# New Zealand high-risk offenders: Who are they and what are the issues in their management and treatment?

**By**

**Dr. Nick J. Wilson**

**Department of Corrections**
**Psychological Service**

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# Executive Summary

This exploratory study into who high risk offenders actually are, was an attempt to gain more information about offenders who are predicted to be at high risk of serious reoffending. While efforts to address criminogenic factors typically follow the risk/needs/responsivity principles established by Canadian researchers, little information outside of criminal history information and broad demographic details exists on what appears to be a diverse group of offenders. The very offender's that are the primary management and treatment targets for the Corrections department, in reducing reoffending.

The original study proposal also wanted to assess the impact on these offenders of Integrated Offender Management (IOM). As such it was hoped that the sample would have included the assessment procedures used in IOM to assess each individual offenders sentence plan (i.e., Criminal Needs Inventory). Unfortunately, the IOM processes were not carried out on sufficient numbers of the offenders involved in the study when interviews were carried out. It is hoped that funding for follow up of the study sample will occur at a later stage, enabling current IOM data to be included, as well as a more comprehensive understanding of the high risk offender group rather than simply a 'snap-shot'.

The Corrections Department primary risk assessment tool, the RoC*RoI measure was used to identify all inmates at New Zealand's largest prison with risk scores over .70 (or 70% risk of serious recidivism). Approximately 28% of prison inmates in NZ have risk scores over this cut-off score used by parole authorities to classify high-risk offenders. A total of 150 prison inmates (79% of possible participants) consented to take part in the study that involved a two-hour session in which a number of psychometric instruments and a structured interview were administered. The interviews took place at Waikeria Prison in 2002. The study measures and the interview schedule included variables relating to personality, mental health, criminogenic needs, developmental history, cultural knowledge, treatment history and offence related information. It was hoped to provide descriptive information on the variables from these measures to assist in the development of intervention and management policies for high-risk offenders. In addition it was hoped to analyse the interaction between study variables to assist in the identification of possible causal links.

## The key findings from the study are:

### *Sample related variables*

- The sample all with RoC*RoI scores of .70 or greater was representative of high-risk inmates incarcerated in high medium to low minimum-security settings, the classification that 95% of all prison inmates have. While 21% of possible participants declined to take part, no significant differences were found on age, ethnicity, or RoC*RoI score.

- The ethnicity of the 149 participants in the study was heavily skewed towards Māori (83%), this bias was found in an analysis of high-risk offenders in North Island prisons to be overall 73%, with several institutions at 80%. Only 4% of high-risk offenders were of Pacific Island descent.

- The mean age of participants at interview was 27 years of age with 66% of the sample aged 20-34 years, a distribution skew towards a younger population.

***Offence related variables***

- The RoC*RoI scores for participants started at .70 but were evenly distributed right up to .90 or 90% risk of serious recidivism. The very high-risk group as defined by RoC*RoI scores of .80 and above, accounted for 48% of the sample.

- Participants had a mean sentence length of 33 months or 2.75 years (range 6 months to 11 years) reflecting that they were imprisoned often for minor offences with their risk of recidivism based on previous rather than index offending.

- Their mean age at first recorded arrest was 15.4 years signalling for most a pervasive pattern of criminal behaviour characterised by criminal versatility (mean offence categories 5.66), violent crime (Mean violent convictions = 5.66), and frequent previous imprisonment (Mean sentences of imprisonment = 7.03). None of the participants were serving their first sentence of imprisonment.

- Analysis of previous and current convictions:

    - Almost all offenders had previous dishonesty offences (99%);
    - Assault convictions, 73%;
    - Serious assault (i.e., Assault with intent to injure, GBH, Aggravated Wounding), 71%;
    - Possession of a weapon, 48%;
    - Robbery, 31%;
    - Drug convictions, 88%;
    - Driving convictions, 78%;
    - Escape/breaches of parole/supervision, 88%.

***Early behavioural problems***

*Early antisocial behaviour*

- The majority of the high-risk offenders reported early contacts with authorities, with a mean age of 11.3 years (*SD* = 3.2) for first contact with Police.

- Eighty-two percent of the participants in the study reported that they had family members who were involved in criminal activities.

- Their early antisocial behaviour, when subject to official detection often resulted in their attendance at repeated Family Group Conferences (*M* = 3.4, *SD* = 5.0).

- The scores from the Moffitt early versus late onset typology measure supported that 99 participants (66%) had established patterns of antisocial behaviour pre 13 years of age, a pattern classified as life course persistent. The rest of the sample had established patterns of antisocial behaviour by 17 years of age. Only one participant did not have a pattern of antisocial behaviour by 17.

*School behaviour*:

- The study participants indicated significant difficulties at school. The mean highest academic achievement was third form (*M* = 3.4).

- Sixty-six percent reporting being punished for truancy, and 80% (*N* = 120) being suspended or expelled for disruptive or criminal activities. Participant also attended a number of primary (*M* = 3.3) and secondary schools (*M* = 2.7).

- Reasons for being suspended or being expelled in the main were for violence (57% of cases involved either arson, or violence against teachers and peers; 22% of this for assaulting teachers).

***Psychosocial risk factors***

*Antisocial influence.*

- Almost all in the study reported associating with antisocial family and friends (82 and 88.5%), and 64% stated that they had been a member or associate of a criminal gang.

- Fifty-nine percent indicated infrequent or frequent current contact with family involved in crime and 65% with friends involved with crime. Twenty-nine percent indicated they continued to be a gang associate or member during their current period of imprisonment.

***Stability of residence, employment, intimate relationships***

- The mean number of years in one residence was 9 years. This typically was their childhood home with most indicating more instability in residence after leaving home.

- The longest time in employment ranged from nil to 12 years, however, the mean was only 1.8 years.

- Reasons for loss of employment were, criminal behaviour (25%), dissatisfaction (17%), job ended (14%), sacked (9%), with 10% indicating they were never employed.

- There was a large range of responses for length of intimate relationships, from no relationship to one lasting 22 years (*M* = 5 years).

- Almost half indicated they were still in intimate relationships (47%) with reasons for the end of intimate relationships ranging from criminal lifestyle (39%), dissatisfaction (24%), domestic conflict (21%), and domestic violence (9%).

***Cultural variables for Māori participants***

- Thirty-three percent reported being influenced by Tikanga with 14% indicating influence from spiritual factors, in the main due to Christian beliefs (10%).

- The majority indicated they had good knowledge of their cultural identity (76.5%), with a similar high level of Marae protocols (71%).

- Only a small number indicated fluency in Te Reo (12%) with 52% reporting some slight knowledge of language.

- In terms of cultural support, 69% reported support from hapu/iwi and 30% indicated they had accessed traditional treatment for difficulties, with most stating this had been successful.

- Māori participants when asked about including Tikanga into departmental treatment programmes were split, with just over half reporting positive or limited support for the inclusion of culture.

***Motivation to change and previous treatment history***

- The self-report URICA measure of stages of behaviour change indicated for the total sample that the highest mean was for the contemplation stage (*M* = 3.86) with the lowest mean for pre-contemplation (*M* = 2.90) low scores for pre-contemplation and higher scores for the other three stages indicated most of the sample recognised their criminal behaviour was a problem.

- Only 5.4% of the high-risk sample reported not engaging in individual or group treatment programmes or participating in an education initiative as part of aiding their rehabilitation.

- Analysis of the treatment and education initiatives they reported identified eleven main categories that could separate these (Straight Thinking; Anger/Violence; Alcohol and Drug [A & D]; Cultural; Driving; Problem Solving; Parenting; Equip; Life skills, Individual Counselling, Education, and Other).

- The majority of treatment for the high-risk sample was involvement Alcohol and Drug abuse programmes (65%), followed by Straight Thinking (54%), and Anger/Violence (42%), with most of this from the now discontinued Alternatives to Violence Programme (AVP).

- A large number of the sample reported that they had repeated a programme (34%) and at least 6% repeated a programme four or more times. An analysis of which programmes were repeated the most found that A & D programmes were repeated by 26%, Anger/Violence by 7%, and Straight Thinking by 4%.

- Many participants reported ***previous treatment non completion (37%).*** Just under half of those reporting failure (41%) were asked to leave the programme for either failing to comply with programme rules, or disruptive behaviour that included assaulting facilitators or other participants.

***Relationship between treatment non completion and study variables.***

- A number of study variables had significant correlations with the treatment non completion group; shorter index sentence length, previous conviction for robbery, lower scores for URICA pre-contemplation stage of change, presence/prominence of Borderline PD, expressed negative feelings about treatment non-completion, had engaged in A & D treatment, and repeated treatment programmes.

- Discriminant function analysis found that seven of the 107 study variables created a predictive model for treatment non completion ($\Lambda$ = .77, $X^2$ [7, 138] = 5.8, $p$ < .0001). The seven variables in order of unique contribution to the model were low pre-contemplation, repeated treatment, prevalence/ prominence of Borderline Personality Disorder, shorter sentence length, previous substance abuse treatment, higher RoC*RoI score and previous robbery conviction.

***Personality/interpersonal functioning***

- The distribution of MCMI-III scores revealed that a significant percentage of the sample indicated the presence of a Passive-Aggressive (48%) or Narcissistic (26%) interpersonal style.

- While it was expected that many would have elevations for Antisocial Personality Disorder (60%), an ***examination of severe personality pathology found 35% indicating the presence of Paranoid Personality Disorder (PPD), 27% Borderline***

***Personality Disorder (BPD)***, and 16% (SPD) Schizotypal Personality Disorder.

- Only 4% of the sample indicated the prominence of severe clinical syndromes, such as Major Depressive Disorder (MDD), Thought Disorder or Delusional Disorder.

- Eleven percent (*N* = 11) of the personality pathology sample had cluster elevations indicating the presence or prominence of SPD, BPD, and PPD, 11.5% (*N* = 17) twin elevations PPD and SPD, and 13% (*N* = 19) PPD and BPD. Only 3% of participants indicated prominence of PTSD.

- Exploratory cluster analysis identified three clusters,

    - *Cluster 1*: Schizoid, Avoidant, Schizotypal, Depressive, Self-Defeating, Dependant, characterised by 'strange and eccentric interpersonal behaviour with gloomy and dispirited views of the world.

    - *Cluster 2*: Narcissistic, Antisocial, Sadistic, Passive-Aggressive, Borderline, and Paranoid, characterised by antisocial/psychopathic behaviour and individuals with this trait cluster would be expected to score high on the psychopathic traits.

    - *Cluster 3*: Histrionic and Compulsive, characterised by solicitation of attention, search for acceptance by others, and adherence to social norms.

***Relationship between personality pathology and offending.***

- A number of study variables had significant correlations with the personality pathology study group scale (scores of ≥ 75). While it was expected that the other MCMI-III personality scales would correlate with the three severe personality pathology scales, a number of the clinical syndrome, demographic, and offence related variables also had significant correlations.

    - SPD scores correlated with older current age (r =. 23), previous periods of imprisonment (r = .22), previous convictions for serious assault (r = .20), driving offences (r = .18), a higher IM-P score (r = .22), and scores on the three MCMI-III severe clinical syndrome scales (Thought Disorder, r = .62; MDD r = .62; and Delusional Disorder, r = .29).

    - BPD scores correlated with previous convictions for possession of weapons (r = .22), the URICA Maintenance stage (r = .20), previous treatment failure (r =. 19), and scores on the three

MCMI-III severe clinical syndrome scales (Thought Disorder, r = .60; MDD r = .42; and Delusional Disorder, r = .18).

- PPD scores correlated with previous driving offences (r = .24), the URICA Maintenance stage, and scores on the three MCMI-III severe clinical syndrome scales (Thought Disorder, r = .40; MDD r = .24; and Delusional Disorder, r = .57).

- Factor analysis identified only two significant factors containing multiple variables: Factor 1 (eigen = 13.11); a group characterised by high levels of personal distress, and Factor 2 (eigen 8.16); an early onset chronic offender group. Both groups were small in terms of identified variance.

- Analyse of variance for the SPD, BPD, and PPD pathology group versus non pathology groups found a number of significant differences:

  - SPD group had higher means for truancy, previous imprisonment, and early and chronic delinquent behaviour (Moffitt sub scale total scores);

  - The BPD group had higher means for delinquent behaviour pre age 17 (Moffitt total score), rated themselves as in the Maintenance stage of the URICA, and had higher levels of treatment failure;

  - PPD group had higher means for previous weapon possession convictions, and for the URICA Contemplation and Maintenance stages of change.

- Discriminant function analysis found that nine of the study variables created a predictive model for PPD pathology versus non-pathology group ($\Lambda$ = .668, $X^2$ [9, 131] = 7.2199, $p$ < .001). Six had higher mean scores for the Paranoid group, Delusional Disorder, Schizotypal PD, Passive-Aggressive PD, previous convictions for possession of weapons, major assaults, and URICA Maintenance stage of change. The Paranoid group had lower mean scores for Compulsive Personality, Borderline PD, and previous robbery convictions.

  - The nine variables in the model were able to classify 89% of those in the Paranoid pathology group.

  - In understanding this predictive model, those in the paranoid group would be likely to more into delusions on occasion due to their suspiciousness of others (usually persecutory), display restricted emotions, and behaviour designed to test others with little regard for social rules. Their crimes were likely to involve reactive violence, usually involving weapons and they did not

believe they required any further treatment for their antisocial behaviour.

- Discriminant function analysis found that 11 of the study variables created a predictive model for BPD pathology versus non-pathology group ($\Lambda$ = .58, $X^2$ [11, 130] = 8.3131, $p$ < .0001). Nine had higher mean scores for the Borderline group, Passive –Aggressive and Avoidant personality traits, previous convictions for Possess Weapon, Obstruction, and Driving offences, Bipolar Disorder, Major Depressive Disorder, Treatment Failure, and URICA Action stage. Only Narcissistic personality traits, and number of previous offence categories had lower mean scores.

    - The 11 variables in the BPD model were able to classify 92% of those in the Borderline pathology group.

    - In understanding this predictive model, those in the borderline group would be likely to have tumultuous interpersonal relationships in which they move from being dependant due to a poor self image, to when frustrated to enormous anger towards friends/therapists, and possible splitting and social avoidance. Their crimes were likely to involve driving offences (perhaps in an expression of anger) or opposition to Police and possession of weapons (they view the world in terms of good [idealised], or bad people [devalued]) but were limited in terms of criminal versatility as a group. While they endorsed that they were in the process of actively addressing their offending, they were more likely to fail in treatment.

**Implications and recommendations**

- The study has confirmed the presence of major risk factors in the risk profile of high-risk offenders. Namely, early onset of chronic criminal behaviour, antisocial associations (both peers and family), pervasive antisocial beliefs (especially hostility), and antisocial personality traits, as well as high levels of substance abuse, and violence related criminogenic needs.

- The prominence of risk factors derived from a psychological theoretical approach rather than a sociological focus supports the focus by the Department of Corrections on a risk/needs approach to the management/treatment of high-risk offenders.

- Differences were found in the sample in regard to the distribution of stability/resilience factors, such as residence, employment, and the presence of intimate relationship support. Reintegrative interventions will need to recognise these individual differences, as well as the interpersonal and affective deficits in many from the sample in order to produce a plan for reintegration that is more than a ‘tick box’ approach.

- The study has established that most of the high-risk offenders in the study (66%) were imprisoned for between eight months to 3.62 years. In terms of prison management and parole eligibility this means the majority of these high risk offenders will only spend relatively short periods in prison limiting the ability to deliver intensive psychological treatment initiatives.

- While it was expected that the sample would be split equally between Māori and non- Māori in keeping with the distribution of ethnicity for the total prison population this was not the case, not only for the study sample of high-risk offenders, but also the North Island inmate population. Providing even greater support for the need to provide more effective treatment programmes for Māori offenders. Recent research by the department points to inclusion of culture in CBT programmes assisting in overcoming responsivity barriers.

- It is clear that historical treatment of the high-risk sample in this study has been marked by a singular lack of success. Well over a third had failed in previous treatment, usually for A & D abuse, with this figure expected to become much higher when they are placed in programmes with a criminogenic focus due to the presence or prominence of severe personality pathology in a third of the sample.

- The most prominent severe personality pathology was Paranoid PD. The implications of management of a group of such a suspicious and guarded group are present in psychological assessment issues, responsivity to change, and in the provision of effective treatment. Those characterised by PPD will have significant difficulties in consenting and engaging in assessment procedures and would tend to reject feedback on the need to change their behaviour. Recognising the prevalence of PPD among high-risk offenders means Department psychologists will be able to develop approaches that reduce suspicion and hostility.

- In terms of effective treatment, the PPD group will require trained clinicians rather than para-professionals due to the transference, counter-transference issues with which they present and the inherent difficulties in the establishment of meaningful therapeutic alliances.

- While it is important to recognise and plan to overcome the barriers that PPD presents to successful treatment, the focus should remain on criminogenic factors rather than treating them for a personality disorder.

- It is recommended based on the results from this study that further research is carried out to:

    - Include data on high-risk participants classified as maximum security to allowed a complete picture of the high-risk incarcerated population. This is important when one considered

the reasons for a maximum-security rating, namely, high levels of violent misconduct behaviour, the extreme nature of their crimes, and a previous history of poor prison conduct or escape.

- The research was originally proposed to be longitudinal rather than a single probe into the participants' offending and treatment history. At this stage only a 'snapshot' of participants has been established. There is a need to follow-up the sample in the next two years to provide a comprehensive picture of their subsequent engagement in focused criminogenic programmes, prison conduct, and their success if released.

- In addition, the study failed to gather reliable information on high-risk offenders who had been subject to IOM and their subsequent sentence management. A follow up study of the participants would enable a reliable sample of this data to be gathered and compared in terms of a serial assessment process.

- Finally, the study identified the need for exploratory research to develop an effective intensive treatment programme for high-risk offenders that attends to their unique risk, need, and responsivity issues.

## Table of Contents

## Introduction

While the label high-risk offender is in common use in most correctional settings there is a lack of clarity of who these offenders are assessed as at high risk of recidivism? The label may be used to classify all offenders since anyone with past criminal behaviour is at higher risk of reoffending than those with no criminal history (Andrews & Bonta, 2003). However, such a prediction would falsely classify large numbers as at risk of further serious offending as a number of offenders never commit another crime or only commit relatively minor crime. While offenders at high risk of dishonesty recidivism are of concern, the public are most worried by those likely to commit further violent/sexual offences after release. The Parole and Sentencing Acts passed in 2002 made it clear that such offences would receive longer sentences, and that the New Zealand Parole Board was expected not to release those at undue risk of serious recidivism. There is a need therefore, to look at a range of variables to reduce classification error and to allow for change in risk when salient variables are managed or removed.

Monahan (1981) summarised both the difficulties in risk prediction, as well as the need, some would say responsibility (Bonta, 2002), and for clinicians to evaluate the risk someone posed to the community. Monahan also identified that besides criminal history, cognitive and affective predispositions to violence, and demographic characteristics could be issues in the prediction of violent recidivism. In addition, he identified that indeed only a small number go on to commit further serious offenders and that these high risk offenders were the ones to target. Andrews and Bonta (2003) in their pivotal work on criminal behaviour identify that 20-30% of offenders are responsible for 80% of crime due to their poor response to the punishing aspects of judicial detection and sentencing.

The social learning approach to understanding criminal behaviour emphasises that it is a learned behaviour in which the learning follows the same principles as other behaviour, an interaction with both personal and environment factors (Andrews & Bonta, 1998). This approach has been termed the psychology of criminal conduct and formed the basis of the Department of Corrections integrated offender management process (Department of Corrections, 2002).

What causes one individual to decide to behave in a criminal fashion and another to decide not to engage in such behaviour? Using the social learning approach the variability in antisocial behaviour is accounted for by: characteristics of the immediate environment; the attitudes, values, beliefs and rationalisations held by the person in regard to antisocial behaviour; social support for the antisocial behaviour; a history of engagement in antisocial behaviour; and the presence of the traits associated with antisocial personality (impulsivity, poor social competency, and interpersonal and affective deficits) (Andrews & Bonta, 1998; Blackburn, 1993).

While acknowledging static factors, this model also allows the assessment of dynamic risk factors that are potential targets for prosocial change. It is this

approach that has allowed the strongest correlates and predictors of individual criminal behaviour to be identified (Bonta, 2002; Brown, 2002). Meta-analysis of recidivism predictors has established that the best predictors for a wide variety of samples (i.e., psychiatric, prison inmate, young and old, male and female) are antisocial cognitions, antisocial associates, a history of antisocial behaviour, and a collection of trait-based indicators called antisocial personality (Bonta, Law, & Hanson, 1998).

These predicative variables and the others commonly linked through sociological and clinical criminology theoretical approaches listed below are in order of predictive ability (see Table 1), using the combined results from meta-analyses carried out by Gendreau, Little, & Goggin (1996) and Bonta et al. (1998).

**Table 1**
**Predictors of General Recidivism**

| Risk Factors | (r) |
|---|---|
| Antisocial Support (Social Learning) | .21 |
| Antisocial Personality (Social Learning) | .18 |
| Antisocial Cognitions (Social Learning) | .18 |
| Criminal History (Social Learning) | .16 |
| Social Achievement (Clinical Criminology) | .13 |
| Family Factors (Social Learning) | .10 |
| Substance Abuse (Social Learning) | .10 |
| Intelligence (Clinical Criminology) | .07 |
| Lower Class Origins (Sociological Criminology) | .05 |
| Personal Distress (Clinical Criminology) | .05 |

**'Big Four' Predictors of Criminal Behaviour**

***Antisocial cognitions***. In looking at antisocial cognitions (e.g., my rights are more important than those of others) it is important to point out that such beliefs are not necessarily 'global' (Andrews & Bonta, 1998). Many people will endorse a position that it is acceptable to steal or inflict pain on someone, but only in a particular situation rather than anytime, anywhere (Sykes & Matza, 1957). Such rationalisations are the verbal behaviour often used prior to antisocial behaviour, and thus are considered causal. They may also be used after the event to justify criminal behaviour by deflecting blame or in managing guilty feelings. Typically, the verbal behaviour by which guilt is neutralised includes; denial of responsibility, denial of injury; denial of a victim, condemnation of the 'system' as corrupt or biased, and appeal to higher loyalties (Andrews & Bonta, 1998). Thus, these procriminal beliefs determine the direction of personally mediated control, deciding the antisocial behaviour, as well as the intensity and frequency with which it will be displayed.

***Antisocial associates***. This predictive variable is made up of family, peers and others in the immediate environment who are able to influence through modelling the choice of antisocial or prosocial behaviour and of the rules by which rewards and punishments are delivered. In addition, these associates can help to form and maintain antisocial attitudes that serve to personally mediate control by an offender (Andrews & Bonta, 1998; Blackburn, 1993).

Table 1 clearly shows that the moderate correlation between this factor and criminal behaviour was the highest found in the meta-analyses. This relation is explained by criminal behaviour being learned from associations with procriminal and anti-criminal groups with the focus on intimate communication as the principle-learning contingency. The learning and reinforcement of antisocial beliefs is developmental, with the association with delinquent peers an established 'stage' for chronic antisocial behaviour, a result of the need to seek out others with similar beliefs and social competency deficits (Patterson, Reid, & Dishion, 1992; Reid, Patterson, & Snyder, 2002). An early study by Robins (1966) into delinquency found that those with conduct disorder were more likely to belong to a gang, although long-term follow-up confirmed that it was the early onset of antisocial behaviour that best predicted serious adult antisocial behaviour.

***History of antisocial behaviour***. The first systematic study of recidivism was carried out in 1920s using the criminal records from 3,000 men paroled from an Illinois penitentiary, and found a positive relationship between past criminality and reoffending (Burgess, 1928). A younger age at first conviction has been linked to an increased risk for violent recidivism (Loeber & Stouthamer-Loeber, 1996; Moffitt, 1997). Generally, offenders who begin their criminal careers earlier and are introduced to the justice system at a young age are more likely to commit further acts of violence and criminality than those who become criminally active later in life. A large number of studies confirm the link between early onset and chronic criminal behaviour, including the Dunedin longitudinal study, which established persistent antisocial behaviour prior to age 13 as a key risk indicator (Moffitt, 1993). In another long-term study of criminal behaviour using a sample of 282 male aboriginal offenders, Bonta, Lipinski, and Martin (1992) found that criminal recidivists had a significantly younger mean age at first conviction (17.8 years) than non-recidivists (19.5 years). Moreover, in a sample of 322 male inmates followed-up from 1973, Martinez (1997) found that an offender's age at his first arrest was predictive of future criminal activity. Finally, Lattimore, Visher, and Linster (1995) further identified age at first arrest as being a significant risk predictor for future violent crime, using multivariate competing hazards analysis to identify salient risk predictors for violent recidivism among young offenders.

The more extensive an individual's criminal history (i.e., greater number of prior arrests and convictions), the greater is his or her potential for future acts of violence. In a sample of 120 inmates released from a maximum-security psychiatric institution, Villeneuve and Quinsey (1995) found that repeat violent offenders had a substantially greater history of serious juvenile delinquency than non-recidivists. In addition, Bonta et al.'s (1998) meta-analysis revealed that juvenile delinquency correlated strongly (r = .27) with violent recidivism. Gendreau et al. (1996) also found that a history of pre-adult antisocial behavior was predictive (mean weighted r = .16) of general recidivism. Further documentation of the importance of early behaviour to later offending comes from Rice and Harris (1996) who examined several predictors of violent recidivism in a sample of 243 mentally disordered fire setters. They

found several variables reflecting childhood antisocial behavior that were a significant predictor of violent recidivism.

***Antisocial/psychopathic personality***. Antisocial personality has long been linked to a higher risk of criminal behaviour (Andrews & Bonta, 1998) and has been included in the Diagnostic and Statistical Manual (DSM) since the second edition of the manual (APA, 1968). However, a distinction needs to be made between those meeting the diagnostic criteria for criminal psychopathy and the population of manifestly similar individuals labelled as antisocial personality using the diagnostic criteria listed in the DSM (APA, 1994). Descriptors such as psychopathy, antisocial personality disorder, sociopath, or dyssocial personality disorder are often used interchangeably (Hare, Hart, & Harpur, 1991). They are all intended to refer to the same personality construct, with those identified as meeting the criteria for psychopathy usually fitting that for antisocial personality disorder (Lykken, 1995). In fact, it is estimated that 80% of those in prison usually meet the criteria for antisocial personality disorder while only a small proportion of these would meet the criteria for psychopathy (Andrews & Bonta, 1998).

The difficulty is that the DSM-IV criteria for antisocial personality disorder are based largely on deviant behavioural descriptors without any recognition of the range of motivations for such antisocial acts. As such the antisocial personality disorder criteria fail to identify those at higher risk of reoffending violently because interpersonal and affective deficits such as grandiosity, lack of remorse, and callousness, are not included (Shipley & Arrigo, 2001). Therefore, distinction should be made on the basis of the origins of the antisocial behaviour. Individuals whose antisocial behaviour can be traced to neurotic motivations or sociological forces are not considered psychopathic as they lack the primary affective deficits, and often have insight into the need to change (Reise & Oliver, 1994).

It can be argued, therefore, that the link between antisocial personality and recidivism is in reality a link between criminal psychopathy and reoffending (Andrews & Bonta, 1998). When the focus is specifically on offenders who met the criteria for psychopathy the correlation to recidivism is higher. A summary of criminal reoffending prediction literature by Salekin, Rogers, and Sewell (1996) looked at 29 studies that had included psychopathy as a risk variable and for sexual recidivism found an *r* of .27 for general recidivism and for violent recidivism an *r* of .32.

In summary, the big four variables account for most of the variance between those who will reoffend and those who will not. While they are discussed as single variables it is clear that they both interact with each other and also with the environment both physical and social. In looking at the development of these variables it is easily apparent that they do not simply ‘appear’, but rather are the product of developmental pathways, especially for the chronic or high-risk offender.

**Developmental pathways**

Loeber and Farrington (2000) identified that a number of developmental pathways existed for delinquent youth, with most attention being paid to those with early onset offending. A younger age at first conviction has been linked to an increased risk for violent recidivism (Loeber & Stouthamer-Loeber, 1996; Moffitt, 1997). Generally, offenders who begin their criminal careers earlier and are introduced to the justice system at a young age are more likely to commit further acts of violence and criminality than those who become criminally active later in life. A large number of studies confirm the link between early onset and chronic criminal behaviour, including the Dunedin longitudinal study, which established persistent antisocial behaviour prior to age 13 as a key risk indicator (Moffitt, 1993). In looking at high-risk offenders it is also necessary to look at their behaviour while in institutions or incarcerated in prison to obtain information on the pervasive nature of their antisocial behaviour, as well as their inability to respond to punishment contingencies.

**Chronic misconduct behaviour**

Disruptive inmates are estimated to only make up a small percentage (0.2-5%) of the general prison population at any one time. However, their antisocial acts have become an increasing problem for prison authorities who attempt to create a safe and rehabilitative environment (Coyle, 1987). In addition, there is evidence that the risk predictors of institutional misconducts and general recidivism are very similar (Gendreau & Keyes, January 2001). Therefore, it is probable that most if not all of those with chronic misconduct behaviour can be found in the high-risk offender population.

Recent New Zealand research (Wilson & Coldham-Fussell, 2000) used a small sample of offenders serving long sentences (over 7 years) and found that 22.5% displayed frequent misconduct behaviour over the length of their sentence (assessed as 18 or more misconducts during their index sentence). The 1999 census of New Zealand prison records reported that inmates sentenced to seven years or more accounted for 24.6% of prisoners (from a total of 5647 then in custody) (Department of Corrections, December 2000). Using the percentage from the Wilson and Coldham-Fussell study (22%), and the number of inmates serving similar sentences ($N$ = 1400), up to 308 prisoners could be expected to fit into the chronic misconduct behaviour category.

Typically disruptive inmates are responsible for a high proportion of violence towards other inmates or staff (68%) and property damage (73%) (Coid, 1998). Features related to a disruptive style include an interpersonal style in which an inmate is chronically explosive, or profoundly antiauthoritarian, obsessed with unfairness, or who may rip off/stand over other inmates. Previous research has identified that difficult and disruptive offenders can be classified into five groups, two of which, the antiauthoritarian/subversive group and problem personality group constitute that biggest problem. The problem personality group has been seen as typically responsible for violent antisocial acts (Coid, 1998).

The New Zealand study by Wilson and Coldham-Fussell (2000) found that the inmate group displaying persistent misconduct behaviour tended to be '*anti-authoritarian'* and '*status-seeking'*. Prison misconducts' identified as being anti-authoritarian in function included, acts such as aggression, violence, and verbal abuse when charged, ordered, or reprimanded, and aggression and defiance when thwarted. Anti-authoritarian reflected the traits of grandiosity, poor control over anger, and impulsive behaviour. Status-seeking behaviour reflected the desire to be seen as 'better' than those around them. The chronic group also justified their antisocial behaviour when asked for an explanation. Thus, reflecting a consistent failure to take responsibility for their behaviour. In looking at antiauthoritarian behaviour it is important to view this as an established pattern of interacting with those attempting to control their antisocial behaviour (Patterson et al.,1992).

Developmental psychology points to the development of a coercive interactional style as primary to lifelong abusive interactions. Patterson et al. (1992) relate the development of the coercive style to an individual learning that displaying aversive behaviours are effective at coercing those in authority into leaving them alone or stopping attempts to change their behaviour. While no figures are available, talking with Prison Officers makes it clear that a large number of disruptive behaviours are not reported, reinforcing this style as effective for the inmate. Also, even when an inmate is punished, the reward of escaping or avoiding change may be viewed as greater than the punishment their behaviour attracted.

Research carried out in prisons in England and the USA has identified aspects that have been most associated with chronically disruptive prisoners. These include offence factors such as, violent index offences, younger age and serving sentences of five years or more (Ditchfield, 1990). In addition, Personality disorders (Antisocial Personality Disorder, Paranoid; Narcissistic, Borderline Personality Disorder) have been strongly linked to pervasive and serious misconduct behaviour (Coid, 1992; Coyle, 1987). A large inmate sample from New York identified a chronic sub group with a high rate of misconducts diagnosed as psychopathic using the PCL-R (Toch, Adams & Grant, 1989). A strong link between psychopathy and high frequencies of misconduct behaviour was also found for New Zealand inmates (Wilson & Coldham-Fussell, 2000).

**Poor response to treatment by very high-risk offenders?**

The literature in regard to the use of therapy to change the antisocial behaviour associated with high risk/psychopathic offenders tends to paint a gloomy picture with most studies recommending excluding such individuals from treatment (Salekin, 2002). The prevailing view is that the attitudes and behaviours of very high-risk offender are difficult or impossible to modify with traditional forms of treatment, intervention, and management (Dolan & Coid, 1993; Hare, 1998; Lösel, 1998; Suedfeld & Landon, 1978). They are viewed, as high risk and high need requiring expensive long-term treatment with only relatively reductions in recidivism. Indeed, many clinicians will not even attempt to treat high risk/psychopathic offenders. In addition, an increasing

number of corrections authorities and those responsible for correctional policy take the position that it is cost-effective to exclude high risk offenders from their standard treatment programs due to their endorsement of the untreatability 'urban myth'. That is if indeed they are not removed from programmes at an early stage due to disruptive behaviour or not referred due to their high security rating.

The reasons for the recalcitrance of high-risk offenders are not hard to find. Unlike other individuals, including most offenders, high risk offender often appear to suffer little personal distress, seem perfectly satisfied with themselves, see little wrong with their attitudes and behavior, and seek treatment only when it is in their best interests to do so, such as when attempting to avoid prison or when seeking probation or parole (Hare, 2003). It is, therefore, not surprising that they appear to derive little benefit from 'traditional' correctional programs, particularly those aimed at the reduction of intrapsychic turmoil and the development of self-esteem empathy, and conscience. Or indeed, 'one size fits all' low intensity programmes focused on problem solving, anger management, and social skills are also unlikely to produce real change in criminogenic factors for high-risk offenders. The guideline for high intensity is programmes of 200 hours or more (Wong & Gordon, 2003).

