regression produced a Multiple r of 0.499

between recidivism outcome and the following set of six multiple predictors: race-ethnicity, religious group membership, area of residence, number of prior sentences, prior institutionalization, and number of drug related charges. Often no tests of significance have been applied with the majority of the investigators resorting to univariate analyses. Information about the amount of variance explained by the predictors is rarely reported.

Few studies have examined the individual characteristics that might predict the timing of recidivism in young offenders (Visser et al., 1991). This study retests some of the variables which Loeber and Dishion (1983), Pritchard (1979), and Visser et al. (1991) found to be significantly related to recidivism in young offenders. In addition, it will analyze variables not studied in the existing literature in search of further links to recidivism. The present study will also explore the length of time between treatment and recidivism in efforts to improve our understanding of the factors which predispose youth to recidivism.

Prediction Instruments

The use of prediction instruments in the correctional community gained popularity during the 1980s (Ashford & LeCroy, 1990). In addition to minimizing the broad discretion afforded to parole board members and correctional officers, prediction instruments should further the understanding of what predisposes an offender to recidivate.

Attempts at prediction of recidivism by researchers have produced inconsistent results with no instruments predicting more than 10% of the variance in release outcomes. Furthermore, the research has pertained to adult offenders because measures of past behavior predict recidivism with youth having a much shorter history from which to make predictions (Ashford & LeCroy, 1990).

Ashford and LeCroy (1990) examined how well three risk-prediction instruments (the Contra Costa Risk Assessment Instrument, the Orange County Risk Assessment Instrument, and the Arizona Juvenile Risk Assessment Form) predicted recidivism in a random sample of 107 youth parolees born between 1963 and 1967. These models were able to predict recidivism 18-22% better than chance; however the best model was able to account for only 11% of the variance in outcome. Their results suggest promise in using prediction instruments with young offenders. The researchers suggest continued testing and refinement of risk-assessment instruments with young offenders across diverse jurisdictions.

This study employs Logistic Regression analyses to build a prediction model of recidivism. Logistic Regression has been neglected in the area of human research, but is now gaining respectability. It is well suited for this study as the dependent variable, recidivism, is dichotomous and because the analyses will examine the ability of numerous independent variables to predict recidivism.

Chapter Three

OVERVIEW OF CAMP TRAPPING

After viewing a documentary of the Camp Trapping wilderness program on the Canadian Broadcasting Channel, I contacted Daryl Goll, the Director of the program, to discuss the possibility of my conducting this study. An invitation was extended to visit the camp, meet the staff and students, and to experience the program firsthand. My week long visit was timely in that I was present for a graduation ceremony for a group of seven youth as well as a visit to the camp by its Board of Directors.

The Camp Trapping Director, its employees, its Board of Directors, and the British Columbia Corrections Branch were most supportive of this research.

The following is an overview of the Camp Trapping program as described in the agency program manual. It is included in this thesis with the permission of the Director of Camp Trapping.

Introduction

Camp Trapping, a wilderness based program for male young offenders, was founded by Bruce Hawkenson in June of 1971. Mr. Hawkenson was a probation officer who recognized the need for a program for male probationers deemed unmanageable within their community. Mr. Hawkenson used his

retirement money to secure the tract of land on Trapping Lake and began the rudiments of what is now Camp Trapping. In accordance with provincial regulations, a private non-profit organization was established and Camp Trapping became a bonafide rehabilitation resource which continues to operate under the auspices of Cariboo Action Training Society.

Young offenders are referred to the program through Youth Probation Services. Attendance to the program is mandated as a condition of the youth's probation order. Youth, or students, between the ages of 12 to 17 are selected based on a variety of criteria. In general, they are youth with a history of multiple delinquencies and are perceived to need a highly structured program which builds self-esteem and promotes individual responsibility. Preference is given to youth from the northern region, although students are accepted from other areas throughout the province of British Columbia.

Since the program's inception it has grown to accommodate fourteen students who each stay for 16 weeks. Camp Trapping operates on a full year basis utilizing a staggered intake format. Two programs are run concurrently but overlap such that one group is graduating while the other is only half finished. This staggered approach permits the eight week students (veterans) to demonstrate the routines, practices and responsibilities expected of students to the new arrivals (rooks).

Program Philosophy

Mr. Hawkenson envisioned a program which would promote a student's realization of their full potential. It would challenge both their mental and physical capabilities. " I think I can; therefore, I can " became the program's slogan. The students and staff alike were challenged to give forth their best efforts, and more often than not their expectations were exceeded.

Mr. Hawkenson generated a philosophy which has guided the program to its present state. The philosophy remains to be that of the program today:

- I possess a lot of worth as an individual
- I have the ability to discover potential qualities within myself
- I can develop these by mental, physical, and spiritual exercise
- I can only maintain my growth and success as I share it with others

Program Objectives

In addition to the program's philosophy, Mr. Hawkenson also established general program objectives. These objectives have been expanded to include:

1. To develop the maturity level of the participants by exposing them to a wide range of life responsibilities.
2. To increase the interest level of the participants on the world around them by exposing them to a wide variety of experiences.
3. Improvement in the work and school habits of the student through various programs designed to promote practical learning and social skill development.
4. To develop in the students a healthy respect for the rights, privileges, and feelings of others.

5. An opportunity for students to improve social skills and effective interaction through co-operative group living.
6. Help the student to develop and clarify his own values and goals.
7. To increase the level of self-motivation by enhancing the student's self-image in terms of achieving and recognizing success.

The program is designed to use a combination of wilderness living experience and counselling to help the student reduce delinquent behavior, return to school or its equivalent and function as a contributing member of society. Educational and vocational training, it is intended, will increase self-awareness and in turn, self-esteem. Challenging students to extend their limits in a variety of settings affords the means to prove self worth. Awareness of one's own feelings and values and the ability to communicate them freely, are the objectives of the counselling experience within the program. Hopefully, when a student graduates from Camp Trapping, he will possess a clearer understanding of his personal make-up and a higher regard for the society in which he lives.

Site Information

The camp is located at Trapping Lake approximately sixty kilometres south of Prince George, British Columbia. The camp consists of seven separate buildings: the bunkhouse, the schoolhouse, the kitchen with adjoining dining-area, the woodwork shop, the sauna, the recreation hall, and an outhouse.

The bunkhouse and schoolhouse have recently been rebuilt with wooden

logs. The bunkhouse sleeps all students and Camp Trapping employees in one large room.

Woodstoves provide the necessary heat to all of the buildings with the exception of the bunkhouse which is warmed by a large fireplace. Wood gathering and cutting is a year round responsibility of both the staff and students. Electricity beyond basic lighting is predominantly used in the kitchen and the woodwork shop.

Plumbing includes cold water in the bunkhouse sinks and hot water in the kitchen; there are no flush toilets or showers. New outhouses are presently being built. A large log sauna is situated next to the dock so that staff and students can rinse in the lake year round (a hole is cut in the ice during the winter months). Although not meant to be extravagant accommodation, the facilities are quite comfortable and provide the basics for living in a wilderness setting.

Employees

Employees are selected based on educational background, physical fitness, employment history with youth, and outtripping knowledge and experience. It is preferred to have a variety of backgrounds on the staff team, therefore selection depends somewhat on the program's needs at the time of recruitment. A basic requirement of staff is the ability to work effectively with youth using patience and enthusiasm. An integral and unique part of the

program is that staff participate in all activities mandated upon the students. Camp responsibilities are fulfilled equally by both staff and students.

The staff team consists of eleven full-time employees. There are two teams of three counsellors. Teams rotate one week on and one week off. They work shifting patterns to ensure supervision seven days per week and 24 hours per day. These six counsellors constitute the core of the Camp Trapping team. Also on the team is a maintenance-counsellor, cook-counsellor, woodshop instructor and school teacher. A program co-ordinator compliments the team providing support and ensuring program delivery.

Therapeutic Model

The program implements two different therapeutic approaches, combining behavior modification with reality therapy. In the initial weeks of a four month session, students operate on a point system. They earn rewards which are contingent on the number of points they have acquired throughout the week. A logical consequence system is utilized to discourage inappropriate or unacceptable behavior. Charts and point systems are individualized to emphasize for each student his strengths and the area(s) his behavior requires improvement. As appropriate behavior becomes the standard, students can earn their way from the chart system to a level system. Each level demands greater responsibility.

The student develops a contract with the team which he is to fulfill in

order to graduate from each of the three possible levels. The highest merit with which a student may graduate from the program is level three with honors. As students progress through the program and through the levels, peer group counselling increases and limit setting or consequences implemented by staff decreases.

Programming

The program comprises a balance of physical and mental challenges. The students (and staff) participate in a running program which culminates in a twenty-five kilometre marathon the day before graduation. Anyone who completes the marathon in less than two hours and twenty minutes receives a medallion. Wilderness outtrips and the physical demands of living at the camp itself are also challenging.

The school program, the work skills program, the food preparation and home economics program, as well as the general therapeutic orientation of the camp provide students with opportunities to challenge themselves mentally.

Firmly entrenched in behavior modification, Camp Trapping revolves around many rules and regulations held in place by a tightly run schedule. The daily routine is generally as follows:

6:45	Rise and shine
7:00	Calisthenics
7:10	Run
8:10	Breakfast
8:40	Chores
9:20	Work/School

12:00 Lunch
 12:30 Chores
 1:10 Work/School
 4:00 Sauna or group sessions (alternate days)
 5:00 Dinner
 5:45 Chores
 6:30 Scheduled programming; self improvement time and charts
 (individual counselling)
 9:00 Quiet time in bunkhouse (students work on individual logs or
 diaries)
 10:00 Lights out

Weekends vary slightly from the above schedule as they are reward or visiting days.

The underpinnings of the program is that each student is, always has been, and will be, responsible for his actions. Students are either rewarded or consequenceed continually for their decision making and for their attitude toward this concept.

The orientation of the entire Camp Trapping program is focused on improving the life skills of the students. Areas addressed include:

- Learning to work and to take pride in quality performance
- Learning to accept responsibility
- Learning to care for one's physical and emotional self
- Developing physical fitness and personal hygiene
- Seeing and participating in socially acceptable and enjoyable activities:
sports, hobbies
- Developing a repertoire of leisure activities

A brief overview of the means by which Camp Trapping achieves these objectives follows:

- Accredited Academic Program

Camp Trapping is affiliated with School District #57. The program has a special needs academic teacher supplied by the school district. Individualized programming is offered, emphasizing basic academic upgrading and life skills instruction to all students. Camp Trapping also participates in teacher exchanges, sporting, and social events with the local alternate school program.

- Cooking and Kitchen Skills Instruction

Two students work weekly with the camp cook in a learning environment. The basics of nutrition, hygiene, food preparation and storage are addressed. These students, with staff, prepare weekend meals. Safety guidelines are consistent with those in the Industrial Education programs offered by School District #57.

- Outtripping and Outdoor Survival Skills

The wilderness component is a mainstay of the Camp Trapping program. Canoe instruction, ski instruction, and back packing instruction are each followed by multi-day trips dependent on the season. Basic survival skills are also taught with overnight excursions that use the camp as a base.

Standards for the wilderness activities are consistent with those outlined

in the Standards and Guidelines for Wilderness Programs and High Risk Activities. Camp Trapping employees have outdoor instructor certification from organizations including British Columbia Recreational Canoeing Association, Canadian Association of Nordic Ski Instructors, Outward Bound and Yamnuska Mountain School.

