

Life on Parole: Examining how the Quality of Parolees' Experiences After Release from
Prison Contributes to Successful Re-entry

By

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Abstract

Individuals who have spent time in prison face a multitude of challenges during the transition from prison to the community, including finding suitable accommodation, obtaining stable employment, and establishing prosocial support networks (Bucklen & Zajac, 2009; Kubrin & Stewart, 2006; Zamble & Quinsey, 1997). The cumulative impact of these challenges makes it difficult to achieve successful reintegration to the community, yet some men are able to survive the difficult re-entry process without reoffending. What differentiates men who reoffend after release from those who succeed in remaining conviction-free? The present research went some way towards answering this question by investigating how the quality of an individual's experiences after release from prison relates to the likelihood that he will achieve successful re-entry. A comprehensive measure, named the Parole Experiences Measure (PEM), was developed to assess the type and quality of high-risk parolees' experiences during re-entry. The PEM was then used to examine whether experiences in the first two months after release predicted both short-term recidivism (i.e., recidivism in the first two months after release) and slightly longer-term recidivism (i.e., recidivism in the first year after release). Three indices of recidivism were examined, varying in severity from breaching a parole condition to committing an offence that resulted in reimprisonment. Logistic regression analyses revealed that the PEM significantly predicted three indices of short-term recidivism, demonstrating that men who had poorer experiences on parole were more likely to fail quickly after release than those who had better experiences. Further, the PEM significantly predicted reconvictions in the first year following release, after controlling for possible confounding variables. Additional analyses explored the relative contribution of different aspects of an individual's parole experiences to the prediction of recidivism. In general, factors related to individuals' external circumstances (e.g., accommodation, finances, personal support) were predictive of recidivism over and above factors related to their

subjective wellbeing (e.g., mental health, physical health). The findings of this research demonstrate that men who have better experiences after release from prison, particularly with regard to their external circumstances, are significantly more likely to successfully avoid recidivism within their first year in the community. To our knowledge, this study was one of the first methodologically rigorous studies to explore the relationship between the quality of re-entry experiences and recidivism in a sample of New Zealand men at high risk of reoffending.

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Chapter 1: Introduction

Take a moment to reflect on the current circumstances of your life. What are your present living arrangements? Are you employed? Who do you turn to for support in times of need? Imagine if you had to start over; how easy would it be to completely re-establish your life? It is hard to imagine, yet this challenging task is the reality confronting individuals after their release from prison. Following their release, people may have to find a place to live, secure employment, re-establish relationships with family and friends, gain access to services in the community, and avoid aspects of their life that are associated with their criminal past. For individuals who are considered to be at high risk of reoffending¹, this task is even more challenging, as they have characteristics that leave them poorly equipped to tackle the many obstacles they face after release to the community.

A small proportion of individuals are responsible for the majority of crime. In fact, just 20-30% of all individuals who have engaged in criminal behaviour commit 80% of all crime (Andrews & Bonta, 2003). In New Zealand these individuals are typically Māori males who have criminal family members and have been involved in antisocial behaviour from a young age (Wilson, 2004). They tend to have antisocial friends and many of them are members or associates of criminal gangs (Polaschek & Kilgour, 2013; Wilson, 2004). In addition, men who are at a high risk of reoffending usually have a history of significant difficulties at school and as a result, receive limited education and have poor prospects for employment (Wilson, 2004). These men engage in a range of crimes, including serious and violent crime, and demonstrate a pervasive pattern of criminal behaviour across the lifespan (Wilson, 2004). Consequently, they are frequently imprisoned; however, imprisonment typically does not reduce the likelihood that they will reoffend (Wilson, 2004).

¹ Given the stigma associated with being labeled an 'offender' or a 'high-risk offender', this thesis will use more neutral terms to describe individuals who have committed a criminal offence.

For men who have a high risk of recidivism, reoffending after release from prison is the norm rather than the exception, and reoffending tends to occur quickly after release; almost half of all individuals at a high risk of reoffending return to prison within 12 months following release, and of those, half do so within the first three months (Nadesu, 2007). Research in New Zealand found that for men who have a high risk of recidivism the odds of returning to prison were as high as 60% within the first 100 days of release (Nadesu, 2007), demonstrating that these men go back to crime very quickly after release. These high recidivism rates result in substantial costs to New Zealand society. In 2003/2004 it was estimated that the costs of crime in New Zealand amounted to \$9.1 billion (Roper & Thompson, 2006). A single person who is considered to have a high risk of recidivism will cost New Zealand \$3 million across their lifespan (Cheng, 2011). In addition, there are significant emotional and physical costs to the victims of crime (Morris, Reilly, Berry, & Ransom, 2003). Given the extensive costs associated with crime, it is crucial that research aims to identify ways to increase the likelihood that people will succeed in giving up crime.