A study by Ogloff and colleagues evaluated the progress of 80 male forensic patients being treated in a therapeutic community programme (Ogloff, Wong, & Greenwood, 1990). They found that programme participants with high scores on the PCL-R (≥ 27) showed less motivation, effort, and improvement in treatment than non-psychopaths. Individuals identified as psychopathic are said to also more likely to disrupt group unity (Hobson, Shine, & Roberts, 2000), endanger security, (Buffington-Vollum, Edens, Johnson, & Johnson, 2002), and to terminate treatment without warning (Rice, 1997). In fact, there appeared to be some evidence that intensive therapeutic therapy may actually increase the risk the recidivism rate of high risk/antisocial offenders.

The Oak Ridge programme (Harris, Rice, & Cormier, 1991) found a general recidivism rate of 87% for treated participants with high psychopathy ratings versus 90% for an untreated group with similar ratings. This difference was not significant. However, when the recidivism variable was violent reoffending the difference was significant, with the treated rate being 77% versus 55% for the untreated group. Many in the corrections field have taken the results of this study to mean that treatment will make those identified as psychopathic worse. This however, this was not the conclusion of the study authors who felt that the results pointed to the need for specialist programmes to address the responsivity issues particular to individuals with high ratings of psychopathy. The treatment programme used in the study is also viewed as controversial due the focus on group therapy and insight orientation and use of participants in leadership roles to effect change in antisocial behaviour. In addition, the study used only a small sample, 46 subjects in each of the treated and untreated psychopath groups.

A recent study into recidivism by English offenders with high scores on the PCL-R found similar results for those exposed to treatment to those found in the Oak Ridge study when Factor 1 scores were used as the measure of psychopathy (Hare, Clarke, Grann, & Thornton, 2000). The most common programmes offered to inmates in Her Majesty's Prison Service were short-term treatment initiatives focused on anger management and social skills. When variables such as age at release and previous criminal history were controlled for, those with high scores on Factor 1 had an 85.7% violent recidivism rate versus 58.7% for those with low scores. Hare (1998), proposed in explaining the increased recidivism by psychopaths, that those that are involved in therapeutic group treatment learn how to appear more empathetic, but use this information to increase their ability to manipulate and deceive others. An increased but unstable self-image may also explain the increase in aggressive recidivism by psychopaths after treatment that was designed to bolster self-esteem (Baumeister, Smart, & Boden, 1996).

There has been some limited success reported in achieving short-term management/ treatment goals using cognitive behavioural treatment focused on specific aspects of behaviour or attitude. However, these approaches are believed unlikely to effect changes in personality-disordered clients (Dolan & Coid, 1993). Therefore, from the limited research into cognitive behavioural approaches, it would appear that there is a reduction of specific maladaptive and disruptive behaviour (such as aggression or poor social skills) in the short-term that may have great value in the management of psychopaths in institutions or prisons (Losel, 1998). In addition, a number of specialised programmes for very high-risk offenders have been set up both in Canada and in England. The earliest of these was created by Dr Steve Wong at the Saskatoon Regional Psychiatric Centre, Saskatchewan. This specialised violence prevention programme has been running in-group format for the last 10 years with very high-risk often psychopathic men. Follow up data on violent recidivism by those who completed the programmes for a six-year period has found a 33% treatment effect! (*personal communication* 25 June 2004). While encouraging application of the Saskatoon model to other corrections settings would be required to support these results.

The therapeutic pessimism is also based on studies that do not agree on the defining characteristics of psychopathy, thus assessment criteria differ. In addition, the confusion over the etiology of the disorder means that treatment targets vary across programmes and may not address the maintaining factors for antisocial behaviour. Finally, few of the studies into the effectiveness of treatment with those identified as psychopathic have made efforts to provide long term follow up data (Salekin, 2002). Therefore, the area of treatment or management of psychopathic behaviour is one that is yet to receive rigorous study. Thus, the exclusion of individuals meeting the diagnostic criteria from appropriate therapy is therefore not justified at this stage. There is a need to attend to recent developments in correctional treatment in general, and in particular the efforts from Canada and England in the treatment of very high-risk offenders/ psychopathic offenders (Hare, 1992).

**Criminal lifestyle**

High-risk career criminals have been described as typically making an early start to their criminal careers (Lynam, 1996; 1998) with an apparent reduction in offending after the age of 40 (Hare, McPherson, & Forth, 1988). Several authors had proposed that there was an eventually 'burn out' or reduction in offending sometime between 25 to 30 years of age (Andrews & Bonta, 1998; Hare, 1998). However, this phenomenon could reflect a loss of physical strength (or disability from engagement in high risk activities), long incarceration, the long-term effects of chronic substance abuse, or mental illness from co-morbid disorders (Dolan & Coid, 1993).

Zamble and Quinsey (1997) speculated that the age-related reduction in offending reflected developmental or maturational changes in the psychopath and that the psychological wear and tear associated with persistent offending caused a change in their behaviour. However, further research on age as a factor in the reduction of offending in very high-risk offenders (Hare, 2003) found that there was no reduction in the personality pathology associated with antisocial personality. There was, however, a decline in behaviours associated with an unstable, unsocialised lifestyle, or social deviance (Harpur & Hare, 1994). In addition, to reductions in recidivism from factors such as enfeeblement, maturation, or increased self-control high risk offenders have a higher morbidity rate than either lower risk offenders or indeed the general public (Graham, 2003).

The current researcher has also carried out follow up research with very high risk offenders who appeared to have increased their ability to manage their risk after release (Wilson, 2003). Thus, providing more evidence that high-risk offenders do have the ability to change recidivism outcomes. Wilson found that the majority of this high-risk group were geographically isolated by choice, with this being in marked contrast to their location in larger more central population centres prior to their imprisonment for their index offences. This avoidance, which formed the principle strategy to deal with problems and stressors, was also noted in relation to isolation from antisocial peers. A clear majority of those interviewed in the study indicated they no longer associated with former criminal friends or family. However, while many were isolated, they tended to have an intimate partner who provided a high level of prosocial support after release. The study participants were quick to point to their partners' support as important in reducing their return to serious reoffending.

An examination of procriminal beliefs found all continued to have thoughts of offending, although these had reduced in frequency over the years. They were also clear that an awareness of the negative consequences of a return to prison inhibited such thoughts and any intent to act on them. Another area that served to inhibit a return to serious criminal behaviour was their high level of enfeeblement; this was either health related or a result of poor physical condition related to aging. Physical difficulties had reduced their ability to carry out previous antisocial patterns of behaviour, and also made them aware of how difficult a return to the aversive prison environment would be. Their enfeeblement also reduced their ability to find gainful employment. The participants commented that gaining control of substance abuse problems

was part of their increased management of their recidivism risk. While a number of apparent resilience factors were identified by Wilson (2003), it was important to note the continued low level offending by virtually all in the group.

Finally, when the interview participants were asked about their own beliefs about why they had not returned to prison, their comments as predicted reflected the themes of prosocial partners support, avoidance of antisocial associates, and an increased awareness of the punishing consequences of a return to prison. What was not expressed or observed was any increased empathy for victims, remorse for their previous antisocial behaviour, or increased social competency.

Dolan and Coid (1993) report on the higher rates of death from unnatural causes associated with severe personality disorders. This higher mortality rate makes sense when related to the psychopathic individual's inability to recognise when the pursuit of a reward should be abandoned in the face of a competing, possibly dangerous punishment. Individuals we would classify as high risk with chronic offending would therefore be expected to engage in high-risk activities such as driving too fast, and experimentation with 'A' and 'B' classified illegal substances (Moffitt, 1993).

**Treatment dropout**

The issue of treatment dropout has only recently become a high priority area, however, non completion of treatment has been recognised as a significant problem internationally in both non offender (Mahon, 2000; Michenbaum & Turk, 1987), and offender treatment contexts (Losel, 2001). Losel (2001) provided estimates of non-completion in correctional rehabilitation programmes ranging from 10 percent in 'favourable' cases to 50 percent in 'least favourable' cases. Twenty five percent is cited as being fairly typical of treatment failure.

Treatment non-completion for our New Zealand programmes appears to be as much of a problem as it is in other correctional jurisdictions. Average non-completion rates for PPS based interventions are estimated to be 20% whilst for programmes offered in the community the figure is closer to 36%. Treatment attrition from PS delivered programmes is approximately 25% (*personal communication*, Nev Trainor, 2003).

While treatment dropout was always a concern in terms of programme integrity recent Canadian research indicated increased recidivism rates in the magnitude of 5 (general offending) to 8 (violent offending) times for those dropping out of treatment when compared to those completing treatment (Dowden & Serin, 2002). These disturbing figures were found during an examination of Canadian anger and emotional control programmes run with Federal inmates ($N$ = 220) in which there was a dropout rate of 32%. The dropout group were significantly younger, and indigenous than the treatment completer group but also were not rated as of higher risk pre treatment based on criminal history variables or as having more criminogenic needs.

The Corrections Department in New Zealand has also gathered evidence from RQ reporting in 2002 that is consistent with the Canadian findings and indicates increased reoffending risk for non completers of treatment programmes (*personal communication*, Dr Leon Bakker, 2003). Why, offenders who meet the classification of non-completers offend at an even higher rate than even those in control groups is not clear at this stage. Usually, the control group if representative should have all the possible confounding variables present in the treatment group. However, the process of treatment completion failure appears to create a group with a higher recidivism risk than either the control or treatment completion.

**Strategic benefits from this research**

- This will be the first comprehensive research that has sought to gather information on a New Zealand high-risk offender population.
- Will allow the Corrections Department to develop a profile of this heterogeneous adult offender group to enable:
    - Targeted interventions, and;
    - Appropriate management strategies to be developed.

**Research Objectives**

1. To establish a more complete picture of high-risk offenders currently incarcerated in mainstream prison units.

2. To collect, analyse and report on the psychometric measures used in the study, as well as the developmental, demographic and social variables contained in the structured interview.

3. To provide a report that provides a comprehensive picture of the offenders who were classified as high risk on the basis of RoC*RoI scores. It is hoped that detailed information on possible maintaining factors for their risk will be found, as well as responsivity barriers to engagement in treatment. It is hoped that information on criminogenic needs and responsivity issues for the sample will be used to make policy recommendations for managing high-risk offenders based on the results from the study.

## Method

### FReMO

The Department of Correction has an emphasis on supporting the reduction of reoffending by Māori and therefore the Framework for the Reduction of Reoffending by Māori (FReMO) (McFarlane-Nathan, 1999) is required to be used in all Departmental research. From its inception, the present project has sought to be guided by the principles, process and intent of FReMO. Information gathered under FReMO is required from four areas:

1. Māori perspectives;
2. Mainstream literature;
3. The organisational culture within which the initiative or project operates; and,
4. Whether the initiative enhances mana, te reo, tikanga, whanaungatanga, and tūrangawaewae?

This study built on consultation with Māori stakeholders undertaken with a FReMO focus group created for a previous research project investigating high risk offenders released into the community (Wilson, 2003). Such consultation followed the FReMO guidelines and the recommendations of the Te Piriti research report (McFarlane-Nathan 1999, Nathan, Wilson & Hillman, 2003). The consultation in this project included in the focus group, Māori staff from the Community Probation Service, as well as offenders convicted of serious offending, and therapy staff from the Montgomery House Violence Prevention Programme. The focus group participants were provided with an outline of the FReMO process and the existing aims of the study and asked for their opinions (Appendix A). A summary of the results of this consultation was produced and circulated to the focus group members to ensure their views were accurately recorded (Appendix B). This summary was used in creating the cultural variables covered by the structured interview protocol for the current study (Appendix C).

In addition to the consultation listed, a further focus group of appropriate Māori stakeholders was formed in 2004 to assist the studies principal researcher in classifying and analysing the cultural variable data gathered from the Māori participants. The stakeholders included a Māori Whanau liaison worker, two Māori clinical psychologists from Psychological Service, and an external cultural consultant with considerable experience in the treatment of high-risk offenders. Besides guidance, especially in the area of paranoia and the relevance of the concept to Māori, the group also categorised qualitative answers to the future inclusion of Tikanga in corrections criminogenic programmes.

### Participants

The participants were 149 adult offenders residing in the Waikeria prison. Originally 150 were interviewed however, this was reduced to 149 when the principal researcher was informed about a lack of integrity in the answers by

one participant. Those in remand were excluded from the study as they had not yet been sentenced, and thus may not become part of the target imprisonment population. In addition, all those placed in the prisons at risk unit were excluded due to concerns over their vulnerable nature. These exclusion criteria removed a total of 76 inmates from the analysis.

It was decided that using New Zealand's largest prison (940 beds) would produce a representative sample of high-risk offenders. A muster list for Waikeria prison was obtained using the departments' computerised, Integrated offender Management System (IOMS). This found a total of 808 possible participants. RoC*RoI scores were then obtained. The only selection variable was a current RoC*RoI score of .70 and above, all those with a score of .69 and below were not approached. This meant that many offenders categorised as high risk were on relatively short sentences and could have index (current) offences that were less serious than their historical offending. As per the study guidelines 150 participants were then interviewed beginning with those on shorter sentences until the required numbers were met, a period of six months.

**Study measures and psychometric instruments**

The original study proposal besides gathering a wide range of information of high risk offenders also wanted to assess the impact on these offenders of Integrated Offender Management (IOM). As such it was hoped that the sample would have included the assessment procedures used in IOM to assess each individual offenders sentence plan (i.e., Criminal Needs Inventory). Unfortunately, the IOM processes were not carried out on sufficient numbers of the offenders involved in the study at the time interviews were carried out. It was also noted that for those with an IOM sentence plan irregularities were noted in the computerised data. It is hoped that funding for follow up of the sample will occur at a later stage, enabling current reliable IOM data to be included.

Four instruments were used for the purposes of this study to data on recidivism risk, motivation to change behaviour, interpersonal and affective functioning, clinical syndromes, early or late onset delinquency, and psychopathic interpersonal style: Risk of Conviction X Risk of Imprisonment (RoC*RoI); URICA; Millon Clinical Multiaxial Inventory- Version III (MCMI-III), Moffitt, and Interpersonal Measure-Psychopathy (IM-P). Full details of these instruments and copies were appropriate are contained in Appendix D. However, the following is a brief description of each measure.

**RoC*RoI**. The RoC*RoI measure was developed for the New Zealand Department of Corrections to assist in the accurate prediction of an offender's risk of conviction and likelihood of reimprisonment. The measure is based on static predictors (factors unchangeable by individual effort) from a limited number of criminal history information. The key strength of RoC*RoI is that it can effectively manage an enormous amount of factual information about an offender. Each piece of datum is weighed up and balanced against other pieces of factual information in an objective way to produce a statistical

probability of reoffending (score range is 0.0 to 1.0, representing 0 risk to 100% risk of serious recidivism). As this is computer generated human error in calculating the score is eliminated.

**URICA**. The URICA is a 32 item transparent self-report questionnaire based on the Transtheoretical Model of Change (McConnaughy, DiClemente, Prochaska & Velicer, 1989; Prochaska & DiClemente, 1984). It has four hypothesised subscales corresponding to the pre-contemplation, contemplation, action, and maintenance stages of change. The URICA contains four sub-scales corresponding to the Pre-contemplation, Contemplation, Action and Maintenance stages of change. There are eight items for each sub-scale. Higher scores on the Precontemplation scale indicate that the respondent is not ready to change. High scores on the other three scales indicate that the respondent recognises a need to change or is already making changes to his or her behaviour.

The URICA was originally constructed to assess the stages of change for generic problem behaviours – it asked respondents to rate their agreement in respect to their "problems". More recent iterations have modified the use of the generic term "problems" to be more specific for the behaviour under investigation. For example, Abellanas and McLellan (1993) modified the URICA form so that respondents were directed to consider their "problems" as being their drug use, as did Willoughby and Edens (1996) in respect to alcohol use. Levasque, Gelles, and Velicer (2000) developed a URICA form specific to the problem behaviour of domestic violence (the URICA-DV). In the current study respondents are instructed to think of their 'problems' in terms of the reasons for their criminal offending.

Reported internal consistency of the four URICA sub-scales is acceptable. McConnaughy et al. (1989) obtained alphas between 0.79 and 0.84. In a correctional setting, Derrickson (2000) obtained reliability coefficients between 0.74 and 0.86 for a North American sample of sex offenders. Abellanas and McLellan (1993) also reported adequate temporal stability (test-retest reliability) for the URICA.

**MCMI-III**. (Millon, Millon, & Davis, 1997). The MCMI-III is the updated version of a diagnostic personality assessment inventory designed for use with clinical and forensic populations. Each of the Axis II scales is an operational measure of a syndrome derived from personality theory and DSM-IV criteria, with Axis I scales reflecting how the individual's interpersonal style may be expressed in acute/chronic clinical disorders. The MCMI-III consists of 175 items scored true or false by the respondent and that load onto 11 basic personality scales, 3 severe personality styles (e.g., Schizotypal), 7 clinical syndrome and 3 severe clinical syndrome scales (e.g., Major Depressive Disorder). In addition, there are modifying indices scales that assess response validity and the individual's level of disclosure, desirability, and debasement, to pick up possible respondent bias. The MCMI-III uses base rate (BR) scores to provide diagnostic clinical cut offs to indicate presence (BR 75) and prominence (BR 85) of the various personality traits and clinical syndromes. Normative information is available for male and

female cases from 19 to 88 years of age with a number of the cross validation sample for the development of the MCMI-III being correctional inmates (Millon et al., 1997).

The MCMI-III has been used extensively in establishing personality pathology in criminal populations with Millon recognising the need to assess tendencies towards domination, impulsive acting out, rage, and brutality. Research has established the ability of the MCMI-III to assess personality and mental health problems in general criminal populations (Retzlaff, Stoner, & Kliensasser, 2002), addicts/alcoholics (Stiles, 2001), domestic violence perpetrators (Gondolf, 1999), and in the prediction of institutional misconduct (Kelln, Dozois, & McKenzie, 1998).

**Moffitt** (Early Versus Late Start Typology). (Moffitt, 1993). This instrument is based on the Dunedin longitudinal study, which established persistent antisocial behaviour prior to age 13 as a key risk indicator. The instrument is scored from interview and file information. However, most of the early behavioural period was rated primarily from the interview. The version used in this study had 12 questions, 6 on behaviour pre-13 and 6 on 13-17 years of age. Questions covered behavioural problems in general, criminal activity and versatility, duration of difficulties, whether it was across environmental settings, and the severity of behavioural problems.

**IM-P**. (Kosson, 1997). The IM-P is an experimental measure of the interpersonal aspects of psychopathy that are captured by the PCL instruments as Factor 1 items. It was designed to provide a more objective record of these distinctive interpersonal features by providing simple event labels written to achieve an intermediate level of specificity (e.g., “Unusual calmness and ease” indicated by reclining in a chair to an unusual degree, or walking around the room during the interview). Items were selected from a review of the literature addressing interpersonal behaviour associated with psychopathy, a survey of current experts in the field and the author’s clinical judgement. Twenty-one items were found to be sufficiently reliable when items were rated on a 4-point scale (0-3) (Kosson, Steuerwald, Forth, & Kirkhart, 1997). Little formal training is required for the IM-P, as the rater is simply instructed to observe interpersonal processes, distinctive behaviours, and interactions.

While only limited research has been carried out into the validity of IM-P scores, Kosson et al. (1997) found that ratings correlated highly with Factor 1 scores from the PCL-R with a US sample of adult Federal prison inmates ($r$ = .62). In addition, IM-P scores have been linked to the prediction of violent behaviour, especially high rate behaviours such as inmate fights. While the number of studies to date are small and the results tentative, many of the interactional measures related to psychopathy also appear to be related to the construct measured by the IM-P (Kosson, Gacono, & Bodholt, 2000).

**Structured interview.** The structured interview areas outlined below were based on the previous research with high-risk offenders carried out by the researcher (Wilson, 2003) in examining recidivism, the study literature review,

and from consultation with the FReMO focus group. A full copy of the Structured Interview is contained in Appendix C.

The variables gathered in the structured interview were:

- *School History (and problems)*. Questions asked here were; Highest level achieved, How many different primary schools, How many different intermediate/secondary schools, Disruption of classroom activities, Truancy (wagging), Suspension or expulsion.

- *Stability in: Residence*; Questions asked were; Same residence, Why did they leave, Same job, Why did they leave.

- *Stability in: Relationships;* Questions asked were, Sexual/intimate relationships, Why did they leave.

- *Family members/friends with criminal history*; Questions asked were; Family members, If so are they still in close contact, Friends, If so are they still in close contact.

- *Associate/member of gang*; Current member, If still member why, or if not why.

- *History of psychological problems*; Questions asked were; Mood (anxiety or depression) or though disorder (psychosis etc), Other, Did they receive therapy for the problem, Time spent in hospital, Placed on medication, Still on medication.

- *Medical History*; Questions asked were; Historical illness (asthma, diabetes, heart condition, Hepatitis etc, Head injuries (open or closed), ongoing problems, Currently on medication, if suffering current or chronic problems ask about the effect they believe this will have on their life after release

- *Suicide attempts or thoughts*; Questions asked were; Historical, Current suicidal thoughts.

- *Antisocial history*; Questions asked were; Age did you first start getting into trouble with the Police, How many Family Group Conferences have you attended, Did you go to Youth Court, Was there offending you did not get caught for as a child/youth such as shoplifting, wilful damage etc, What comments would you make about your history of offending, Are there difficulties with Prison rules, Have any misconducts reported, What do you think about the rules you have to follow, What should be changed, What was your security level prior to your last release (if the inmate has served a sentence of imprisonment before);

  *From official criminal history*-Total prior offences, Total violent prior offences, Total number of prior sentences of imprisonment including

current sentence (includes suspended sentences), Age when first in trouble with the law (first conviction), Current Offence(s), Current sentence length (cumulative), Number of institutional misconduct's during last period imprisonment (if available).

- *Problem Solving*; Questions asked were; How they generally cope with problems, positive structured approach v/s negative [avoidant] or reactive, impulsive approach, did they look at a number of options to solve a problem, did they think about the consequences of using an option, *Do they think they are good at problem solving, example of a problem they solved recently*

The following section on cultural factors was asked if the participant agreed to the researcher asking these questions. They were also informed a Māori Research Assistant could be seen if requested for questions about culture.

- *Cultural factors*; Questions asked were; Many men find that cultural and spiritual factors help them to keep out of trouble, change their lives, have these affected you, How did a cultural or spiritual factor help you or change your life, knowledge of cultural identity (can they identify their Iwi or Hapu), protocols or kawa (are they confident on the Marae), language, fluency, iwi/hapu/whanau support where they live, received treatment/therapy from traditional healed, had spiritual experience.

- *Treatment history*; Questions asked were; Criminogenic treatment history, Previous programme attendance, Was there any programme you failed to complete, Why was that, How do you feel about the way your participation ended, Were they angry, sad, disappointed (if angry towards who, themselves or the programme), Any hostility towards the programme or treatment in general, Did they make any changes as a result of not completing the programme, If the subject indicates difficulties in treatment programme ask what should have been changed, What did they think about the course/programme facilitator(s), What did they think about the course content, If the subject identifies as Māori would the inclusion of Tikanga process into treatment (e.g., language, protocols, Māori facilitators) have improved their experience/success in treatment.

- *General Questions.* What do you think you need to change to stop further offending, if they do want to stop, if they want to continue why, what assistance do you think you will need if any from Corrections in preventing future offending, what assistance do you think you will need if any from Corrections in preventing future offending Is there anything else you want to comment on that you believe this study is missing

**Analysis and data management**

The URICA, MCMI-II, Moffitt, and IM-P, were all hand scored based on the scoring guidelines from their respective manuals/guidelines by trained

research assistants. Random reliability checks were carried out and no errors were detected in scores, however the scores from one participant were excluded when a pattern of random responses was detected. All variables were entered into an excel database from the measures. In relation to the structured interview, answers were coded as yes, no, maybe, or n/a (not applicable or no answer), or with the actual response by the participant and also entered into an excel database. All statistical analysis was carried out using *Statistica Version 5.0* software.

**Procedure**

All potential participants were approached first by their unit manager who provided them with a participant information sheet that explained the purpose of the study, confidentiality and the limitations thereof, and that involvement in the study would in no way impact on their management by the Corrections Department for good or for bad (see Appendix E).

All offenders who signed the consent form were then scheduled for an interview with either Dr Nick Wilson, or a pair of trained researcher assistants. Note, due to the high-risk nature of the participant population, research assistants worked in pairs when conducting interviews. Study files on each participant were prepared and reviewed prior to the interview. These included their current criminal history. A small koha[1] was provided to each participant with the permission of Waikeria prison management in recognition of the time involved. In general, interviews required two hours to complete all the questions in the structured interview protocol and the study measures. In cases of poor participant literacy, the MCMI-III was read out by one assistant while the other noted the participant's answers.

[1] Māori term for gift showing respect. In the present study this acknowledgement of the time interview took was negotiated with prison management and consisted of a payment of $1.00 into participants' prison accounts. It should be noted that this payment was not intended to pay participants for their assistance.

## Results

### Descriptive statistics: Total sample

The sample was selected from inmates imprisoned in Waikato Bay of Plenty Regional Prison who had a RoC*RoI score of .70 or greater. Inmates who were not on remand or in the at risk unit who met the high risk criterion (*N* = 190) were approached and asked to volunteer to participate in a two hour structured interview in which they also completed a number of psychometric measures. Forty inmates (21%) declined to participate in the research and no significant differences were found for the main demographic variables: age, ethnicity, or RoC*RoI score between those who declined and the experimental group (*N* = 149).

### Distribution of ethnicity

Three categories were used in analysing the distribution of ethnicity in the study sample, European (15%), Māori (83%), and Pacific Island (2%). With the study discovering such a skewed distribution of ethnicity, a very important demographic variable in the sample, efforts were made to establish if indeed this bias was representative of high-risk offenders. An examination of the current prison muster as at March 2004 for all institutions in New Zealand (*N* = 5,034) using the same exclusion criteria as the current study found that 28% (*N* = 1312) had a valid RoC*RoI score of .70 or greater (see Figure 1 below).

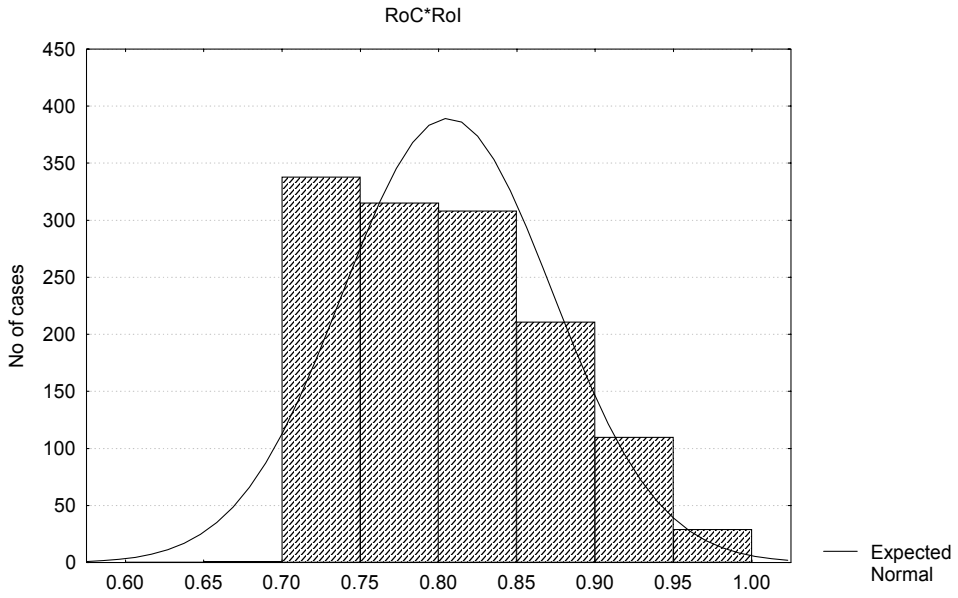


**Figure 1**: Distribution of RoC*RoI scores for all in the high risk category ( ≥.70) for total prison muster as at March 2004

When ethnicity was coded into four categories (see Table 2); European/ Pakeha; Māori; Pacific Island; and Other, the largest percentage of high-risk offenders were Māori (67%). When the high risk prison sample was further divided into prisons located in the North Island, versus those located in the

South Island, the percentage of Māori classified as high-risk increased to 73% (see Table 3 and Figure 2).

**Table 2**: Distribution of ethnicity classification for the high-risk sample (RoC*RoI scores of .70 and greater) selected from total prison muster.

| Ethnicity Classification | % of total |
|---|---|
| European/Pakeha | 27.97 |
| Māori | 67.22 |
| Pacific Island | 4.26 |
| Other | .53 |

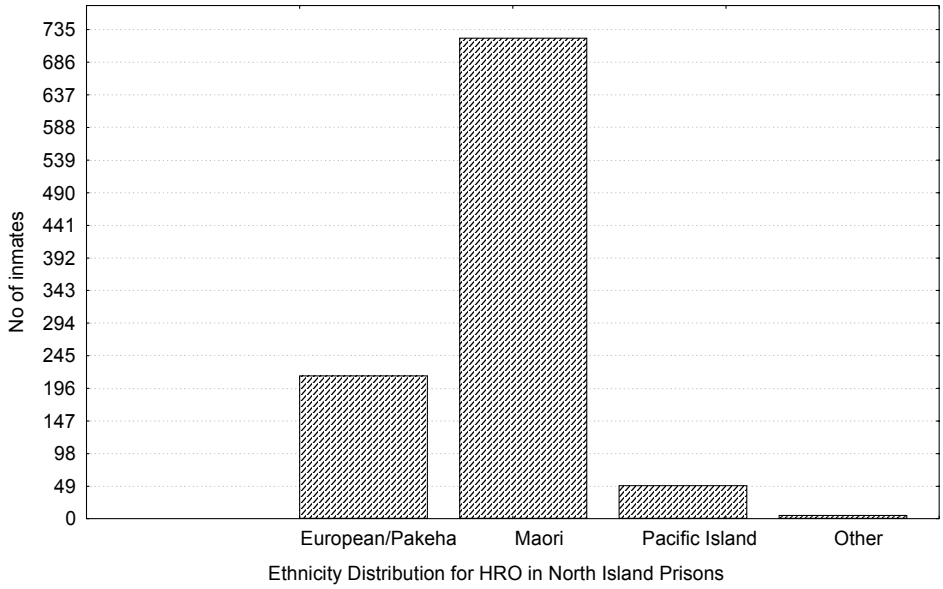


**Figure 2**: Distribution of ethnicity for high-risk offenders (RoC*RoI ≥ .70) who were inmates in North Island prisons 2004

**Table 3**: Distribution of ethnicity classification for the high-risk sample (RoC*RoI scores of .70 and greater) selected from North Island prison muster.

| Ethnicity Classification | % of total |
|---|---|
| European/Pakeha | 21.67 |
| Māori | 72.78 |
| Pacific Island | 5.04 |
| Other | .50 |

In order to provide further comparison with the Waikeria prison sample selected for the high-risk study, the muster data for high risk offenders from North Island prisons, as well as the 2004 Waikeria sample was subject to further individual analysis to establish if these prisons had similar ethnicity distributions to the original high risk study sample (drawn from the Waikeria muster in 2001). Table 4 shows the high percentage for Māori among high-risk offender classifications for virtually all North Island prisons with only low security institutions having lower numbers. While most North Island prisons had 70% or greater numbers of Māori inmates classified using RoC*RoI as at high risk of reoffending two institutions, Hawkes Bay Prison and Waikeria Prison were highest at 79 and 80% respectively. While the original sample was chosen two years ago from the Waikeria muster it was reassuring from a reliability standpoint to find a similarly high percentage in March 2004. It should be noted that many of those from the research sample had been released and were not included in the March 2004 muster sample.

**Table 4**: Distribution of ethnicity classification by North Island institution for the high-risk sample (RoC*RoI scores of .70 and greater).

| **Prison (*N*)** | **Euro** | **Maori** | **PI** | **Other** |
|---|---|---|---|---|
| Auckland (*171*) | 20% | 71% | 8% | 1% |
| Wanganui (*105*) | 20% | 75% | 5% | Nil |
| Rimutaka (*169*) | 22% | 73% | 5% | Nil |
| Hawkes Bay (*142*) | 15% | 79% | 5% | 1% |
| New Plymouth (*29*) | 24% | 73% | 3% | Nil |
| Waikeria (*164*) | 19% | 80% | 0.5% | 0.5% |
| Manawatu (*53*) | 23% | 70% | 7% | Nil |
| Mt Eden (*27*) | 26% | 63% | 11% | Nil |
| Tongariro (*76*) | 26% | 68% | 6% | Nil |
| Ohura (*20*) | 35% | 55% | 10% | Nil |
| Wellington (*28*) | 39% | 57% | 4% | Nil |

**Distribution of age at interview**

While most studies have found that high-risk offenders are older in general, selecting the current study sample based only on RoC*RoI scores of .70 and greater found a mean of 27 years of age (SD = 6.59) (see Table 5) with 66% of the sample aged 20-34 years of age with Figure 3 indicating a distribution that was negatively skewed towards a younger population.