- Community Service Work

Part of Camp Trapping's philosophical orientation is the belief that the students owe a debt to society. To repay some of this debt, each group of students (with staff) are involved in community service work projects. Projects have included work for private individuals, local clubs (Sons of Norway Ski Club and Hickory Wing Ski Club), the Hixon and Prince George communities, and at Provincial Parks and recreation sites. This service allows students the opportunity to repay some of their debt and it promotes positive interaction with the community.

- Alternate Awareness Program

The Camp Trapping Program also involves student participation in discussions or workshops on different issues which are usually facilitated by guest speakers and visitors. A drug and alcohol education program, a job search program, racial prejudice, sexuality, gender equality, developmental disabilities, prison awareness, legal rights, and world hunger have been

presented to date.

Chapter Four

METHODS

Research Design

Secondary Analysis

Data for this research was collected prior to the onset of the study and was not originally collected for research purposes, therefore, secondary analysis was the research approach employed.

Secondary analyses of questionnaires developed and utilized by the Camp Trapping program and of Youth Court Histories maintained by the British Columbia Corrections Branch for each of the 134 youth included in the sample was conducted.

Sixty-six of 71 independent variables included in the study were selected from questionnaire #1 and #2. Based on the literature, 66 of the 174 questions from the two questionnaires were selected as independent variables (see Appendix A). As discussed in Chapter Two, several of these variables have been included in recent studies of recidivism and young offenders (Buikhuisen & Hoekstra, 1974; Pallone & Hennessey, 1977; Gendreau, Grant & Leipeiger, 1979; Pritchard, 1979; Loeber & Dishion, 1983; Visser, Lattimore & Linster, 1991; Castellano & Soderstrom, 1992; Gendreau, 1994; Tracy, Wolfgang, & Figlio, 1990). Among the selected variables, and also discussed in Chapter Two, are those variables recommended for study by researchers of recidivism

prediction studies (Pritchard, 1979; Visher, Lattimore, & Linster, 1991).

Of the 66 questions selected for study, 44 were closed-ended questions and 22 were open-ended questions. Responses to the 44 closed-ended questions were coded for quantitative analysis. Responses to the 22 open-ended questions were first analyzed qualitatively in order to identify major themes and to develop response categories. The categories were then coded for quantitative analysis. The qualitative and quantitative preliminary analyses of both questionnaire #1 and #2 were reviewed randomly by an academic researcher to ensure 85 % interrater reliability.

In addition to the 66 independent variables from the questionnaires, five other independent variables were included for analysis based on the literature. Three of the five variables were selected from the Youth Court Histories. They include: 'age at first contact with the British Columbia Corrections Branch;' the 'type of first offence with a finding of guilt with the British Columbia Corrections Branch;' and, if a youth did reoffend after graduation from the Camp Trapping program, the 'type of offence with a finding of guilt and in which the British Columbia Corrections Branch services were required.'

The last two independent variables were calculated from information contained in the questionnaires, the youth court histories, and from the program dates recorded at the administration office in Prince George: 'Age at admission to the Camp Trapping program,' and the 'length of time between graduation from the Camp Trapping program and the date that a finding of

guilt for a charge laid after graduation.'

These data were coded for quantitative analysis. For cases in which information in the questionnaires or Youth Court Histories was unclear, data were confirmed through discussion with the director or office administrator of Camp Trapping.

The dependent variable, recidivism, was operationalized as a finding of guilt resulting from charges laid after graduation from the Camp Trapping program and in which the British Columbia Corrections Branch services were required as a result of the finding of guilt. Recidivism was measured as a dichotomous variable for which there was two possible outcomes: a youth either did or did not receive a finding of guilt from a charge laid between graduation from the Camp Trapping program and prior to July 19, 1995 when the recidivism data were collected. For cases in which recidivism information was unclear, data were confirmed through discussion with the office administrator of Camp Trapping.

Recidivism was measured at two weeks, three months, six months, one year, and one year and five months for all 24 cohorts ($N = 134$). To strengthen the validity and reliability of the findings, recidivism was also measured at two years for 20 cohorts ($n = 112$) and at three years for 15 cohorts ($n = 85$). Recidivism was further measured for three cohorts ($n = 17$) at two weeks, three months, six months, one year, one year and five months, two years, three years, four years, five years, and five years and five months. The four

recidivism measures differ in time with the respective lengths of time between graduation dates and July, 1995 when the recidivism data were collected.

The recidivism data were coded and quantitatively analyzed in relation to the independent variables to determine what variables predicted recidivism in the young offenders who graduated from the Camp Trapping program between October, 1989 and February, 1994.

Subjects

The sample consisted of 134 male young offenders who attended the Camp Trapping wilderness program over a five year period. Twenty-four cohorts, each comprised of four to seven young offenders, consecutively attended the four month program between October, 1989 and February, 1994.

Participation in the program was mandated by the British Columbia judicial system as part of each youth's court disposition. The majority of youth were from northern British Columbia, while the remainder were from other regions of the province.

The Camp Trapping wilderness program is a tertiary service for young offenders between the ages of 12 and 17 years. Additional criteria for admission to the program regard the type and frequency of offences. Youth who are generally accepted into the program are persistent offenders having received approximately eight to ten findings of guilt, primarily for property offences (D. Goll, personal communication, May, 1995).

Sampling

As the sample used in this study was comprehensive, no sampling procedures were employed. With the exception of 27 cases excluded from the study due to incomplete or omitted data, the population consisted of a census of all graduates of the Camp Trapping program from October, 1989 to February, 1994.

The large and comprehensive population (N=134/161), in addition to the five year time period from which the subjects were selected, strengthens both the validity and credibility of the study's findings. The larger the sample, the more representative of the population it is likely to be and the smaller the sampling error (Grinnell, 1993).

Procedure

Prior to the onset of the study, ethical approval was obtained from the Director of the Camp Trapping program, its Board of Directors (see Appendix B), and the University of Calgary's Research Ethics Committee.

The subjects were selected from a five year period between October, 1989 and February, 1994. One hundred and sixty-one young offenders were admitted into the Camp Trapping program during that time period. All youth included in the study were required to meet one criterion: the completion of both questionnaire #1 (see Appendix C) and questionnaire #2 (see Appendix D) which would subsequently be available for study.

Twenty-seven cases were excluded from the study due to the omission of either one or both questionnaires. Of these 27 youth, nine took an absence without leave (AWOL), did not finish the program, and therefore did not complete both questionnaires. Seven youth were expelled from the program prior to graduation and did not complete both questionnaires. Nine youth who met the inclusion criteria for the study were excluded because either one or both questionnaires were missing.

The administration of the two questionnaires is part of the program structure. Questionnaire #1 was administered within the first two to three weeks of each four month program. Questionnaire #2 was administered within the last two to three weeks of each four month program. Different Camp Trapping employees, primarily the core counsellors, administered the questionnaires in face-to-face interviews with each individual youth. Staff were instructed to read aloud each question, in succession, to the youth, to clarify the question if necessary, and to record the youth's response verbatim. The questionnaires will be discussed in detail in the Instrumentation section of this chapter.

After collecting the questionnaires from the Camp Trapping administration office in Prince George, British Columbia, they were numerically coded. Names on the questionnaires were deleted to ensure confidentiality and to fulfill the necessary agency and university ethical requirements, as well as those of the Young Offenders Act, in dealing with

identifying information.

Recidivism data were collected from each youth's Court History (see Appendix E). With the permission of the Assistant Deputy Minister of the British Columbia Corrections Branch, a copy of the Youth Court Histories for the sample of 134 youth was submitted by the British Columbia Corrections Branch in Prince George to the researcher for study. Court histories were also numerically coded and the names deleted to ensure confidentiality before secondary analysis.

Instrumentation

Questionnaires

Two different questionnaires were developed for the Camp Trapping program between 1977 and 1978, six years after the program's inception in June, 1971. Bruce Northey, a previous Camp Trapping counsellor, was employed as the program's Aftercare Coordinator in 1977. He developed the questionnaires as an assessment tool to assist with follow-up planning for each youth. As the Aftercare Coordinator he administered the questionnaires and coordinated services to meet the individual needs of each youth upon return to his community after graduation from the program.

As previously noted the questionnaires were developed as an assessment tool, consequently the categories and questions were chosen for assessment purposes. Some were designed based on common problem areas Northey

observed during his work experience with the youth attending the program. No formal efforts were made to establish the validity of the questionnaires at the time of their design as they were not developed for research purposes.

In 1980, the Aftercare Coordinator position was terminated due to financial constraints although the questionnaires continued to be administered as part of the program structure. However, minor changes to the content of the questionnaires were made by later program coordinators (B. Northey, personal communication, November 2, 1995).

The original purpose of the questionnaires also changed with the termination of the Aftercare Coordinator position. Their purpose was no longer to assist the Aftercare Coordinator with follow-up planning. Instead, copies of the completed questionnaires were distributed to each youth's probation officer for the purpose of disseminating information about the youth's experience in the program.

A further modification was in regard to the administration of the questionnaires. With the termination of the Aftercare Coordinator position, the questionnaires were administered by the front line employees, primarily the core counsellors.

As indicated earlier, there were no efforts to establish the validity of the questionnaires at the time of their design. However, the comprehensiveness of the sections and questions included in the questionnaires may strengthen the validity of the instruments.

Questionnaire #1 was divided according to the following six sections: "Camp," "Education/ Employment," "Home," "Peer Group and the Community," "Drugs and Alcohol," and "Perspectives." Questionnaire #2 is divided into eight sections: "Camp," "Social Service Agencies," "Education," "Employment," "Drugs and Alcohol," "Home," "Peer Pressure and the Community," and "Perspectives."

Questionnaire #1 consisted of 78 questions (see Appendix B) and questionnaire #2 of 96 questions (see Appendix C). The majority of the questions were open-ended. Open-ended questions were defined as those questions which did not restrict the youth's response to some pre-established parameters. The remaining closed-ended questions were defined as those questions which offered the youth a set of mutually exclusive and jointly exhaustive alternative responses (Grinnell, 1993).

Youth Court Histories

Recidivism data were collected from each youth's court history. This information was made available for the purpose of this study by the Ministry of the Attorney General of British Columbia. The Youth Court Histories were devised by the British Columbia Corrections Branch and continue to be utilized by all the regional offices.

The Youth Court History lists each youth's past involvement with the British Columbia court system including activity dates, the court location(s),

the charge(s) laid when the British Columbia Corrections Branch was involved, the outcome of the charges, and with cases resulting in a finding of guilt, the disposition (Appendix E). The Youth Court Histories include court activities of individuals beyond the age of 18 for as long as they remain residents of British Columbia.

Data Analysis

Data were analyzed in three stages. First, descriptive statistics were calculated for each of the 71 independent variables (see Appendix A) and the dependent variable, recidivism.

Second, bivariate tests of association, Chi-square, were conducted for each of the independent variables and the dependent variable to determine whether or not associations existed between each of the independent variables and the dependent variable at trend level ($p < .10$). Given the study was exploratory in nature and in search of patterns or trends in relationships, .10 was selected as the accepted level of statistical significance for this study.

Bivariate tests of association were also conducted between selected independent variables in search of relationships between independent variables. These independent variables were selected based on the literature.

Bivariate Logistic Regression analysis was employed to determine whether there was significance for each independent variable on recidivism. Finally Multivariate Logistic Regression was conducted to determine the

simultaneous effect of those independent variables found to be statistically significant in the bivariate logistic regression analysis ($p < .10$) on recidivism. More specifically, logistic regression or logit analysis was performed to ascertain if the independent variables predicted recidivism for the graduates of the Camp Trapping program included in the study.

The large number of independent variables and the extensive analysis of data strengthens the validity and reliability of the study's findings.