A considerable body of research has examined how the characteristics of individuals may increase the likelihood that they will be reconvicted or reimprisoned after release from prison. More recently, however, there has been an emphasis on research examining the circumstances that people encounter when released to the community. This research suggests that the high rates of recidivism among individuals at a high risk of reoffending may in part be explained by the difficult environmental circumstances that they face after release. In order to better understand the behaviour of these individuals, it may be beneficial to further investigate their post-release circumstances, and the environments in which they are situated following release.

A number of influential ecological theories emphasise the importance of social and environmental factors in the development of human behaviour. It is beyond the scope of this

thesis to discuss each of these theories in detail; however, one notable theory is Bronfenbrenner's bioecological model (Bronfenbrenner, 1999). The key concept of an ecological model is that behaviour is influenced by factors at multiple levels, including intrapersonal factors (e.g., biological and psychological), social and cultural factors, community factors, and physical environmental factors (Sallis, Owen, & Fisher, 2008). According to Bronfenbrenner's (1999) model, human development occurs through processes of reciprocal interactions between an active, biopsychological individual and the persons, objects, and symbols in their immediate environment. Throughout the life course, human behaviour and development is influenced by interactions with factors at various interconnected levels within the ecological environment. These levels range from the "microsystem" which includes factors in the immediate environment, such as interactions among family members, to the "macrosystem" which includes the overarching ideology, culture, and economics of a given society (Bronfenbrenner, 1979). According to ecological theories, these environmental factors have a profound influence on the behaviour and development of any individual situated within the environment. Therefore, human behaviour cannot be understood without adequate consideration of environmental factors.

In light of the previous discussion, research investigating criminal behaviour should focus not only on the characteristics of the individual, but also on the environment in which the person is situated. The rapid rate at which many individuals return to prison after release to the community suggests that the period of time after release is of particular importance. Investigating the experiences of people after their release from prison may be a promising approach to discovering effective strategies to reduce reoffending rates and increase the likelihood that individuals will succeed after release. The transition from prison to the community, often referred to as "re-entry", "reintegration", or "resettlement", will be discussed in the following section.

Re-entering the Community After Release from Prison

Recently, researchers have become increasingly interested in investigating the process of re-entry to the community after time spent in prison. Given the high rates of recidivism that occur in the immediate period following release from prison, it is not surprising that re-entry has become a prominent issue among the research community.

Generally speaking, re-entry, also referred to as 'reintegration' or 'resettlement', is the process during which an individual makes the transition from prison back into the community (Naser & La Vigne, 2006). Maruna, Immerglieu, and LeBel (2004) define re-entry as both an event and process. Defined narrowly, re-entry occurs the day an individual is released from prison. From a broader perspective however, re-entry is a long-term process that actually begins before release and continues well after release.

In New Zealand, all individuals who are released into the community after two or more years in prison are released on parole. New Zealand legislation requires that these individuals have post-release supervision (i.e. parole) for at least six months. During this time, they must report regularly to a probation officer and adhere to a number of conditions such as refraining from contacting victims or criminal associates and residing at an approved address (New Zealand Department of Corrections, 2015). The primary aim of parole, and the aim of successful re-entry more generally, is to assist individuals in re-integrating to the community and reduce the likelihood that they will reoffend. For those released from prison, re-entry is a very complex and challenging time. During the period of re-entry people move from prison, a very structured environment, to the community, an environment that can be chaotic and unpredictable (Visher & Travis, 2003). Understandably, this process can be difficult and a multitude of barriers confront individuals following their release from prison.

Challenges Faced by Individuals During Re-entry from Prison to the Community

People face a number of challenges during the transition from prison to the

community including finding accommodation, securing employment, re-establishing relationships with family, and avoiding alcohol and drugs (Bucklen & Zajac, 2009; Kubrin & Stewart, 2006; Zamble & Quinsey, 1997). The cumulative impact of these challenges may make it difficult for individuals to resume an ordinary life and achieve successful reintegration into the community (Graffam, Shinkfield, Lavelle, & McPherson, 2004). It can be difficult for non-parolees to face any one of these challenges at any point in time; however, people who have been released from prison may often have to cope with several major challenges at once. In addition, individuals who have spent time in prison are often poorly equipped to cope with the difficult circumstances they face following release (Shinkfield & Graffam, 2009). In most cases, it is unlikely that these individuals have the physical, psychological, and practical resources to overcome the barriers they encounter when returning to the community (Graffam et al., 2004). Although all men who have spent time in prison face challenges after release, men who are at a high risk of reoffending are particularly vulnerable during the transition due to their difficulties in problem solving, low academic achievement, and interpersonal and affective problems (Wilson, 2004). This section will examine in more detail some of the social/environmental challenges that individuals face following release from prison. Before doing so, it is important to point out that the options and resources available to individuals after their release differ depending on the city and country in which they live; in some parts of the world resources are more limited than others and therefore, post-release experiences are likely to differ depending on the individual's place of residence.