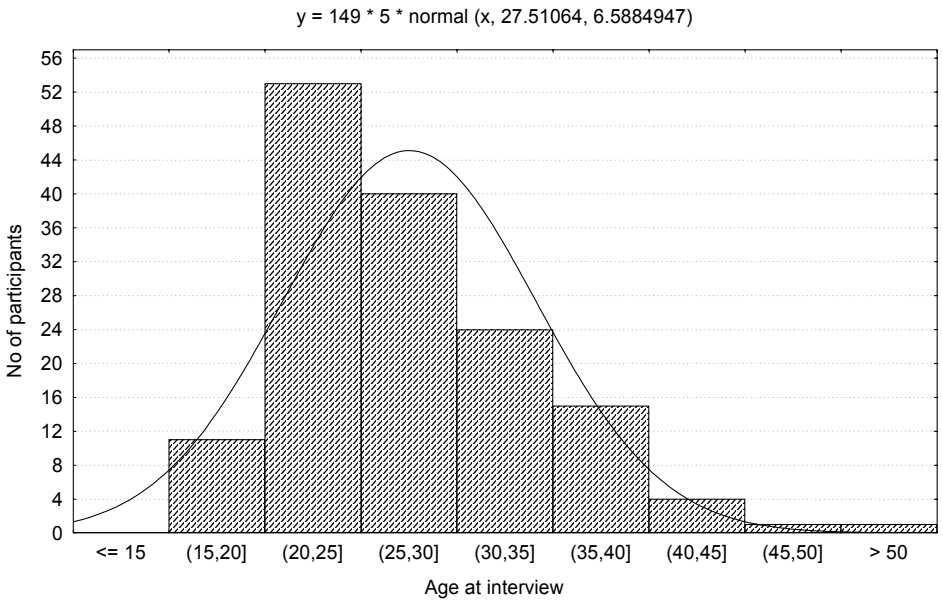


**Figure 3: Distribution of age at interview for all study participants (*N* = 149)**

**Distribution of RoC*RoI score and previous and index offending**

With the sample selected on the basis of a RoC*RoI score of .70 or greater the distribution of scores revealed in Figure 4 indicated a range of scores right up to .96. If .80 is used to indicate very high-risk offenders then 48% (*N*= 72) of participants were in this category. It is noted that less than 10 percent all incarcerated men have a score of .80 or greater. The men in the study were imprisoned for periods ranging from six months to 11 years. However, Table 5 indicates that the mean period of incarceration was only 2.72 years with the SD indicating that 66% were imprisoned for between eight months to 3.62 years. In terms of prison management and parole eligibility this means the majority of these high risk offenders will only spend relatively short periods in prison limiting the ability to deliver intensive psychological treatment initiatives.

**Table 5**. Means, Score Range and Standard Deviations for Current Age, RoC*RoI score, and Index Sentence Length for Study Participants

| | ***N*** | ***M*** | ***Min*** | ***Max*** | ***SD.*** |
|---|---|---|---|---|---|
| Current age | 149 | 27.51 | 17.61 | 50.29 | 6.59 |
| RoC*RoI scr | 149 | 0.80 | 0.70 | .96 | 0.06 |
| Sentence length (months) | 149 | 33.71 | 0.06 | 132.00 | 23.76 |

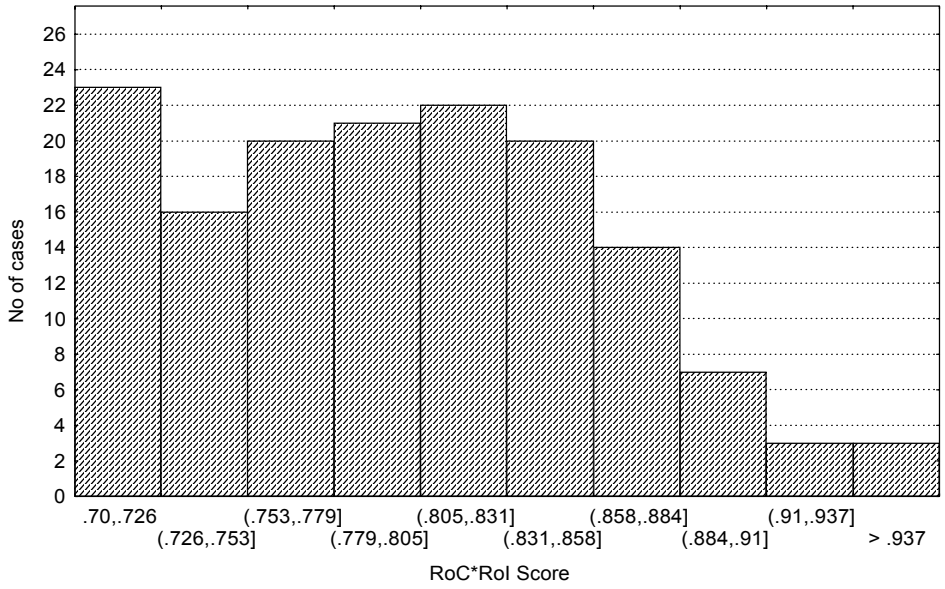


**Figure 4: Distribution of RoC*RoI scores for all study participants (*N* = 149)**

**Previous offending.** Their mean age at first arrest was 15.4 years of age (*SD* = 1.51) with this signalling for most a pervasive pattern of criminal behaviour characterised by criminal versatility (Mean number offence categories = 7.4, *SD* = 2.07), violent crime (Mean violent convictions = 5.66, *SD* = 5.09), and frequent imprisonment (Mean sentences of imprisonment = 7.03, *SD* = 5.01) (see Table 6).

**Table 6**. Means, Score Range and Standard Deviations for Offence Variables for Study Participants (*N* = 149)

| ***Variables*** | ***N*** | ***M*** | ***Min*** | ***Max*** | ***SD*** |
|---|---|---|---|---|---|
| Previous Imprisonment | 149 | 7.03 | 1.00 | 31.00 | 5.01 |
| Total Convictions | 149 | 74.13 | 2.00 | 357.00 | 52.37 |
| Violent Convictions | 149 | 5.66 | 0.00 | 23.00 | 5.09 |
| Age First Arrest | 149 | 15.42 | 13.00 | 23.00 | 1.51 |
| Offence Categories | 149 | 7.40 | 1.00 | 12.00 | 2.07 |

When the participant's previous criminal histories were categorised into the sixteen offence areas listed in Table 7. This revealed that almost all offenders had previous dishonesty offences (99%). When serious violent offences were categorised 73% of participants had assault convictions, 71% serious assault (i.e., Assault with intent to injure, GBH, Aggravated Wounding), possession of a weapon, 48%, and finally, robbery, 31 %. Thus establishing that the majority of the high-risk group had violence related criminogenic needs. Other offence categories of interest were 88% having previous drug convictions, 78% with driving convictions, and 88% convicts for escape/breaches. The escape/breaches category offences were almost all

for breaches of parole/supervision and indicated the difficulty this sample had following the direction of Community Probation staff and release conditions.

**Table 7**. Distribution of Offence Categories for Study Participants (*N* = 149)

| **Offence Categories** | *%* | **N** |
|---|---|---|
| Theft | 99 | 147 |
| Robbery | 31 | 46 |
| Drug offence | 77 | 115 |
| Assault | 73 | 109 |
| Serious Assault | 71 | 71 |
| Murder | 1 | 2 |
| Possession of Weapon | 48 | 71 |
| Adult Sex Offence | 9 | 13 |
| Child Sex Offence | 5 | 7 |
| Major Driving Offence | 78 | 116 |
| Fraud | 34 | 51 |
| Escape/Breaches | 88 | 131 |
| Kidnapping | 5 | 7 |
| Arson | 6 | 9 |
| Obstruction of Justice | 58 | 87 |
| Miscellaneous | 79 | 118 |

## Developmental factors

**Early behavioural problems.** The majority of the high-risk offenders reported early contacts with authorities, with a mean age of 11.3 years (*SD* = 3.2) for first contact with Police, the earliest contact for a participant occurred at 4 years of age (see Figure 5). Eighty-two percent of the participants in the study reported that they had family members who were involved in criminal activities (see Table 8). Their early antisocial behaviour, when subject to official detection often resulted in their attendance at a number of Family Group Conferences in an effort to provide salient consequences for their criminal activities (*M* = 3.4, *SD* = 5.0).

The study participants indicated significant difficulties at school and to have attended a number of primary (*M* = 3.3) and secondary schools (*M* = 2.7) (see Table 9). The mean highest academic achievement was third form (*M* = 3.4, *SD* = 1.2), with 66% reporting being punished for truancy, and 80% (*N* = 120) being suspended or expelled for disruptive or criminal activities. Analysis of the reasons for the sub-sample of participants being suspended or being expelled found that violence was the reason in 57% of cases (Arson, and violence against teachers and peers; 22% for assaulting teachers, this included two cases of wounding teachers with a knife).

**Table 8.** Psychosocial risk factors

| **Familial factors** | **% of total sample** | ***N*** |
|---|---|---|
| Family members involved in crime | 82 | 122 |
| **Early contact with authorities** | ***M* (Range)** | ***SD*** |
| Age of first contact with Police | 11.3 (4-21) | 3.2 |
| Number of Family Group Conferences | 3.4 (0-23) | 5.0 |

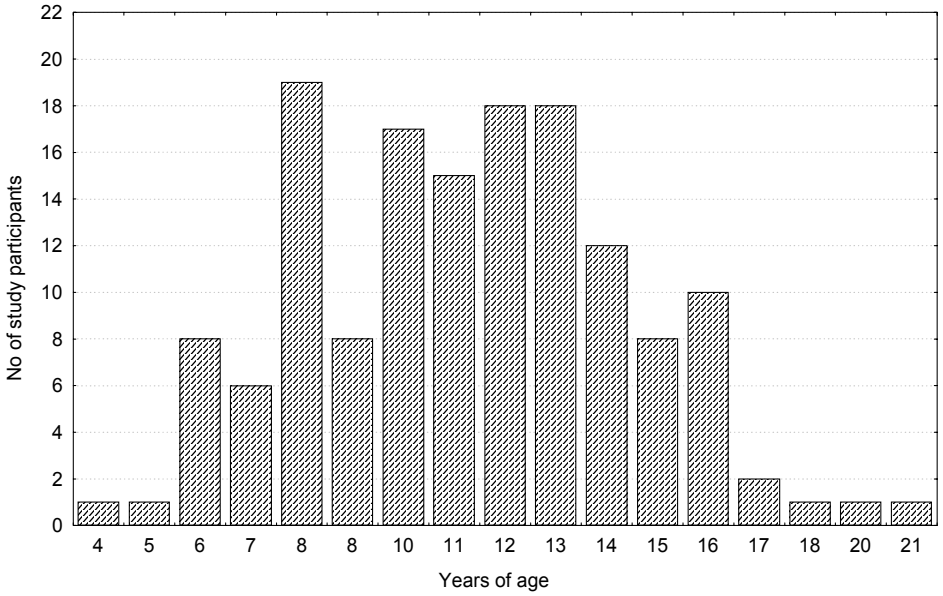


**Figure 5.** Distribution of self-reported age at time of first contact with the Police by participants (N = 146)

**Table 9. School related problems**

| **School History** | ***M* (Range)** | ***SD*** |
|---|---|---|
| Highest academic level achieved ($1^{st}$-$7^{th}$ form) | 3.4 (1-7) | 1.2 |
| Number different primary schools | 3.3 (1-26) | 3.2 |
| Number different intermediate/secondary | 2.7 (0-10) | 1.6 |
| **School Difficulties** | ***%* of total sample** | ***N*** |
| Detected truancy | 66 | 99 |
| Suspended/expelled | 80 | 120 |
| **Reasons for Suspension/Expelled** | ***%* of sub sample (n = 120)** | ***N*** |
| Violence against peers | 32 | 38 |
| Violence against teachers | 22 | 27 |
| Conflict with teachers | 10 | 12 |
| Theft | 7 | 8 |
| Smoking | 1 | 1 |
| Alcohol/Drug use | 12.5 | 15 |
| Chronic truancy | 7.5 | 9 |
| Vandalism | 2 | 2 |
| Arson | 3 | 4 |
| Could not recall reason | 3 | 4 |

**Psychosocial risk factors**

Almost all in the study reported associating with antisocial family and friends (82 and 88.5%), and 64% stated that they had been a member or associate of a criminal gang. When asked about continued contact, 59% indicated infrequent or frequent contact with family involved in crime and 65% with friends involved with crime. Twenty-nine percent indicated they continued to be a gang associate or member while imprisoned.

In looking at the stability of residence participants revealed in Table 10 that the mean number of years in one residence was 9 years. This typically was their childhood home with most indicating more instability in residence after leaving home. In terms of employment a greater range of responses was found. The longest time in employment ranged from nil to 12 years, however, the mean was only 1.8 years with a small standard deviation at 2.0. The final area of environmental stability was stability of intimate relationships. Again, a large range of responses was found from no relationship to one lasting 22 years. However, again the majority had around 5 years as their longest relationship with the standard deviation indicating that 66% had a 1.8-9 year intimate relationship.

**Table 10.** Distribution of variables relating to antisocial associates, and stability of residence, employment, and intimate relationships

| **Antisocial association variables** | ***% of total sample*** | ***N*** |
|---|---|---|
| Family members involved in crime | 82 | 122 |
| Still in contact with family involved in crime | | |
| • Infrequent contact | 16 | 24 |
| • Frequent contact | 43 | 64 |
| Friends involved in crime | 88.5 | 132 |
| Still in contact with criminal friends | | |
| • Infrequent contact | 13 | 20 |
| • Frequent contact | 52 | 78 |
| Past criminal gang member/associate | 64 | 95 |
| Current criminal gang member/associate | 29 | 43 |
| **Stability variables** | ***M (Range)*** | ***SD*** |
| Longest time in one residence | 9.14 (.33-25) | 5.2 |
| Longest time in employment | 1.8 (0-12) | 2.0 |
| Longest time in intimate relationship | 4.8 (0-22) | 4.0 |
| | ***% of total sample*** | ***N*** |
| Reasons for losing employment | | |
| • Violence | 1 | 2 |
| • Criminal behaviour | 25.5 | 38 |
| • Dissatisfaction | 16.8 | 25 |
| • Family reasons | 8 | 12 |
| • Job ended | 14 | 21 |
| • Sacked | 9 | 13 |
| • Alcohol/Drug use | 2 | 3 |
| • New Job | 1 | 2 |
| • Never had a job | 10 | 15 |
| • Other | 12 | 18 |
| Reasons for end of intimate relationship | | |
| • Still together | 31 | 47 |
| • Domestic violence | 6 | 9 |
| • Domestic conflict | 14 | 21 |
| • Dissatisfaction | 16 | 24 |
| • Criminal lifestyle | 26 | 39 |
| • A & D use | 1.5 | 2 |
| • Death | 1 | 1 |
| • Not compatible | 1.5 | 2 |

**Cultural variables for Māori participants**
When the sample was divided into those identifying as Maori this produced a sample of 122 study participants. The questions relating to culture from the structured interview were analysed in consultation with a FReMO based focus group of suitable Maori stakeholders. Note the analysis carried out was exploratory, and designed to provide descriptive information and they were not included in any multi-variant analysis with other study variables.

**Influence from cultural/spiritual factors.** The question on whether Māori participants believed they were influenced by cultural or spiritual factors found that 47% believed they were subject to such influences (see Table 11).

**Table 11.** Percentage of Māori sub-sample reporting influence of cultural/spiritual factors.

| **Cultural/spiritual influence** | ***%*** | ***N*** |
|---|---|---|
| Yes | 47 | 58 |
| No | 53 | 66 |

Those who were had indicated spiritual influence were then asked to indicate more information about the source of this influence. Table 12 shows the distribution across the three categories used in coding this answers to this question.

**Table 12.** Percentage of Māori sub-sample reporting a specific spiritual rather than cultural influence.

| **Spiritual influence** | ***%*** | ***N*** |
|---|---|---|
| Christianity/reading the bible | 9 | 11 |
| General belief in God | 1 | 1 |
| Ancestral/Spirit guidance | 4 | 5 |

**Cultural knowledge**
This area of questions elicited from participants their own assessment of their knowledge of cultural identity; knowledge of protocols, and degree of fluency in Māori language.

**Knowledge of cultural identity.** The majority of the Māori sub sample indicated they had good knowledge of their cultural identity (76.5%). When the categories good and limited knowledge are combined 87% indicated some understanding of their cultural identity (see Table 13 and Figure 6).

**Table 13.** Percentage of Māori sub-sample reporting knowledge of cultural identity.

| **Knowledge of cultural identity** | **%** | ***N*** |
|---|---|---|
| Nil | 13 | 16 |
| Good | 76.5 | 95 |
| Limited | 10.5 | 13 |

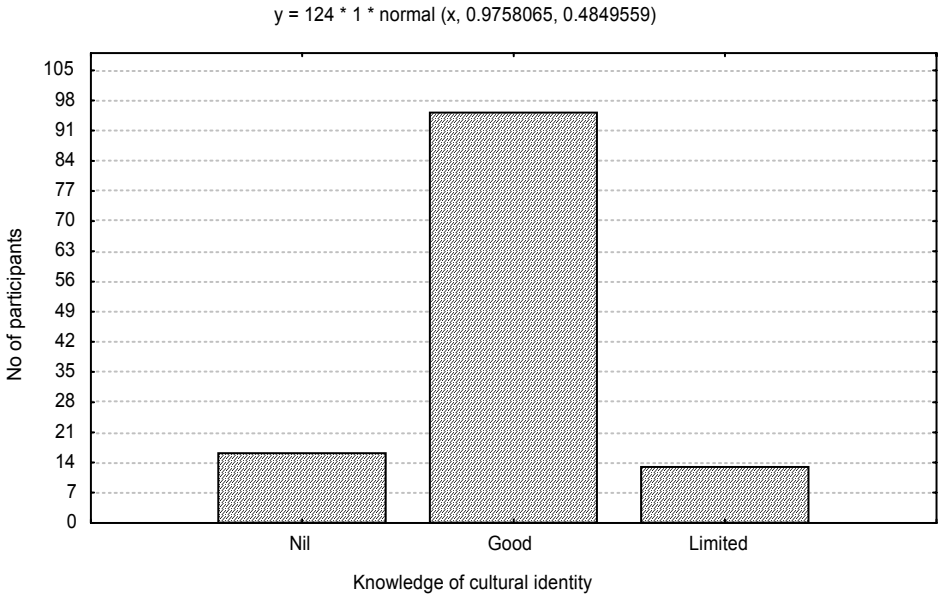


**Figure 6.** Distribution of self-reported knowledge of cultural identity

**Knowledge of Māori protocols**. Similar percentages were found when the question was knowledge of cultural protocols. These were defined for Maori participants as "*are they confident on the Marae*". Seventy-one percent of the sample indicated good knowledge of cultural protocols with this increasing to 83% when those with limited knowledge are included (see Table 14 and Figure 7).

**Table 14.** Percentage of Māori sub-sample reported knowledge of cultural protocols.

| **Knowledge of protocols** | **%** | ***N*** |
|---|---|---|
| Nil | 16 | 20 |
| Good | 71 | 88 |
| Limited | 13 | 16 |

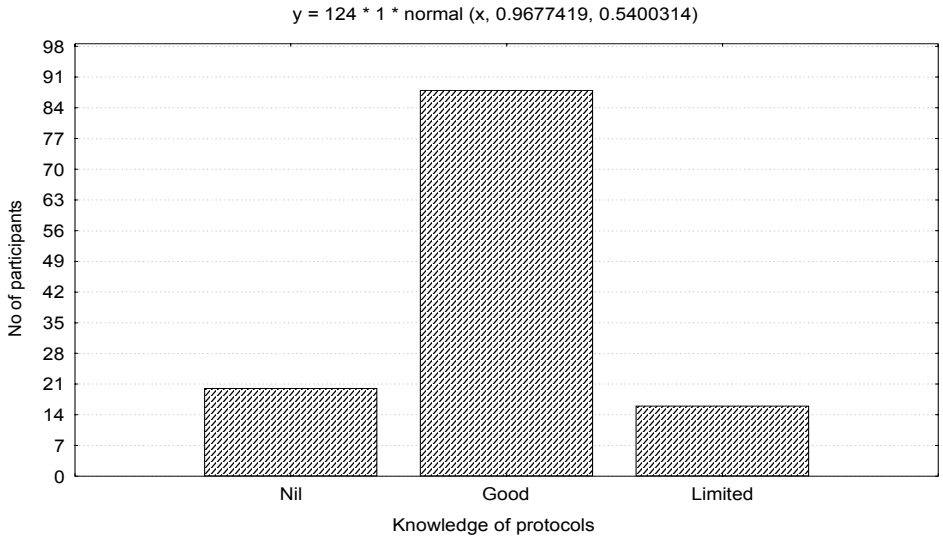


**Figure 7.** Distribution of self-reported knowledge of cultural protocols

**Fluency in language**. While it is difficult to reliably self assess language skills participants had indicated in the main, good knowledge of cultural identity and protocols and therefore were aware of what fluency in the Reo meant. With only a small percentage indicating fluency in Table 15 (12%) this provides support for the participants not being over optimistic about their language skills. Just over half of the sample (52%) indicated some slight knowledge of the Reo (see Figure 8).

**Table 15.** Percentage of Māori sub-sample reported fluency in language.

| **Fluency in language** | **%** | ***N*** |
|---|---|---|
| Not fluent | 36 | 44 |
| Slight | 52 | 65 |
| Fluent | 12 | 15 |

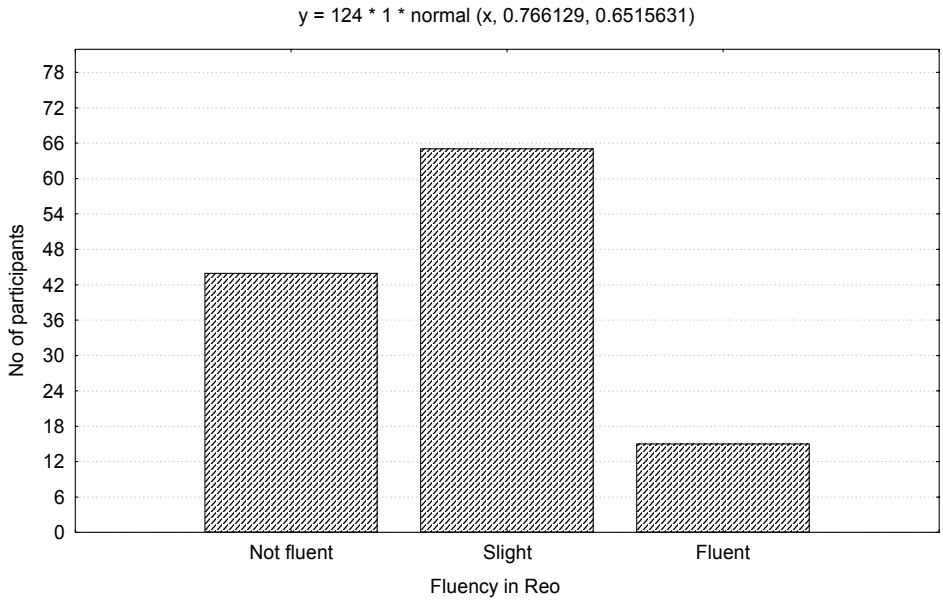


**Figure 8.** Distribution of self-reported knowledge of fluency in the Reo

**Cultural support**

**Iwi/hapu support**. The majority of the sample (69%) indicated support by iwi/hapu. Table 16 also indicates another 6% acknowledged support by iwi/hapu structures but stated they did not use it. Twenty-five percent reported no support by iwi or hapu (see Figure 9).

**Table 16.** Percentage of Māori sub-sample reported support by iwi/hapu.

| **Iwi/hapu support** | ***%*** | ***N*** |
|---|---|---|
| Nil | 25 | 31 |
| Supported | 69 | 86 |
| There but not used | 6 | 7 |

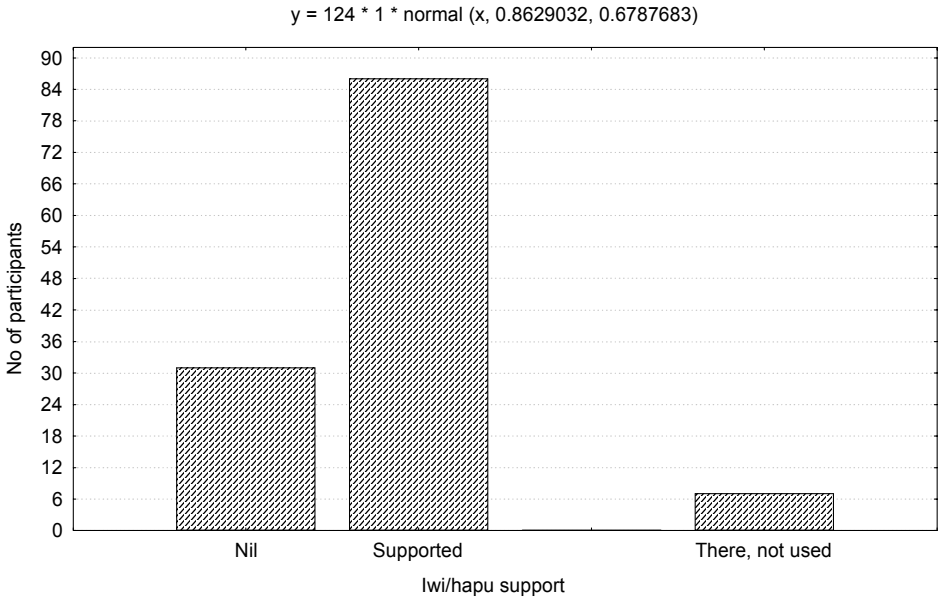


**Figure 9.** Distribution of self-reported iwi/hapu support.

**Treatment from traditional healer**. When participants were asked about historical treatment/therapy by traditional Māori healers 30% indicated being in receipt of such services (see Table 17).

**Table 17.** Percentage of Māori sub-sample reporting receiving treatment from traditional healer.

| **Treatment from traditional healer** | ***%*** | ***N*** |
|---|---|---|
| Yes | 30 | 37 |
| No | 70 | 87 |

Participants who indicated receiving treatment were asked if it had been effective in addressing their problem. Only seven men indicated no success

with the other 30 reporting it was successful. The comments by the negative group on why it did not work are listed below:

**Negative comments on efficacy of traditional treatment**

| |
|---|
| "Matua whangai should have been longer. Need to address his problems. Need encouragement to share, was shy about addressing his problems With the group." |
| "After an injury, didn't help" |
| "didn't work out, wasn't really into it, felt they were a bit of a fraud" |
| "Don't know why it didn't help" |
| "Was a load of rubbish, something was supposed to be wrong with my wairua. Don't think it worked. It's all in the mind really" |
| "mother thought he had spell on him but didn't work" |
| "Used some Maori medicines e.g. kawakawa, hasn't helped him but has seen positive effects for others" |
| "Got some boils as a result of tapu, his uncle is a tohunga and took him down to the river and soon after they went away. Believed straight after but now don't really believe in that stuff-don't want to. Had karakia said over him a few times, but don't really know if it has worked because he is still angry. Don't really want to get too into it though" |

Positive comments by participants were:

**Positive comments on efficacy of traditional treatment**

| |
|---|
| "Got sick after someone died, bedridden three days, woke up heaps of people around me, they told me grandmother had returned to get him and they had asked her to leave. Around 11 years old, not sure what they did but thinks it helped" |
| "When young got prayed upon, when had problem would write it down and wrap it in paper and would give it to him to be blessed" |
| "Stopped hot/cold sweats, hearing voices, lifted it off" |
| "Appendix doctor couldn't help but traditional healer fixed it, happened after experience at graveyard" |
| "Got me off drugs but then I ran away, followed girlfriend" |
| "Father is kaumatua. Doesn't know how it has helped, it just has" |
| "Father tohunga, gave blessing" |
| "Taught by Uncle about medicines for aches and pains" |
| "Took voices out of head" |
| "Seen a tohunga, got rid of pain, prefers traditional over medical doctor" |
| "Tohunga, gave advice/clearer picture on problems he was having" |
| "Went to the prison Maori chaplain and was cleansed of his past to let it go. It helped (rebirthing type process) and it is a feeling of relief and he hopes the impetus to do things differently" |
| "Some spiritual healing. Got into some satanic stuff when younger & thought he had something placed on him and it helped him. But he doesn't really believe in tapu. Also the Tohunga was drinking with his mother, which he shouldn't be doing if he was supposed to be healing people" |
| "When he came back to NZ at 17 lost his Maori identity. Gave him a prayer, body energy and relaxation work. Didn't completely heal him but helped him to cope with things at that time" |
| "Healed boil on leg" |
| "Had dark-bad vibes about father, [tohunga] helped by saying karakia and sprinkling water, and the thoughts went away" |
| "Sleep better, stopped nightmares" |

| |
|---|
| “Lifted mataku” |
| “For bad dreams. Felt better within himself, the dreams went away” |
| “Tohunga blessing, made me walk after rahu placed on him” |
| “Breathing difficulties solved but not interested in seeking tohunga/doctor help now” |

**Inclusion of cultural elements in prison programmes**

Besides questioning about traditional treatment experiences, Maori participants were asked about their views on whether prison treatment programmes should have cultural elements included. The participant’s answers to this question were coded by members of the FReMO focus group along with the researcher based on five categories decided by the group (see Appendix F). There was a high level of inter-rater reliability (kappa *r* = .89). The mean results are shown in Figure 10 and indicate that just over half endorse the inclusion of tikanga in treatment programmes. The raw data used to classify the five categories is in Appendix G.

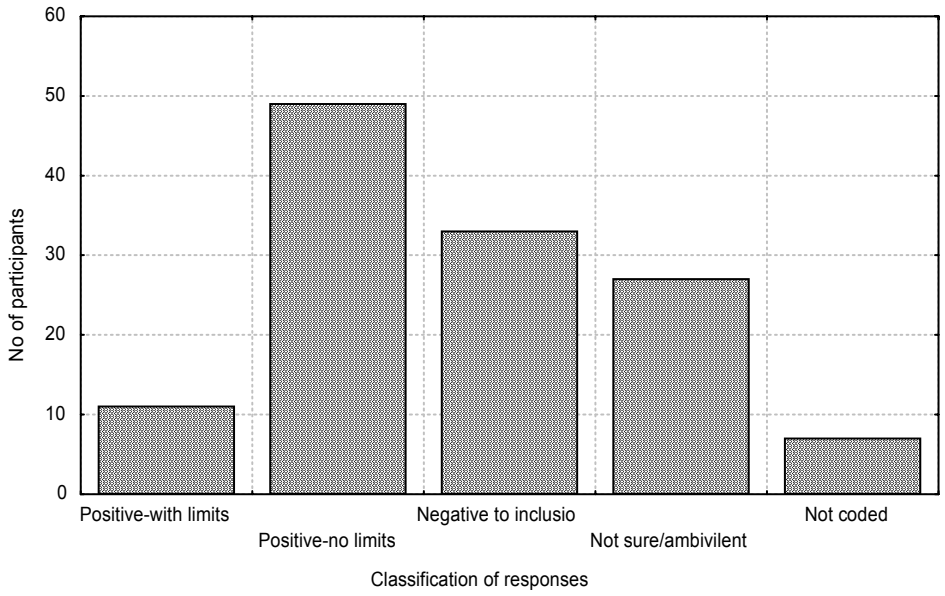


**Figure 10.** Classification of responses by FReMO focus group of Māori study participants response to whether treatment programmes should include cultural variables

**Psychometric Measures**

**URICA**

The URICA measure indicated for the total sample that the highest mean was for the Contemplation stage (*M* = 3.86) with the lowest mean for Pre-contemplation (*M* = 2.90) (see Table 18). Note low scores for Precontemplation and higher scores for the other three stages indicated most of the sample recognised their criminal behaviour was a problem. The means for the other three stages had normal distributions for the sample and were similar to means established in other studies of offender populations.

**Table 18**. URICA Stages of Change Means and Standard Deviations

| | *N* | *M* | Min | Max | SD |
|---|---|---|---|---|---|
| Precontemplation | 148.00 | 2.90 | 1.00 | 4.63 | 0.56 |
| Contemplation | 148.00 | 3.86 | 1.88 | 5.00 | 0.59 |
| Action | 148.00 | 3.77 | 1.00 | 5.00 | 0.66 |
| Maintenance | 148.00 | 3.51 | 1.00 | 5.00 | 0.65 |

**Moffitt.** The Moffitt measure of early versus late onset for antisocial behaviour confirmed the information supplied by participants indicating an early onset of criminal behaviour prior to 13 years of age. The separation of the two groups is very evident in Figure 11 with 99 participants (66%) assessed with patterns of antisocial behaviour pre 13 years of age. The rest of the sample had established patterns of antisocial behaviour by 17 years of age.