Methodological Limitations

Although the use of available data makes it possible to bypass time-consuming and costly steps in the research process, there are weaknesses inherent in using secondary analysis as a study's research approach. The methodological limitations of this study have been described in three categories: limitations of the questionnaires, limitations of the youth court histories, and limitations of the study's sample and design.

Limitations of the Questionnaires

A major disadvantage in using secondary analysis with this study is that the existing questionnaires, from which data for most of the independent variables were collected, were not originally designed to answer the study's research questions. The instruments, questionnaire #1 and #2, were designed and administered prior to the onset of the study. As indicated earlier, the

questionnaires were developed during 1977 and 1978. Furthermore, no efforts were made to establish the validity of the questionnaires as they were not designed for research purposes. It is difficult to assess the extent of measurement error.

As outlined in Chapter Three, the Camp Trapping employees have an intensive relationship with each of the youth attending the program. Questionnaires were administered to the youth by different Camp Trapping employees, although primarily by the core counsellors. Social desirability is a threat to the internal validity of the study.

Since the purpose of the questionnaires included in this study was to provide information to the youths' probation officers, staff were not trained, as are research interviewers, in the administration of questionnaires to be used for study. As previously noted, only informal efforts were made to standardize the administration of the questionnaires. Consequently, there is a greater than normal risk, characteristic of secondary analysis, that the data obtained were inaccurate or inconsistent.

Completion of questionnaire #1 took approximately one hour and questionnaire #2 one and a half hours (B. Northey, personal communication, November 2, 1995). It is difficult to assess the degree to which the duration and monotony of completing the questionnaires may have influenced inaccurate or incomplete responses from youth. The long length of the questionnaires is a threat to the validity of these instruments.

Limitations of the Youth Court Histories

Recidivism was operationalized as a finding of guilt resulting from charges laid between graduation from the Camp Trapping program and prior to July 19, 1995. Recidivism data were collected from the youth court histories. Court history information included those charges resulting in a finding of guilt and in which the British Columbia Corrections Branch will be providing services. Although it is rare, it is possible that the Corrections Branch was not involved in a disposition (B. Plewes, personal communication, September 25, 1995). For example, if a youth's disposition is only to pay a fine then services from the corrections branch, in the form of probation, bail supervision, or custodial service, would not have been required. Consequently, such offences would not be listed on the British Columbia youth court history. As a result, the youth court histories were not a completely reliable means for collecting the recidivism data.

An additional limitation of the court histories was that it was difficult to determine, for several cases, whether a charge was laid after the completion of the program or a charge was pending from before the youth began the program. Individual case records, which would clarify any uncertainties, are stored at the corrections branch located nearest to a youth's residence and/or where the court activity took place. Due to the time involved in accessing individual case files located at the different correctional branches throughout British Columbia, recidivism data collection was limited to the youth court

histories. For such cases, data were discussed with the office administrator of the Camp Trapping program in efforts to confirm interpretation of the court histories.

Limitations of the Sample and Design

Although the study uses a census of the youth, excluding 27 cases, who attended the Camp Trapping program over a five year period, the findings from this research may be generalized only to those male young offenders included in the sample.

Most importantly, this study did not utilize experimental research methods as it was exploratory and descriptive in nature. Without the use of a comparison group to control for extraneous variables, the findings of the study are limited to the sample of young offenders who graduated from the Camp Trapping program included in this study.

Of the youth who were excluded from the study, the majority were either expelled or were absent without leave. The exclusion of these two, possibly unique groups of youth may have biased the sample.

The study utilized a binary measure of recidivism which did not take into account the degree of recidivism. Caution is warranted when making inferences and generalizations based on the findings from this study.

Chapter Five

RESULTS

Description of the Sample

Criminal History

To provide a general characterization of the sample's criminal history, variables that have been empirically linked to delinquency have been included for study. As outlined in Table 1 the vast majority of youth had received their first finding of guilt for a property offence (81.3 %) when they were an average of 14 years old. They were admitted to Camp Trapping, a program for *persistent* offenders when they were an average of 16 years old.

Table 1

Criminal History Characteristics			
	<u>N</u>	<u>%</u>	<u>Age</u>
Mean age at first contact with B.C. Corrections Branch (in years)	134	14.00	-
Type of first offence			
property offences ¹	109	81.30	-
offences against a person ²	18	13.40	-
breaches of probation ³	7	5.20	-
Mean age at admission to Camp Trapping program (in years)	134	-	16.00

Profile of Sample derived from Questionnaires

Sixty-six of the study's 71 independent variables were selected from questionnaire #1 and #2 and included for analyses (see Appendix A). The values of those variables provide a concise description of the sample. Table 2 lists the variables from questionnaire #1 within the five subheadings from which they were selected (education/employment, home, peer group and the community, drugs and alcohol, and perspectives) and their respective frequencies. Likewise, Table 3 lists the variables from questionnaire #2 within the seven subheadings from which they were selected (camp, education,

¹ Property offences included possession of stolen property, break & enter, mischief/ wilful damage, theft over \$1000, taking a motor vehicle without consent, theft under \$1000, false fire alarm, theft/ possession of a credit card, causing a disturbance in a public place, public mischief, unlawfully in a dwelling, and false pretences.

² Offences against a person included use/ possession of a weapon, assault, dangerous operation of a motor vehicle, robbery, assault-weapon/ harm, resist/ obstructing police, and assault of a police officer.

³ Breaches included a breach of recognizance, a breach of the YOA, and failure to appear.

employment, drugs and alcohol, home, peer pressure and the community, and perspectives) and their respective frequencies. A profile highlighting commonalities within the sample follows.

The majority of youth included in the study were non-aboriginal; however, compared to the larger population a disproportionate number were aboriginal (30.1 %). According to the 1991 Canada Census 4.6% of the British Columbian population is aboriginal (Colombo, 1996).

Over half the youth (56.0%) admitted they had problems they needed to improve upon, with personal issues prevailing: concept of self, self worth, control, and personal boundaries.

The most common place thought of as home was with a single parent (34.6%) which was consistent with where youth were living immediately prior to beginning camp (33.1%). Noteworthy, is the quarter of youth (24.6%) who were living in government care before coming to camp.

The majority of youth (56.4%) admitted their families had problems. Ironically, they most commonly stated their families need not make any changes (38.5%). In fact, they perceived themselves solely responsible for their families difficulties (63.1%).

With the exception of avoiding repeated criminal behavior, the greatest concern youth held, at the time of the administration of questionnaire #1, was in regard to settling into their respective communities. More specifically, worries concerned making new friends, securing employment, readjusting to

school, and readjusting to family and community. Of interest and contradictory to the responses given in questionnaire #1, the answers to questionnaire #2 showed almost three quarters of the youth were not worried about more trouble (70.9%).

Drug and alcohol use by youth (89.6%) was prevalent. They perceived their peers (27.3%) and especially members of their immediate families (63.6%) as having drug and/or alcohol problems. Undoubtedly, there exists an interrelationship between drug and alcohol use and the problem areas of the youths' lives.

Of those who acknowledged they were still in need of help, many listed personal support (50.0%) followed by drug and alcohol counselling (35.7%).

The camp experience was predominantly perceived by youth as positive (83.3%). Participation in the program affords various opportunities for growth including substantial physical conditioning of which many youth were proud (33.0%). The bulk of youth felt they learned something while at camp that would prevent them from further delinquency (81.3%).

Virtually all youth planned to pursue an education (95.5%) primarily for the practical reason of securing employment (54.8%).

Table 2

Questionnaire 1 (N=134)		
<u>Characteristics</u>	<u>N</u>	<u>%</u>
Ethnic origin		
native	40	30.1
non-native	93	69.9
Problems to be worked on		
yes	75	56.0
no	51	38.1
don't know	8	6.0
What problems		
anger	19	26.0
attitude	8	11.0
personal	21	28.8
work/school/money	13	17.8
behavioral	8	11.0
other	4	8.2
<u>Education/ Employment</u>		
Education level		
public (6 & under)	2	1.5
junior high (7-9)	77	57.5
senior high (10-12)	55	41.0
Anticipated education level		
< high school	13	10.0
high school grad.	64	49.2
post secondary	53	40.8

	<u>N</u>	<u>%</u>
<u>Home</u>		
Home		
both parents	33	25.4
single	45	34.6
blended	7	5.4
relatives	12	9.2
other	24	18.5
nowhere	9	6.9
Living arrangement before camp		
parent's	28	21.5
single parent's	43	33.1
blended family	5	3.8
government care	32	24.6
relatives	10	7.7
other	12	9.2
Relationship with family members		
positive	89	66.4
negative	7	5.2
combination	38	28.4
Family problems		
yes	75	56.4
no	55	41.4
don't know	3	2.3
What changes family should make		
don't need to	45	38.5
communication	22	18.8
drugs & alcohol	11	9.4
family structure	14	12.0
other	25	21.4
Responsibility for family problems		
yes	84	63.1
no	47	35.3
don't know	2	1.5

	<u>N</u>	<u>%</u>
Anticipated re-adjustment problems with family		
yes	43	32.6
no	85	64.4
don't know	4	3.0

Peer Group and the Community

Hobbies

contact sports ¹	27	20.1
non-contact sports ²	36	26.9
creative/artistic ³	18	13.4
other	53	39.6

Hoped for hobbies

contact sports	42	32.1
non-contact sports	37	28.2
creative/artistic	9	6.9
other	21	16.0
none/don't know	22	16.8

Anticipated problems re-adjusting to community

none	22	17.1
staying straight	39	30.5
judged/distrusted	25	19.5
getting settled	32	25.0
other	10	7.8

Responsibility for delinquency

student	111	82.8
other	23	17.2

Friends involved in delinquency

yes	68	51.5
no	64	48.5

Peer pressure re: drug & alcohol use

none	71	53.4
yes	60	45.1
don't know	2	1.5

	<u>N</u>	<u>%</u>
Peer pressure re: trouble with the law		
none	71	53.4
yes	61	45.9
don't know	1	0.8
Peer pressure re: trouble at home		
none	105	78.4
yes	28	20.9
don't know	1	0.7
Peer pressure re: trouble at school		
none	70	53.0
yes	61	46.2
don't know	1	0.8
Prefer different friends		
yes	39	29.3
no	93	69.9
don't know	1	0.8

Drugs and Alcohol

Drugs and/or alcohol related to life problems		
yes	73	54.5
no	61	45.5
Anyone close have a drug or alcohol problem		
yes	74	56.1
no	57	43.2
don't know	1	0.8
Who		
immediate family members	28	63.6
extended family members	4	9.1
friends	12	27.3
When in trouble- alcohol use:		
yes	72	58.1
no	52	41.9
When in trouble- drug use:		
yes	119	99.2
no	1	0.8

	<u>N</u>	<u>%</u>
Alcohol & Drug use		
yes	120	89.6
no	14	10.4
In what company		
alone	3	2.8
in a group	85	78.0
both	21	19.3
How often		
regular ⁴	77	67.5
irregular ⁵	36	31.6
don't know	13	0.9
Future ambitions		
married/family	6	5.1
material objects	12	10.2
work	67	56.8
other	30	25.4
don't know	3	2.5
Money for drugs or alcohol		
work	44	36.7
crime	28	23.3
other	48	40.0

Perspectives

Who is to blame for youth's being at camp		
student	119	88.8
other	15	11.2
Do you think people trust you		
yes	45	33.8
no	34	25.6
some	46	34.6
don't know	8	6.0

1. Contact sports included team (rugby, football, hockey, lacrosse, soccer, ball hockey, volleyball, baseball) and individual sports (kickboxing, martial arts, wrestling, and boxing).
2. Non-contact sports included team (curling, broomball) and individual sports

(skiing, snowboarding, rockclimbing, weightlifting, skydiving, hang gliding, dirt bike racing, kayaking, tennis, skating, biking, and swimming).

3. Creative/artistic hobbies included drawing, painting, carving, acting, tattoo work, sculpting, reading, writing, building and fixing things.
 4. Drug & alcohol use everyday, 1/weekend, 2-3 times/weekend, 4-5 times/weekend, or often was categorized as regular use.
- * Missing data ranged from 1-17 cases except for the variable 'Who do you dislike/can't get along with' which was missing data for 33 cases.
- ** Questions were N/A for 6-57 cases/ variable and were therefore not included in those computations.

Table 3

Questionnaire 2 (N=134)		
<u>Characteristics</u>	<u>N</u>	<u>%</u>
<u>Camp</u>		
Feelings about camp experience		
positive	105	83.3
negative	14	11.1
combination	7	5.6
Changed		
yes	116	86.6
no	8	6.0
don't know	10	7.5
How have you changed		
internal ¹	51	48.1
external ²	34	32.1
other	21	19.8
Learn anything to keep from getting into trouble		
yes	109	81.3
no	24	17.9
don't know	1	0.7
What		
deterrent	27	22.9
skills	18	15.3
responsibility	20	16.9
other	24	20.3
Proud of accomplishments		
running & physical accomplishments	42	33.1
completing program	19	15.0
attaining levels	20	15.7
other camp related accomplishments	26	20.5
other	20	15.7

	<u>N</u>	<u>%</u>
Worry about more trouble		
yes	39	29.1
no	95	70.9

Social Agencies

Deserve what happened		
yes	117	87.3
no	17	12.7
Why		
guilty	57	42.5
indirectly deserved	33	24.6
other	16	11.9
Still need help		
yes	33	24.6
no	91	67.9
don't know	10	7.5
With what		
drug & alcohol use	5	4.4
personal support	7	6.1
educational support	1	0.9
employment support	1	0.9

Education

Further Education		
yes	128	95.5
no	1	0.7
don't know	5	3.7
Why		
need it for a good job	63	47.0
want it/good grades	23	17.2
to get somewhere in life	18	13.4
other	11	8.2

	<u>N</u>	<u>%</u>
Education preference		
regular school	58	43.3
alternate school	26	19.4
upgrading courses	7	5.2
apprenticeship	7	5.2
correspondence	9	6.7
combination	27	20.1

Employment

Career plan		
social sciences ³	40	35.4
trades ⁴	38	33.6
sciences ⁵	11	9.7
arts ⁶	8	7.1
transportation	5	4.4
other	6	5.3
don't know	5	4.4

Drugs and Alcohol

Drugs and alcohol related to life problems		
yes	69	51.5
no	62	46.3

Home

Anyone at home that you do not get along with or dislike		
yes	33	24.6
no	100	74.6
don't know	1	0.7

Who		
immediate family	15	11.8
extended family	3	2.4
step parent/partner	6	4.7
dog	1	0.8

Major problems in family		
yes	46	34.6
no	85	63.9
do not want to answer	2	1.5

	<u>N</u>	<u>%</u>
Preference to live with family or elsewhere		
family	86	65.6
elsewhere	33	25.2
did not choose	12	9.2

Peer Pressure and the Community

Peers influence when return home		
yes	34	25.6
no	91	68.4
don't know	8	6.0
Worry about this		
yes	19	14.2
no	115	85.8
Should find new friends		
yes	43	32.3
no	86	64.7
other	4	3.0

Perspectives

Changed due to program		
yes	126	92.5
no	5	3.7
don't know	4	3.0
How		
attitude	55	43.7
other internal change	25	19.8
external changes	32	25.4
other	6	4.8
Learned anything to keep out of trouble		
yes	114	85.1
no	17	12.7
don't know	3	2.2

	<u>N</u>	<u>%</u>
What		
custody a deterrent	17	17.7
awareness about crime	20	20.8
life skills	29	30.2
other	12	12.5

Proud of anything		
yes	120	89.6
no	13	9.7
don't know	1	0.7

What		
physical health	37	29.6
accomplishments	21	16.8
completing Camp Trapping program	25	20.0
of changing	26	20.8
other	4	12.8

What is the major concern on your mind these days		
getting out	18	13.6
going home/family	31	23.5
future	51	38.6
Camp Trapping goals	12	9.1
other	20	15.2

Foresee more trouble		
yes	3	2.2
no	104	77.6
don't know	27	20.1

1. Internal changes included changes in expression of anger, attitude, self-concept, beliefs, and values.
2. External changes included changes in physical health, appearance, and behavior.
3. Careers in counselling, corrections, child/youth care, education, outdoors, business, recreation & sports, and services were categorized as social sciences.
4. Careers in carpentry, construction, mechanics, electronics, welding, sheetmetal, woodwork, cooking, locksmith, and gunsmith were categorized as trades.
5. Careers in marine biology, engineering, computers & high technology, agriculture, and environment were categorized as sciences.

6. Careers in music, design, tattooing, commercial art, silk screening, artistry were categorized as art.
- * Missing data ranged from 2-20 cases except for the variable 'What have you learned to keep you from getting into further trouble' which was missing data for 38 cases.
- ** Questions were N/A for 17-101 youth and were therefore, not included in those computations.

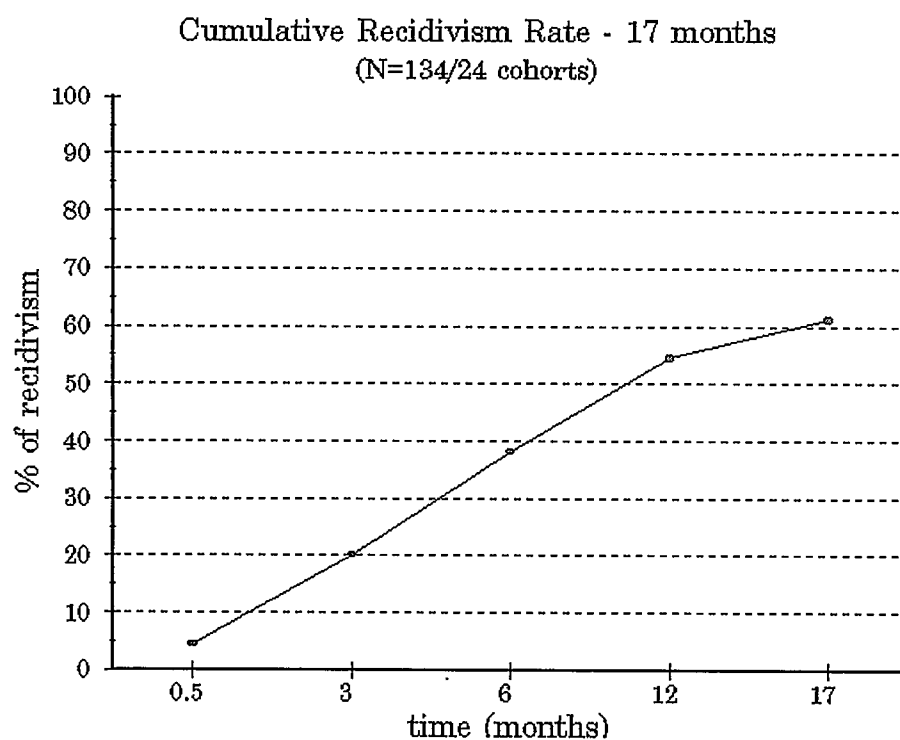
Recidivism Characteristics

Of the 134 young offenders who graduated from the Camp Trapping program, 32 (23.9%) did not reoffend within five years and five months following graduation while 102 youth (76.1%) did reoffend. Of those youth who did not reoffend, two (1.4%) were deceased.

Time elapsed between program graduation and the date data were collected differed for the cohorts of youth in the sample. Consequently, a follow-up period of 17 months existed for 100% of the sample (N=134/24 cohorts), of 24 months for 84% of the sample (n=112/20 cohorts), 36 months for 63% of the sample (n=85/15 cohorts), and 65 months for 13% of the sample (n=17/3 cohorts), as presented in figures 1 through 4.

Figure 1 reveals the greatest percentage of recidivism for 100% of the sample occurred within the first twelve months following graduation from the program (54.5%). The rate of recidivism occurred steadily up to 12 months before it slowed.

Figure 1



As seen in Figure 2, the final recidivism rate for the sub-sample of 112 youth (20 cohorts) at 24 months (66.1%) is similar to the entire sample's final recidivism rate at 17 months (61.2%), as previously presented in Figure 1. However, the rate at which recidivism occurs is comparatively erratic. Up until 3 months after graduation from the program, recidivism occurs slowly (8.0%). From 3 to 6 months, the rate drastically increases (38.4%) before it lessens progressively until 24 months.

Figure 2

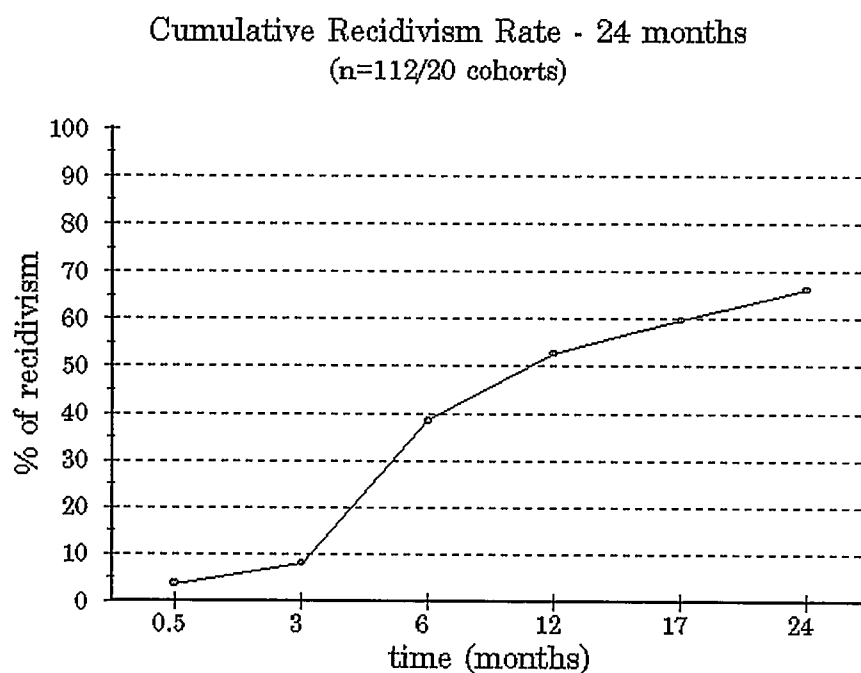
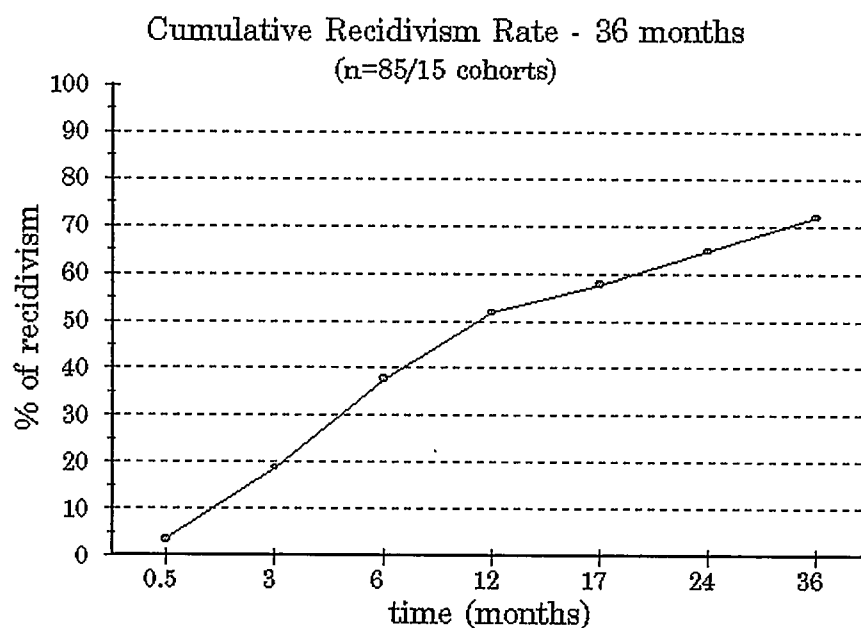