**Table 19.** Moffitt Early v/s Late Onset Typology Scale Scores

| | N | M | Min | Max | SD |
|---|---|---|---|---|---|
| Moffitt Total | 149.00 | 13.28 | 5.00 | 16.00 | 2.62 |
| Moffitt < 13 | 149.00 | 5.79 | 1.00 | 8.00 | 2.23 |
| Moffitt < 16 | 149.00 | 7.49 | 3.00 | 8.00 | 0.84 |

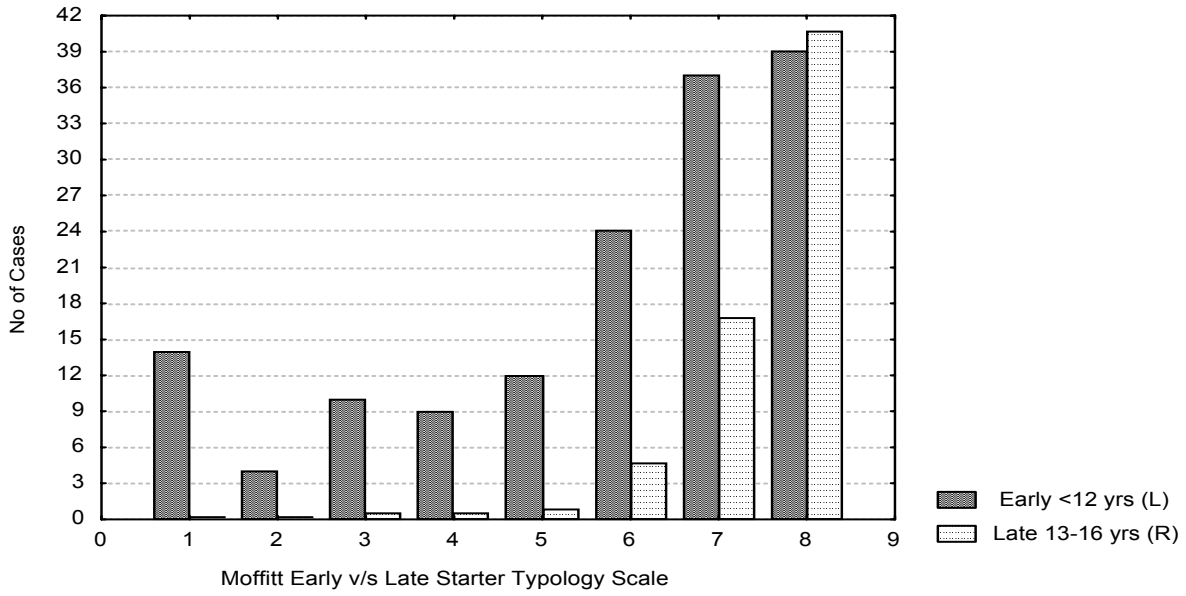


**Figure 11. Distribution of Moffitt early onset (under 13) and late onset (13-17) groups from the high-risk sample**

**Interpersonal Measure-Psychopathy (IM-P)**

The IM-P indicated a normal distribution of scores with only a few with high scores (see Table 20). However, the instrument has been found to only detect very obvious behavioural expressions of interpersonal and affective deficits. The only other New Zealand research with the IM-P was carried out with offenders sentenced to seven years imprisonment or longer (Wilson,

2003). This study used the instrument with only a small sample but found higher mean scores at (*M* = 11.4, *SD* = 9.9).

**Table 20.** Means and Standard Deviations for the Interpersonal Measure-Psychopathy for the high-risk sample.

| | ***N*** | ***M*** | **Min** | **Max** | ***SD*** |
|---|---|---|---|---|---|
| IM-P Total Scr | 147.00 | 4.35 | 0.00 | 29.00 | 6.50 |

**MCMI-III**

The Millon Clinical Multiaxial Inventory- Version Three (MCMI-III) was administered to the high-risk sample to assess personality traits and pathology. Only two of the 149 participants returned an invalid profile. Participants were found to be open about their interpersonal and affective functioning, although many (33%) indicated the presence/prominence of social desirability in their responses. Analysis of the MCMI-III clinical personality patterns found that 60% scored in the presence or prominent range for Antisocial Personality Disorder, and 48% in this range for Passive-Aggressive Personality Disorder. Both personality patterns associated with antisocial or criminal behaviour, and in particular Passive-Aggressive with difficulties in therapy. However, the elevations of several of the severe personality pathology scales, namely, Borderline and Paranoid Personality Disorder were not expected.

A significant number in the high-risk study indicated the presence or prominence of Borderline Personality Disorder (BPD)(27%) with the greatest single elevation for severe personality pathology being found for Paranoid Personality Disorder (PPD)(35%).

**Table 21.** Distribution of MCMI-III BR Mean Scores Present and Prominent Diagnostic Score Cut-offs (*N* =147)

| **Modifying Indices** | ***M BR (SD)*** | **% ≥ 75-84** | **% ≥ 85-115** | ***Total %* ≥ 75-115** |
|---|---|---|---|---|
| Disclosure (X) | 73.3 (16.7) | 23.2 | 25.2 | 48.3 |
| Desirability (Y) | 65.0 (18.8) | 24.5 | 8.8 | 33.3 |
| Debasement (Z) | 58.0 (18.7) | 11.6 | 6.1 | 17.7 |
| **Clinical Personality Patterns** | | | | |
| Schizoid (1) | 66.7 (18.4) | 17.7 | 10.2 | 27.9 |
| Avoidant (2A) | 60.5 (23.2) | 28.6 | 5.4 | 34.0 |
| Depressive (2B) | 64.3 (26.2) | 13.6 | 19.7 | 33.3 |
| Dependent (3) | 57.5 (24.9) | 17.7 | 8.8 | 26.5 |
| Histrionic (4) | 42.5 (16.9) | 1.4 | 1.4 | 2.8 |
| Narcissistic (5) | 63.6 (17.9) | 11.6 | 14.3 | 25.9 |
| Antisocial (6A) | 75.5 (14.3) | 33.3 | 26.5 | 59.8 |
| Sadistic/Aggressive (6B) | 64.9 (14.5) | 15.0 | 8.2 | 23.2 |

| | | | | |
|---|---|---|---|---|
| Compulsive (7) | 39.6 (13.1) | 0.7 | 0 | 0.7 |
| Passive Aggressive (8A) | 68.0 (20.5) | 30.0 | 17.7 | 47.7 |
| Self-Defeating (8B) | 60.9 (24.2) | 25.2 | 4.8 | 30.0 |
| **Severe Personality Pathology** | | | | |
| Schizotypal (S) | 61.6 (21.8) | 10.2 | 6.1 | 16.3 |
| Borderline (C) | 61.9 (20.0) | 17.7 | 9.5 | 27.2 |
| Paranoid (P) | 69.5 (19.7) | 16.3 | 19.0 | 35.3 |
| **Clinical Syndromes** | | | | |
| Anxiety (A) | 63.8 (32.0) | 27.2 | 33.3 | 60.5 |
| Somatoform (H) | 46.4 (24.4) | 0 | 0.7 | 0.7 |
| Bi-Polar (N) | 62.6 (17.3) | 9.5 | 6.8 | 16.3 |
| Dysthymia (D) | 55.2 (25.3) | 17.7 | 2.0 | 19.7 |
| Alcohol Abuse (B) | 76.4 (13.8) | 36.7 | 24.5 | 61.2 |
| Drug Dependence (T) | 73.6 (17.6) | 21.8 | 25.2 | 47.0 |
| PTSD (R) | 52.7 (24.0) | 7.5 | 3.4 | 10.9 |
| **Severe Clinical Syndromes** | | | | |
| Thought Disorder (SS) | 55.5 (22.6) | 4.1 | 4.1 | 8.2 |
| MDD (CC) | 41.5 (25.5) | 3.1 | 0.7 | 3.8 |
| Delusional Disorder (PP) | 60.2 (19.9) | 4.1 | 4.1 | 8.2 |

The number of participants in the sample with similar elevations on Schizotypal Personality Disorder (SPD) while small at 16% were found to also predict elevations on the other personality pathology scales, PPD and BPD. Eleven percent (*N* = 11) of the sample had cluster elevations indicating the presence or prominence of SPD, BPD, and PPD, 11.5% (*N* = 17) twin elevations PPD and SPD, and 13% (*N* = 19) PPD and BPD (see Table 21).

**Distribution of severe personality pathology among Maori participants.** With the sample being almost all made up of inmates who identified as Māori further analysis was carried out of the distribution of personality pathology in these participants. Pathology being defined in this case as a MCMI-III BR score of 75 or greater (presence and prominence) for the PPD, BPD, and SPD personality scales. Table 22 indicates that the distribution for the Māori participants did not differ markedly, with 36% having presence/prominence PPD, 23% BPD, and 14% SPD. In the analysis of results the FReMO focus group discussed the concept of PPD and the impact of this set of beliefs on antisocial behaviour. Their views are recorded in the discussion of the study results.

**Table 22**. Distribution of Percentage of Māori Participants with MCMI-III BR Scores Indicating Present and Prominent Diagnostic Scored (*N* =122)

| Personality Pathology Scale | BR score < 75 | BR score > 75 |
|---|---|---|
| Paranoid PD | 64% | 36% |
| Borderline PD | 77% | 23% |
| Schizotypal PD | 86% | 14% |

**Treatment/education programme history**

Only 5.4% of the sample reported not engaging in individual or group treatment programmes or participating in an education initiative as part of aiding their rehabilitation. Analysis of the treatment and education initiatives they reported they took part in found eleven main categories could separate these (Straight Thinking; Anger/Violence; Alcohol and Drug [A & D]; Cultural; Driving; Problem Solving; Parenting; Equip; Life skills, Individual Counselling, Education, and Other) (see Table 23). The Anger/Violence category included the Alternatives to Violence programme (AVP), Montgomery House Violence Prevention Programme, and attendance at the Violence Prevention Programme, however, the majority was for AVP.

**Table 23**. Distribution of rehabilitation treatment and educational initiatives undertaken in the community and prison by high risk sample (*N* = 149)

| ***Rehab Initiative*** | ***%*** | ***N*** |
|---|---|---|
| Straight Thinking | 54 | 81 |
| Anger/Violence Prevention | 42 | 63 |
| Alcohol and Drug | 65 | 98 |
| Culture | 13 | 20 |
| Education | 18 | 27 |
| Driving | 1 | 2 |
| Problem Solving | 2 | 3 |
| Individual Counselling | 2 | 3 |
| Parenting | 3 | 5 |
| Equip | 3 | 5 |
| Life skills | 14 | 21 |
| Other | 2 | 3 |

A large number of the sample reported that they had repeated a programme (34%). Table 24 reveals that at least 6% repeated a programme four or more times with the greatest number of repeated programme being fourteen times for AVP with the next highest being an inmate who repeated A & D programmes ten times. An analysis of which programmes were repeated the most found that A & D programmes were repeated by 26%, Anger/Violence by 7%, and Straight Thinking by 4% of the total sample (*N* = 149).

**Table 24**: Percentage of Programmes Repeated

| Times Programme Repeated | % of Sample |
|---|---|
| Nil | 66 |
| Once | 15 |
| Twice | 8 |
| Three times | 5 |
| Four or more times | 6 |

**Failure to Complete Treatment.** Participants in this study were asked to report on previous failure to complete a treatment/education initiative, why this had occurred and their feelings about this failure (see Table 25). A large number reported having failed to complete treatment or education initiatives (41%), however, only 4% of this failure related to education.

**Table 25**. Percentage of treatment/education non completion, reasons for non-completion, and attitude towards programme/treatment

| | *% total sample* | *N* |
|---|---|---|
| **Treatment/education non completion** | 41 | 61 |
| **Reason for failure** | ***% failure grp*** | ***N*** |
| Asked to leave | 41 | 25 |
| Left for own reasons | 36 | 22 |
| Reoffended/misconduct | 7 | 4 |
| Administrative | 16 | 10 |
| **Attitude towards non-completion** | | |
| Hostility in general | 26 | 16 |
| Felt 'OK' no change in mood | 36 | 22 |
| Angry (self/others) | 38 | 23 |
| Disappointed | 15 | 9 |
| Didn't care | 10 | 6 |
| Relieved | 2 | 1 |

Table 25 also indicates that 41% were asked to leave the programme for either failing to comply with programme rules or disruptive behaviour that included assaulting facilitators and other participants. Typical reasons for being classified as "Left for own reasons" included being bored, feeling the programme was a waste of time, and that there were time table clashes with activities they regarded as more rewarding.

**Correlations between study variables of interest**

**Treatment non completion.** When the study variables were considered in relation to their relation to treatment failure a number were found to have significant Pearson Product Moment correlations (see Table 26). Variables such as current age, poor level of education, ethnicity, and risk of recidivism were not found to have significant correlations with treatment failure.

**Table 26**. Significant correlations between study variables and history of treatment failure for all participants.

Pearson Product Moment Correlations
**All correlations are significant at p < .05000**
N=142 (Casewise deletion of missing data)

| | **Treatment Failure** |
|---|---|
| Sentence Length (months) | -0.17 |
| Previous Robbery Conviction | 0.17 |
| URICA: Pre-Contemplation | -0.22 |
| MCMI-III Borderline Personality | 0.18 |
| Borderline Personality Presence/prominence | 0.19 |
| Negative feelings about treatment failure | 0.61 |
| Previous A & D treatment programme | 0.21 |
| Repeated same treatment programme | 0.23 |

A form of regression analysis, discriminant function analysis, was used to understand the relationship between the study variables. The dependent variable, group membership, was defined as either previous treatment failure or no failure. The Wilks' lambda statistic (*Λ)* for the overall discrimination is computed as the ratio of the determinant of the within-groups variance/covariance matrix over the determinant of the total variance covariance matrix. The overall Wilks' Lambda for the model was significant, $\Lambda = .77$, $X^2 (7, 138) = 5.8$, $p < .0001$, indicating that the selected study variables differentiated between the two groups. Table 27 lists the unique contributions the seven study variables made to the group membership defined as no failure and previous treatment failure. The RoC*RoI score was the only study variable that added 'value' to the analysis over and above the variables already identified in Table 26.

**Table 27**. Discriminant Function Analysis of Study Variables that Correlate with Treatment Failure

Discriminant Function Analysis Summary
No. of vars in model: 7; Grouping: Treatment failure (2 grps)
Wilks' Lambda: .77254 approx. F (7,138)=5.8047 p< .0000

| | Wilks' Lambda | Partial Lambda | F-remove (1,138) | p-level | Toler. | 1-Toler. (R-Sqr.) |
|---|---|---|---|---|---|---|
| RoC*RoI | 0.79 | 0.98 | 2.97 | 0.09 | 0.94 | 0.06 |
| Sentence Length | 0.80 | 0.96 | 5.34 | 0.02 | 0.95 | 0.05 |
| Robbery conviction | 0.79 | 0.98 | 2.49 | 0.12 | 0.95 | 0.05 |
| Pre-Contemplation | 0.83 | 0.93 | 10.41 | 0.00 | 0.96 | 0.04 |
| BPD-Pres/prominence | 0.81 | 0.96 | 6.23 | 0.01 | 0.94 | 0.06 |
| Repeated treatment | 0.80 | 0.96 | 5.28 | 0.02 | 0.96 | 0.04 |
| A & D treatment | 0.80 | 0.97 | 4.54 | 0.03 | 0.97 | 0.03 |

**Table 28.** Discriminant Function Forward Stepwise Analysis of Study Variables that Correlate with Treatment Failure

Summary of Forward Stepwise Analysis

| | Step | F to entr/rem | df 1 | df 2 | p-level | No. of vars. in | Lambda | F-value | df 1 | df 2 | p-level |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Pre-Contem-(E) | 1 | 8.42 | 1 | 144.00 | 0.00 | 1 | 0.94 | 8.42 | 1 | 144 | 0.00 |
| Repeated trt-(E) | 2 | 7.76 | 1 | 143.00 | 0.01 | 2 | 0.90 | 8.28 | 2 | 143 | 0.00 |
| BPD- Pres/prom-(E) | 3 | 5.37 | 1 | 142.00 | 0.02 | 3 | 0.86 | 7.48 | 3 | 142 | 0.00 |
| Sentence length-(E) | 4 | 4.97 | 1 | 141.00 | 0.03 | 4 | 0.83 | 7.01 | 4 | 141 | 0.00 |
| A & D trt-(E) | 5 | 5.15 | 1 | 140.00 | 0.02 | 5 | 0.80 | 6.80 | 5 | 140 | 0.00 |
| RoC*RoI-(E) | 6 | 3.20 | 1 | 139.00 | 0.08 | 6 | 0.79 | 6.29 | 6 | 139 | 0.00 |
| Robbery conviction-(E) | 7 | 2.49 | 1 | 138.00 | 0.12 | 7 | 0.77 | 5.80 | 7 | 138 | 0.00 |

When forward stepwise discriminant function analysis was used with the identified variables to "build" a model of discrimination step-by-step, the analysis reviewed all the risk measures to evaluate which as predictor variables contributed most to the discrimination between groups. Variables were entered into the model in the order in which they added to the variance between treatment failure or no failure group membership. When this was done, Pre-Contemplation score from the URICA was the best single variable with the final and seventh variable entered, previous robbery conviction.

**Personality pathology and offence related variables.**

In view of the importance that personality pathology has in maintaining antisocial behaviour the relationship between MCMI-III personality pathology and other salient study variables was examined. Table 29 lists all the study variables that were found to have a statistically significant relation with one of the three severe personality pathology scales, SPD, BPD, and PPD. While it was expected that the other MCMI-III personality scales would correlate with the three severe personality pathology scale scores of ≥ 75, a number of the clinical syndrome and demographic and offence related variables also had significant correlations. Please note that details of all correlations with the other study variables can be found in Appendix H.

SPD scores correlated with older current age (r =. 23), previous periods of imprisonment (r = .22), previous convictions for serious assault (r = .20), driving offences (r = .18), a higher IM-P score (r = .22), and scores on the three MCMI-III severe clinical syndrome scales (Thought Disorder, r = .62; MDD r = .62; and Delusional Disorder, r = .29). BPD scores correlated with previous convictions for possession of weapons (r = .22), the URICA Maintenance stage (r = .20), previous treatment failure (r =. 19), and scores on the three MCMI-III severe clinical syndrome scales (Thought Disorder, r = .60; MDD r = .42; and Delusional Disorder, r = .18). PPD scores correlated with previous driving offences (r = .24), the URICA Maintenance stage, and scores on the three MCMI-III severe clinical syndrome scales (Thought Disorder, r = .40; MDD r = .24; and Delusional Disorder, r = .57). Note that the Delusional Disorder scale is designed to pick up paranoid patients with a psychotic level of symptomatic presentation, namely, systematised delusions (being conspired against), ideas of reference (misinterpreting innocuous remarks), and hypervigilance (alertness to possible betrayal).

**Table 29.** Pearson product moment correlations between significant study variables and MCMI-III severe personality pathology scales, Paranoid PD, Borderline PD, and Schizotypal PD

Correlations
Marked correlations are significant at p < .05000
N=132 (Casewise deletion of missing data)

| | **Paranoid PD** | **Borderline PD** | **Schizotypal PD** |
|---|---|---|---|
| Current Age | 0.13 | 0.08 | **0.23** |
| No. Periods imprisonment | 0.16 | 0.14 | **0.22** |
| Serious Assault | 0.10 | 0.00 | **0.20** |
| Possession wpn | 0.15 | **0.22** | 0.06 |
| Driving | **0.24** | -0.03 | **0.18** |
| IM-P | 0.14 | 0.09 | **0.22** |
| URICA total | **0.22** | 0.10 | **0.17** |
| Maintenance | **0.20** | **0.20** | 0.15 |
| MCMI-III Y | **-0.18** | **-0.49** | **-0.47** |
| MCMI-Z | **0.41** | **0.66** | **0.66** |
| Schizoid | **0.32** | **0.39** | **0.50** |
| Avoidant | **0.42** | **0.27** | **0.65** |
| Depressive | **0.35** | **0.52** | **0.56** |
| Dependant | **0.33** | **0.45** | **0.43** |
| Histrionic | **-0.28** | **-0.46** | **-0.50** |
| Narcissist | 0.14 | **-0.29** | -0.08 |
| Antisocial | **0.29** | **0.38** | **0.17** |
| Sadistic | **0.42** | **0.42** | **0.25** |
| Compulsive | **-0.23** | **-0.49** | **-0.32** |
| Passive-Aggressive | **0.61** | **0.71** | **0.46** |
| Self-Defeating | **0.39** | **0.53** | **0.52** |
| Anxiety | **0.43** | **0.50** | **0.56** |
| Somatoform | **0.33** | **0.30** | **0.59** |
| Bipolar | **0.34** | **0.53** | **0.32** |
| Dysthymia | **0.26** | **0.56** | **0.58** |
| Alcohol abuse | **0.33** | **0.47** | **0.30** |
| Drug abuse | **0.20** | **0.43** | **0.18** |
| PTSD | **0.37** | **0.59** | **0.61** |
| Thought Disorder | **0.40** | **0.60** | **0.62** |
| Major Depressive Disorder | **0.24** | **0.42** | **0.60** |
| Delusional Disorder | **0.57** | **0.18** | **0.29** |
| Treatment failure | 0.01 | **0.17** | 0.09 |

## Factor Analysis

Factor analysis was used as a date reduction method for the large number of independent variables in the study (*N* = 108). Relying on the correlations between variables to produce factors that are the linear combination of the study variables. Principal components analysis was used with varimax rotation to maximise the variance to ensure the selected variables are independent of each other. While a Scree plot found that a maximum of six possible factors would be extracted only two factors were found to account for multiple variables (marked significant at >.70) (see Table 30). Factor 1, the strongest factor identified a group characterised by high levels of personal distress while Factor 2 identified an early onset chronic offender group on Moffitt's early versus late onset typology. However, due to the small sample it was unlikely that Factor analysis would identify many variables with eigen values of .70 or greater so a more exploratory analysis of the study variables was carried out.

**Table 30.** Principal components factor analysis of high-risk study variables

| Extraction: Principal components<br>Factor (eigenvalue) | **Eigenval** | **% total Variance** | **Cumul. Eigenval** | **Cumul. %** |
|---|---|---|---|---|
| ***Factor 1*** | 13.11 | 11.92 | 13.11 | 11.92 |
| Social desirability (.87)<br>PTSD (.79)<br>Dysthymia (.77)<br>Depressive PD (.78)<br>Schizotypal (.76)<br>Thought Disorder (.75)<br>Borderline PD (.72) | | | | |
| ***Factor 2*** | 8.16 | 7.42 | 21.27 | 19.34 |
| Moffitt total score (.84)<br>Moffitt > 13 (.79) | | | | |

### Cluster analysis of study participant's personality traits

The relationship between the personality traits revealed in the participants was examined in an exploratory sense using cluster analysis. The term cluster analysis actually encompasses a number of different classification algorithms. A general question facing researchers in many areas of inquiry is how to organize observed data into meaningful structures, that is, to develop taxonomies. The cluster analytic technique used in this study was Hierarchical Tree analysis.

**Hierarchical Tree analysis.** This was used to establish in an exploratory analysis the links between the 14 MCMI-III personality disorders. A variable based approach was used with each personality disorder treated as a variable

in a class by itself. Then in very small steps, the criterion[2] was “relaxed” as to what is and is not unique. As a result more and more of the personality variables were linked together and aggregate (amalgamate) larger and larger clusters of increasingly dissimilar elements. Finally, in the last step, all objects are joined together. In these plots, the horizontal axis denotes the linkage distance. Euclidean distance, the most commonly chosen type of linkage distance was employed in this analysis. Thus, for each node in the graph (where a new cluster is formed) it is possible to read off the criterion distance at which the respective elements were linked together into a new single cluster. Figure 11 indicates a clear "structure" in terms of clusters of objects that are similar to each other, with this structure reflected in the hierarchical tree as three distinct branches (clusters). Cluster 1: Schizoid, Avoidant, Schizotypal, Depressive, Self-Defeating, Dependant. Cluster 2: Narcissistic, Antisocial, Sadistic, Passive-Aggressive, Borderline, and Paranoid. Cluster 3: Histrionic and Compulsive.

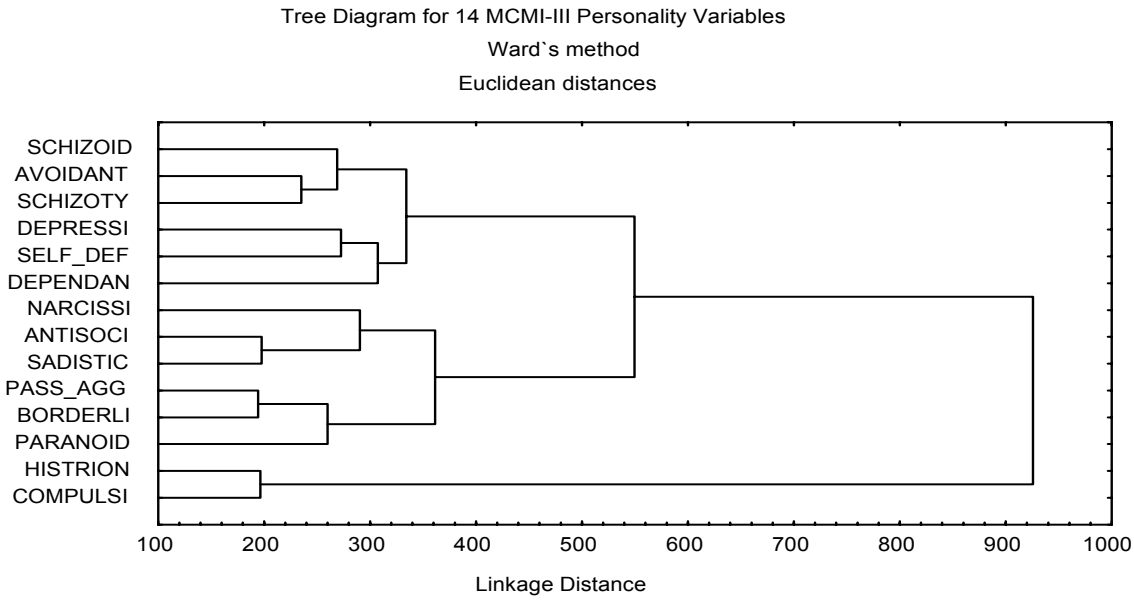


**Figure 11.** Hierarchical tree analysis for the 14 MCMI-III personality disorders

The three clusters revealed using tree cluster analysis (see Figure 11) form groups with particular behavioural patterns. Cluster 1: Schizoid, Avoidant, Schizotypal, Depressive, Self-Defeating, Dependant would be characterised by ‘strange and eccentric interpersonal behaviour with gloomy and dispirited views of the world. Cluster 2: Narcissistic, Antisocial, Sadistic, Passive-Aggressive, Borderline, and Paranoid would be characterised by antisocial/psychopathic behaviour and individuals with this trait cluster would be expected to score high on the Psychopathy Checklist instruments. Cluster 3: Histrionic and Compulsive, such individuals are characterised by solicitation

[2] **Ward's method.** This method is distinct from all other methods because it uses an analysis of variance approach to evaluate the distances between clusters. In short, this method attempts to minimize the Sum of Squares (SS) of any two (hypothetical) clusters that can be formed at each step. In general, this method is regarded as very efficient, however, it tends to create clusters of small size.

of attention, search for acceptance by others, and adherence to social norms. At times, they may act in a superficially charming manner, seeking recognition through attention seeking behaviour, however, they are likely to control any oppositional feelings but occasional frustrations may occasionally erupt. They will be alert to signs of potential hostility and rejection and guilt may be displayed instrumentally to block threats and elicit support and sympathy. More extreme reactions may emerge when their security is genuinely threatened.

**Personality pathology sub-sample**

**Between group analysis.** In view of the MCMI-III distribution of personality pathology revealing approximately a third of the sample with the presence or prominence of PPD or BPD and the factor analysis finding the strongest factor was related to the presence of BPD and SPD the sample was divided into those with significant elevations on PPD and those under the BR75 cut-off score. Table 31 records the significant between group t-tests carried out to reveal differences. Note the results for the group t-tests for all study variables are listed in Appendix H.

**Table 31**. One-way independent *t*-test evaluating differences for Group 1 (< BR75) and Group 2 (≥ 75) for the three severe personality disorder scales.

| **G1: < BR75 G2: ≥ BR75** | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| **Paranoid PD** | ***M* G1** | ***M* G2** | ***t*-value** | ***df*** | ***P*** | ***N* G1** | ***N* G2** | ***SD* G1** | ***SD* G2** |
| Possess Wpn | 0.411 | 0.596 | -2.175 | 145 | 0.031 | 95 | 52 | 0.495 | 0.495 |
| Contemplation | 3.832 | 3.914 | -0.811 | 144 | 0.419 | 95 | 51 | 0.610 | 0.542 |
| Maintenance | 3.422 | 3.650 | -2.013 | 144 | 0.046 | 95 | 51 | 0.635 | 0.677 |
| **Schizotypal PD** | | | | | | | | | |
| Truancy | 0.659 | 1.083 | -2.322 | 145 | 0.022 | 123 | 24 | 0.476 | 1.742 |
| Number Imprison | 6.439 | 9.125 | -2.550 | 145 | 0.012 | 123 | 24 | 3.899 | 7.736 |
| Moffitt >13 Q5* | 0.780 | 5.042 | -2.342 | 145 | 0.021 | 123 | 24 | 0.488 | 20.442 |
| Moffitt >16 Q9** | 0.721 | 5.083 | -2.389 | 144 | 0.018 | 122 | 24 | 0.450 | 20.432 |
| **Borderline PD** | | | | | | | | | |
| Posswpn | 0.393 | 0.700 | -3.431 | 145 | 0.001 | 107 | 40 | 0.491 | 0.464 |
| Moffitt total | 13.028 | 14.000 | -2.008 | 145 | 0.046 | 107 | 40 | 2.738 | 2.230 |
| Maintenance | 3.404 | 3.769 | -3.056 | 144 | 0.003 | 107 | 39 | 0.653 | 0.596 |
| Treatment failure | 0.355 | 0.550 | -2.159 | 145 | 0.033 | 107 | 40 | 0.481 | 0.504 |

*Moffitt >13 Q5 “behaviour problems evident in two or more different environments (e.g., home and school)?”
** Moffitt >13 Q9 “Is there evidence of criminal versatility between ages 13-17?

Table 31 indicated that the Paranoid group as defined by scores over or under the presence BR score of 75 had higher means for previous weapon possession convictions, and for the URICA Contemplation and Maintenance stages of change. The Schizotypal group as defined by as defined by scores over or under the presence BR score of 75 had higher means for truancy, previous imprisonment, and early and chronic delinquent behaviour (Moffitt sub scale total scores). The Borderline group as defined by scores over or under the presence BR score of 75 had higher means for delinquent behaviour pre age 17 (Moffitt total score), rated themselves as in the Maintenance stage of the URICA, and had higher means for treatment failure.

**Discriminant Function Analysis**

The dependant variable, group membership, was defined as either MCMI-III BR score of <.75 or ≥ .75 for the three severe personality pathology scales. Forward stepwise analysis was used to "build" a model of discrimination step-by-step. Specifically, at each step the *STATISTICA* 5.1 computer programme reviewed all study variables and evaluated which ones contributed most to the discrimination between groups. That variable was then included in the model, and the programme proceeded to the next step.

The Wilks' lambda statistic (*Λ)* for the overall discrimination is computed as the ratio of the determinant of the within-groups variance/covariance matrix over the determinant of the total variance covariance matrix. The overall Wilks' Lambda for the Paranoid Personality model was significant, $\Lambda = .668$, $X^2$ (9, 131) = 7.2199, $p < .001$, indicating that the nine listed variables differentiated between the two groups. Table 32 lists the unique contributions the nine variables made to the discriminant model with just four variables, Delusional, Schizotypal, Passive-Aggressive, and Borderline PD having overall Wilks' Lambda scores that were statistically significant.

**Table 32.** Forward Stepwise Discriminant Function Analysis of Paranoid (≥ 75) and Non-Paranoid (< 75) Groups using High Risk Study variables

Discriminant Function Forward Stepwise Analysis Summary
Step 9, N of vars in model: 9; Grouping: Paranoid PD (2 grps)
Wilks' Lambda: .66844 approx. F (9,131)=7.2199 p< .0000

| | Wilks' Lambda | Partial Lambda | F-remove (1,131) | p-level | Toler. | 1-Toler. (R-Sqr.) |
|---|---|---|---|---|---|---|
| Delusional* | 0.73 | 0.91 | 12.48 | 0.00 | 0.91 | 0.09 |
| Schizotypal* | 0.72 | 0.93 | 9.82 | 0.00 | 0.76 | 0.24 |
| Compulsive | 0.67 | 0.99 | 0.88 | 0.35 | 0.64 | 0.36 |
| Passive-Aggressive* | 0.71 | 0.94 | 8.44 | 0.00 | 0.43 | 0.57 |
| Borderline PD | 0.70 | 0.96 | 5.44 | 0.02 | 0.35 | 0.65 |
| Possess Wpn* | 0.68 | 0.99 | 1.70 | 0.19 | 0.90 | 0.10 |
| Major Assault* | 0.68 | 0.99 | 1.54 | 0.22 | 0.95 | 0.05 |
| Robbery offence | 0.67 | 0.99 | 1.26 | 0.26 | 0.93 | 0.07 |
| URICA Maintenance* | 0.67 | 0.99 | 1.23 | 0.27 | 0.94 | 0.06 |

***Means higher for the Paranoid PD group**

Of the nine variables listed as discriminant in Table 32, six had higher mean scores for the Paranoid group, Delusional Disorder, Schizotypal PD, Passive-Aggressive PD, previous convictions for possession of weapons, major assaults, and URICA Maintenance stage of change. The Paranoid group had lower mean scores for Compulsive PD, Borderline PD, and previous robbery convictions.

Table 33 indicates that the nine variables in the model displayed in Table 32 were able to classify 89% of those in the paranoid group (BR ≥ 75) and 72% of those in the non-paranoid group (BR < 75).

**Table 33**. Classification matrix Forward Stepwise Analysis of Paranoid (≥ 75) and Non-Paranoid (< 75) Groups using study variables

| Classification Matrix (PPD)<br>Rows: Observed classifications<br>Columns: Predicted classifications | | | |
|---|---|---|---|
| | % Correct | G1 | G2 |
| G1 | 89.47 | 85 | 10 |
| G2 | 72.54 | 14 | 37 |
| Total | 83.56 | 99 | 47 |

**Borderline PD**

The overall Wilks' Lambda for the Borderline Personality model was significant, $\Lambda = .58$, $X^2$ (11, 130) = 8.3131, $p < .0001$, indicating that the 11 listed variables differentiated between the two groups. Table 34 lists the unique contributions the 11 variables made to the discriminant model with eight variables, Passive-Aggressive, Narcissistic, Possess Weapon, Bipolar, Major Depressive Disorder, Treatment Failure, URICA Action stage of change, Number of Offence Categories, and previous Obstruction offence having overall Wilks' Lambda scores that were statistically significant.