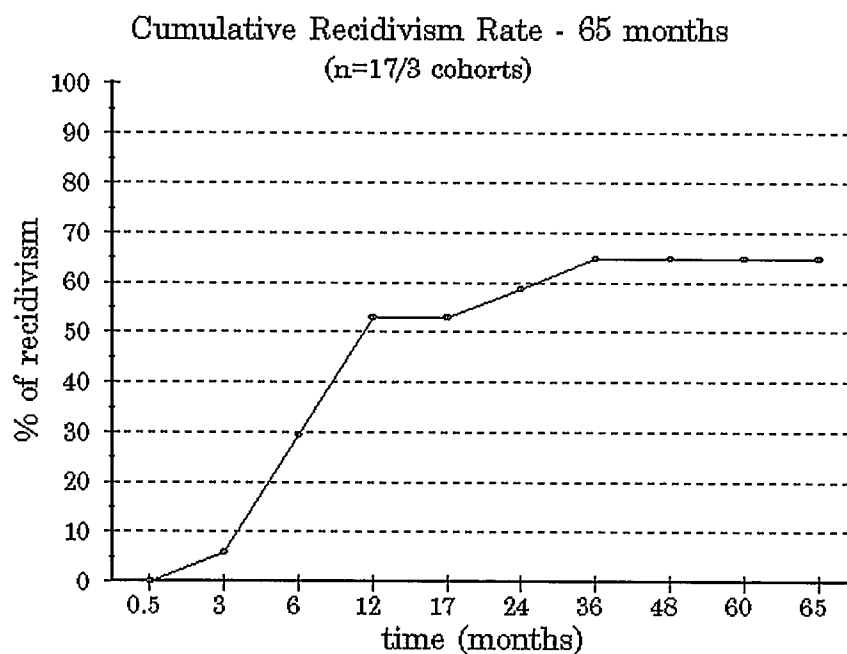
Figure 3 reveals a recidivism rate for the sub-sample of 85 youth (15 cohorts) up to 17 months very similar to that of the entire sample. The recidivism rates were 57.7% and 61.2% respectively. The rate of recidivism increases steadily to 71.8% which is the highest rate of the four separate measures of recidivism.

Figure 3



As evidenced in Figure 4, recidivism for the sub-sample of 17 youth (3 cohorts) did not occur before 2 weeks as it did for the entire sample and previous sub-samples. Of particular interest, no further recidivism occurred after 36 months.

Figure 4



Consistently, the majority of youth in the sub-sample (n= 112, n=85, n=17) measures of recidivism reoffended within 12 months of graduation. The respective rates of recidivism at 12 months following graduation for the entire sample (N=134), n= 112, n=85, and n=17 were 54.5%, 52.7%, 51.8%, and 52.9%.

The recidivism characteristics based on 100% of the *recidivists* are presented in Table 4. They suggest the first six months after graduation from the program are a high risk period for recidivism (50%) while a low risk period exists beyond two years following graduation (10.8%).

Over ten percent of recidivists received a finding of guilt for a less serious offence: 'breaches of probation' increased by 8.5% from the criminal history of the sample prior to admission. There was an increase in the incidence of 'offences against a person' implying a small group of serious offenders exists within the sample.

Table 4

Recidivism Characteristics			
	<u>N</u>	<u>%</u>	<u>Days</u>
Type of reoffence			
property offences	64	62.8	-
offences against a person	24	23.5	-
breaches of probation	14	13.7	-
Mean number of days between graduation & recidivism	102	-	307.5
Cumulative proportion of months between graduation & recidivism			
by .5 months	6	5.9	-
by 1 months	12	11.8	-
by 3 months	28	27.5	-
by 6 months	51	50.0	-
by 12 months	73	71.6	-
by 17 months	82	80.4	-
by 24 months	91	89.2	-
by 36 months	98	96.1	-
by 48 months	102	100.0	-

Bivariate Analysis

Chi-square analysis was used to determine whether an association existed between each of the 71 independent variables and the dependent variable, recidivism, and between selected independent variables. Only those relationships found to be statistically significant at trend level are reported ($p < .10$).

A probability of $p < .10$ was accepted as the minimum level of statistical significance as the study was exploratory in nature and in search of patterns or trends in relationships between variables.

Recidivism was significantly associated to youth who anticipated problems re-adjusting to the community, $\chi^2 (4, n=128) = 12.75, p < .01$. Less recidivists ($O=17$) than expected ($E=24$) were concerned with 'getting settled' upon return to the community while more non-recidivists ($O=15$) than expected ($E= 8$) shared this concern. More recidivists ($O= 20$) than expected ($E= 16.5$) did not perceive a problem re-adjusting to the community compared to less non-recidivists ($O= 2$) than expected ($E= 5.5$).

Type of changes made by youth as a result of participation in the program also related to recidivism, $\chi^2 (4, n=126) = 10.26, p < .04$. More recidivists ($O= 28$) than expected ($E= 24.9$) and less non-recidivists ($O=4$) than expected ($E=7.1$) made external changes.

As presented in Table 5, several relationships existed between independent variables. The presence or absence of problems in a youth's family

was found to be associated with their preference to live with family or elsewhere, $\chi^2 (4, n= 130) = 14.94, p < .001$. Of those youth whose family had problems, less ($O=4.1$) than expected ($E=47.1$) preferred to live with family compared to more ($O=21$) than expected ($E=18.3$) who preferred to live elsewhere.

Ethnicity and whether or not youth felt responsible for family problems were also related, $\chi^2 (2, n= 132) = 12.87, p < .001$. Interestingly, less aboriginal youth ($O=16$) than expected ($E=25.2$) felt responsible for family problems compared to more non-aboriginal youth ($O=67$) than expected ($E=57.8$).

The relationship of drugs/alcohol to problems in youths' lives was associated to youth having someone close to them with a drug/alcohol problem, $\chi^2 (2, n=132) = 8.64$. Youth who admitted to drugs/alcohol being related to their problems had someone close to them with a drug/alcohol problem more often ($O=48$) than expected ($E=40.4$).

Table 5

Bivariate Relationships between Selected Independent Variables						
Variable	by	Variable	χ^2	df	<u>n</u>	<u>p</u>
problems in family	x	living preference (family/elsewhere)	14.94	4	130	<.001
ethnic origin	x	responsibility for family problems	12.87	2	132	<.001
life problems re: drugs/alcohol	x	anyone close - drug/alcohol prob	8.64	2	132	<.01

Multivariate Analysis

Individual examination of the variables using frequency and percentage distributions and Chi-square values provided preliminary ideas of which variables have predictive qualities in determining recidivism. To examine the ability of multiple independent variables to predict recidivism, multivariate statistical analysis was required. Logistic regression was the selected analytical method as it evaluates the simultaneous impact of a set of predictor variables on a dichotomous dependent variable.

Logistic regression determines the probability of one event relative to another possible event represented by the dependent variable. More specifically, it transforms the probability of an event occurring into its odds or simply stated, into the ratio of one event's probability relative to the probability of a second event (Polit & Hungler, 1991). The goal of logistic regression analysis in this particular study was to determine the best combination of independent variables that most accurately estimated the probability of a young offender reoffending relative to the probability of his not reoffending.

Of the seven possible methods for conducting logistic regression analysis, the 'Enter' method was selected. The 'Enter' method, also referred to as 'Forced Entry,' forces all variables into the model for analysis.

Logistic Regression was performed in two stages; bivariate and multivariate logistic regression analysis. During the bivariate analysis stage,

a separate logistic regression analysis was conducted for each of the 71 independent variables and recidivism. Four independent variables, presented in Table 6 significantly related to recidivism in the bivariate analysis; 'How changed as a result of participation in the program,' 'Reason for needing a further education,' 'Type of hobbies,' and 'Living arrangement immediately before coming to camp'.

Table 6

Bivariate Logistic Regression Analysis			
Variable	Coefficient	Standard Error	p
How changed re: prog.	.8509	.4438	.06
Reason for further ed.	.6626	.3776	.08
Type of hobbies	-.6247	.3587	.08
Living arrangement	-1.420	.5929	.02

These four independent variables were entered together into another logistic regression analysis for the second stage of analysis. Two variables; 'Reason for needing a further education' and 'Type of hobbies' maintained a significant relationship ($p < .10$) once entered into the model of four variables. Consequently, the next analysis consisted of the entry of these two variables together. Both variables maintained their significance in predicting recidivism producing the final model, presented in Table 7.

Table 7

Recidivism Prediction Model				
Variable	Coefficient	Standard Error	Coeff/SE*	p
Reasons for further ed. (1)	.8232	.4007	2.05	.028
Type of hobbies (1)	-.8785	.3985	-2.21	.039
Constant	.7608	.3023	2.52	.012

* The results of this calculation are similar to the *t*-test and can be interpreted as such despite the absence of significance levels. A conservative guideline is that these values should not go below 2.0 if a variable is to be considered useful (Walsh, 1987).

Given the categorical level of measurement of the variables, interpretation of the effect of a particular category must be in comparison with some other category (Norusis, 1990). Coefficients represent the effect of each category compared to a referenced category. The sign of the coefficients indicates the direction of the relationship to the dependent variable, recidivism.

The values compared in the model from the 'Reason for needing a further education' variable included 'for a good job' in relation to 'no need for a further education.' The coefficient of .82 explains that when the variable, 'Reasons for needing a further education' changes from 0 to 1, and the values of the 'Type of hobbies' variable remain the same, the log odds of recidivism increase by .82.

Youth who perceived the need for a further education as a means to a

good job were 2.28 times more likely to reoffend than youth who perceived no need for one. Our achievement oriented culture dictates that success is important in life (Santrock, 1987). A post-secondary education is commonly believed as necessary in the acquisition of a 'good job' which is part of that success. The period of adolescence is recognized as a very challenging time in one's life. Youth are under a great deal of pressure to succeed in defining themselves and in developing their independence. This struggle can be exacerbated for some youth because of problems with family, school and so forth. The greater the failure experienced by a youth in school, the greater the chance of delinquent type behavior (Scott, 1991). For repeat offenders, there is a strong likelihood of being academically behind peers (Scott, 1991). The pressure an adolescent may experience to achieve, including the acquisition of 'a good job' may become so overwhelming that in the throes of frustration another offence is committed.

The values from the 'Type of hobbies' variable compared in the model included 'contact sports' and 'other' hobbies such as social activities, games, sports and drugs and alcohol. The coefficient of -.88 explains that when the variable, 'Type of hobbies' changes from 0 to 1, and the values of 'Reasons for needing a further education' remain the same, the log odds of recidivism decrease by -.88.

Youth whose hobbies were contact sports were .42 times less likely to reoffend than those youth who had 'other' hobbies. Youth involved in contact

sports may benefit in two respects; they experience a sense of belonging through their membership to a team and they have access to a socially acceptable outlet for relieving tension and anger. Varsity athletes were found to have lower reports of expression of anger, including more of a tendency to control anger, compared to intramural athletes (Greene, Sears, & Clark, 1993). Varsity athletes' lower reports of expression of anger may be due to their participation in high contact sports which serve as a control valve or release for feelings of frustration and anger resulting in minimized self-reports of generalized anger expression (Greene et al., 1993).

Youth involved in 'other' hobbies may have been somewhat directionless in establishing their interests. Most responses in this category were general for example, generic 'sports' suggesting a vague interest, but no active affiliation. Social activities and drugs and alcohol as hobbies may be indicative of youth whose self-identity stems from interactions with peers. With adolescent relationships comes peer pressure which does not afford the adult supervision accompanying contact sports. These youth may be exposed to a greater degree of peer pressure, to a lesser degree of responsible role models, and consequently, experience more ambivalence than their counterparts resulting in further offending.

To assess how well the model fits the data a comparison is made between the predicted and observed outcomes. Two youth who did not reoffend were correctly predicted by the model not to reoffend. Eighty-eight youth who

did reoffend were correctly predicted to reoffend. A total of 29 youth were misclassified; 28 youth who *did not reoffend* and 1 youth who *did reoffend*. Of the non-recidivists, 6.7% were correctly classified. Of the recidivists, 98.9% were correctly classified. Overall, 75.6% of the 119 youth included in the model were correctly classified.

Ideally, the two groups of recidivists and non-recidivists should have very different estimated probabilities. In other words, there would be small estimated probabilities of recidivism for all youth who did not reoffend and large estimated probabilities for all youth who did reoffend. The model was poor at classifying non-recidivists. Of the 29 misclassifications of youth by the model, 96.6% were misclassifications of non-recidivists as recidivists.

Chapter Six

DISCUSSION

Recidivism

The 76.1% recidivism rate of the study's sample must be interpreted in conjunction with the following four factors.

1. Camp Trapping is a program for *persistent* offenders (the youth from the study's sample have received approximately eight to ten findings of guilt prior to their acceptance into the Camp Trapping program) and consequently the sample is a unique representation of British Columbia's young offenders. The existing recidivism literature does not pertain to 'persistent' young offenders. To date, there are two recidivism studies which employed a sample of persistent young offenders: Visher, Lattimore and Linster's (1991) and Dembo and Williams' (1991). The recidivism rate from Visher et al.'s study was 88%. The overall recidivism rate found in Dembo et al.'s study was not indicated, however recidivism rates for specific categories, were. Their recidivism findings included 44% for a property felony and 35% for a property misdemeanour.
2. The study used a follow-up period far longer than any other relevant study found in the literature review. The Youth Court Histories

include court activities of the study's sample beyond the age of 18 for as long as they remained residents of British Columbia. A review of 37 treatment outcome studies for young offenders by Basta and Davidson (1988) revealed the length of follow-up varied from two weeks to two years following termination of treatment. Only 38% employed a follow-up exceeding one year. Consequently, the recidivism rates of this study's sample must be analyzed at the four different measures in time (17 months, 24 months, 36 months, and 65 months) when comparing recidivism rates from other studies. The recidivism rate of 54.5% for the sample (N=134) at 12 months implies the program was effective for half the youth in the study compared to the recidivism rate of 76.4% at 65 months (5 years and 5 months) which implies the program was effective for less than a quarter of the youth in the sample. Simply put, the benefits of the program are weakened over time.

3. A more reliable measurement of recidivism was adopted by this study than the majority of the existing studies reviewed in the literature: namely, Youth Court Histories generated by the British Columbia Corrections Branch. As discussed in Chapter Two, there are serious methodological limitations in the various operationalizations of recidivism for the majority of existing recidivism studies. While some studies claim a lower recidivism rate than the present study, they have

engaged unreliable and quite possibly inaccurate measures of recidivism. Past studies relied upon written or verbal reports from probation officers, self-reports, family reports, police records, or court records. The Youth Court Histories employed by this study recorded any court activity in which the youth was involved through the British Columbia Corrections Branch as well as the outcome of those activities.

4. This study's recidivism measure did not discriminate against the severity of the recidivist's crime. Consequently, some of the youth who reoffended received a finding of guilt for a breach of the Young Offenders Act which, in one case, included being late for a meeting with a probation officer. Clearly, receiving a finding of guilt for a less serious offence has different implications than receiving a finding of guilt for an offence of the same severity (another property offence) or a more serious offence (offence against a person). The study's interpretation of recidivism is limited to that of a binary measure.

The results suggest that recidivism is most likely to occur within the initial six month high risk period. Over half the *recidivists* (54.5%) reoffended within six months after graduation from the Camp Trapping program. The rate of recidivism after six months occurs progressively slower with time suggesting that if a youth is successful in not reoffending within two years, he

has a good chance of never reoffending (only 10.8% of recidivists reoffended after two years following graduation from the program).

Consistent with the findings of other studies on recidivism, the results from this study suggest age to be a factor in the establishment of a criminal career. The mean age of youth in the sample was 14 years at their *first* contact with the British Columbia Corrections Branch. The average age of youth in the sample when admitted to the Camp Trapping program was 16 years. The implication is that younger youth are at a greater risk of becoming persistent offenders. Services with a preventative goal should target these young adolescents who have been charged with a first offence.

The Recidivism Prediction Model

The purpose of developing a recidivism prediction model was to contribute to the understanding of the factors which predispose persistent young offenders to recidivism. The model is not intended to identify individual youth as recidivists. Incorrect decisions made on the basis of prediction instruments may falsely influence the perception of an offender by himself and others (Wilkins, 1969).

The model developed from this study's sample was poor in predicting non-recidivists. Most commonly, it incorrectly predicted recidivism for non-recidivists. This reinforces the recommendation against application of the model for the purpose of identifying individual youth as recidivists.

On the other hand, the model may be useful in a general application to persistent young offenders. Consideration by the Camp Trapping program and by service providers for persistent young offenders, of youths' reasons for needing a further education and of their hobbies is warranted. Advocacy of youths' involvement in a contact sport is suggested until further research determines the relationship between youths' hobbies and recidivism. Coordination of support services through schools for youth pursuing a further education is also suggested until further research determines the relationship between youths' reasons for needing a further education and recidivism.

Commendations for the Camp Trapping Program

Camp Trapping practices several of the principles outlined in Chapter Two from Paul Gendreau's *Principles of Effective Intervention* (1994). Principles presently practiced by the program include: intensive services that are behavioral in nature; behavioral programs that target the criminogenic needs of high risk offenders; programmed contingency/behavioral strategies enforced in a firm but fair manner; and structured programs and activities that disrupt the delinquency network by placing offenders in situations where prosocial activities predominate.

Camp Trapping is an intensive four month service which occupies 40-70% of the youths' time, a characteristic of effective intervention with offenders (Gendreau, 1994). As detailed in Chapter Three, the program is highly

structured occupying all of the youths' waking hours and includes both individual counselling and group sessions.

Gendreau's meta-analysis concluded that programs which target higher risk youth are more effective than those that target low risk youth. As highlighted in Chapter Four, Camp Trapping provides services for persistent young offenders who have received an average of eight to ten findings of guilt.

The last two principles listed above are satisfied as the Camp Trapping program is grounded in a behavior modification approach utilizing the token economy and modelling techniques Paul Gendreau detailed as characteristic of effective treatment (1994). As described in Chapter Three, the employees work and live alongside the students, expecting nothing more from the students than they do of themselves. A token economy is a mainstay of the program that is clearly understood and practiced by both the staff and students. Tangible and intangible reinforcers in the forms of money and privileged activities respectively are granted to those youth who have behaved in accordance with the camp's rules and regulations which promote cooperation, responsibility, and other prosocial behaviors. Those youth who have behaved otherwise do not earn points and are unable to participate in extracurricular events such as going to the pool or to a theater in Prince George. Programs implementing positive reinforcers which exceed punishers by a minimum of 4:1, as does Camp Trapping, are the most effective (Gendreau, 1994).

To comment further on the strengths of the program, it is important to note that during my week visit to the camp site on Trapping Lake, particularly graduation day, I witnessed something beyond the scope of this study. Seven out of a possible seven youth received a medallion for completing the 25 kilometer marathon under two hours and twenty minutes. Additionally, each youth was commended in the presence of the youths' probation officers, social workers, family members, and friends on their successful completion of the program. Recognition of the program's challenges at various levels was given and the attainment of the youth's earned 'levels' (discussed in Chapter Three) was also commended.

Furthermore, each youth received an award, each one presented by a different staff member, for a personal strength consensually recognized by the staff team. At the pre-graduation day staff meeting, each staff member requested the opportunity of presenting an award to one of the students with whom they shared a certain camaraderie.

Pride was the undeniable and overwhelming sensation exhibited upon graduation. The students exulted in their personal achievements while staff beamed with approval. The openness and warmth evident between staff and students is, according to Gendreau's principles (1994) a strength of the program.

Recommendations for the Camp Trapping Program

As discussed above, Camp Trapping practices several of the principles outlined in Paul Gendreau's *Principles of Effective Intervention* (1994). However, improvements are recommended in the following areas: therapist training and supervision, relapse prevention in the community, and advocacy and brokerage. Additional recommendations are provided that pertain to research methodology and are not based on Gendreau's *Principles of Effective Intervention* (1994).

Therapists should be trained and supervised appropriately. In Gendreau's meta-analysis (1994), he discovered most of the exemplary studies mentioned some of the following criteria.

i. Therapists are selected on the basis of interpersonal skills that are associated with effective counselling. Some of these factors are clarity in communication, warmth, humour, openness and the ability to relate effect to behavior and to set appropriate limits. With these sorts of skills counsellors can be effective sources of reinforcement and can competently model prosocial skills, as are the Camp Trapping counsellors.

ii. Therapists hold at minimum an undergraduate degree or equivalent with training on the theories of criminal behavior, and the prediction and treatment of criminal behavior. Camp Trapping employs people of a variety of backgrounds in efforts to establish a staff team with a balanced perspective. Wilderness skills are required however, a specific educational background is

not. Based on Gendreau's principles (1994), it is recommended that efforts be made to employ future personnel with the above educational expertise.

iii. Therapists receive 3-6 months formal and on-the-job/internship training in the application of behavioral interventions both general and specific to the program. Once employed, Camp Trapping counsellors are on a three month probationary period. There are two different sessions designated to formal training during which time there are no youth present at the camp. In December, youth either return home for the holiday period or they reside at the Prince George detention center. During the spring youth stay at the detention center. The goal of these periods is to reinforce consistency between staff.

Tasks that are routinely performed by youth and staff are reviewed in detail. Wilderness skills and certifications are also reviewed and recertified. Once employed, staff are not interns but members of the team provided with on-the-job training in the application of behavioral intervention as it relates to the Camp Trapping program. It is recommended that there be an overlap period between departing and newly arriving employees so that an internship is created.

iv. Therapists are re-assessed periodically on the quality of their service delivery. It is recommended that adequate and appropriate supervision for the Camp Trapping employees be contracted from the community to ensure quality of service. At present, the Program Director and Program Coordinator function

in supervisory roles in addition to their numerous other roles. Supervision regarding service delivery is recommended from active professionals in the community in order to ensure quality of service and to avoid a discrepancy between the philosophy of the program and the actual service provided. Effective supervision benefits participants of the program, employees of the program, and the reputation of the program.

v. Therapists monitor offender change on intermediate targets of treatment. Again, it is recommended that adequate and appropriate supervision be contracted from the community to assist staff in the development of treatment goals and to review offender change on intermediate targets of treatment. Results from the bivariate analysis revealed a relationship between recidivism and type of changes made by youth as a result of participation in the program. The potential exists for the establishment of treatment goals targeting changes in youth associated with lower rates of recidivism.