Of the 11 variables listed as discriminant in Table 34, nine had higher mean scores for the Borderline group, Passive –Aggressive and Avoidant personality traits, previous convictions for Possess Weapon, Obstruction, and Driving offences, Bipolar Disorder, Major Depressive Disorder, Treatment Failure, and URICA Action. Only Narcissistic personality traits, and number of previous offence categories had lower mean scores.

**Table 34.** Forward Stepwise Discriminant Function Analysis of Borderline (≥ 75) and Non-Paranoid (< 75) Groups using High Risk Study variables

| Discriminant Function Analysis Summary BPD<br>Step 11, N of vars in model: 11; Grouping: BPD (2 grps)<br>Wilks' Lambda: .58 approx. F (11,130)=8.3131 p< .0000 | | | | | | |
|---|---|---|---|---|---|---|
| | Wilks' Lambd | Partial Lambd | F-remove (1,130) | p-level | Toler. | 1-Toler. (R-Sqr.) |
| Passive-Aggressive* | 0.62 | 0.95 | 6.28 | 0.01 | 0.73 | 0.27 |
| Narcissistic | 0.64 | 0.92 | 11.38 | 0.00 | 0.84 | 0.16 |
| Possess Weapon* | 0.66 | 0.89 | 15.82 | 0.00 | 0.62 | 0.38 |
| Bipolar* | 0.62 | 0.94 | 7.88 | 0.01 | 0.78 | 0.22 |
| Major Depressive D* | 0.61 | 0.96 | 5.29 | 0.02 | 0.76 | 0.24 |
| Treatment failure* | 0.61 | 0.96 | 4.92 | 0.03 | 0.94 | 0.06 |
| No Offence Categories | 0.63 | 0.93 | 9.17 | 0.00 | 0.42 | 0.58 |
| Obstruction offence* | 0.61 | 0.95 | 6.17 | 0.01 | 0.60 | 0.40 |
| URICA Action* | 0.59 | 0.99 | 1.54 | 0.22 | 0.90 | 0.10 |
| Driving offence* | 0.60 | 0.98 | 1.99 | 0.16 | 0.75 | 0.25 |
| Avoidant personality* | 0.59 | 0.99 | 1.10 | 0.30 | 0.63 | 0.37 |

***Means higher for the Borderline PD group**

**Table 35**. Classification matrix Forward Stepwise Analysis of Borderline (≥ 75) and Non-Borderline (< 75) Groups using study variables

| Classification Matrix (BPD)<br>Rows: Observed classifications<br>Columns: Predicted classifications | | | |
|---|---|---|---|
| | % Correct | G1 | G2 |
| G1 | 92.52 | 99 | 8 |
| G2 | 74.35 | 10 | 29 |
| Total | 87.67 | 109 | 37 |

Table 35 indicates that the 11 variables in the model displayed in Table 34 were able to classify a very high 92% of those in the Borderline group (BR ≥ 75) and 74% of those in the non-Borderline group (BR < 75).

**Schizotypal Personality Disorder.** The tolerance values for the study variables (tolerance value of a variable is computed as the 1-R square of that variable with all other variables in the model) were all smaller than the default value of 0.01. This indicated that the dependent variable (SPD) was more than 99% redundant with the other variables already in the model so no discriminant analysis was possible. The inclusion of highly redundant variables in the analysis may later lead to potentially serious round-off errors in the matrix inversion or canonical analysis, due to matrix ill-conditioning.

## Discussion

The great number of variables studied in this exploratory study produced a large amount of data and results. This discussion will briefly deal with results relating to risk factors that are well established in mainstream literature, before focusing on the treatment failure group and the analysis of personality pathology in the sample. The implications of these results, as well as recommendations for future clinical practice and research are also presented.

***Sample.*** The study sample of high-risk offenders was found to be representative of male prison inmates assessed with RoC*RoI scores indicating 70% risk or greater of serious reoffending. While the distribution of ethnicity was heavy skewed towards Māori (83%), this bias was found in analysis of high-risk offenders in North Island prisons to be overall 73%, with several institutions 80%. However, it was concerning to find that the majority of those classified as high risk identify as Māori a result that has important implications for treatment interventions, especially in view of the recent research support for the inclusion of cultural elements to address responsivity issues (Nathan, Wilson, & Hillman, 2003). In relation to responsivity, another factor, younger age, was also found in the sample with the mean age of participants at interview only 27 years of age with 66% of the sample aged 20-34 years, a distribution skew towards a younger population. Young age has repeatedly emerged in the literature as one of the most robust predictors of violent and general criminal recidivism (Andrews & Bonta, 2003).

***Offence related variables.*** The RoC*RoI scores for participants started at .70 but were evenly distributed right up to .90 or 90% risk of serious recidivism. The very high-risk group as defined by RoC*RoI scores of .80 or 80% risk and above therefore accounted for 48% of the sample. This provides further support for this sample being representative of the offenders Corrections most want to target in implementing a risk/needs approach to offender management.

In targeting this group for treatment it was important to identify that participants had relatively short sentences of imprisonment with the mean sentence length only 2.75 years reflecting that they were imprisoned often for minor offences with their risk of recidivism based on previous rather than index offending. This short sentence length for most will reduce the available time for the delivery of treatment, as well as the length of time available for supervision and the implementation of reintegration support.

In keeping with the risk prediction literature the samples mean age at first recorded arrest was 15.4 years signalling for most a pervasive pattern of chronic criminal behaviour. The early onset of criminal behaviour was followed by a pattern of criminal versatility with a mean of six different offence categories. It is noted that a number of risk measures recognise the importance of versatility in maintaining recidivism risk through the generalisation of antisocial beliefs and behaviours. The Psychopathy Checklist-Revised, item 20 assesses criminal versatility and indicates that six or more offence categories meet the full criteria for the item.

The sample participants had violent criminal histories with a mean of six violent convictions with such serious offences explaining their frequent periods of imprisonment (*M* = 7.03). The range of previous periods of imprisonment indicated that none of the participants were serving their first sentence of imprisonment. The frequency of previous imprisonment provided evidence of no observable response to the escalation of judicial punishments. While it was no surprise to find that 99% had dishonesty offences, the range of serious violence offences (assault 73%; serious assault 71%; possession of weapons, 48%, and robbery 31%) indicates that when we categorise the population as high risk, we are also identifying a violent offender population in the main. The other offence type of concern was the high rate of escape/breaches of parole/supervision (88%). The vast majority of convictions in this category were for breaches of parole/supervision, another risk factor of note for reoffending while on conditional release.

***Early behavioural problems.*** The majority of the high-risk offenders reported early contacts with authorities, with a mean age of 11 years for first contact with Police. Such early onset antisocial behaviour has been identified by a range of researchers including Terri Moffitt's (1993) analysis of New Zealand chronic delinquent male youth from the Dunedin longitudinal study. Moffitt identified that children who exhibit both early hyperactivity-impulsivity-attention problems and conduct disorder are the children who become lifelong persistent criminals. The scores from the Moffitt early versus late onset typology measure supported that 99 participants (66%) had established antisocial behaviour pre 13 years of age, a pattern classified as life course persistent. The rest of the sample had established patterns of antisocial behaviour by 17 years of age. Their early antisocial behaviour, when subject to official detection often resulted in their attendance at a number of Family Group Conferences (*M* = 3.4) an intervention that as with their response to later imprisonment, did not deter their escalating pattern of criminal behaviour.

Dr Graeme Scott (2002) from Corrections Policy Development has developed policy guidelines focusing interventions towards this chronic group and their criminogenic risk factors. These include school failure, and lack of work experience, leading to little prospect of paid employment, or a life in the mainstream of society. Friends or family who also offend, and an absence of friends who take part in normal, pro-social teenage activities, substance abuse, no working relationship with family or whanau, and no effective supervision were also present. The current study confirmed the influence of family/whanau with criminal behaviour with 82% percent of the participants in the study reporting that they had family members who were involved in criminal activities.

The study participants indicated significant difficulties at school. The mean highest academic achievement was third form (*M* = 3.4). Sixty-six percent reporting being punished for truancy, and 80% being suspended or expelled for disruptive or criminal activities. Participants also reported attending a number of primary (*M* = 3.3) and secondary schools (*M* = 2.7). Reasons for being suspended or being expelled in the main were for violence (57% of

cases involved either arson or violence against teachers and peers; 22% of this for assaulting teachers). Thus, confirming the presence of another of the previously identified risk factors for chronic antisocial behaviour. However, while distal risk factors relating to childhood and developmental influences assist in explaining how antisocial patterns of behaviour are initiating, there is a need to examine more proximal risk factors to identify maintaining factors. The factors that maintain risk are those that if addressed have the greatest influence on risk of further recidivism (Andrews & Bonta, 2003).

**Psychosocial risk factors**

*Antisocial influence.* While almost all in the study reported associating with antisocial family and friends (82 and 88.5%), association with organised groups of antisocial associates over time was a significant factor in maintaining and escalating their antisocial beliefs and behaviours. Sixty-four percent of participants stated that they had been a member or associate of a criminal gang, with 29% reporting they continued to be a gang associate or member during their current period of imprisonment. In the same vein, 59% indicated infrequent or frequent current contact with family involved in crime and 65% with friends involved with crime. In summary, antisocial association, one of the big four risk factors identified in the introduction to this report was a salient factor maintaining risk of reconviction after release for the majority of the study participants.

***Stability of residence, employment, intimate relationships.*** The literature on risk identifies that stability in the areas of residence, employment and intimate relationships acts both as a risk and resilience factor for offenders (Andrews & Bonta, 2003). For participants in the current study, the last residence that provided stability was their family home with instability of residence increasing after they left, mostly as teenagers.

The longest time in paid employment ranged from nil to 12 years, however, the mean was only 1.8 years indicating that for most employment was short-term, especially with 10% of the sample reporting never having been employed. Reasons reported by study participants for losing employment were, continued criminal behaviour (25%), dissatisfaction with the job (17%), job contract ending (14%), and sacked (9%). While employment is usually regarded as a primary goal for rehabilitation most in the study were able to find employment, the issue then became the quality of the employment and their continued antisocial behaviour outside of the workplace. Without these issues being addressed employment on its own is regarded as unlikely to reduce recidivism for similar high-risk offenders. The literature in regard to the impact of employment supports this conclusion (Steurer, Smith, & Tracy, 2001).

Steurer et al (2001) in a major American study investigating a number of hypotheses about the relationship between inmate participation in educational programmes and post-release employment and recidivism. Data was gathered on 3,200 inmates with contributions from correctional, parole and

probation, education and workforce agencies. A release cohort was used to pick the studied treatment (participated in correctional educational programme) and control (had not participated) groups. The programmes covered functional literacy skills, high school diploma level, and entry-level occupational education.

Investigation of group characteristics that might explain any differences found, other than whether or not they participated in an education programme, showed that they either did not significantly differ on known factors indicative of recidivism risk or that the participation group were at greater risk. It also showed no significant differences between the groups on self-reported motivation to achieve employment. They found that 3 years post release the inmates who participated in educational programmes while incarcerated had lower rates of general recidivism and of recidivism that resulted in re-imprisonment. Although no difference was found between the groups in their achievement of post-release employment, the average wage for education.

Finally, in examining environmental stability factors there was a large range of responses for length of intimate relationships, from no relationship, to one lasting 22 years (M = 5 years). Almost half indicated they were still in intimate relationships (47%), with reasons for the end of intimate relationships ranging from criminal lifestyle (39%), dissatisfaction (24%), domestic conflict (21%), and domestic violence (9%). Again, while many reported having intimate relationships, no assessment was made of the ability of such partners to influence their behaviour or even if their influence was prosocial.

A study into a group of high-risk offenders released in New Zealand who were apparently 'beating the odds' in terms of recidivism, examined the quality of their intimate relationships (Wilson, 2003). The participants in this 'false positive' study (N = 14) indicated that the prosocial support in their lives was usually from heterosexual partners they had met either prior to release or after release from prison (64%). Many of the attributions the men interviewed provided as to why they had been able to prevent further serious reoffending reinforced the impact they believe prosocial partners had in preventing recidivism. An example from the study illustrating this was (this) *"relationship is a very important part of his life. Something that helps him deal with the frustrations of dealing with bureaucracy and the areas he has problems with and also gives him someone who he can trust. He revealed very few close friends and that he does not really trust anyone, but he does trust his partner. She is his best friend. She provides, because of her employment, the money that they need to survive and provides the control on impulses. In addition, she helps to socially smooth things, as well for contact with prosocial people"* (Wilson, 2003, p172).

## Analysis of cultural variables for Māori participants

The inclusion of variables relating to Tikanga was initiated after analysis of the FReMO focus group consultation. The cultural variables selected were based on these discussions and are introduced in an exploratory sense. Their analysis is described purely in a descriptive, qualitative fashion, and they were not included into any of multivariate statistical analysis in keeping with the exploratory nature of their assessment. No conclusions are drawn about the impact of these variables on offending due to the lack of confidence in the reliability of the data and the lack of cultural expertise in the study researcher. However, consultation with a FReMO focus group of Māori stakeholders over the results from the study found general support both for the variables, as well as the approach made in their analysis. This group assisted in the analysis of the comments by participants in response to a question relating to future inclusion of cultural variables into departmental treatment programmes (see Appendix F).

Thirty-three percent of the study participants who identified as Māori reported being influenced by Tikanga, with 14% indicating spiritual factors, in the main due to Christian beliefs (10%). While only 33% indicated that Tikanga influenced their lives the majority reported they had good knowledge of their cultural identity (76.5%) with a similar high level of knowledge of Marae protocols (71%). Only a small number indicated fluency in Te Reo (12%) with 52% reporting some slight knowledge of language. In terms of cultural support, 69% reported support from hapu/iwi and 30% indicated they had accessed traditional treatment for difficulties with most stating this had been successful. Māori participants when asked about the future inclusion of Tikanga into departmental treatment programmes were split, with just over half reporting positive or limited support for the inclusion of culture. Their answers to this question provided a rich source of qualitative data that should assist in the development including cultural aspects in departmental programmes.

### *Motivation to change and previous treatment history*

***Treatment non completion.*** Department psychologist, Nev Trainor, has also been looking at the area of treatment non completion over the last two years (Trainor, 2004). This research has examined existing electronic data on completion rates for Corrections programmes. While there were difficulties in extracting reliable data, a large sample of 8100 was able to be accessed for analysis. Trainor carried out an extensive literature review and listed offender variables that appear to identify those who do not complete treatment:

- lower levels of educational attainment,
- less stable employment history and current unemployment,
- younger (<24)
- being unmarried,
- being at higher probable risk for reoffending
- having lower levels of pre treatment motivation,

- having substance abuse/dependence problems and
- some other forms of psychopathology (e.g., antisocial and other dysfunctional personality features such as schizoid, avoidant, negativistic, depressive, passive-aggressive, dependent and self-defeating tendencies).

The analysis of the large retrospective sample by Nev Trainor found that 23% failed to complete treatment, with this raising to 34% for focused criminogenic programmes and dropping to 21% for other programmes. The variables that predicted (statistically significant but small effect size; AUC = .61) a higher likelihood of non completion were:

- Criminogenic programme;
- Offender being male;
- Lower age;
- Higher RoC*RoI score.

It was interesting to note that ethnicity was not found to predict higher rates of non completion of treatment in contrast to overseas research. In assessing reasons for failure, the data quality was generally found to be poor. Over half the cases in the Trainor study had no reason for non-completion entered. Of those with a reason 44% (most of this in non criminogenic programmes) were for administrative reasons and only 2% were agency-initiated expulsion. In 54% of cases the offender initiated withdrawal with this being higher for criminogenic programmes (78%).

In the current study, the URICA measure of stages of behaviour change found low means for pre-contemplation and higher means for change stages related to acceptance of the need to change, and those related to active efforts to change. Participants had certainly engaged in treatment, with only 5.4% of the high risk sample reported not engaging in individual or group treatment programmes or participating in an education initiative as part of aiding their rehabilitation. The trouble appeared to be that the majority of historical treatment initiatives provided for the high-risk sample were Alcohol and Drug abuse programmes (65%), followed by Straight Thinking (54%), and Anger/Violence (42%), with most of this from the now discontinued AVP programme. While substance abuse is a recognised criminogenic need, it is noted that the majority of the sample had violence related criminogenic needs, yet few had engaged in effective programmes for violence. The Alternatives to Violence Programme is not believed to be suitable for high-risk violent offenders by the author of this report, and it is noted that the Corrections Department no longer supports the inclusion of the programme in prisons.

It was also of concern that many participants in the study reported that they had repeated a programme (34%) and at least 6% repeated a programme four or more times in the past. An analysis of which programmes were repeated found that Alcohol and Drug programmes were repeated by 26%, Anger/Violence by 7%, and Straight Thinking by only 4%. Either the treatment was not effective, with offenders placed

back into another programme without analysis of the reasons for failure, or in the absence of other criminogenic programmes they were placed in the more freely available substance abuse programmes. It is noted that many of these offenders would have engaged in such inappropriate treatment during past periods of imprisonment, and would now be expected to participate in targeted criminogenic treatment.

The key finding in the exploratory examination of past treatment was the high rate of reported previous treatment non completion at 37%. This percentage was higher than the typical treatment failure rate reported in overseas literature (25%) (Losel, 2001), and the recent New Zealand study (Trainor, 2004). However, the current sample were all high risk, with the large New Zealand study carried out by Trainor confirming elevated rates of non completion of treatment for those at higher risk of recidivism. In fact, the non-completion rate would be expected to increase as the high-risk sample are placed into focused criminogenic programmes, in which non participation and personality pathology would result in greater failure. This poor prognosis is supported by the current sample having a high percentage of men (41%) who were asked to leave the programme for either failing to comply with programme rules, or disruptive behaviour that included assaulting facilitators and other participants.

***Treatment non completion and study variables.*** In examining the relationship between study variables and treatment non completion few of the variables identified in the literature review by Trainor (2004) were found to be predictive, namely, lower levels of educational attainment, less stable employment history and current unemployment, being younger (<24), and being unmarried, and having lower levels of pre treatment motivation. All variables included in the current study. However, a number of the study variables had significant correlations with the treatment non completion group; shorter index sentence length, previous conviction for robbery, lower scores for URICA pre-contemplation stage of change, presence/prominence of Borderline PD, expressed negative feelings about treatment non-completion, had engaged in A & D treatment, and repeated treatment programmes.

What was found in common with the literature on non completion was the presence of substance abuse/dependence problems, identified by previous treatment in A & D programmes and the presence of personality pathology, in this case Borderline PD. The literature identifies personality pathology as dysfunctional interpersonal features such as schizoid, avoidant, negativistic, depressive, passive-aggressive, dependent and self-defeating tendencies. All aspects of Borderline PD presentation.

Further analysis of the salient variables using discriminant function analysis found that seven of the 107 study variables created a predictive model for treatment non completion. The seven variables in order of unique contribution to the model were lower scores for pre-contemplation, repeated treatment, prominence/presence Borderline PD, shorter sentence length, previous A & D treatment, higher RoC*RoI score, and previous robbery conviction. It is noted that another of the variables identified from the literature, higher risk of

recidivism, added slightly to the predictive model in the current study. It is hoped that further research into treatment failure will use the results from this study to establish if they are predictive of treatment non completion for other groups of offenders.

**Personality/interpersonal functioning**

The distribution of MCMI-III scores found some interesting elevations for personality styles that are linked in the literature to antisocial behaviour and to serious personality pathology. A significant percentage of the sample indicated the presence of a Passive-Aggressive (48%) style. The Passive-Aggressive interpersonal style is also referred to in the literature as a negativistic personality pattern. Individuals with this pattern of behaviour are know for their general contrariness and lack of motivation to do things others request with many engaging in antisocial acts as a form of rebellion (Millon, 1999). It is also linked to poor performance in treatment with many resentful of authority and captured by a pattern of self-defeat (Beck, Freeman, Davis, and Associates, 2004). The negativistic pattern also forms part of the typical presentation of those suffering from Borderline Personality Disorder, a serious form of personality pathology (Millon, 1999).

The second personality style elevation of note was for a Narcissistic (26%) interpersonal style. Narcissistic traits are an important part of the trait cluster that forms the psychopathic presentation with recent Confirmatory Factor Analysis identifying a facet or sub factor in which grandiosity forms the core (Hare, 2003). The essential features of Narcissistic personality are an overvaluation of self-worth and a grandiose sense of self-importance and uniqueness. Narcissistic individuals display antisocial behaviour characterised by interpersonal exploitation, and an exaggerated need for power and success. They tend to have little empathy for others with those who satisfy these needs idealised and others judged as serving little purpose devalued and treated contemptuously (Millon, 1999). The Narcissistic individual also tends to be defence in response to criticism and to avoid or shut down negative feedback reducing the effectiveness of treatment for their antisocial behaviour (Beck et al., 2004).

It was expected that many in the study would have significant elevations for Antisocial Personality Disorder (APD) (60%), however, it is noted that the literature reports that APD over identifies those meeting the DSM-IV diagnostic criteria in prison populations. Hare (2003) states that APD in relation to the concept of criminal psychopathy fails to assess the interpersonal factors that maintain antisocial behaviour across time and setting. Thus, the APD diagnostic criteria do not include superficial charm, arrogant self-appraisal, and a lack of concern for the suffering of others. In terms of the validity of the APD criteria for criminal assessment, there has been considerable challenge to the reliability of the category in forensic evaluations and testimony (Hare, 2003).

What was unexpected was the high level of significant severe personality pathology in the sample. The study found that 35% of participants indicated the presence of Paranoid Personality Disorder (PPD), 27% Borderline Personality Disorder (BPD), and 16% (SPD) Schizotypal Personality Disorder. Eleven percent (*N* = 11) of the personality pathology sample had cluster elevations indicating the presence or prominence of SPD, BPD, and PPD, 11.5% (*N* = 17) twin elevations PPD and SPD, and 13% (*N* = 19) PPD and BPD.

The presence of multiple personality pathology is the norm with few individuals presenting with a single elevation for PPD, BPD, or SPD. The most common combination in forensic patients is PPD and SPD due to both having restricted display in emotion (Kaplan & Sadock, 1998), followed by BPD and SPD where the common feature is odd behaviour (Millon, 1999). In relation to comorbidity with other personality disorders is noted that all three of the severe personality disorders listed above consistently meet the criteria for one to five of the other DSM-IV personality disorders (Beck et al., 2004).

Exploratory cluster analysis identified three clusters of personality traits in participants. *Cluster 1*: Schizoid, Avoidant, Schizotypal, Depressive, Self-Defeating, Dependant, characterised by 'strange and eccentric interpersonal behaviour with gloomy and dispirited views of the world. *Cluster 2*: Narcissistic, Antisocial, Sadistic, Passive-Aggressive, Borderline, and Paranoid, characterised by antisocial/psychopathic behaviour and individuals with this trait cluster would be expected to score high on the psychopathic traits. *Cluster 3*: Histrionic and Compulsive, characterised by solicitation of attention, search for acceptance by others, and adherence to social norms.

In lay terms, offenders with a Cluster 1 presentation would appear sad with poor social competency, they would tend to keep to themselves although desiring the company of others. Their crimes would involve little identification with their victims and they would tend to only engage in treatment if subject to external motivation due to pervasive self-defeating beliefs. Often such individuals receive treatment that is focused on personal distress variables rather then criminogenic factors. For those with Cluster 2, they would present often as psychopathic self centred, superficial, lacking in empathy for others, manipulative, and lacking responsibility for their behaviour. Typically they would perform poorly in treatment, if indeed they were able to be motivated to attend therapy. The final Cluster 3 group can appear model inmates, often acting in a superficially charming manner, seeking recognition through attention seeking behaviour. Moreover, while they can control their desire to respond negatively to challenge, repressing any oppositional feelings on occasion frustrations may occasionally erupt. They will be alert to signs of potential hostility and rejection and guilt may be displayed instrumentally to block threats and elicit support and sympathy. More extreme reactions may emerge when their security is genuinely threatened. In the study authors clinical experience many with the Cluster 3 presentation are incarcerated for sex offences against children.

**Relevance of SPD, BPD, and PPD?**

Schizotypal PD is not common in criminal populations and marked by individuals displaying eccentric behaviour with a variety of peculiarities of behaviour, speech, thought, and disturbance (Millon, 1999). There were marked social competency deficits, and they were usually seen as 'strange' by others. Their odd behaviour often results in retreat into paranoid ideation and magical thinking. Much of their criminal behaviour involves violent or sexual offending in which they regard their victims in a detached fashion (Beck et al., 2004). Again as with PPD and BPD, individuals with SPD are viewed in the literature as difficult to treat due to their guarded nature and constant testing of the therapist's sincerity. Any challenge is viewed as an attack to which they react with efforts to terminate contact (Millon, 1999).

Borderline PD is an advanced dysfunctional variant of the dependant, histrionic, antisocial, sadistic, and more commonly, the passive-aggressive personality (Millon, 1999). Such individuals are characterised by intense, variable moods, and irregular energy levels with both poorly modulated by external events. Their mood may be depressed or excited, angry or euphoric with little sense of self and engagement in risk taking behaviour.

Paranoid PD can be briefly described as individuals who are vigilantly guarded, ever ready to ward off expected negative interactions with others, resistant to the control of others, and ready to bear grudges and to be unforgiving and suspicious. They read hidden meanings into innocuous actions, and will not share their views but rather ruminate over and distort events based on their cynical and distrustful nature (Beck et al., 2004). Individuals with PPD are described as hypersensitive, easily slighted, and always vigilant in scanning their environment for information that might support/validate their hostile belief system. Their lives are typically emotionally restricted by suspicion of others and thus engage in a pattern of isolation and social withdrawal. The isolation will also be accompanied by a façade of self-sufficiency (grandiosity) in an attempt to defend what is in reality a fragile sense of self (Baumeister et al., 1996). In distinguishing PPD from individuals with paranoid delusions there will be ideas of reference about innocuous events but without the delusional convictions that characterise psychotic patients. Finally, the literature points to the mingling of paranoid characteristics with other pathological personality features with individuals meeting PPD criteria also able to be classified as Narcissistic, Borderline, Schizoid, or even depressed (Millon, 1999).

The only other large-scale study of personality pathology in a New Zealand prison population was carried out as part of a national study of psychiatric morbidity among inmates (Simpson, Brinded, Laidlaw, Fairley, & Malcolm, 1999). This study used a screen for personality disorder rather than a full diagnostic instrument, with this approach expected to over estimate personality pathology. The study by Simpson et al. (1999) also found a high rate of Paranoid Personality Disorder with 39.9% in a sample of 592 sentenced inmates, and 17.9% Borderline Personality Disorder. No

assessment was presented of Schizotypal Personality Disorder. The authors of this study also found the high rate of Paranoid PD was unexpected and explained the result as due to the questions used to score paranoia failing to discriminate in a population with many who from their experiences were inherently untrusting and suspicious of others.

It is certainly expected that individuals who have sought to engage in behaviour that society had classified as criminal would be secretive and in attempting to escape the consequences of their behaviour would appear paranoid. However, the current study uses a sample of offenders for whom crime has become a lifestyle and yet no all had the presence or prominence of PPD, indicating the elevation was more that a transitory response to a hostile environment (Beck, 1999). The FReMO focus group were asked whether Māori in the study were more likely than non- Māori to endorse beliefs that the MCMI-III classified as paranoid. After discussing the concept of PPD, they felt that it identified a smaller sub-group who differed from other Māori inmates. The focus group certainly confirmed that many Māori expressed hostility towards the system and their past treatment by Pakeha, however, again these global beliefs did not in their view explain why only a third of the Māori participants had the presence or prominence of PPD.

In looking at the treatment of those with PPD it is important to attend to their difficulty accepting responsibility for themselves, lives, and the consequences of antisocial acts. There is centrality present in which they see themselves as the centre of other people's attention but also on occasion as the passive recipients of external forces that they have no control over, 'evil, the system' etc. They will quickly blame others for the difficulties they find themselves in while being careful to keep their reasoning about why this is to their own counsel (Beck et al., 2004).

**Mental disorder**

It was a positive finding that only 4% of the sample indicated the prominence of severe clinical syndromes, such as Major Depressive Disorder (MDD), Thought Disorder, or Delusional Disorder, and only 3% of participants indicated prominence of PTSD. The only other large-scale study of mental health in a New Zealand prison population was carried out as part of a national study of psychiatric morbidity among inmates (Simpson et al., 1999). This study sampled a representative sample of prison inmates rather than as in the current study high-risk offenders. Simpson et al. (1999) found 8.5% of sentenced inmates met the diagnostic criteria for PTSD in the month prior to assessment, with 5.9% the criteria for MDD. In relation to thought and delusional disorders, Simpson et al. (1999) again found higher rates at 6%. This difference could be explained in terms of the focus of the current study on more 'career criminal', with none of the participants serving their first sentence of imprisonment.

**Relationship between personality pathology and offending.**

A number of study variables had significant correlations with the personality pathology study group scale (scores of ≥ 75). While it was expected that the other MCMI-III personality scales would correlate with the three severe personality pathology scales, a number of the clinical syndrome and demographic and offence related variables also had significant correlations. Schizotypal PD scores correlated with older current age (r =. 23), previous periods of imprisonment (r = .22), previous convictions for serious assault (r = .20), driving offences (r = .18), a higher IM-P score (r = .22), and scores on the three MCMI-III severe clinical syndrome scales (Thought Disorder, r = .62; MDD r = .62; and Delusional Disorder, r = .29). Analysis of variance for study variables for the SPD pathology versus non pathology groups found a number of significant differences. The SPD pathology groups had higher means for truancy, previous imprisonment, and early and chronic delinquent behaviour. Indicating the their personality pathology had caused interpersonal difficulties from an early age, as well as problems with authorities.

As has already be explained those with SPD are not common in criminal populations, and are marked by individuals displaying eccentric behaviour, with a variety of peculiarities of behaviour, speech, thought, and disturbance (Millon, 1999). They have social competency deficits, and are usually seen as 'strange' by others, thus, explaining the higher scores on the IM-P, which assesses interpersonal (superficial and grandiosity) and affective deficits (lack of empathy and remorse). The correlation with age for the SPD group may be explained by the increased retreat into fantasy as they get older and exhibit increasingly bizarre behaviour, resulting in antisocial behaviour and subsequent imprisonment. The correlation with violence is again not unexpected, as individuals classified in the SPD group in injuring others would not attend to their victim's distress resulting in more severe injuries. Their odd behaviour often results in retreat into paranoid ideation and magical thinking hence the correlation with Thought Disorder, MDD, and Delusional Disorder. The correlation with previous imprisonment confirms what the literature identifies, namely, the difficulty in changing their behaviour due to their guarded nature and constant testing of therapists, with challenge viewed as an attack (Millon, 1999).

Borderline PD scores correlated with previous convictions for possession of weapons (r = .22), higher URICA Maintenance stage (r = .20), previous treatment failure (r =. 19), and scores on the three MCMI-III severe clinical syndrome scales (Thought Disorder, r = .60; MDD r = .42; and Delusional Disorder, r = .18). Analysis of the variance for study variables or the BPD pathology versus non pathology groups found a number of significant differences. The BPD group had higher means for delinquent behaviour pre age 17 (Moffitt total score), rated themselves as in the Maintenance stage of the URICA, and had higher means for

treatment failure. Thus, those with presence/prominence of BPD again had an early onset of their antisocial behaviour, did not view themselves as in need of treatment yet had failed in previous treatment. A negative stance in regard to treatment that is explained by the thoughts and behaviours, that underlies this personality category.

Paranoid PD scores correlated with previous driving offences (r = .24), the URICA Maintenance stage, and scores on the three MCMI-III severe clinical syndrome scales (Thought Disorder, r = .40; MDD r = .24; and Delusional Disorder, r = .57). Analysis of variance for the study variables for PPD pathology versus non pathology groups found a number of significant differences. The PPD group had higher means for previous weapon possession convictions, and for the URICA Contemplation and Maintenance stages of change. The noted hostility that the PPD group has towards others provides some explanation for their higher use of weapons, as well as their general disregard to rules and the rights of others in a correlation with previous driving offences, and that they believe they did not need further treatment (higher Maintenance stage scores) (Beck, 1999). Typically, those with paranoid ideation carry weapons to counter the constant threat they believe exists in the world. In relation to the correlations with the MCMI-III severe clinical scales, the PPD group also on occasion will move into paranoid delusions and/or severe mood disorder when their thoughts are not subject to constraint or reality checks. However, any psychosis would tend to be related to mood or paranoid delusions usually persecutory type (Kaplan & Sadock, 1998). The literature on the treatment of those with PPD is in agreement about the poor prognosis due to the lifelong problems it brings across settings (home, employment etc) and restricted ability to engage in a therapeutic alliance (Millon, 1999). In fact, many with PPD will become threatening to others in a group setting and to the therapist/facilitator when they feel treatment is intrusive or there are poorly defined boundaries (Kaplan & Sadock, 1998).

***Personality pathology membership***. This analysis found that nine of the study variables created a predictive model for PPD pathology versus non-pathology groups. Higher mean scores were found for the Paranoid group for Delusional Disorder, Schizotypal PD, Passive-Aggressive PD, previous convictions for possession of weapons, major assaults, and URICA Maintenance stage of change. The Paranoid group had lower mean scores for Compulsive PD, Borderline PD, and previous robbery convictions. In understanding this predictive model, those in the paranoid group would be likely to more into delusions on occasion due to their suspiciousness of others (usually persecutory), display restricted emotions, and behaviour designed to test others with little regard for social rules. Their crimes were likely to involve reactive violence, usually involving weapons and they did not believe they required any further treatment for their antisocial behaviour.