Effective programs also practice relapse prevention in the community. The Camp Trapping program provides its students the opportunity to experience mock employment interviews with the Director of the program. After graduation from the program, graduates who are able to independently access the administration office in Prince George can be assisted with their resumes on an informal basis. It is recommended that the following 'out-

patient' model of service strategies be implemented into that of the Camp Trapping program (Gendreau, 1994):

- a) plan and role play alternative prosocial responses;
- b) monitor and anticipate problem situations;
- c) practice new prosocial behaviors in increasingly difficult situations and reward improved competencies;
- d) train significant others eg., family members and friends to provide reinforcement for prosocial behavior; and
- e) provide booster sessions to offenders after they have completed the formal phase of treatment.

A third area of discrepancy between the principles of practice of the Camp Trapping program and effective programs is with respect to advocacy and brokerage of appropriate services for youth in the community. As discussed in Chapter Four, the position of Aftercare Coordinator for the Camp Trapping program was terminated due to financial constraints in 1980. The sample of youth in this study attended the program following the termination of the Aftercare Coordinator position, therefore no follow-up services were arranged on their behalf even though they were reportedly necessary. Based on the results of this and other recidivism studies, the Aftercare Coordinator position should be reinstated (Gendreau, 1994) and alternative measures be taken to compensate for the lack of funds.

The recidivism results from the present study clearly indicate a six month high risk period for recidivism which at the very least should be considered a necessary time period offering follow-up services (54% of recidivists reoffended within 6 months). Results from the bivariate analysis revealed a relationship between recidivism and youths' anticipation of problems re-adjusting to the community, confirming the need for follow-up services.

It is unreasonable to expect youth to transfer new skills and knowledge learned in a unique environment to their normal living environment where their unacceptable behavior originated without at least some of the intensive support they received for four months.

To promote the necessity of financing the Aftercare Coordinator position, it is recommended that some formal changes be made to the administration of the questionnaires to ensure the validity and reliability of the instruments. Since the termination of the Aftercare Coordinator position, Questionnaires #1 and #2 have been administered by the front line employees who are untrained in research administration. From a research perspective, this procedure is a serious social desirability threat. The employees who administered the questionnaires which were utilized for analyses in this study were inconsistent in administering the questionnaires as evidenced by frequent missing responses.

There is a loose pretest posttest format utilized to administer the

questionnaires that is not acceptable for research purposes. Questionnaire #1 is administered within the first two to three weeks of the program and questionnaire #2 within the last two to three weeks. There may be extraneous factors that cannot be otherwise controlled for except through formally structured administration procedures.

In addition to the administration procedure, it is strongly recommended that the questionnaires be modified. The two questionnaires differ in length, categories and questions asked. For experimental research purposes the questionnaires need to be the same or at least attending to the same constructs otherwise they cannot be utilized as pretest and posttest instruments.

The terminology of several of the questions are imprecise and allow for misinterpretation; yet the questionnaires contain a wealth of information which is unique to Camp Trapping. Consequently, it is not recommended that they be replaced but revised with the supervision of academic researchers.

A final recommendation is that the length of the questionnaires be shortened. The length of time it presently requires to complete a questionnaire (1-1^{1/2} hours) may effect the accuracy of the youths' responses because of boredom, agitation, and so forth.

Further Research

The results of this study coupled with the correctional literature on young offender programs indicate the need for follow-up as a preventative measure of recidivism. The Camp Trapping program employed an Aftercare Coordinator until 1980. A proposed study comparing the recidivism rates of youth who attended the Camp Trapping program while follow-up services were arranged by the Aftercare Coordinator and of the recidivism rates of the youth from this study's sample would determine whether or not a relationship between recidivism and follow-up services exists.

The results from the univariate analyses suggest some important differences between recidivists and non-recidivists. These differences, in the discussion to follow, were not statistically analyzed as the study was exploratory in nature and in search of predictor variables of recidivism. Another proposed study would test for statistically significant differences between recidivists and non-recidivists.

The most telling difference between non-recidivists and recidivists was the realistic and grounded manner in which the former group responded to the questionnaires. For example, the non-recidivists were more frequently concerned for the difficulties they would face upon returning home.

Greater insight, on the part of non-recidivists, into their life problems was yet another area clearly discernible from the questionnaires. More non-recidivists admitted to negative relationships with family members and to

having family problems than recidivists. Recidivists reportedly experienced more peer pressure with respect to drug and alcohol use and trouble with the law. As well, it was more common for them to have someone close to them who had a drug and alcohol problem. However, unlike non-recidivists, they did not perceive drug and alcohol use as a factor related to their life problems. The implication is that family therapy in addition to drug and alcohol counselling be incorporated into the program structure. Results from the bivariate analysis further enforce this implication as it revealed the presence of problems in youth's families were related to their preference of whether or not to live with family. A further supportive finding from the bivariate analysis was the relationship of drugs/alcohol to problems in youths' lives to the existence of someone close to them with a drug/alcohol problem.

Non-recidivists were more concerned about getting settled (securing employment, housing, enrollment in school) once they returned to their community suggesting they were more goal oriented than their counterparts. Additionally, many more non-recidivists were concerned about their 'future' than recidivists reinforcing the interpretation that they better appreciate the challenges before them.

Non-recidivists seemed to be more honest about the problems they face and more readily admitted to needing continued help, particularly with drugs and alcohol. A case in point is in the greater number of recidivists who stated they did not need further help with anything.

The recidivists appeared to be more externally than internally focused. A much greater percentage of recidivists described external changes within themselves such as physical improvements while a greater percentage of non-recidivists described internal changes within themselves such as changes in attitude or in asserting themselves. The recidivists were more apt to be proud of accomplishments like running, physical conditioning, or other camp related accomplishments like certification in canoeing, first aid, or running the most kilometers whereas a greater percentage of non-recidivists were proud of just knowing they completed the program. As indicated in the recommendation section of this chapter, the potential exists for the establishment of treatment goals targeting changes in youth characteristic of non-recidivists. Results from the bivariate analysis determined recidivism to be related to type of changes made by youth as a result of participation in the program, supporting this potential.

A strength of the present study is in its discovery of new areas found to be related to recidivism that have not yet been explored: follow-up services and recidivism and variable differences between recidivists and non-recidivists.

Had the study not employed a secondary analysis as its research method but utilized data from questionnaires designed to answer specific research questions, the findings from the bivariate and multivariate analyses would have been more conclusive. Many of the questions in the questionnaires were open-ended necessitating the qualitative analysis of the responses. The

responses needed to be collapsed due to the small percentages of respondents for some cells. This violates the assumptions of the Chi square and Logistic Regression tests.

Chi-square values are statistically significant only if less than 20% of the cells have five or less respondents in each cell. Given the exploratory nature of the present study a more liberal criterion of 33% of the cells with five or less respondents was accepted. Responses were collapsed to reduce the incidence of cells with less than a frequency of 5, threatening the validity and reliability of the study. The great detail of the questionnaires was sacrificed in order to run an advanced analysis.

Summary

Although improvements have been made over the last two decades with respect to our knowledge of the effectiveness of offender rehabilitation, little of this knowledge has been implemented by practitioners and policymakers (Gendreau, 1996). Included in this knowledge are detailed principles of effective intervention yet the emergence of new services for young offenders are not necessarily developed on these empirically based findings. Furthermore, these findings are not established as common knowledge in the criminology literature.

This study determined two variables, 'Reason for needing a further education,' and 'Type of Hobbies,' to be predictive of recidivism in the sample

of youth. The study also revealed relationships between recidivism and independent variables not previously studied. In conclusion, these discoveries along with the suggested differences between recidivists and non-recidivists have led to unexplored areas of juvenile recidivism which require further research. Most importantly, those principles of Gendreau which have proven effective in young offender programs must be promoted, adopted and implemented.

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APPENDIX A

Independent Variables

Questionnaire #1

1. Ethnic origin
2. Problems to be worked on
3. What problems

Education/ Employment

4. Education level
5. Anticipated education level

Home

6. Home
7. Living arrangement before camp
8. Relationship with family members
9. Family problems
10. What changes family should make
11. Responsibility for family problems
12. Anticipated re-adjustment problems with family

Peer Group and the Community

13. Hobbies
14. Hoped for hobbies
15. Anticipated problems re-adjusting with community
16. Responsibility for delinquency
17. Friends involved
18. Peer pressure re: drug and alcohol use
19. Peer pressure re: trouble with the law
20. Peer pressure re: trouble at home
21. Peer pressure re: trouble at school
22. Prefer different friends

Drugs and Alcohol

23. Drugs and/ or alcohol related to life problems
24. Anyone close have a drug or alcohol problem
25. Who
26. When in trouble- alcohol use
27. When in trouble- drug use
28. Alcohol use

- 29. Drug use
- 30. In what company
- 31. How often
- 32. Money for drugs/alcohol

Perspectives

- 33. Who is to blame for youth's being at camp
- 34. Do you think people trust you
- 35. Future prospects

Questionnaire #2

Camp

- 36. Feelings about camp experience
- 37. Changed
- 38. How have you changed
- 39. Learn anything to keep from getting into trouble
- 40. What
- 41. Proud of accomplishments
- 42. Worry about more trouble

Social Agencies

- 43. Deserve what happened
- 44. Why
- 45. Still need help
- 46. With what

Education

- 47. Further Education
- 48. Reason for further education
- 49. Education preference

Employment

- 50. Career plan

Drugs and Alcohol

- 51. Drugs and alcohol related to life problems

Home

- 52. Anyone at home that you can't get along with or dislike
- 53. Who
- 54. Major problems in family
- 55. Preference to live with family or elsewhere

Peer Pressure and the Community

- 56. Peers influence when return home
- 57. Worry about this
- 58. Should find new friends

Perspectives

- 59. Changed due to program
- 60. How
- 61. Learned anything to keep out of trouble
- 62. What
- 63. Proud of anything
- 64. What
- 65. What is the major concern on your mind these days
- 66. Foresee more trouble

Youth Court History

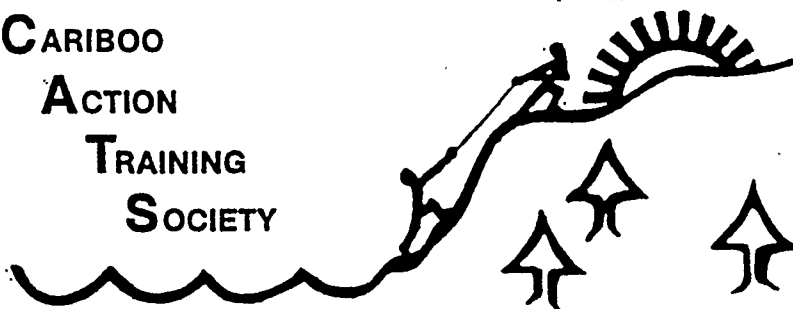
- 67. Age at first contact with B.C. Corrections Branch
- 68. Type of first offence with B.C. Corrections Branch
- 69. Type of reoffence after graduation from program

Other Independent Variables

- 70. Age at admission to Camp Trapping
- 71. Length of time between graduation and recidivism

APPENDIX B

CARIBOO
ACTION
TRAINING
SOCIETY



"Helping one another to help oneself"

June 15, 1995

Ms. Catherine Williams
Faculty of Social Work
Professional Faculties Bldg.,
2500 University Drive, N.W.
Calgary, Alberta T2N 1N4

Dear Ms. Williams;

On behalf of the Board of Directors of Cariboo Action Training Society I would like to say how enthusiastic we all are regarding your masters thesis. It sounds very exciting and worth while. Please consider this letter as confirmation to utilize any programme information you may feel relevant to your research. It is with the understanding that all research precepts identified by the Ministry of the Attorney General are addressed, (letter on file dated May 15, 1995 from Mr. Don Demers, Assistant Deputy Minister).

We wish you the best of luck in your endeavour and anxiously await completion of your masters thesis. If you require any additional information, please do not hesitate to call Daryl at our Cariboo Action Training Society office.

Sincerely,

Marie Alexander
for

Dick McCarthy,
president.

APPENDIX C

Questionnaire #1

Name:	Birth Date:
Home Address:	Phone:
Other:	Phone:
Parent's Name:	Phone:
Social Worker:	Phone:
Probation Officer:	Phone:
Other Agencies:	Phone:

CAMP

1. What do you think is the purpose of this camp?
2. How do you feel about being here?
3. How do you think your parents feel about you being at camp?
4. Do you feel camp was explained fully to you before coming here?
5. What do you think was/ would've been useful to know?
6. Do you have any problems that should be worked on?
7. What type of things do you want to learn?

EDUCATION/ EMPLOYMENT

8. Last grade attended ____
9. When?
10. Where?
11. How much education do you want?
12. What do you like about school?
13. Do you dislike anything about school?
14. What?
15. Do you feel you'd have to change anything if/ when you return to school?
16. If so, what?
17. Would your parents prefer that you go to school or work for a living?
18. Would you prefer to work or go to school?
19. What type of work would interest you?
20. How can you improve your chances of getting a job?
21. How much an hour do you feel you should make?
22. Have you worked before?
23. Doing what?
24. If you could learn a new skill, what would it be?
25. Would you like to do what either of your parent's do? (specify)
26. Do you want to work in your home town or would you leave town for a job?

HOME

27. Outline your family tree (on attached sheet). Note what family members do and who, if any, has been in trouble?
28. What place do you think of as home? (with whom? where?)
29. Do you want to return there?
30. Where were you living immediately before coming to camp?
31. Did you like living there?
32. Would you want to return?
33. Do you want anything different from how you lived before? Describe.
34. How do you get along with your family members?
35. Do you think there are any problems in your family?
36. What changes do you think the family should make?
37. If you ran the house, how would you do things?
38. Do you feel that you are responsible for any family problems?
39. What would an ideal family be to you?
40. Would you like your parents to visit you?
41. Do you think there will be problems re-adjusting to your family when you return? (to live or visit)

PEER GROUP AND THE COMMUNITY

42. What are your hobbies?
43. Of all the things you do in your spare time, which do you like the most?
44. What activities or pastimes would you like to become involved in?
45. What are three things you are good at?
46. Do you feel the community should trust you?
47. What will be your biggest problems when you return to the community?
48. Do you like to be by yourself or part of a group?
49. Who is responsible for your getting into trouble?
50. Do your friends have anything to do with this?
51. How much do your friends influence you regarding:
 - drug and alcohol use?
 - trouble with the law?
 - trouble at home?
 - trouble at school?
52. Are you "easily led" or are you a leader?
53. In what ways are the guys at camp the same or different from your friends?
54. Would you like to have different friends than the ones you have now?
55. What is a friend to you? Describe an ideal friend.
56. How do your parents feel about your friends?
57. What is there about you which makes your friends like you?

DRUGS AND ALCOHOL

58. Does drug or alcohol use have anything to do with the problems in your life?
59. Does anyone close to you have a problem with them?
60. When you got into trouble were you: (circle) usually drunk
sometimes drunk
never drunk
usually stoned
sometimes stoned
never stoned
61. Do you drink or take drugs? (If "no", skip to last question of this section marked with an asterisk*)
62. How often do you indulge?
63. By yourself or with a group?
64. What do you get out of drugs and/ or alcohol?
65. Where so you get the money for them?
66. Do have control over your use of drugs and alcohol? In what way?
67. How do your parents feel about your use of drugs and alcohol?
68. Are you going to let your children drink and/ or do drugs?

PERSPECTIVES

69. Who is to blame for you being here?
70. How do you feel when you receive praise for the good things you do?
71. What do you do when you are blamed for something that you have done wrong?
72. What do you think you should/ shouldn't go to court for?
73. If you had to sentence yourself for your offenses, what would you have decided upon?
74. How do you think other people feel towards you when you break the law?
75. How would you feel if you were told to apologize to the people you've committed offenses against?
76. What would you do if you found a full wallet?
77. Do you think people trust you?
78. What does a person have to do to become trusted by others?
79. What are your ideas about what you would like to do when you are an adult?
80. If you had a million dollars, what would you do with it?
81. If you could be anyone you wanted to be, who would you be?
82. Should people always do what they feel like doing?
83. What is your most prized possession?
84. What is a difficult choice you must make in your life?

APPENDIX D

Questionnaire #2

CAMP

1. How do you now feel about having been at camp?
2. Is there anything that you have enjoyed about being at Camp Trapping?
3. What about camp have you not enjoyed?
4. What do you think will happen to you after camp?
5. Have you changed? Elaborate.
6. Have you learned anything here that should keep you from getting into any more trouble?
7. What are you proud of doing or accomplishing here?
8. Are you worried about getting into any more trouble?

SOCIAL AGENCIES

9. Is there anything that you want your probation officer or social worker to help you with or arrange for you when you when you get out of camp?
10. Can you be trusted by the agents working with you?
11. Would you be willing to follow through with plans to help you even if you don't find them all that pleasant?
12. How do you feel about the police?
13. Have you deserved what has happened to you?
14. Why?
15. Do you think you may still need help?

EDUCATION

16. Are you going to get a further education?
17. Why or why not?
18. Do you want to return to school or do you just feel that you have to?
19. What is your plan for continuing with your schooling?
20. What type of school do you want to go to and where?
21. What have been your problems in school?
22. How are you going to deal with these? i.e. Do you feel you have to make any changes?
23. What do you want to learn more about?
24. What type of education would you prefer?
 - regular school
 - alternate school
 - upgrading courses
 - correspondence courses
 - apprenticeship

25. Do you plan on returning to school?
26. When?

EMPLOYMENT

27. Do you want to start working immediately or do you plan on staying in school?
28. What type of work do you want to try getting into?
29. What would you like to do for a living? (career)
30. What is the most important thing about a job?
31. Would you work for minimum wage?
32. How would you plan on going about looking for a job?
33. What are your chances of getting a job now?
34. What could you do to improve these chances? what can you offer that would impress an employer?
35. What do you consider is a fair wage for you?
36. How much education do you feel you need for you to get the job you want?
37. Do you have weak points that may keep employers from hiring you?
38. What are you planning to do about these?
39. How realistic do you feel it is for you to try working for your living now?
40. What are you going to do immediately after camp?

DRUGS AND ALCOHOL

41. Does drug and alcohol use have anything to do with any problems in your life?
42. Do you have control over drugs and alcohol?
43. Would you like to quit?
44. Do you indulge often?
45. Do you think that you have a problem with drug and alcohol use?
46. If so, can you do anything about it yourself?
47. Do you feel that you need help?
48. What did you learn from the drug and alcohol program at camp?
49. Would you drive if you were stoned? Drunk?
50. What problems should you be concerned about if you decide to drink or to use drugs?
51. What would you say to your own children about drugs and alcohol use?

HOME

52. What place do you think of as home? (with whom, where?)
53. Do you like living there?
54. Would it bother you living in a group home or a foster home?
55. How do you get along with the people you live with?

56. Is there anyone at home who you dislike or who you can't get along with?
57. What do you have to change if you are to do well at home?
58. Do you think there will be any problems when you return?
59. Are there any major problems in your family?
60. Do you feel responsible at all for any problems that do exist?
61. Do you enjoy your family or would you prefer to live elsewhere?
62. Do you think your parents want you to change? If so, how?
63. If you return home what changes in you are you going to demonstrate to people?
64. Are you going to be different if/ when you return home?

PEER PRESSURE AND THE COMMUNITY

65. How do you feel about helping people out or doing favours for them?
66. Do you expect to be paid if you help other people?
67. Are there any clubs or organizations that you would like to belong to?
68. Would you like to become involved in any activities or pastimes?
69. What do you like or would you like to do to pass spare time?
70. Can the community trust you?
71. How do you think people will treat you when you return to the community?
72. Will your old friends have influence on you when you return home?
How much?
73. Are you worried about this at all?
74. Do you feel that you should start hanging around with a different group of friends?
75. What will you do if your friends try to get you to do something that you don't want to do?
76. What type of friends do you want?
77. How would you go about making new friends?

PERSPECTIVES

78. Do you like to be in charge of things or do you prefer to have someone else run things?
79. Is there anyone to blame for your being here?
80. What do you do when you've done something wrong?
81. Do you accept the responsibility for your activities, both good and bad?
82. If you had a million dollars, what would you do with it?
83. How do you feel when you see someone hurting an animal?
84. How do you feel about the offenses you have done?
85. Would you like to apologize to those people whom you committed offenses against?
86. How do you think people feel about people who break the law?

87. Would you return a full wallet if you found one?
88. Are you trustworthy?
89. What do you have to do to be trusted by other people?
90. If you could be anyone you wanted to be who would you be?
91. What have you changed as a result of going through this program?
92. Have you learned anything that will keep you out of trouble?
93. Have you done anything about yourself that you are particularly proud of?
94. What is the major concern on your mind these days?
95. Are you going to get into trouble again?
96. Is there anything you feel you must keep working on or feel that you must still try to change?

(62)

APPENDIX E

PGYAPCF1 95/07/19 B.C. CORRECTIONS CASE HISTORY 12:41:47 PAGE: 1

***** THIS IS NOT A CRIMINAL RECORD *****

C.S.# 03266533

DOB 74/01/29 FPS#

SEX M

YONO

DATE YYMMDD	-----MOVEMENTS-----				-----COURT INFORMATION-----			DISPOSITION	
	FROM	TO	O RE	CRT TP	INFO#	OFFENCE	TYP	AMT	QI
900703				100M F	267	TAKE MV W/O CONS	CWS P RES	40H 6M	
	PDR - LOCATED AT 100 MILE H								
900712	FREE	100 MILE H	P SB						
900803	PDR - LOCATED AT 100 MILE H								
900814				100M F	268	BREAK & ENTER	CWS RES	50H	
900824	PDR - LOCATED AT 100 MILE H								
900829				100M F	269	THEFT OVER \$1000	CWS P	50H 24M	
				100M F	269	THEFT UNDER \$1000	CWS P	50H 24M	
900830	100 MILE H	WILLMS LKE	P TR						
900912	WILLMS LKE	WILLMS LKE	P TR						
910909	WILLMS LKE	100 MILE H	P TR						
911212	P26 - LOCATED AT 100 MILE H								
920122	FREE	PGYCC SECUR	R SB	UNKN F	269	BREACH OF YOA	REM		
920123	PGYCC SECUR	PGYCC SECUR	R RT	UNKN F	353	THEFT UNDER \$1000	REM		
				UNKN F	269	BREACH OF YOA	REM		
				UNKN F	2692	BREACH OF YOA	REM		
920203	PDR - LOCATED AT 100 MILE H								
920204	PGYCC SECUR	FREE		RC	100M F	269	THEFT UNDER \$1000	P	7M
					100M F	269	BREACH OF YOA	P	7M
920829	100 MILE H	FREE		SE					
920917	PDR - LOCATED AT 100 MILE H								
921019				WLAK F	1173	THEFT OVER \$1000	CWS P RES	400H 12M	
921026	FREE	100 MILE H	P SB						
931018	100 MILE H	FREE		SE					

END OF HISTORY

7