Discriminant function analysis found that 11 of the study variables created a predictive model for BPD pathology versus non pathology groups. Higher mean scores were found for the Borderline group for Passive –Aggressive and Avoidant personality traits, previous convictions for Possess Weapon,

Obstruction, and Driving offences, Bipolar Disorder, Major Depressive Disorder, Treatment Failure, and URICA Action. Only Narcissistic personality traits, and number of previous offence categories had lower mean scores.

In understanding this predictive model, those in the borderline group would be likely to have tumultuous interpersonal relationships in which they move from being dependant due to a poor self image, to when frustrated to enormous anger towards friends/therapists, and possible splitting and social avoidance. Their crimes were likely to involve driving offences (perhaps in an expression of anger) or opposition to Police and possession of weapons (they view the world in terms of good [idealised], or bad people [devalued]) but were limited in terms of criminal versatility as a group. While they endorsed that they were in the process of actively addressing their offending, they were more likely to fail in treatment.

**Limitations of research**

This study while providing a reasonably comprehensive profile of the participants was limited by its focus on high-medium to low-minimum security inmates. The inclusion of participants classified, as maximum security from Paremoremo Prison would have allowed a complete picture of the high-risk incarcerated population to be completed. This is important when one considered the reasons for a maximum-security rating, namely, high levels of violent misconduct behaviour, the extreme nature of their crimes, and a previous history of poor prison conduct or escape.

The research was initially intended to be longitudinal rather than a single probe into the participants' offending and treatment history. At this stage only a 'snapshot' of participants has been established. Therefore limiting the conclusion that the profile of the offenders is stable over time, and implications on how predictive study variables are of criminal behaviour. There is a need to follow-up the sample in the next two years to provide a comprehensive picture of their subsequent engagement in focused criminogenic programmes, prison conduct, and their successful if released. The relatively short nature of many of the participants index sentence means a large number will have been released since the data was gathered in 2002. In addition, the study originally hoped to gather information on high-risk offenders who had been subject to IOM and their subsequent sentence management. A follow up study of the participants would enable a reliable sample of this data to be gathered and compared in terms of a serial assessment process. Thus, providing evidence of how predictive the personality pathology was of successful sentence management.

Finally, the other major limitation of the study was in the lack of a more comprehensive cultural assessment of what was later found to be a predominantly Māori sample. While the study did attempt to gain more information on high-risk Māori offenders by including exploratory questions on aspects identified through FReMO consultation, as with most research these raised more questions than they answered. Any future research with this sample will need to attend to this deficit in order to provide important

information on the relationship with PPD and how cultural programme components can successful address the hostility inherent in this personality pathology. This would include far more comprehensive consultation with appropriate Māori stakeholders using the data gathered to date, as well as funding for Māori researchers to assist in the gathering of a comprehensive cultural assessment and in the analysis of this data.

Finally, while I have listed some limitations of the study is should be noted that this was an exploratory study that was never intended to provide any definitive answers. The introduction to this study pointed out the group of offenders typically classified as high risk, are not understood well and are heterogeneous in nature. Therefore, research that assists in increasing our knowledge about high-risk offenders and in clarifying the areas for further research is of considerable value even with limitations.

**Implications of the study**

***Risk profile***. Overall the study has confirmed that high-risk offenders are similar in terms of the presence of the big four factors that predict and maintain risk, namely, early onset of chronic criminal behaviour, antisocial associations, antisocial beliefs, and antisocial personality traits, as well as high levels of substance abuse, and violence related criminogenic needs. The presence of these risk factors, indicators of the group being both high risk and high needs, while expected, is important in supporting the focus by the Department of Corrections on a risk/needs approach.

Besides finding similarities on recognised risk variables, a number of factors that were both, risk or possible resilience indicators differed. While some offenders had instability in terms of residence, employment, and intimate relationships there were a range of responses, with a number indicating deficits in some, or none of these areas. The high-risk group were also found to differ on number of important outcome variables such as treatment efficacy, motivation to change, and specific severe personality patterns that maintained poor social competency and antisocial beliefs. Brown (2002) found the best model of dynamic predictors of success or failure after release from prison in a Canadian sample included the following variables; employment problems, marital support, negative affect, perceived problem level, substance abuse, social support, and expected positive consequences of crime. These dynamic variables when combined had an AUC = .83 in predicting any reoffending.

The research by Brown (2003) provides support for the inclusion of individual factors and a targeted approach to the provision of reintegrative services for high-risk offenders. It is fairly easy to list noted reintegrative factors and to provide interventions to support to overcome these. However, this study indicates that such a ‘tick box’ approach may fail to address individual psychological variables (negative affect, perceptions about change, pro-criminal beliefs), or may fail to recognise and address the barriers from personality pathology to environmental variables, such as employment problems, marital support and social support.

In addition, while it was expected that the sample would be split equally between Māori and non- Māori in keeping with the distribution of ethnicity for the total prison population, this was not the case with not only the study sample of high-risk offenders but also the North Island inmate population. Providing even greater support for the need to provide more effective treatment programmes for Māori offenders.

The research carried out into the efficacy of treatment at Te Piriti, as well as Montgomery House VPP, programmes that combine both Tikanga and best practice cognitive behavioural treatment (CBT) indicates that a cultural focus appears to be effective in overcoming responsivity barriers for Māori offenders (Nathan, et al., 2003). While these results are encouraging further work needs to occur to see if the inclusion of Tikanga with very high-risk offenders, many with possible personality pathology is as effective, with this needing to be in combination with best practice CBT. The only international research to date, points to difficulties when the focus is only on cultural identity or self-esteem issues, with high-risk offenders with higher rates of recidivism. (Baumeister et al., 1996).

Finally, the study has established that most of the high-risk offenders in the study (66%) were imprisoned for between eight months to 3.62 years. In terms of prison management and parole eligibility this means the majority of these high risk offenders are likely to spend relatively short periods in prison and may not be subject to a S107 order (Parole Act 2002), limiting the ability to deliver intensive psychological treatment initiatives. This is in addition to the confirmed heterogeneous nature of the high-risk study sample. Thus, the type and timing of treatment will vary and will require more than a 'one size fits all' approach to treatment and management.

***Management/treatment issues.*** It is clear that treatment of the high-risk sample in this study has been marked by a lack of success. Well over a third had failed in previous treatment, with this figure expected to be much higher for similar offenders engaged in effective treatment programmes in which more is expected than attendance, such as the IOM core 100 hour suite of programmes or Special Treatment Units. Besides the study finding that a high percentage had failed in treatment it was also clear that as a group most had violence treatment needs, as well as a need for intensive treatment without which they were likely to reoffend. At least a third indicated the presence or prominence of severe personality pathology, which the discussion has indicated provides both significant barriers to change, as well as criminogenic factors such as hostile beliefs and isolation from prosocial influences in the case of PPD, BPD, and SPD.

The PPD group accounted for the highest percentage of the high-risk sample. The implications of management of a group of such a suspicious and guarded group are present in psychological assessment issues, responsivity to change, and in effective treatment. While there has already been discussion of responsivity to change, in regard to assessment, success relies on offender informed consent and full engagement. Those characterised by PPD will not volunteer for assessment, believing that anything they say in interview will be

misinterpreted, in addition reports written based on file review will be rejected as the 'system being out to get them'. Recognising the prevalence of PPD among high-risk offenders, the group most likely to be subject to psychological assessment, means Department psychologists should develop approaches that reduce suspicion/hostility. This may require spending some time finding a person the offender trusts to act as a support person during interview, as well as spending extra time explaining the purpose of the interview, checking notes at the end of sessions, and communicating in writing where possible to counter their faulty interpretation of reality (Palermo & Scott, 1997).

In terms of treatment, the PPD group will require trained clinicians rather than para-professionals due to the transference and counter-transference issues with which they present (Beck et al., 2004). The first principle in dealing with those with personality pathology is the establishment of meaningful therapeutic alliances (Bowers, 2002). In dealing with the paranoid, the issues in establishing such an alliance require trust and empathetic responsiveness, as well as boundaries to maintain a sense of autonomy for the offender in treatment (Millon, 1999). The clinician also needs to be aware that therapy for the PPD person can see the conversion of paranoia to depression as defences come down resulting in early traumatic experiences coming to the fore.

A recent article on motivational factors for forensic patients with personality disorder provides some support for a different approach, although it is noted the sample was very small (Sainsbury, Krishnan, & Evans, 2004). Sainsbury et al. identified seven dimensional categories to improve motivation; Supportive interactions; Desire for immediate treatment and change; Safety of participant; External motivation from those they trust; Sense of belonging to therapy; Internal motivation based on a 'good life' model; and finally, establishing an, Effective working alliance.

While it is important to recognise and plan to overcome the barriers that PPD presents to successful treatment, the focus is on criminogenic factors rather than treating them for a personality disorder. Duggan (2004) quotes William James who wrote in his *Principles of Psychology* (1890), 'In most of us by the age of thirty, character is set in plaster and will never soften again' as part of the case for the stability of personality factors, especially those related to antisocial personality. The case seems to be that change is only possible in the way basic temperament tendencies react to the environment. Such as a reduction in violent behaviour, within a secure, and predictable environment. By focusing on the behaviour that is required to change and the personality traits that maintain the inappropriate response, effective treatment is possible.

**Future research**

The current research has provided further support for treatment that provides effective intervention for violent and hostile beliefs, as well as recognising and addressing major responsivity barriers. Such research will need to be exploratory in view of the lack of both international and New Zealand success

in treating high-risk offenders, many of whom also meet the criteria for criminal psychopathy (Hare 2003; Wilson, 2003).

The author of the current study, Dr Wilson, has developed a multi-year research proposal based on the research findings to provide a suitable treatment intervention for high-risk offenders. It is included in this report to demonstrate how the results from the study can inform more effective treatment with high-risk offenders. The first stage would involve an extensive literature review of the treatment needs and responsivity barriers of very high-risk offenders. This will build on the work from the current study, as well as recent work carried out internationally in developing and running treatment initiatives for similar offender groups.

The proposed research would collect data and manuals from recent overseas experimental treatment programmes, notably, the Regional Forensic Centre, Saskatoon Canada, and the four Dangerous Severe Personality Disorder (DSPD) treatment units in England. The area of treatment with this group worldwide has become a priority, however, programmes are yet to be proven and more data should be available over the first year of the proposed study through contacts Dr Wilson has with researchers in this area[3].

The next stage in the research would look at previous New Zealand treatment initiatives, such as the long running Montgomery House Violence Prevention Programme, as well as the Violence Prevention Unit, Wellington, and noted individual initiatives by Department psychologists. Both these programmes and the individual efforts have had offenders who would have met the very high risk/psychopathic criteria. The study would collect and analyse data on content, demographics (including actuarial assessment scores), and recidivism, as part of ensuring that existing knowledge on success and failure is uncovered and included in the experimental programme. A FReMO focus group would be formed from appropriate Maori stakeholders to access traditional knowledge about intervention/therapy with very high-risk offenders, with assistance sought specifically in terms of overcoming responsivity issues with this high risk difficult to manage group.

While the proposed study would use the information outlined above to provide an experimental intervention, a general overview with limited detail is listed below.

Potential participants would be clearly informed about the kawa of the programme and expected behaviour, both in terms of conduct, but also expected change in criminogenic targets. The treatment programme could form three sections or phases. The first would be termed the responsivity/motivation intervention group phase. It would focus on identifying group and individual barriers to change and is aimed at overcoming resistance. The experimental intervention would be highly structured with its

[3] The principal researcher, Dr Wilson recently visited Canada in June 2004 and took advantage of this trip to spend time at the Saskatoon Regional Forensic Centre where Dr Wong and Audrey Gordon have been implementing treatment with a similar very high-risk violent/psychopathic group.

rules, goals, and activities clear and explicit. Psychopathy and the interpersonal behaviours associated with it, such as conning, manipulative, lying, and deception, are regarded as responsivity barriers that need to be successfully managed during the treatment phase. While the staff would have some flexibility to recognise individual difference and autonomy, offenders would not be allowed to 'run' the programme or assume any leadership but rather will be expected to take responsibility for their own behaviour.

The responsivity group phase will enable participants to be introduced to intervention concepts, such as the transtheoretical model of change, in which treatment is viewed as a process of change, with realistic and observable expectations of behaviour change. All participants should have moved through the pre-contemplation stage, a stage characterised by offenders having no intention to change, in which they are unaware, in denial, or lack insight into the need for change. This initial phase is also expected to be an important area in which Tikanga principles will assist in overcoming barriers to change and in providing an accepted kawa for the group to operate within.

The second will be termed the treatment or action group phase. This part of the experimental intervention for the participants would be intensive at three days a week of group therapy (two hours in the morning and two in the afternoon[4]), plus individual treatment as required for on-going responsivity issues. A workbook would be used that each participant would be expected to complete that contains information, homework, and worksheets on each treatment phase module. While group sessions are expected to follow the modules in the workbook if someone does not acquire the skills, individual work will address these differences. The programme content aimed at preventing further violence is yet to be decided on, however, the programme is expected to incorporate components from Hare & Wong's programme (in press) such as:

- Introduction to behaviour cycles
- Internal links to behaviour cycles: Perceptions
- Internals links to behaviour cycles: Thoughts and attitudes
- Internals links to behaviour cycles: Managing emotions
- External links to behaviour cycles: Managing other high-risk situations
- Offence cycles established
- Maintenance of change

[4] Andrews & Bonta (2003) recommended that effective programmes should occupy a significant amount (40-60%) of the offender's time to ensure that the intervention has time to have an impact on entrenched patterns of antisocial behaviour, with 6-12 months being the minimum time for intensive programming. It is also recommended that participants be observed after discharge to lower intensity, maintenance programme to observe if any enduring behavioural changes have taken place.

- Prosocial post programme goals

- Relapse prevention.

    - Forming positive connections
    - Developing a relapse prevention plan

The third and final component is termed the post treatment or maintenance phase. This part of the experimental intervention for the selected 8-10 participants would be low intensity with the main focus on observation of behaviour change in a different environment. After treatment, participants would be placed either back in their original prison units or accepted alternative units. While there will be a number of follow up maintenance sessions, programme participants would be expected to implement changes in their antisocial behaviour within prison. These expected changes that would also relate to the targeted changes in antisocial behaviour after release that were made clear within the treatment group phase. Key prison staff in the units in which participants are transferred after phase two would receive sufficient training in a behavioural assessment measure to record changes if they occur. Information on change would also be sought/observed from participants during maintenance follow up sessions. This final programme phase would last for three months to enable assessment of whether actual changes had occurred. Reintegrative planning would also use the results of the treatment programme to identify the supports and specific skills required for success after release.

## References


Abellanas, L., McLellan, A. T. (1993). "Stages of change" by drug problem in concurrent opiod, cocaine, and cigarette users. *Journal of Psychoactive Drugs, 25*, 307-313.

Andrews, D. (1995). The psychology of criminal conduct and effective treatment. *What works: Reducing reoffending*. J. McGuire. Chichester, Wiley.

Andrews, D. A., & Bonta, J. (2003). *The psychology of criminal conduct (3rd ed.)*. Cincinnati, OH: Anderson.

Andrews, D. A., & Bonta, J. (1998). *The psychology of criminal conduct* (2nd ed.). Cincinnati, OH: Anderson.

Andrews, D. A., Zinger, I., Hodge J., Bonta, J., Gendreau, P., & Cullen, P. (1990). Does correctional treatment work? A clinically relevant and psychologically informed meta-analysis. *Criminology 28*, 369-404.

American Psychiatric Association. (1968). *Diagnostic and statistical manual of mental disorders, (2th ed.)*. Washington: DC, Author.

American Psychiatric Association. (1994). *Diagnostic and statistical manual of mental disorders, (4th ed.)*. Washington: DC, Author.

Baumeister, R. F., Smart, L., & Boden, J. M. (1996). Relation of threatened egotism to violence and aggression: The dark side of high self esteem. *Psychological Review, 103*, 5-33.

Bakker, L., O'Malley, J. & Riley, D. (1998). *Storm warning: Statistical models for predicting violence.* Christchurch: Psychological Service, Department of Corrections.

Bakker, L., Riley, D. & O'Malley, J. (1999). *Risk of reconviction: Statistical models predicting four types of re-offending.* Christchurch: Department of Corrections.

Beck, A. T. (1999). *Prisoners of hate: The cognitive basis of anger, hostility, and violence.* New York: HarperCollins.

Beck, A. T., Freeman, A., Davis, D. D., & Associates. (2004). *Cognitive therapy of personality disorders (2nd Edition)*. New York: Guilford.

Blackburn, R. (1993). *The psychology of criminal conduct: Theory research and practice*. New York: Wiley.

Bonta, J. (2002). Offender risk assessment: Guidelines for selection and use. *Criminal Justice and Behavior, 29*, 355-379.

Bonta, J. (1996). Risk-needs assessment and treatment. In A. T. Harland (Ed.), *Choosing correctional options that work: Defining the demand and evaluating the supply* (pp. 18-32). Thousand Oaks, CA: Sage.

Bonta, J., Law, M., & Hanson, K. (1998). The prediction of criminal and violent recidivism among mentally disordered offenders: A meta-analysis. *Psychological Bulletin, 123*, 123-142.

Bonta, J., Lipinski, S., & Martin, M. (1992). The characteristics of aboriginal recidivists. *Canadian Journal of Criminology, 34,* 517-522.

Bowers, L. (2002). *Dangerous and severe personality disorder: Response and role of the psychiatric team*. London: Routledge.

Brown, S. L. (2002). *The dynamic prediction of criminal recidivism: A three-wave prospective study*. Doctoral Thesis. Kingston, ON: Queen's University

Buffington-Vollum, J., Edens, J. F., Johnson, D. W., & Johnson, J. K. (2002). Psychopathy as a predictor on institutional misbehavior among sex offenders: A prospective replication. *Criminal Justice and Behavior, 29*, 497-511.

Burgess, E. W. (1928). Factors determining success or failure on parole. In A. A. Bruce, A. J. Harno, E. W. Burgess, & J. Landesco (Eds.), *The workings of the indeterminate-sentence law and the parole systems in Illinois* (pp. 221-234). Springfield: Illinois State Board of Parole.

Coid, J. W. (1998). The management of dangerous psychopaths in prison. In T Millon, E Simonsen, M Birket-Smith and R Davis (Eds.), *Psychopathy: Antisocial, criminal, and violent behavior* (pp. 431-457). New York: Guilford.

Coyle, A. (1987). The management of dangerous and difficult prisoners. *The Howard Journal, 26,* 139-152.

Department of Corrections (2002). *Managing offenders in the Department of Corrections*. Wellington, NZ: Author.

Derrickson, D. L. (2000). Working alliance and readiness to change in incarcerated sex offenders. *Dissertation Abstracts International: Section B. The Sciences and Engineering, 60*, pp.4215.

Ditchfield, J. (1990). *Control in prisons: A Review of the literature* (Home Office Research Study No.118). London: Her Majesty's Stationary Office.

Dolan, B., & Coid, J. (1993). *Psychopathic and antisocial personality disorders*. London, Gaskell.

Dowden, C., & Serin, R. (2002). *Anger management programming for federal male inmates: the impact of dropouts and other program performance variables on recidivism*. Unpublished report: Research Branch Correctional Service Canada

Duggan, C. (2004). Does personality change and, if so, what changes? *Criminal Behaviour and Mental Health, 14*, 5-16.

Graham, A. (1999). Post-prison mortality: Unnatural death among people released from Victorian prisons between January 1990 and December 1999. *The Australian and New Zealand Journal of Criminology, 36*, 94-106.

Gendreau, P., & Keyes, D. (January 2001). Making prisons safer and more humane environments. Submitted January theme issue, *Canadian Journal of Criminology.*

Gendreau, P., Little, T., & Goggin, C. (1996a). A meta-analysis of the predictors of adult offender recidivism: What works! *Criminology, 34*, 575-607.

Gondolf, E. W. (1999). MCMI results for batterer program participants in four cities: Less "pathological" than expected." *Journal of Family Violence, 14*, 1-17.

Hare, R. D. (1992). *A model program for offenders at high risk for violence.* Ottawa, Correctional Services of Canada.

Hare, R. D. (1998). *Without conscience: The disturbing world of the psychopaths among us*. New York, Guilford Press.

Hare, R. D. (2003). *The Hare Psychopathy Checklist-Revised (PCL-R): 2nd Edition*, Toronto, Ontario, Multi-Health Systems.

Hare, R. D., Clark, D., Grann, M., & Thornton, D. (2000). Psychopathy and the predictive validity of the PCL-R: An international perspective. *Behavioral Sciences and the Law, 18*, 623-645.

Hare, R. D., Hart, S. D., & Harpur, T. J. (1991). Psychopathy and the DSM-IV criteria for antisocial personality disorder. *Journal of Abnormal Psychology, 100, 3*, 391-398.

Hare, R. D., McPherson, L. M., & Forth, A. E. (1988). Male psychopaths and their criminal careers. *Journal of Consulting and Clinical Psychology 56*: 710-714.

Harris, G. T., Rice, M. E., Cormier, C. (1991). Psychopathy and violent recidivism. *Law and Human Behavior 15*: 625-637.

Hart, S. D., & Hare, R. D. (1997). Psychopathy: Assessment and association with criminal conduct. In D. M. Stoff, J. Breiling and J. D. Maser (Eds.) *Handbook of antisocial behavior*: (pp 22-35): New York, Wiley.

Harpur, T. J., & Hare, R. D. (1994). Assessment of psychopathy as a function of age. *Journal of Abnormal Psychology, 103*, 604-609.

Hobson, J., Shine, J., & Roberts, R. (2000). How do psychopaths behave in a prison therapeutic community? *Psychology, Law, and Crime 6*: 139-154.

Kaplan, H. I., & Sadock, B, J. (1998). *Synopsis of psychiatry: Behavioral sciences/clinical psychiatry (8th Edition)*. New York: Williams & Wilkins

Kelln, B. C., Dozois, D. J., McKenzie, I. E. (1998). An MCMI-III discriminant function analysis of incarcerated felons: Prediction of subsequent institutional misconduct. *Criminal Justice and Behavior, 25*, 177-189.

Kosson, D. S. (1997). *Notes for using the interpersonal measures of psychopathy*. Unpublished manuscript.

Kosson, D. S., Steuerwald, B. L., Forth, A. E., & Kirkhart, K. (1997). A new method for assessing the interpersonal behavior of psychopathic individuals: Preliminary validation studies. *Psychological Assessment, 9*, 89-101.

Kosson, D. S., Gacono, C. B., & Bodholt, R. H. (2000). Assessing psychopathy: Interpersonal aspects and clinical interviewing. In C. B. Gacono (Ed.). *The clinical and forensic assessment of psychopathy: A practitioner's guide* (pp 203-230). London: Kluwer Academic.

Lattimore, P. K., Visher, C., & Linster, R. L. (1995). Predicting arrest for violence among serious youthful offenders. *Journal of Research in Crime and Delinquency, 32,* 54-83.

Levesque, D. A., Gelles, R. J., & Velicer, W. F. (2000). Development and validation of a stages of change measure for men in batterer treatment. *Cognitive Therapy & Research, 24*, 175-199.

Loeber, R., & Farrington, D. P. (2000). Young children who commit crime: Epidemiology, developmental origins, risk factors, early interventions, and policy implications. *Development and Psychopathology, 12,* 737-762.

Loeber, R., & Stouthamer-Loeber, M. (1996). The development of offending. *Criminal Justice and Behavior, 23*, 12-24.

Losel, F. (1998). Treatment and management of psychopaths. In D. J. Cooke, A. E. Forth, & R. D. Hare, (Eds.), *Psychopathy: Theory, research and implications for society* (pp. 303-354). Dordrecht: Kluwer Academic Publishers.

Losel, F. (2001). Evaluating the effectiveness of correctional programs: Bridging the gap between research and practice. In G. A. Bernfeld, D. P. Farrington & A. W. Leschied (Eds.) *Offender Rehabilitation in Practice*. John Wiley & Sons.

Lykken, D. T. (1995). *The antisocial personalities*. Hillsdale, NJ: Lawrence Erlbaum.

Lynam, D., R. (1996). Early identification of chronic offenders: Who are the fledgling psychopaths? *Psychological Bulletin, 120*, 209-234.

Lynam, D., R. (1998). Early identification of the fledgling psychopath: Locating the psychopathic child in the current nomenclature. *Journal of Abnormal Psychology, 4*, 566-573.

Mahon, J. (2000). Dropping out of psychological treatment for eating disorders: What are the issues? *European Eating Disorders Review, 8,* 198-216.

Martinez, R. (1997). Predictors of serious violent recidivism: Results from a cohort study. *Journal of Interpersonal Violence, 12*, 216-228.

McConnaughy, E. A., DiClemente, C. C., Prochaska, J. O., Velicer, W. F. (1989). Stages of change on psychotherapy: A followup report. *Psychotherapy: Theory, Research, Practice, & Training, 24*, 494-503.

McFarlane-Nathan, G. (1999). *FReMO: Framework for Reducing Māori Offending*. Wellington: Psychological Service, Department of Corrections.

Michenbaum, D., & Turk, D.C. (1987). *Facilitating Treatment Adherence: A Practitioners Guidebook.* New York: Plenum Press.

Million, T. (1999). *Personality guided therapy*. New York: John Wiley.

Millon, T. D., Millon, C., & Davis, R. (1994). *Millon Clinical Multiaxial Inventory-III.* Minneapolis: National Computer Systems, Inc.

Moffitt, T. E. (1993). Adolescent-limited and life-course-persistent antisocial behavior: A developmental taxonomy. *Psychological Review, 100,* 674-701.

Moffitt, T. E. (1997) Adolescent limited and life course persistent offending. A complementary pair of developmental theories. In T. Thornberry (Ed.), *Developmental theories of crime and delinquency. Advances in criminological theory* (pp. 11-54). London: Transaction Press.

Monahan, J. (1981). *Predicting violent behavior: An assessment of clinical techniques*. Beverly Hills, CA: Sage.

Nathan, L., Wilson, N. J., & Hillman, D. (2003). *Te Whakakotahitanga: An evaluation of the Te Piriti special treatment programme for child sex offenders in New Zealand*. Wellington, Department of Corrections, Psychological Service.

Ogloff, J. R P., Wong, S., & Greenwood, A. (1990). Treating criminal psychopaths in a therapeutic community program. *Behavioral Sciences and the Law, 8*, 181-190.

Palermo, G. B., & Scott, E. M. (1997). *The paranoid: In and out of prison*. Springfield, IL, England: Charles C Thomas.

Patterson, G. R., Reid, J. B., & Dishion, T. J. (1992) *Antisocial boys*. Eugene, OR: Castalia Publishing Company.

Prochaska, J. O., & DiClemente, C. C. (1984). *The transtheoretical approach. Crossing traditional boundaries of therapy.* Homewood, IL: Dow Jones-Irwin.

Reid, J. R., Patterson, G. R., & Snyder, J. (2002). *Antisocial behavior in children and adolescents: A developmental analysis and model for intervention*. Washington, DC, American Psychological Association.

Reise, S. P., & Oliver, C, J. (1994). Development of a California Q-set indicator of primary psychopathy. *Journal of Personality Assessment, 1*, 130-144.

Retzlaff, P., Stoner, J., & Kleinsasser, D. (2002). The use of the MCMI-III in the screening and triage of offenders. *International Journal of Offender Therapy and Comparative Criminology, 46*, 319-332.

Rice, M. E. (1997). Violent offender research and implications for the criminal justice system. *American Psychologist, 52*, 414-423.

Rice, M. E., & Harris, G. (1996). Predicting the recidivism of mentally disordered fire setters. *Journal of Interpersonal Violence, 11*, 364-375.

Robins, L. (1966). *Deviant children grown up: A sociological and psychiatric study of sociopathic personality*. Baltimore: Williams & Wilkins.

Sainsbury, L., Krishnan, G., Evans, C. (2004). Motivating factors for male forensic patients with personality disorder. *Criminal Behaviour and Mental Health, 14*, 29-38.

Salekin, R. (2002). Psychopathy and therapeutic pessimism: Clinical lore or clinical reality? *Clinical Psychology Review, 22*, 79-112.

Salekin, R. T., Rogers, R., & Sewell, K. W. (1996). A review and meta-analysis of the Psychopathy Checklist and Psychopathy Checklist-Revised: Predictive validity of dangerousness. *Clinical Psychology: Science and Practice, 3,* 203-215.

Serin, R. C., & Amos, L. N. (1995). The role of psychopathy in the assessment of dangerousness. *International Journal of Law and Psychiatry 18*: 231-238.

Serin, R. C., & Dowden, C. (2002). *Anger management programming for Federal male inmates: The impact of dropouts and other program*

*performance variables on recidivism*. Report to Research Branch: Corrections Service, Canada.

Shipley, S., & Arrigo, B. A. (2001). The confusion over psychopathy (II): Implications for forensic (correctional) practice. *International Journal of offender Therapy and Comparative Criminology, 4*, 407-420.

Simpson, A., Brinded, P., Laidlaw., T., Fairley, N., & Malcolm, F. (1999). *The National study of psychiatric morbidity in New Zealand Prisons*. Wellington: Department of Corrections.

Spier, P. (2002). Reconviction and reimprisonment rates for released prisoners. *Research Findings, 1,* 1-15

Steurer, S. J., Smith, L., & Tracy, A. (2001). OCE/CEA: Three State Recidivism Study. *Report submitted to the Office of Correctional Education United States Department of Education*.

Stiles, S. (2001). A psychological study of addicts/alcoholics in twelve-step programs with possible underlying DSM-IV Axis I and Axis II disorders as measured by the Millon Clinical Multiaxial Inventory-III, [On-Line]. *Dissertation Abstracts International: Section B: The Sciences and Engineering, 62* (5 B): 2504. Abstract from DIALOG File: PsychINFO Item 0419-4217.

Suedfeld, P., Landon, P. B. (1978). Approaches to treatment. In R. D. Hare and D. Schalling (Eds.) *Psychopathic behaviour: Approaches to research*. Chichester, England, John Wiley & Sons.

Sykes, G. M., & Matza, D. (1957). Techniques of neutralization: A theory of delinquency. *American Sociological Review, 22*, 664-670.

Toch, H., Adams, K., & Grant, J. D. (1989). *Coping: Maladaption in prisons.* Oxford: Transaction.

Trainor, N. (June 2004). *Update report on treatment non completion study*. Wellington: Unpublished report: Department of Corrections, Psychological Service.

Villeneuve, D. B., & Quinsey, V. L. (1995). Predictors of general and violent recidivism among mentally disordered inmates. *Criminal Justice and Behavior, 22,* 397-410.

Willoughby, F. W., & Edens, J. F. (1996). Construct validity and predictive validity of the stages of change scale for alcoholics. *Journal of Substance Abuse, 3*, 275-291.

Wilson, N. J. (2003). *The utility of the Psychopathy Checklist-Screening Version for predicting serious violent recidivism in a New Zealand offender sample*. Doctoral Thesis. Hamilton, NZ: Waikato University

Wilson, N. J., & Coldham-Fussell, K. (2000, November). *Do Prison Misconduct Reports Relate to Psychopathic Behaviour?* Poster session presented at the annual conference of the Association for Advancement of Behavior Therapy, New Orleans, Louisiana.

Wong, S. (1984). *The criminal and institutional behaviours of psychopaths*. Doctoral dissertation, Saskatoon, University of Saskatchewan.

Wong, S., & Gordon, A. (2003). *Manuals For A Violence Reduction Program*. Toronto: Multi-Health Systems, in preparation.

Zamble, E., & Quinsey, V. L. (1997). *The criminal recidivism process*. Cambridge: Cambridge University Press.

# Appendix A. FReMO Focus Group Meeting PCL Research Year Two

**Framework for reducing Maori reoffending (FReMO) focus group meeting: PCL Research Year Two**

**25 January 2001**

**Researcher: Nick Wilson**
Senior Clinical Psychologist
Department of Corrections
Psychological Service
Hamilton
P O Box 19 003
Direct dial (07) 834 7086
E-mail nick.wilson@corrections.govt.nz

## Background to the proposed research and the FReMO process

### Year Two PCL project research

This research is part of a large study into the relationship between a personality style associated with lifelong offending, namely, criminal psychopathy and reoffending risk. The literature reports that offenders assessed as criminal psychopathic/severely antisocial do not change and continue to reoffend usually within a short time of release. These offenders have typically not responded to current treatment programmes or rehabilitation initiatives. However, overseas research into similar offenders identified a sub-group assessed as psychopathic and thus high risk who do not return to prison. Research I carried out in 1999-2000 (Year one PCL research) confirmed that psychopathy was the best available reoffending risk factor, especially for serious violent offending for offenders released by the Parole Board. In addition, this research also identified a small group (a total of 32 offenders) who based on their score for psychopathy, were regarded as at high risk of serious reoffending. This group of offenders over a period of at least five years following release were not reconvicted for serious offences. It should be noted that over 80% were reconvicted for minor offences.

The explanation as to why these offenders stop what appears to be a stable consistent pattern of antisocial behaviour varies from they were wrongly assessed as psychopathic to they have left the country or died. Explanations from those involved in their supervision speak of “finding a good woman…landing a good job”…stopping substance abuse” etc. However, as yet no systematic research has looked at the reasons these men have changed often lifetime patterns of criminal behaviour. With the large amount of evidence that our current treatment approaches are not successful with offenders deemed psychopathic there is a need to look at the small group who appear to be ‘denying the odds’ to perhaps learn from them strategies and conditions that could help similar offenders.

**FReMO Process**

The '*Framework for Reducing Maori Offending'* (FReMO) was developed by Maori Clinical Psychologist, Garry McFarlane-Nathan (1999). This structured approach is all about achieving quality in services and policy in order to reduce Maori offending. FReMO seeks to access information from Maori concepts in order to enrich the knowledge base that can then guide initiatives such as the proposed research into the recidivism process. With respect to the proposed research, FReMO is about enhancing existing Western methodology and knowledge by accessing Maori perspectives and concepts to ensure that key areas of knowledge are not missed and that the gathering and analysis of data is not biased or misused.

A focus group comprising key Maori stakeholders (therapists, Probation Officers, offenders, elders) was seen to be one way of gathering this critical information prior to the development of the data gathering method.

**The year two PCL research at this stage will consider gathering information on the following areas already identified as significant from previous studies into the process of reoffending:**

**Personal history**

Age at release

- School achievement (and problems)
- Stability (longest time): In same residence; same job; sexual relationship
- Family members with criminal history
- History of psychological problems
- Suicidal attempts or thoughts
- Level Service Inventory-Revised (total and subscales)

**Criminal history**

- Total prior offences
- Total violent prior offences
- Age when first in trouble with the law
- Security level prior to last release
- Number of institutional misconduct's during last period imprisonment

**Lifestyle after release**

- Employment (both paid and voluntary)
- Marital/De facto status
- Living in familiar residential area
- Main source of income
- Satisfaction with employment/income
- Criminal Socialisation Scale
- Social Isolation Scale: Millon Clinical Multiaxial Inventory-Version III (MCMI-III)

- Active associate/member of gang
- Time spent in activities: Family; cultural: hobbies; listening to music; TV; physical activity; sport; casual socialising; self-improvement.
- Time Use/Time Framing Scale

**Parole period**

- Length of parole
- Release conditions
- Relationship with Probation Officer
- Cultural/gender/age match Probation Officer and parolee
- Violation of release conditions

**Substance abuse**

- Frequency of drug use (days/month
- Choice and number of drugs used
- Frequency and quantity of alcohol use
- Usual effects of alcohol use; increases violence; social activity; conflict
- Alcohol and drug abuse scales from the MCMI-III

**Post-release problems experienced and coping strategies**

- Specific problems plotted on a time line
- Problem seriousness rating
- Coping Situations Questionnaire
- Relationship between problems and feelings

**Emotional regulation**

- Beck Depression Inventory-II
- State Trait Anxiety Inventory
- State Trait Anger Expression Inventory
- Depressive Personality; Dysthmia; Major depressive episode scales from the MCMI-III

**Cognitions (Thoughts/Beliefs)**

- Rating of quality of life in the period following release; break into six months after release; 1 year; two years; five years.
- Confidence of success in preventing serious antisocial behaviour
- Thoughts about reoffending on a timeline covering at least five years
- Social Desirability Scale (could use the desirability scale from the MCMI-III)

**Offending following parole**

- Type of new offence and sentence received

- Number of new offences.  Plot on time line for the five years following release
- Days to first new offence following parole
- Thoughts and behaviour and environmental events prior to reoffending
- Coping strategies? If used what were they
- Recall of decisions made that lead up to reoffending.

**Possible Focus Group Questions**

The questions listed below are to help the focus group think about what has changed for offenders in this study regarded as at high risk of serious reoffending from a measure of criminal psychopathy.  What has aided them in not committing further serious offences over the five years since their release from prison?

Was it finding employment?

Finding a stable relationship?

Is it developing a strong cultural identity?

Is it being able to gain control over substance dependence?

Is it having strong whanau support where they live?

Was it just good luck?

Did gaining religious faith change their engagement in criminal activity?

Was it spiritual knowledge, or belief?

Was it the influence of someone they respected?

In addition to looking at possible reasons for a reduction in criminal behaviour I would like you to think about how this information should be gathered.

Consider the method of gathering this i.e., from probation files, interview of the offenders, having the offenders answer questionnaires etc and the cultural bias of the researcher in both gathering data and later analysis.

What can I do to prevent error and maximise this opportunity?

# Appendix B. FReMO focus group meeting on the non-recidivists study – PCL:SV Research Year Two

## Summary of FReMO Focus Group Meeting on the Non-recidivists Study (PCL Year Two)

**Held**: 25 January 2001, 9.30am-12.00pm

**Location:** Community Probation Office, Papakura Auckland

**Present:** Nick Wilson Senior Psychologist; Bxxx (ex offender); Tony Iwikau, Probation Officer; Txxxx (ex offender) Ratapu Rangiawhia, Program Manager, Montgomery House; apologies from Jill Parsons (Raukura Hauora o Tainui)

**Introduction:** Karakia used to start consultation meeting followed by whakawhanaunagatanga. Nick then spoke about his research and gave those gathered an idea about the FReMO process and how this would guide the proposed study. A handout was given to all participants detailing the project and the FReMO process.

**Notes on meeting:**
Bxxxx began by discussing why he had decided not to return to crime after release, he said he had young kids and his wife had been forced to work while he had been in prison. His family had waited for him while he was in prison and he was able to get back with them after release. He added his reasons for going straight were he wanted to be around for them; did not want them to suffer financially or from the stigma his offending brought; and that he loved his family.

Tony then spoke about Txxxx (ex-offender). He said that Txxxx had been separated from his whanau but his participation in 'Straight Thinking' had lead to prosocial changes. He added that Txxxx had been able to successfully reunite with his family because of the new skills he had learnt. Namely, being able to negotiate, display empathy, and take responsibility for his behaviour. Nick asked Tony why he thought Txxxx had done "Straight Thinking". Tony replied that it was part of his condition but that Txxxx had also been influenced by a Maori peer (both Black Power members) who had been through the treatment programme.

General Question to group: *What would cause Maori to change?* Answers were; involvement of elders in supervision; use of Maori process in Probation Service; some Maori more organised and that lead to change. Ethnicity of the Probation Officer; Bxxxx said that non-Maori PO's often did not listen to what he said, were blunt, to the point; ignorant, treated it just as a job, no use doing a job like PO if you don't feel for it. Ratapu mentioned education but that it had to be followed by application to become habit forming. He went on to discuss the role that wairua played, he spoke of the men from the Rimutaka Maori focus unit who had come to Montgomery House, he said these men had the education on Maori but this had only been applied within the unit, "they became like robots" but did not have the wairua. Tony talked about the

balance between the Maori and Pakeha world. Discussion then on makutu (bewitch, curse) the need to 'ghost bust' these to bring about change. Tony discussed psychiatric disorders, told of client, young boy. He said he spoke to boy's kuia, she had told him that boy had broken a sacred object in her home and that this had resulted in his disturbed behaviour. Discussion then moved to the appropriateness of Nick asking questions about this area (Txxxx arrived at meeting). Statements made about people how Maori just seeing them as evil, Maori intuitive about where other Maori are, able to do the basics (cultural process), need to happen first. This establishes rapport with the client and even though the client may not be "tuturu Maori", they have a respect for tikanga and its place within themselves.

Txxxx then spoke about a man he knows who has stopped crime. He said this man is his own boss now (can't steal from self), and has staff and responsibilities. Txxxx said this man had also done the programme (ST) but before this while in prison a Maori person in a church had spoken to him, even though it was a church thing it was the wairua, (Ratapu added, any indigenous people without wairua struggle and generally learn by rote.) Txxxx went on to say his friend had also got back into Maoritanga and also back with family. He said when you look at him now he has a glow, it's just like he woke up. Ratapu commented, if you have knowledge of things Maori, that's good but no understanding it's no good. Txxxx made a comment that setting goals had been very important for him to stop offending.

Tony went on to say that Maori have a strong sense of knowing when they get the 'bone' pointed at them, they believe it suppresses their wairua and consequently they become sick, hence "Mate Maori". Ratapu talked about Tike and Poona, Tike being external and Poona internal, and that PONO is the key for real change. Tony talked about a man, programme after programme, but no change, something missing. What it boiled down to was he was Maori and there was hidden offending against family, trauma affecting the wairua. Ratapu spoke of a cousin, who committed a murdered last year, kaumatua said it was always going to happen, it was part of the man's whakapapa. Ratapu said, there was a need to be able to awhi, care, touching, with porangi (crazy), always someone taking care of them and about finding them potential in the person to build them up. Txxxx mentioned that after his release he had injured his leg, had nothing better to do so started treatment in ST, became engaged when he saw the value of the programme.

Ratapu mentioned he had to leave, decision made to bring meeting to an end, karakia said, participants then invited to have a cup of tea and some food. Nick told group notes would be typed up and after checking with Tony would be sent out for their approval. He also added that he was open to hearing from them about any ideas that they had that came to them after the meeting.

**Summary of Meeting (by Nick)**

- Having links to whanau who wanted them back was indicated as important factor in stopping offending.
- Strong positive influence provided by other Maori offenders who had decided to change.

- Influence of kaumatua helps motivation to address offending.
- Maori Probation Officers viewed by offenders as able to hear them.
- Good working knowledge of Tikanga to assist in the healing process.
- Cultural or prosocial knowledge without wairua not viewed as effective in changing behaviour. Rote learning without 'depth'. Pono (internal change necessary).
- Need to assess and address makutu to reduce risk for some Maori offenders. This assessment and treatment can only be carried out by experienced Maori Probation staff or therapist.

**Appendix C**

## Interview Guide (High Risk/Need Study)

Participant Name: Age: Date:

Ethnicity:

Interviewer One:

Interviewer Two:

Unit if Prison or Office if CPS:

Important: Ensure that the person being interviewed fully understands that all information they disclose will be treated as anonymous (and recorded in discussing results) and encourage them to seek clarification if they remain unsure on this issue. Interview is not to start unless the person being interviewed has signed a consent form.

### Background Information

#### Q1 School History(and problems)?

*Highest level achieved (Form 2, 3, 4 etc)?*

*How many different primary schools?*

*How many different intermediate/secondary schools?*

*Disruption of classroom activities?*
**(May need to cue by giving example such as fighting or talking all the time etc)**

- *Yes/No?*
- ***Intensity (did it lead to them being disciplined)?***

- ***Duration (5 minutes or all day)?***

- ***Frequency (every day, once a week, once a month etc)?***

*Truancy (wagging)?*

- *Yes/No?*
- ***Intensity (did it lead to them being disciplined)?***

- ***Duration (one day or several days)?***

- ***Frequency (every day, once a week, once a month etc)?***

*Suspension or expulsion?*

- ***Yes/No?***
- ***Why, what was it for?***

Q2 Stability (longest time) in:

- ***Same residence (include family home while growing up as well as since)?***

- ***Why did they leave?***

- ***Same job (can be work scheme if this applies)?***

- ***Why did they leave?***

- ***Sexual/intimate relationship?***

- **Why did they leave?**

Q3 Family members/friends with criminal history (note we do not want names)?

- ***Family members? (are they siblings, parents, aunts/uncles?)***

- ***If so are they still in close contact?***

- ***Friends?***

- ***If so are they still in close contact?***

Q4 Associate/member of gang?

- ***Yes/No?***

- ***Current member?***

- ***If still member why, or if not why?***

Q5 History of psychological problems?

- ***Yes/No?***

- ***Mood (anxiety or depression) or though disorder (psychosis etc)***

- ***Other?***

- ***Did they receive therapy for the problem?***

- ***Time spent in hospital?***

- ***Placed on medication?***

- ***Still on medication?***

Q6 Medical History

*Historical*

- ***Illness (asthma, diabetes, heart condition, Hepatitis etc)***

- ***Head injuries (open or closed; ask around number of times rendered unconscious)***

- ***Does the participant have ongoing problems?***

- ***Currently on medication?***

- ***If suffering current or chronic problems ask about the effect they believe this will have on their life after release?***

Q7 Suicidal attempts or thoughts

- ***Yes/No?***

- ***Historical?***

    - ***Intensity, duration, frequency?***

- ***Current suicidal thoughts?***

    - ***Intensity, duration, frequency?***

Note: If a participant indicates current suicidality this should be brought to the attention of Nick Wilson, Project Manager ASAP (can always get him on (025) 296 2005)

Go through *Early versus late starter typology* (Moffitt, 1993)

**Q8 Criminal history?**

**(Note data on specfic offences and sentecnes is available from computer file info do not seek details from interview). However, ask the following general questions:**

***What age did you first start getting into trouble with the Police?"***

**(picked up by the Police)**

- ***How many Family Group Conferences have you attended?***
- ***Did you go to Youth Court?***
- ***Was there offending you did not get caught for as a child/youth such as shoplifting, wilful damage etc***

*What comments would you make about your history of offending?"*
**(May need to cue with, any comment on when you started, or the number of offences, or any escalation, or going to prison, or that you were treated unfairly etc)**

*Are there difficulties with Prison rules ?"*

- ***Have any misconducts reported?***
    - ***Can you give an estimate of how many?***
- ***If there are misconduct reports are they continuing or have they declined?***
- ***What do you think about the rules you have to follow?***

- ***What should be changed?***

*What was your security level prior to your last release (if the inmate has served a sentence of imprisonment before)?*

*Get below from file/computer information*

- Total prior offences
- Total violent prior offences
- Total number of prior sentences of imprisonment including current sentence (includes suspended sentences)
- Age when first in trouble with the law (first conviction)
- Current Offence(s)
- Current sentence length (cumulative)
- Number of institutional misconduct's during last period imprisonment (if available)

Interpersonal functioning: Administer *Millon Clinical Multiaxial Inventory-Version III* (MCMI-III)

**Problem Solving**

Q9 How do you generally cope with problems?

look for positive structured approach v/s negative [avoidant] or reactive, impulsive approach). **Cue questions around did they ask others opinion (who?), did they look at a number of options to solve a problem, did they think about the consequences of using an option.**

- ***Do they think they are good at problem solving?***

- ***Ask for an example of a problem they solved recently (if they have difficulty with this ask for one prior to imprisonment). May need to cue with example such as a bill that needed to be paid that they did not have money for***

## Cultural factors

Q10 "*Many men find that cultural and spiritual factors help them to keep out of trouble, change their lives, have these affected you*?"

- ***How did a cultural or spiritual factor help you or change your life***

Further questions if necessary to answer the areas listed below.

- ***Knowledge of cultural identity (can they identify their Iwi or Hapu)***
    - ***Protocols or Kawa (are they confident on the Marae)***
    - ***Language?***
        - ***Fluent?***
- ***Iwi/Hapu/Whanau support where they live***
- ***Received treatment/therapy from traditional healer***
    - ***If yes has it helped?***
    - ***In what ways***

- ***Had spiritual experience?***

    - ***If yes, what changes has this brought about for them?***

NB: This section will only be applied if the participant agrees to the researcher asking these questions. Need to inform participant that a Maori Research Assistant can be used if requested for questions about culture or if researcher feels unable to gather data due to ignorance!

Q11 Motivation to change

Apply URICA questionnaire

## Treatment History

Q12 Criminogenic treatment history? (focus the participant on programmes aimed at offending, i.e., Alcohol and Drug, Violence/anger, Sex offending, Straight Thinking etc, if in doubt put it down)

- ***Previous programme attendance?***

- ***If yes, list the programmes they can recall***

- ***Was there any programme you failed to complete?***

- ***Why was that (note could be because they were moved, asked to leave, were asked by programme to leave, got ill etc)?***

- ***How do you feel about the way your participation ended?***

- ***Were they angry, sad, disappointed (if angry towards who, themselves or the programme)?***

- ***Any hostility towards the programme or treatment in general?***

- ***Did they make any changes as a result of not completing the programme?***

- ***If the subject indicates difficulties in treatment programme ask what should have been changed?***

- ***What did they think about the course/programme facilitator(s)?***

***What did they think about the course content?***

- ***If the subject identifies as Maori would the inclusion of Tikanga process into treatment (e.g., language, protocols, Maori facilitators) have improved their experience/success in treatment?***

| General Questions |
|---|

| Q13 What do you think you need to change to stop further offending (if they do want to stop, if they want to continue why? |
|---|

Q14 What assistance do you think you will need if any from Corrections (includes Psychological Service) in preventing future offending?

Q15 Is there anything else you want to comment on that you believe this study is missing (encourage them in this)?

## Project Follow-up

**We would like to thank you for taking part in the project and for providing valuable information. It is hoped to follow-up participants in this project at a later stage to see what changes for you after one year and then after two years. This will enable us to develop more than a 'snap-shot' of the high risk/needs group allowing natural changes and experiences over time to be assessed.**

**Therefore, we would like you to provide consent for Nick Wilson, Project Manager to contact you in approximately a year for a short follow-up interview around any changes and experiences you have had.**

**This consent is only about being contacted and does not mean you have to participate in a further interview.**

---

**Followup Consent Form**

Signing this form provides permission for Nick Wilson, Senior Advisor Research Corrections Psychological Service to contact me to discuss my participation in a follow-up interview in approximately a year. I understand that I may decide not to go ahead with such an interview and there will be no questioning of my actions.

*I _____ have read (or have had read to me) and understand the above and agree to allow myself to be contacted regarding a follow-up interview in approximately a year as part of the high risk/needs project.*

Participants signature:_____ Date:_____

## Appendix D: Study measures and psychometric instruments

**Risk of re-Conviction X Risk of re-Imprisonment model (RoC*RoI)**

**Risk of re-Conviction X Risk of re-Imprisonment model. (RoC*RoI)** (Bakker, O'Malley, & Riley, 1998). The RoC*RoI measure was developed for the New Zealand Department of Corrections to assist in the accurate prediction of an offender's risk of conviction and likelihood of reimprisonment. The measure is based on static predictors (factors unchangeable by individual effort) from criminal history information. In developing the measure Bakker, O'Malley, and Riley (1999) used the following predictor variables:

*Personal characteristics*

- Gender;
- Age (continuous)
- Age at first offence
- Frequency of convictions
- Number of court appearances and convictions (running total)

*Jail and time at large*

- Total estimated time (yrs) spent in prison;
- Number of previous imprisonment sentences;
- Indicator that punishment for most recent crime was imprisonment;
- Maximum sentence length handed down to offender in past (yrs);
- Time at large (length of offender's most recent time at large);

*Seriousness of offending*

- Sum of seriousness ratings for all crimes (seriousness defined by average length of sentence in days a person receives if convicted of a crime);
- Weighted past seriousness measure (places greater weight on seriousness of most recent offence);
- Maximum serious measures for the past time period;
- Mean seriousness measures for the past time period;

*Offence type*

- Offence category (10 possible) (e.g., violent, disorderly conduct, sex);
- Number of convictions in crime category.

The complete criminal histories of more than 133,000 offenders (those convicted of an imprison able offence in 1983, 1988, and 1989) were used to develop RoC*RoI. Available information on these offenders included their complete criminal history prior to 1983, 1988, and 1989, and for any further offending over the next five years. Logistic regression was used by Bakker et al. (1999) to determine the relationship between the predictor variables and future offending, with the size of the sample allowing random allocation to either the development or validation samples. The key strength of RoC*RoI is

that it can effectively manage an enormous amount of factual information about an offender. Each piece of datum is weighed up and balanced against other pieces of factual information in an objective way to produce a statistical probability of reoffending (score range is 0.0 to 1.0, representing 0 risk to 100% risk of serious recidivism). As this is computer generated human error in calculating the score is eliminated.

The RoC*RoI actuarial measure is in fact a combination of two risk models. RoC equals Risk of re-Conviction, while RoI equals the Risk of re-Imprisonment. These two risk models derive from exploiting the mathematical relationship between basic social and demographic variables, criminal history variables and future offending. The RoC*RoI measure, therefore, is an expression of the likelihood that a person will be *both* reconvicted in the future *and* be sentenced to a term of imprisonment for that offence. As a combined measure, it is quite possible that any individual may have a very high chance of re-offending (say 90%), but a very low chance of also being sent to prison for that offence (say 10%). In such a circumstance, the actual chance of someone being both reconvicted for an offence, and being sent to prison for that offence would be only 9 percent. Conversely, it is possible for a person to have a very low chance of reoffending, but a very high chance of receiving a prison term if they do. Again, the combined value expressed by the RoC*RoI measure would result in a low probability of being reconvicted and sent to prison. The Corrections Department has adopted RoC*RoI as its primary recidivism measure, rather than just risk of conviction alone, because this gives some indication of serious re-offending. A number of confusing results have been reported with the use of RoC*RoI with child sex offenders and youth offenders. Many child sex offenders have very low RoC*RoI scores. This reflects the fact that often this is a specialist form of offending, which occurs at a very low frequency with long gaps between offences. Sexual offending against children may also go undetected for long periods due to the nature of the offences and their effects on victims. The RoC*RoI model was developed as a measure designed to predict future general criminal offending. Sex offending against children is not necessarily highly correlated with other forms of criminal behaviour.

As has already been noted, the RoC*RoI measure relies upon previous recorded offences in developing estimates of future risk. There are cases of very young offenders who come into the criminal justice system, who show no official record of offending in the adults courts, but who may have extensive offending histories which have previously been dealt with in the juvenile court. In these cases, the RoC*RoI measure can only be calculated on the criminal history data that are available, and this does not include their often extensive Youth Court criminal histories.

The Roc*RoI model has been found to be very accurate. Bakker et al. (1999) report that comparing the predicted outcome to an optimal fitted model (45-degree “ideal” trend line) produced plotted data that were mathematically close to the ideal outcome line. The model did have some slight instability in which the data path moved under the 45-degree trend line at the upper end of the graph, with this believed to be due to small numbers in the validation

sample with very high scores (.80 and over). Further analysis on the overall predictive accuracy of the RoC*RoI measure was carried out using Receiver Operating Characteristic (ROC) analysis with an Area Under of the Curve (AUC) of .76 found. This is interpreted as the instrument being able to discriminate 76% of the area under the curve plotted from the true false positive rate against the false positive rate for serious reoffending (*SE* = .0072) (Bakker et al., 1998).

ROC analysis is based on Signal Detection Theory (Swets, 1996). Blackwell in the 1950s used Thurstone's (1920s) theory involving two overlapping (bell-shaped) distributions to perform a "yes-no" detection task (cited in Swets, 1996). It is the relationship between the detection of the threshold (sensitivity) and non-detection (specificity) in which the rate of detection versus no detection is greater than 50/50. In statistical theory, the two overlapping distributions are a null and alternative hypothesis. ROC analysis shows for a given score the discriminative acuity how the true-positive rates (sensitivity) varies with the false-positive error (specificity or false positive fraction which is subtracted from 1.0 for a series of possible score cut-off scores). Discrimination between the two distributions is reflected in a numeric value indicating the area under the curve. The AUC being defined as a measure of the locus of an ROC curve on its graph. The AUC figure measures dozens of empirical ROC's that are fitted well by a linear function, with varying slope (changes in score detection), thus allowing the use of several decision criteria simultaneously instead of the adoption of single cut-off scores. Area Under the Curve varies between 0.5 and 1.0 with 1 reflecting perfect discrimination or no false positive error, and .50 indicating chance discrimination. An *AUC* = .80 is an overall figure of an instruments ability to discriminate 80% of the area under a curve plotted from the sensitivity against the specificity for an identified behaviour.

The use of ROC analysis in the area of risk assessment has become the method of choice over the last ten years (Mossman, 1994; Rice, 1997; Quinsey et al, 1998). This has been because of ROC not being as dependant on the base rate of interest, in this case violent recidivism, as are correlation-based methods and indexes derived from 2 X 2 contingency tables (such as with false positive and false negative tables based on a single cut-off). Behaviours with base rates of under 50% reduce the size of correlations and the base rate for violence is usually lower than 50%. Another advantage is that ROC's allow the comparison of various predictive measures with a single optimal threshold (AUC) produced to allow the relative accuracy of a measure to be compared.

**URICA**

Name: Date:

This questionnaire is to help us improve services. Each statement describes how a person might feel when approaching problems in their lives or when starting programmes. Please indicate the extent to which you tend to agree or disagree with each statement. In each case, make your choice in terms of how you feel right now, not what you have felt in the past or would like to feel. "Here" refers to being in prison. There are FIVE possible responses to each of the items in the questionnaire:

1----------2----------3----------4----------5

strongly disagree | undecided | agree | strongly agree

_____ 1. As far as I'm concerned, I don't have any problems that need changing.

_____ 2. I think I might be ready for some self-improvement.

_____ 3. I am doing something about the problems that had been bothering me.

_____ 4. It might be worthwhile to work on my problems.

_____ 5. I'm not the problem one. It doesn't make much sense for me to be here.

_____ 6. It worries me that I might slip back on a problem I have already changed, so I am keen to seek help.

_____ 7. I am finally doing some work on my problems.

_____ 8. I've been thinking that I might want to change something about myself.

_____ 9. I have been successful in working on my problems but I'm not sure I can keep up the effort on my own.

_____ 10. At times my problems cause difficulties, but I'm working on them.

_____ 11. Being here is pretty much a waste of time for me, because the problems don't have to do with me.

_____ 12. I'm hoping this place will help me to better understand myself.

_____ 13. I guess I have faults, but there's nothing that I really need to change.

_____ 14. I am really working hard to change.

_____ 15. I have problems and I really think I should work at them.

_____ 16. I'm not following through with what I had already changed as well as I had hoped, and I'm trying to prevent a relapse of the problem.

1----------2----------3----------4----------5

| strongly disagree | disagree | undecided | agree | strongly agree |
|---|---|---|---|---|

_____ 17. Even though I'm not always successful in changing, I am at least working on my problems.

_____ 18. I thought once I had resolved my problems I would be free of them, but sometimes I still find myself struggling with them.

_____ 19. I wish I had more ideas on how to solve my problems.

_____ 20. I have started working on my problems but I would like help.

_____ 21. Maybe this place will be able to help me.

_____ 22. I may need a boost right now to help me maintain the changes I've already made.

_____ 23. I may be part of the problem, but I don't really think I am.

_____ 24. I hope that someone here will have some good advice for me.

_____ 25. Anyone can talk about changing; I'm actually doing something about it.

_____ 26. All this talk about psychology is boring. Why can't people just forget about their problems?

_____ 27. While I'm here I'm going to try and prevent myself from having a relapse of my problems.

_____ 28. It is frustrating, but I feel I might be, or have recently, had a recurrence of the problems I thought I had resolved.

_____ 29. I have worries but so does the next guy. Why spend time thinking about them?

_____ 30. I am actively working on my problems.

_____ 31. I would rather cope with my faults than try to change them.

_____ 32. After all I had done to try to change my problems, every now and again they come back to haunt me.

# Millon Clinical Multiaxial Inventory-III

**For copyright reasons the Millon Clinical Multiaxial Inventory-III (MCMI-III) cannot be reproduced here. However, a summary of the instrument is provided below**

The MCMI-III (Millon, et al., 1997) is an evolving assessment tool designed to be refined and informed by the developments in theoretical logic, research data and professional nosology. In terms of other personality measures it is distinguished by its relative brevity (175 items), its theoretical anchoring (evolutionary personality theory), multiaxial format (Axis I and Axis II), use of base rate rather than standard scores, and interpretative depth (diagnosis, clinical dynamics). The items are grouped into a number of scales based on a multiaxial format: These are listed below:

**Clinical Personality Patterns (Axis 1**

1 Schizoid
2A Avoidant
2B Depressive
3 Dependant
4 Histrionic
5 Narcissistic
6A Antisocial
6B Sadistic (Aggressive)
7 Compulsive
8A Negativistic (Passive-Aggressive)
8B Masochistic (Self-Defeating)

**Severe Personality Pathology**

S Schizotypal
C Borderline
P Paranoid

**Clinical Syndromes**

A Anxiety
H Somatoform
N Bipolar: Manic
D Dysthymia
B Alcohol Dependence
T Drug Dependence
R Post-Traumatic Stress Disorder

**Severe Clinical Syndromes**

SS Thought Disorder

CC Major Depression
PP Delusional Disorder

**Modifying Indices**

X Disclosure
Y Desirability'
Z Debasement
V Validity

The items are of a standard format with the participant asked to rate themselves as true or false on whether the item applies to them. Raw scores are calculated then transformed into Base Rate scores (BR) with male and female BR scores available. Adjustments to BR scores are then made for the following aspects: Disclosure too high or low; Presence of Anxiety/Depression; person is an inpatient; elevation on scales reflecting denial or complaint. In addition a validity scale (three items) is scored with a score of 20 or more rendering the profile invalid. Two BR generated cut off scores are used in interpretation, 75-84 indicating the presence of a syndrome or trait, and 85 and above prominence.

***Specimen items***

Item 1: Lately, my strength seems to be draining out of me, even in the morning. (*Scale CC Major Depression*)

Item 27. When I have a choice, I prefer to do things alone.
*(Scale 1 Schizoid)*

Item 113. I've gotten into trouble with the law a couple of time.
*(Scale 6A Antisocial)*

**Early versus late starter typology items (Moffitt, 1993)**

**Participant Name: Date:**

***[Score from interview and file information. However, most of the section will be rated primarily from the interview. If the offender's version and the official version conflict, try to reconcile differences. If differences cannot be reconciled use the more incriminating version]***

1. Is there evidence of behavioral problems before age 12?

[Behavioral problems include initiating physical fighting, repeated lying, bullying, cruelty to animals or people, forcing sexual activity, running away, stealing, fire setting, skipping school, vandalism and other behaviors that would be classified as criminal. This definition was adopted from item 4 of the CAT & the antisocial scale from the Rutter Child Scales]

1. yes
0. no
9. not known

2. Is there evidence of criminal activity before age 12?

***[includes crimes for which the offender was never caught]***

1. yes
0. no
9. not known

3. Is there evidence of criminal versatility before age 12?

***[ includes crimes for which the offender was never caught. Versatility is defined as having committed four or more different types of crimes. Use PCL-R guidelines for offense groupings]***

1. yes
0. no
9. not known

4. Duration of behavioral problems/criminal involvement lasted at least 6 months ***[under age 12]***

1. yes
0. no
9. not known

5. Behavioral problems evident in two or more different environments (e.g. home&school) ***[under age 12]***

1. yes
0. no, only one environment, specify: _____
9. not known

6. Severity of behavioral problems ***[under age 12]***

1. not severe (parents did not seek outside intervention; misconduct at school was dealt with through detention, never suspension or expulsion)
2. moderately severe (some intervention was sought either by school or home but not both)
3. extremely severe (required intervention by police, CAS or other outside agency [group home, closed custody facility], parents sought professional help, or offender was expelled)

7. Is there evidence of behavioral problems between ages 13 and 17?

[Behavioral problems include initiating physical fighting, repeated lying, bullying, cruelty to animals or people, forcing sexual activity, running away, stealing, fire setting, skipping school, vandalism and other behaviors that would be classified as criminal. This definition was adopted from item 4 of the CAT & the antisocial scale from the Rutter Child Scales]

1. yes
0. no
9. not known

8. Is there evidence of criminal activity between ages 13 and 17?

***[includes crimes for which the offender was never caught]***

1. yes
0. no
9. not known

9. Is there evidence of criminal versatility between ages 13 and 17?

***[ includes crimes for which the offender was never caught. Versatility is defined as having committed four or more different types of crimes. Use PCL-R guidelines for offense groupings]***

1. yes
0. no
9. not known

10. Duration of behavioral problems/criminal involvement lasted at least 6 months ***[ages 13-17]***

1. yes
0. no
9. not known

11. Behavioral problems evident in two or more different environments (e.g. home&school) ***[ages 13-17]***

1. yes
0. no, only one environment, specify: _____
9. not known

12. Severity of behavioral problems ***[ages 13-17]***

1. not severe (parents did not seek outside intervention; misconduct at school was dealt with through detention, never suspension or expulsion)
2. moderately severe (some intervention was sought either by school or home but not both)
3. extremely severe (required intervention by police, CAS or other outside agency [group home, closed custody facility], parents sought professional help, or offender was expelled)

**Interpersonal Measure of Psychopathy**

D.S. Kosson
Version 2.0

Subject#:_____ Date:_____ Rater:_____ Interviewer
Observer

Score:_____

General Instructions: Please rate each item by circling the extent to which each behavior or trait describes your interaction with the subject. A few possible examples of most items are also listed. Please check any of the examples that apply and feel free to note other manifestations of these traits in the blank space. Please note that a characteristic will frequently describe an individual even if none of the examples are relevant to the individual.

1) Interrupts describes this subject
not at all----------somewhat----------very well----------perfectly
(check all that apply)
_____ interrupted interview
_____ interrupted interviewer
_____

2) Refuses to tolerate interruption describes this subject
not at all----------somewhat----------very well----------perfectly
(check all that apply)
_____ continued speaking
_____ increased rate or volume of speech
_____

3) Ignores professional boundaries describes this subject
not at all----------somewhat----------very well----------perfectly
(check all that apply)
_____ called interviewer by first name without permission
_____ asked for something interviewer had in his/her possession
_____

4) Ignores personal boundaries describes this subject
not at all----------somewhat----------very well----------perfectly
(check all that apply)
_____ touched or tried to touch interviewer
_____ leaned very far forward
_____ stared at part of interviewer's body (other than face)
_____

5) Tests Interviewer describes this subject
not at all----------somewhat----------very well----------perfectly
(check all that apply)
_____ asked about interviewer's credentials
_____ asked general psychology or other questions unrelated to current protocol
_____ asked to see identification
_____

6) Makes personal comments describes this subject
not at all----------somewhat----------very well----------perfectly
(check all that apply)
_____ insulted the interviewer
_____ commented on interviewer's dress or manner
_____ praised the interviewer
_____

7) Makes request of interviewer describes this subject
not at all----------somewhat----------very well----------perfectly
(check all that apply)
_____ requested something small/tangible (e.g., cup of coffee, pen etc)
_____ requested something large (e.g., letter, recommendation, copy of file)
_____

8) Tends to be tangential describes this subject
not at all----------somewhat----------very well----------perfectly
(check all that apply)
_____ provided very lengthy answers
_____ changed answer in middle of explanation
_____ difficulty staying with the question asked
_____

9) Fills dead space describes this subject
not at all----------somewhat----------very well----------perfectly
(check all that apply)
_____

10) Unusual calmness or ease describes this subject
not at all----------somewhat----------very well----------perfectly
(check all that apply)
_____ subject put his feet up
_____ subject stretched often
_____ subject moved around the room
_____

11) Frustration with argument avoidance describes this subject
not at all----------somewhat----------very well----------perfectly
(check all that apply)
_____ repeatedly tried to begin an argument with interviewer
_____ became angry or frustrated when interviewer agreed with him
_____

12) Perseveration describes this subject
not at all----------somewhat----------very well----------perfectly
(check all that apply)
_____ subject returned often to one event
_____ subject returned often to one theme (e.g., winning, intelligence, the system,
alcohol)
_____

13) Ethical superiority describes this subject
not at all----------somewhat----------very well----------perfectly
(check all that apply)
_____ expressed overt desire to help others
_____ made reference(s) to own truthfulness
_____ indicated that others are not as “good” as he was
_____

14) Expressed narcissism describes this subject
not at all----------somewhat----------very well----------perfectly
(check all that apply)
_____ superiority
_____ grandiosity
_____ uniqueness
_____

15) Incorporation of interviewer into personal stories describes this subject
not at all----------somewhat----------very well----------perfectly
(check all that apply)
_____ personal stories in which the interviewer is a peer/friend/intimate
_____ personal stories in which interviewer is in one-down position (e.g., victim,
employee, customer)
_____

16) Seeking of alliance describes this subject
not at all----------somewhat----------very well----------perfectly
(check all that apply)
_____ excessive smiling
_____ verbal expression of commonality
_____ sought interviewer’s agreement on his views
_____

17) Showmanship describes this subject
not at all----------somewhat----------very well----------perfectly
(check all that apply)
_____ subject displayed large gestures
_____ subject used voice inflection to emphasize points
_____ subject used dramatic language
_____

18) Angry describes this subject
not at all----------somewhat----------very well----------perfectly
(check all that apply)
_____ angry facial expression(s)
_____ angry tone of voice
_____ clenched fists
_____

19) Impulsive answers describes this subject
not at all----------somewhat----------very well----------perfectly
(check all that apply)
_____ subject changed answers after stating them
_____ subject answered quickly but did not change answers
_____

20) Expressed toughness describes this subject
not at all----------somewhat----------very well----------perfectly
(check all that apply)
_____ subject referred to himself as tough or dangerous
_____ subject threatened interviewer
_____ subject referred to himself as brave
_____

21) Intense eye contact describes this subject
not at all----------somewhat----------very well----------perfectly
(check all that apply)
_____ subject engaged in almost constant eye contact
_____ subject looked to observer when interviewer looked away
_____ subject made more eye contact when listening than normal
_____

Original scale developed by Kosson, Kirkhart, & Steuerwald (1993).

**Appendix E**

## "Finding out more about risk and rehabilitative factors for offenders"

# Participants Information and Permission Form

Researcher contact details: **Nick Wilson**
**Senior Advisor Research**
**Corrections, Psychological Service**
**P O Box 19 003 Hamilton**
**Phone (07) 834 7086**

The Corrections Department has started a research project to gain more information about offenders who have been assessed as having high risk/rehabilitative needs. This is viewed as very important because in general offenders who have long criminal histories or serious offences are regarded as at high risk of reimprisonment within five years of release into the community. While it is possible to collect information from official records these do not tell the whole story and it is important that people such as yourself are interviewed to gain from your experience and beliefs.

Participation will be entirely voluntary and all information that you provide will be treated as confidential.

The information we get from your interview will be used to provide information to the Corrections Department of New Zealand about what helps to reduce the risk of reoffending for offenders with high risk/needs. The research study has been approved by the Public Prison Service and Waikato Bay of Plenty Regional Prison. Contact about this research can be made with the Project Manager, Nick Wilson, Senior Advisor Research or with your Unit Manager who is fully informed about the project.

It is expected that the interview will take approximately 1.5 to 2 hours of your time. Two research assistants from the project will ask you questions and give you short questionnaires to complete about the following areas:

- Background information on school behaviour, growing up;
- How you cope with problems;
- How you relate to others;
- Emotions (self report on your mood, any anxiety, down moods, stress, alcohol and drug use);
- Thoughts about previous or current treatment programmes;
- What you believe needs to occur to reduce reoffending.

Your name will not be used to record the information you provide. Instead only a number will identify any information you give during interview or on questionnaires. All personal information that you give will not be told to anyone so nobody can know that what you wrote or said came from you. No information that would identify you will be published or made available to Corrections Department staff, or anyone else. There is no (deception) tricks involved in this study. A brief summary of information from these interviews will be made available for your information when the project is completed.

There is one situation when information about you may be reported and that is if you reported that you intended to harm yourself or someone else. In that case we may have to pass that information on to make sure no one is hurt.

Doing this interview is strictly voluntary (that is you only do it if you want to) and will have no effect, good or bad, on any aspect of your interactions with the Department of Corrections.

**You are free to withdraw from the interview at any time without penalty of any kind!**

**Next Step:**
**Any questions?**
**Do you wish to continue?**
**Remember you are free to withdraw during the interview at any time without penalty of any kind**

**Consent**

Signing this form **before the start of the interview** provides permission for Research Assistant's working for Nick Wilson, Senior Advisor Research, Corrections Psychological Service to conduct an interview discussing my views on rehabilitation and gathering information to assist others viewed as having high risk/needs. I understand that I may decide not to go ahead with the interview and there will be no questioning of my actions.

*I _____ have read (or have had read to me) and understand the above and agree to take part in this study.*

Participants' signature:_____ Date:_____

## Appendix F: Answers by those who identified as Maori to question "Would/did the inclusion of Tikanga process into treatment improve *their experience/success in treatment?"*

| Class Code | | High Risk Study: Answers by those who identified as Maori to question "*Would/did the inclusion of Tikanga process into treatment improve their experience/success in treatment?"* |
|---|---|---|
| | **1** | Yes, all of programmes should have it but that is because he is learning about Maori in Te Ao. If weren't Maori then some people wouldn't understand it |
| | **2** | yes, but not sure how as individual choice |
| | **3** | I don't know, they had turns doing karakia, either Maori or English at the beginning of each lesson |
| | **4** | No |
| | **5** | yes, incentive to change thru korero, works on background of offending |
| | **6** | No, not really because it is not a Tikanga course (i.e. only include Tikanga if course involves some facet of Tikanga). Could have karakia if students wanted it |
| | **7** | one on one sessions, rather than group discussions |
| | **8** | Matua whangai should have been longer. Need to address his problems. Need encouragement to share, was shy about addressing his problems with the group. |
| | **9** | There was a karakia at the beginning and end, helped the students in the class come together. Does think that this improved the course |
| | **10** | not stated |
| | **11** | yeah, I suppose it would. Some one that more understands what he is going through |
| | **12** | no, then yes, may share experiences |
| | **13** | can't say because he has never done it |
| | **14** | No |
| | **15** | No |
| | **16** | yes and would be good to include Whanau |
| | **17** | No |
| | **18** | yes for him, but only good if you can understand Maori |
| | **19** | n/a |
| | **20** | not stated |
| | **21** | No, karakias and all that is good but not if facilitator speaks Maori. Having karakias etc does improve it. Doesn't matter if Maori or Pakeha facilitator as long as can teach |
| | **22** | not really, identifies as Samoan |

| | | |
|---|---|---|
| | **23** | No |
| | **24** | no, hard enough trying to learn |
| | **25** | n/a |
| | **26** | No, don't like Maori teaching him because they are phoney |
| | **27** | Not sure |
| | **28** | Does not identify as Maori |
| | **29** | Yes |
| | **30** | yes, would also like to see full Maori justice/Marae justice |
| | **31** | no-another choice |
| | **32** | yes thinks Tikanga would improve programmes but has not actually done any courses, says "have to sign up, they are too full" |
| | **33** | Cultural focus in Equip but not there long enough to judge |
| | **34** | S/T good how it was |
| | **35** | ok, but it was the facilitators that made the difference |
| | **36** | Wouldn't know, may of enjoyed it more, nit sure if it would have changed behaviour |
| | **37** | Don't really understand what was going on, could relate to it a lot. (discrepancy in reporting?) For some people yes, but not for him |
| | **38** | yes, would have helped a little |
| | **39** | Would have helped if Maori kaumatua had been present-they tried but not successful |
| | **40** | Was good, they were already doing it |
| | **41** | Could do. Because it is something different |
| | **42** | Anything is good but it is up to individual if a course works, that's more important than Maori processes |
| | **43** | not stated |
| | **44** | doesn't matter either |
| | **45** | n/a |
| | **46** | probably, made me listen more! |
| | **47** | would have helped having Maori focus |
| | **48** | Yes, the one at Odyssey house they need more of. Would like to see more Maori influence everywhere |
| | **49** | Don't want to comment. Racial thing, doesn't matter who the tutor is . Course OK as it is |
| | **50** | yes, other courses had none. Would have been into them if there had been. |

| | | |
|---|---|---|
| | **51** | No, it would just make it harder on us (people who don't know Maori), but it might be good for people who do know Maori |
| | **52** | no |
| | **53** | wouldn't help |
| | **54** | facilitator were Maori, did the protocols |
| | **55** | Yes, If we knew Maori law we would want that, because he is Maori it would make it better |
| | **56** | yes, but didn't need to, it was alright course as it was (ST) |
| | **57** | no |
| | **58** | yes |
| | **59** | yes and no, but more yes |
| | **60** | not sure, probably still the same if it didn't include it (the course did include it) |
| | **61** | Could do, think it would make it more effective |
| | **62** | No, never mind about Maori's, its under the bridge, today need to speak English |
| | **63** | they included some tikanga processes, didn't mind but don't think it improves the course |
| | **64** | improved them in some ways, made it more understandable |
| | **65** | It was all about Tikanga |
| | **66** | n/a |
| | **67** | For some people it would but not for him personally |
| | **68** | Don't know. Doesn't really get into Maori culture |
| | **69** | no |
| | **70** | They have always had karakia in them. In general yes, it needs more Maori so that they can relate |
| | **71** | Its alright to have it there, but not everyone is into it. Just for the Maoris |
| | **72** | yes, would relate to him better, maybe make a difference to behaviour. "Just English words turned into Maori words" I.e. same course |
| | **73** | Yes, do need more of it, but it still comes down to the individual |
| | **74** | No, not really |
| | **75** | yes, Courses didn't have it, would probably make it better |
| | **76** | not really, talked about time in Maori program, good stuff but living in different times now |
| | **77** | Yes, because you need to deal with the cultural snags that come up |
| | **78** | This place (Te Ao Marama) they do it all the time, Youth unit could do with more, don't take culture seriously there |
| | **79** | Might have added a bit of variety, couldn't do any harm but it wouldn't have made it better |

| | | |
|---|---|---|
| | **80** | yes, for Maori people and non-Maori |
| | **81** | yes |
| | **82** | no, you live it, might help some people |
| | **83** | no |
| | **84** | Hard to say, not really for me |
| | **85** | No, it is a whole different thing altogether. Doesn't matter who is teaching, Maori or pakeha, as long as they can understand |
| | **86** | Yes, may be good to have more of it |
| | **87** | yeah alright |
| | **88** | Yes, pointless putting it in unless people know what it means |
| | **89** | No, because have seen what it has done through the polytech, not very good feedback (offender has worked as a teacher at Wairiki Polytech). Will help some of them |
| | **90** | yes |
| | **91** | Inclusion of some aspects made me feel more relaxed |
| | **92** | Inclusion did help me and could help others |
| | **93** | Yes, karakia etc good to do and feed at end. AVP has Tikanga Maori and it's alright |
| | **94** | No, what straight thinking covers is same as if it were in Maori |
| | **95** | Yes, like the idea about choice |
| | **96** | yes, would give it bit more knowledge |
| | **97** | yes, Tikanga may get me thinking in a straight way |
| | **98** | yes, but only he can help is himself |
| | **99** | no. when asked why sais "because it's all good" |
| | **100** | No it would be the same |
| | **101** | Wouldn't have made a difference, it is as good as it gets |
| | **102** | no, would be good though |
| | **103** | no |
| | **104** | Yes, he would like to see that. Assistance spiritually when going through rough patches and assistance/explanation from a cultural perspective |
| | **105** | no, only if they had elders there |
| | **106** | Mostly Maori based courses - don't care what happened in the past.<br>Too much focus on Maori, e.g. karakia x16 a day |
| | **107** | yes, very worthwhile, means you start with a clean slate |
| | **108** | enrolled in S/T in April, would like to see Tikanga as part of treatments |
| | **109** | yes, suppose it would be better because learning stuff about heritage and culture |

| | | |
|---|---|---|
| | **110** | no, probably not |
| | **111** | no, not really |
| | **112** | They included some tikanga processes, if had more don't think it would improve it because most of the class was pakeha. Don't know if it would improve the treatment if all Maori |
| | **113** | no difference |
| | **114** | yes, good for Maori/Pacific islanders. Would like to take up a course in P/I language but they don't offer that |
| | **115** | No, probably because too many Maoris would use it to their advantage |
| | **116** | Yes, it would improve it. Help people feel more at ease, "break the ice" and get to know people better (whakapapa) |
| | **117** | Do not think this would help |
| | **118** | no |
| | **119** | no, not really |
| | **120** | would not have changed things for me |
| | **121** | Yes, "because I like doing Maori stuff" |
| | **122** | yes |
| | **123** | yes, I reckon it would |
| | **124** | Inclusion was positive in Maori focus unit - trying to maintain gains with shift to next unit-respect like in the Marae. Coming here (Totara) like stepping stone to release |

**Classification guidelines for High Risk study answers by Maori to question on inclusion of Tikanga in treatment.**

The aim of the exercise is to classify the replies where possible into categories to allow descriptive information to be developed with typical responses from these categories used in the report to illustrate this data.

**Note**: These are guidelines only, in there are answers that you feel should be covered by a new category please note this and feedback to researcher

| Class/Code | Category | Detailed Description |
|---|---|---|
| **A** | Positive for Tikanga but with limitations | Responses are positive in terms of inclusion of Tikanga process but also talk of limitations i.e., "not sure how as individual choice" or if people didn't know Maori they wouldn't understand it" |
| **B** | Positive for Tikanga, no limitations | Responses are positive in terms of inclusion of Tikanga process no limitations, this can be strong or slight support i.e., "yes" or "yes and would be good to include whanau" or "yes, would also like to see full Maori Justice/Marae Justice" |
| **C** | Negative to inclusion of Tikanga in Treatment | Responses are negative about including Tikanga in treatment could be strongly negative or slightly i.e., "No" or no, hard enough trying to learn" or "no not really" |
| **D** | Not sure/ambivalent | Responses are not possible to classify as either supportive or against i.e., "n/a" or "not sure" or "cultural focus in Equip but not there long enough to judge" or "could do, think it would make it more effective" |
| **E** | Other-for responses not able to be included in other categories | All responses that the rater was not able to classify with the codes A-D |

**Appendix G:**

**Pearson product moment correlations for all study variables and MCMI-III severe personality pathology scales, PPD, BPD, and SPD**

Correlations (maindat.sta)
Marked correlations are significant at p < .05000
N=132 (Casewise deletion of missing data)

| | Paranoid PD | Borderline PD | Schizotypal PD |
|---|---|---|---|
| Current Age | 0.13 | 0.08 | **0.23** |
| Level education | -0.04 | -0.07 | -0.07 |
| Diff primary school | 0.09 | 0.02 | 0.02 |
| Diff sec/interm school | -0.14 | 0.00 | -0.13 |
| Truancy | -0.15 | 0.02 | 0.03 |
| Suspend-Expelled | -0.16 | -0.01 | -0.13 |
| Criminal family | 0.06 | -0.09 | 0.05 |
| Age first Police contact | -0.02 | -0.04 | -0.10 |
| Family Group Conference | -0.02 | 0.13 | 0.11 |
| Longest time resident | 0.04 | -0.03 | 0.09 |
| Longest time employment | 0.09 | -0.12 | 0.10 |
| Longest intimate relation | 0.09 | 0.03 | 0.11 |
| Criminal friends | 0.08 | -0.03 | -0.10 |
| Gang member | 0.02 | 0.02 | 0.10 |
| RoC*RoI score | 0.10 | 0.03 | 0.07 |
| Index Sentence length | -0.07 | -0.05 | -0.15 |
| No. periods imprisonment | 0.16 | 0.14 | **0.22** |
| Number convictions | 0.05 | 0.03 | 0.09 |
| Violence convictions | 0.15 | 0.10 | 0.09 |
| Age at first conviction | -0.05 | -0.05 | -0.11 |
| Theft | -0.06 | 0.11 | 0.11 |
| Robbery | 0.04 | 0.14 | -0.04 |
| Drugs | 0.01 | -0.04 | -0.13 |
| Assault | 0.02 | 0.00 | 0.09 |
| Serious Assault | 0.10 | 0.00 | **0.20** |
| Murder | 0.04 | -0.03 | 0.05 |
| Possession wpn | 0.15 | **0.22** | 0.06 |
| Adult sex offence | -0.02 | -0.16 | 0.05 |
| Child sex offence | 0.08 | -0.01 | -0.03 |
| Driving | **0.24** | -0.03 | **0.18** |
| Fraud | -0.02 | 0.03 | 0.05 |
| Escape/breach | 0.11 | 0.03 | 0.13 |
| Kidnap | 0.12 | 0.03 | -0.11 |
| Arson | -0.08 | 0.04 | -0.12 |
| Obstruct | -0.01 | 0.04 | 0.12 |
| No offence categories | 0.16 | 0.07 | 0.11 |
| Moffitt Total scr | 0.09 | 0.15 | 0.13 |

| | | | |
|---|---|---|---|
| Moffitt <13 | 0.06 | 0.13 | 0.14 |
| Moffitt < 16 | 0.10 | 0.14 | 0.04 |
| IM-P | 0.14 | 0.09 | **0.22** |
| Urica total | **0.22** | 0.10 | **0.17** |
| Precontemplation | 0.16 | 0.08 | 0.15 |
| Contemplation | 0.09 | 0.01 | 0.14 |
| Action | 0.08 | -0.05 | -0.05 |
| Maintenance | **0.20** | **0.20** | 0.15 |
| MCMI-III Y | **-0.18** | **-0.49** | **-0.47** |
| MCMI-Z | **0.41** | **0.66** | **0.66** |
| Schizoid | **0.32** | **0.39** | **0.50** |
| Avoidant | **0.42** | **0.27** | **0.65** |
| Depressive | **0.35** | **0.52** | **0.56** |
| Dependant | **0.33** | **0.45** | **0.43** |
| Histrionic | **-0.28** | **-0.46** | **-0.50** |
| Narcissic | 0.14 | **-0.29** | -0.08 |
| Antisocial | **0.29** | **0.38** | **0.17** |
| Sadistic | **0.42** | **0.42** | **0.25** |
| Compulsive | **-0.23** | **-0.49** | **-0.32** |
| Passive-Aggressive | **0.61** | **0.71** | **0.46** |
| Self-Defeating | **0.39** | **0.53** | **0.52** |
| Anxiety | **0.43** | **0.50** | **0.56** |
| Somatoform | **0.33** | **0.30** | **0.59** |
| Bipolar | **0.34** | **0.53** | **0.32** |
| Dysthmia | **0.26** | **0.56** | **0.58** |
| Alcohol abuse | **0.33** | **0.47** | **0.30** |
| Drug abuse | **0.20** | **0.43** | **0.18** |
| PTSD | **0.37** | **0.59** | **0.61** |
| Thought Disorder | **0.40** | **0.60** | **0.62** |
| Major Depressive Disorder | **0.24** | **0.42** | **0.60** |
| Delusional Disorder | **0.57** | **0.18** | **0.29** |
| Repeated treatment | 0.02 | 0.16 | 0.09 |
| Treatment failure | 0.01 | **0.17** | 0.09 |

## Appendix G: Between group t test for personality pathology and non-pathology groups

| Grouping: PGRP (maindat.sta) | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| Group 1: G_1:1 | | | | | | | | | |
| Group 2: G_2:2 | | | | | | | | | |
| | Mean | Mean | | | | Valid N | Valid N | Std.Dev. | Std.Dev. |
| | G_1:1 | G_2:2 | t-value | df | p | G_1:1 | G_2:2 | G_1:1 | G_2:2 |
| POSSWPN | 0.411 | 0.596 | -2.175 | 145.000 | 0.031 | 95.000 | 52.000 | 0.495 | 0.49 |
| URICATOT | 107.189 | 113.745 | -2.954 | 144.000 | 0.004 | 95.000 | 51.000 | 12.136 | 13.91 |
| CONTEMP | 3.832 | 3.914 | -0.811 | 144.000 | 0.419 | 95.000 | 51.000 | 0.610 | 0.54 |
| MAINT | 3.422 | 3.650 | -2.013 | 144.000 | 0.046 | 95.000 | 51.000 | 0.635 | 0.67 |
| MCMI_X | 69.105 | 80.962 | -4.377 | 145.000 | 0.000 | 95.000 | 52.000 | 17.108 | 12.71 |
| Z | 54.053 | 65.250 | -3.604 | 145.000 | 0.000 | 95.000 | 52.000 | 19.680 | 14.43 |
| AVOIDANT | 55.779 | 69.115 | -3.451 | 145.000 | 0.001 | 95.000 | 52.000 | 25.564 | 14.90 |
| DEPRESSI | 60.200 | 71.673 | -2.591 | 145.000 | 0.011 | 95.000 | 52.000 | 27.802 | 21.17 |
| SADISTIC | 63.063 | 68.365 | -2.140 | 145.000 | 0.034 | 95.000 | 52.000 | 15.827 | 11.18 |
| PASS_AGG | 62.779 | 77.615 | -4.446 | 145.000 | 0.000 | 95.000 | 52.000 | 22.400 | 11.78 |
| SCHIZOTY | 55.568 | 72.577 | -4.850 | 145.000 | 0.000 | 95.000 | 52.000 | 24.267 | 9.46 |
| ANXIETY | 58.726 | 73.058 | -2.648 | 145.000 | 0.009 | 95.000 | 52.000 | 33.225 | 27.63 |
| SOMATOFO | 42.337 | 53.962 | -2.832 | 145.000 | 0.005 | 95.000 | 52.000 | 26.448 | 17.90 |
| BIPOLAR | 59.811 | 67.788 | -2.726 | 145.000 | 0.007 | 95.000 | 52.000 | 19.080 | 12.13 |
| DYSTHMIA | 51.747 | 61.404 | -2.239 | 145.000 | 0.027 | 95.000 | 52.000 | 26.731 | 21.45 |
| PTSD | 47.989 | 61.231 | -3.306 | 145.000 | 0.001 | 95.000 | 52.000 | 24.932 | 19.66 |
| THOUGHTD | 51.189 | 63.365 | -3.216 | 145.000 | 0.002 | 95.000 | 52.000 | 24.562 | 16.05 |
| MAJORDEP | 38.126 | 47.788 | -2.224 | 145.000 | 0.028 | 95.000 | 52.000 | 26.315 | 22.93 |
| DELUSION | 54.242 | 70.981 | -5.303 | 145.000 | 0.000 | 95.000 | 52.000 | 21.388 | 10.42 |

| Grouping: SGRP (maindat.sta) | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| Group 1: G_1:1 | | | | | | | | | |
| Group 2: G_2:2 | | | | | | | | | |
| | Mean | Mean | | | | Valid N | Valid N | Std.Dev. | Std.Dev. |
| | G_1:1 | G_2:2 | t-value | df | p | G_1:1 | G_2:2 | G_1:1 | G_2:2 |
| TRUANCY | 0.659 | 1.083 | -2.322 | 145.000 | 0.022 | 123.000 | 24.000 | 0.476 | 1.74 |
| NUMIMP | 6.439 | 9.125 | -2.550 | 145.000 | 0.012 | 123.000 | 24.000 | 3.899 | 7.73 |
| MOFFQ5 | 0.780 | 5.042 | -2.342 | 145.000 | 0.021 | 123.000 | 24.000 | 0.488 | 20.44 |
| MOFFQ9 | 0.721 | 5.083 | -2.389 | 144.000 | 0.018 | 122.000 | 24.000 | 0.450 | 20.43 |
| MCMI_X | 71.049 | 84.833 | -3.885 | 145.000 | 0.000 | 123.000 | 24.000 | 16.559 | 11.82 |
| Y | 68.228 | 48.167 | 5.179 | 145.000 | 0.000 | 123.000 | 24.000 | 17.234 | 18.00 |
| Z | 55.081 | 73.042 | -4.581 | 145.000 | 0.000 | 123.000 | 24.000 | 18.705 | 9.49 |
| SCHIZOID | 64.553 | 77.667 | -3.308 | 145.000 | 0.001 | 123.000 | 24.000 | 18.648 | 12.02 |
| AVOIDANT | 57.431 | 76.208 | -3.785 | 145.000 | 0.000 | 123.000 | 24.000 | 23.544 | 13.24 |
| DEPRESSI | 61.073 | 80.583 | -3.465 | 145.000 | 0.001 | 123.000 | 24.000 | 26.669 | 15.52 |
| DEPENDAN | 55.081 | 69.792 | -2.701 | 145.000 | 0.008 | 123.000 | 24.000 | 24.799 | 22.19 |
| HISTRION | 43.967 | 35.000 | 2.417 | 145.000 | 0.017 | 123.000 | 24.000 | 15.523 | 21.55 |
| NARCISSI | 65.642 | 53.375 | 3.172 | 145.000 | 0.002 | 123.000 | 24.000 | 17.075 | 18.63 |
| ANTISOCI | 75.041 | 77.792 | -0.863 | 145.000 | 0.390 | 123.000 | 24.000 | 15.124 | 8.58 |
| SADISTIC | 63.927 | 70.125 | -1.928 | 145.000 | 0.056 | 123.000 | 24.000 | 14.476 | 14.04 |
| COMPULSI | 41.024 | 32.208 | 3.092 | 145.000 | 0.002 | 123.000 | 24.000 | 12.346 | 14.85 |
| PASS_AGG | 66.171 | 77.542 | -2.525 | 145.000 | 0.013 | 123.000 | 24.000 | 21.078 | 14.51 |
| SELF_DEF | 58.089 | 75.208 | -3.269 | 145.000 | 0.001 | 123.000 | 24.000 | 25.264 | 9.32 |
| SCHIZOTY | 57.358 | 83.250 | -5.894 | 145.000 | 0.000 | 123.000 | 24.000 | 21.209 | 7.53 |
| BORDERLI | 59.545 | 73.958 | -3.333 | 145.000 | 0.001 | 123.000 | 24.000 | 20.248 | 13.88 |
| BGRP | 1.228 | 1.500 | -2.796 | 145.000 | 0.006 | 123.000 | 24.000 | 0.421 | 0.51 |
| PGRP | 1.285 | 1.708 | -4.175 | 145.000 | 0.000 | 123.000 | 24.000 | 0.453 | 0.46 |
| PARANOID | 66.374 | 85.417 | -4.611 | 145.000 | 0.000 | 123.000 | 24.000 | 19.087 | 15.06 |
| ANXIETY | 60.366 | 81.375 | -3.022 | 145.000 | 0.003 | 123.000 | 24.000 | 32.950 | 19.00 |
| SOMATOFO | 44.008 | 58.958 | -2.814 | 145.000 | 0.006 | 123.000 | 24.000 | 25.120 | 15.00 |
| BIPOLAR | 60.756 | 72.250 | -3.055 | 145.000 | 0.003 | 123.000 | 24.000 | 17.164 | 15.14 |
| DYSTHMIA | 52.163 | 70.542 | -3.362 | 145.000 | 0.001 | 123.000 | 24.000 | 26.245 | 11.36 |
| ALCOHOL | 75.813 | 79.125 | -1.075 | 145.000 | 0.284 | 123.000 | 24.000 | 14.024 | 12.57 |
| DRUG | 72.325 | 80.000 | -1.972 | 145.000 | 0.050 | 123.000 | 24.000 | 18.250 | 12.27 |
| PTSD | 49.325 | 69.833 | -4.025 | 145.000 | 0.000 | 123.000 | 24.000 | 24.074 | 14.58 |
| THOUGHTD | 52.667 | 70.000 | -3.566 | 145.000 | 0.000 | 123.000 | 24.000 | 22.317 | 18.69 |
| MAJORDEP | 38.854 | 55.333 | -2.971 | 145.000 | 0.003 | 123.000 | 24.000 | 25.191 | 23.02 |
| DELUSION | 58.724 | 67.542 | -2.004 | 145.000 | 0.047 | 123.000 | 24.000 | 19.877 | 18.88 |

| Grouping: BGRP (maindat.sta) | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| Group 1: G_1:1 | | | | | | | | | |
| Group 2: G_2:2 | | | | | | | | | |
| | Mean | Mean | | | | Valid N | Valid N | Std.Dev. | Std.Dev. |
| | G_1:1 | G_2:2 | t-value | df | p | G_1:1 | G_2:2 | G_1:1 | G_2:2 |
| POSSWPN | 0.393 | 0.700 | -3.431 | 145.000 | 0.001 | 107.000 | 40.000 | 0.491 | 0.46 |
| MOFFTOT | 13.028 | 14.000 | -2.008 | 145.000 | 0.046 | 107.000 | 40.000 | 2.738 | 2.23 |
| URICATOT | 107.673 | 114.436 | -2.821 | 144.000 | 0.005 | 107.000 | 39.000 | 11.673 | 15.56 |
| MAINT | 3.404 | 3.769 | -3.056 | 144.000 | 0.003 | 107.000 | 39.000 | 0.653 | 0.59 |
| MCMI_X | 68.738 | 85.500 | -6.060 | 145.000 | 0.000 | 107.000 | 40.000 | 16.131 | 11.00 |
| Y | 68.178 | 56.325 | 3.527 | 145.000 | 0.001 | 107.000 | 40.000 | 17.852 | 18.88 |
| Z | 52.168 | 73.650 | -7.179 | 145.000 | 0.000 | 107.000 | 40.000 | 17.857 | 10.13 |
| SCHIZOID | 64.813 | 71.725 | -2.054 | 145.000 | 0.042 | 107.000 | 40.000 | 20.066 | 11.47 |
| AVOIDANT | 57.944 | 67.325 | -2.208 | 145.000 | 0.029 | 107.000 | 40.000 | 24.689 | 17.21 |
| DEPRESSI | 57.654 | 81.925 | -5.480 | 145.000 | 0.000 | 107.000 | 40.000 | 26.952 | 12.20 |
| DEPENDAN | 51.925 | 72.350 | -4.735 | 145.000 | 0.000 | 107.000 | 40.000 | 24.870 | 18.25 |
| HISTRION | 45.748 | 33.825 | 3.997 | 145.000 | 0.000 | 107.000 | 40.000 | 16.163 | 15.90 |
| NARCISSI | 66.402 | 56.250 | 3.160 | 145.000 | 0.002 | 107.000 | 40.000 | 16.910 | 18.44 |
| ANTISOCI | 74.589 | 77.900 | -1.254 | 145.000 | 0.212 | 107.000 | 40.000 | 15.628 | 9.53 |
| SADISTIC | 63.467 | 68.875 | -2.028 | 145.000 | 0.044 | 107.000 | 40.000 | 15.680 | 10.07 |
| COMPULSI | 42.056 | 32.975 | 3.905 | 145.000 | 0.000 | 107.000 | 40.000 | 13.142 | 10.77 |
| PASS_AGG | 62.664 | 82.375 | -5.709 | 145.000 | 0.000 | 107.000 | 40.000 | 21.242 | 8.01 |
| SELF_DEF | 56.290 | 73.175 | -3.942 | 145.000 | 0.000 | 107.000 | 40.000 | 26.459 | 9.11 |
| SCHIZOTY | 57.308 | 73.025 | -4.086 | 145.000 | 0.000 | 107.000 | 40.000 | 23.614 | 9.26 |
| PARANOID | 66.813 | 76.625 | -2.740 | 145.000 | 0.007 | 107.000 | 40.000 | 20.810 | 14.53 |
| ANXIETY | 57.215 | 81.400 | -4.315 | 145.000 | 0.000 | 107.000 | 40.000 | 33.366 | 19.34 |
| SOMATOFO | 42.364 | 57.375 | -3.446 | 145.000 | 0.001 | 107.000 | 40.000 | 25.534 | 16.77 |
| BIPOLAR | 58.785 | 72.925 | -4.710 | 145.000 | 0.000 | 107.000 | 40.000 | 17.811 | 10.64 |
| DYSTHMIA | 49.019 | 71.600 | -5.222 | 145.000 | 0.000 | 107.000 | 40.000 | 26.336 | 11.78 |
| ALCOHOL | 74.477 | 81.375 | -2.755 | 145.000 | 0.007 | 107.000 | 40.000 | 13.893 | 12.40 |
| DRUG | 71.168 | 80.025 | -2.775 | 145.000 | 0.006 | 107.000 | 40.000 | 18.606 | 12.70 |
| PTSD | 46.841 | 68.275 | -5.239 | 145.000 | 0.000 | 107.000 | 40.000 | 24.680 | 12.51 |
| THOUGHTD | 49.206 | 72.325 | -6.170 | 145.000 | 0.000 | 107.000 | 40.000 | 22.752 | 10.62 |
| MAJORDEP | 35.916 | 56.600 | -4.676 | 145.000 | 0.000 | 107.000 | 40.000 | 25.538 | 18.59 |
| TRTFAIL | 0.355 | 0.550 | -2.159 | 145.000 | 0.033 | 107.000 | 40.000 | 0.481 | 0.50 |