Accommodation. Finding accommodation is a critical step in the transition from prison to the community; however, people often have difficulty securing adequate accommodation following release from prison. The majority of former prisoners return to live with family members after release, but these arrangements are often temporary (Solomon,

Visser, La Vigne, & Osborne, 2006). For those who do not live with their families, accommodation options can be limited and some individuals may have to access crisis accommodation such as hostels, transitional housing, or homeless shelters (Graffam & Shinkfield, 2006; Solomon et al., 2006). These short-term accommodation options create further problems, as they provide an environment that is plagued by substance abuse and other criminal activity (Rowe, 2002). The difficulty in finding safe, affordable, and stable accommodation experienced by individuals after release from prison can be further complicated by a number of factors, including the scarcity of affordable housing and the reluctance of landlords to rent their properties to former prisoners (Bucklen & Zajac, 2009; Solomon et al., 2006). Consequently, people who have spent time in prison often return to unstable, temporary living arrangements after their release (Solomon et al., 2006).

Employment. Finding a job is also important during re-entry to the community, yet people often have great difficulty securing employment after their release from prison (Visser & Travis, 2011). Commonly identified barriers to employment include lack of work experience, lack of connections to employment opportunities, transport difficulties, substance use and other physical or mental health problems (Fletcher, 2001; Holzer, Raphael, & Stoll, 2003; Visser, Debus, & Yahner, 2008). Furthermore, men who are at a high risk of reoffending typically have poor basic skills, a lack of qualifications, and limited education (Fletcher, 2001; Wilson, 2004). Throughout their time in prison, these men may not be given adequate opportunities to develop their skills and gain positive work experience (Visser et al., 2008).

The rate of unemployment in the general population and the overall state of the labour market also has a significant impact on an individual's ability to obtain employment after their release from prison. In 2013, the unemployment rate in New Zealand was 6.2%. Of those who were available for work and seeking work, approximately 150,000 people were

unemployed, reflecting a general difficulty in gaining employment in New Zealand (MacPherson, 2013). These unemployment statistics, coupled with the relative lack of education and work experience in populations of people who have committed crimes, means that individuals are likely to experience considerable difficulty in finding employment after their release from prison.

The characteristics of employers also contribute to the low employment rates of individuals who have been convicted for criminal behaviour. Negative public attitudes toward crime and the stigma associated with having a criminal record reduces the likelihood that employers will be willing to hire individuals who have spent time in prison (Fletcher, 2001; Holzer et al., 2003). Most employers are also reluctant to hire individuals with limited skills. Instead, employers prefer to hire people with work experience, relevant skills, and positive attitudes to work (Holzer et al., 2003).

The majority of individuals do not have employment organised after release from prison (Solomon et al., 2006). Those who do succeed in obtaining employment tend to find low-skilled jobs that may not provide the wages necessary to support themselves and their families (Lynch & Sabol, 2001). Furthermore, the work that is available may only be temporary or part-time employment (Solomon et al., 2006). Given the multitude of barriers to employment, and the tendency to find jobs that pay insufficient wages (Lynch & Sabol, 2001), men who have spent time in prison are likely to face considerable financial hardship following release to the community.

Social support. After release from prison people are also faced with the challenge of establishing or re-establishing relationships with families, friends, and other support networks. Typically, families provide the main source of social support for individuals following release to the community. After release people often rely heavily on their families for support in numerous areas, including finding accommodation and employment, assistance

with finances, and overall emotional support during re-entry (Naser & La Vigne, 2006). Family support is crucial for positive reintegration experiences (La Vigne, Visher, & Castro, 2004). Unfortunately, however, many people return to the community with limited support from family and friends (Shinkfield & Graffam, 2009). Many individuals who have spent time in prison have lost any positive friendships due to their drug-taking behaviour and involvement in crime (Graffam et al., 2004). As a result, a large number of these individuals have no close friends in the community, and others only have support from criminal peers (La Vigne et al., 2004).

Support services. Following release from prison, individuals often have multiple needs that require input from support services and programmes in the community (Graffam & Shinkfield, 2006). Many people who have spent time in prison have a history of problematic drug and alcohol use that requires intervention (Fazel, Bains, & Doll, 2006; La Vigne et al., 2004). However, relatively few individuals gain access to substance abuse treatment while in prison or following their release to the community (Solomon et al., 2006). Similarly, there are high rates of mental illness and physical health problems among populations of people who have committed crimes, yet many of these individuals do not have access to appropriate treatment services (Brinded, Simpson, Laidlaw, Fairley, & Malcolm, 2001; Graffam & Shinkfield, 2006; Solomon et al., 2006). Although some individuals do receive access to adequate physical and mental health services while in prison, they often have limited access to community-based services after release (Hammett, Roberts, & Kennedy, 2001). Furthermore, people who have spent time in prison may lack knowledge about how to access services or they may not have adequate financial resources, transportation or social support to access the limited services that are available (Graffam et al., 2004).

Summary. Clearly the transition from prison to the community can be a stressful time and many individuals leave prison without adequate accommodation, social support or

employment (Burnett, 2010). For individuals who are at a high risk of reoffending, recidivism rates are at their peak during the first 100 days following release from prison, suggesting that this period of re-entry is particularly challenging (Nadesu, 2007). The various challenges confronting individuals during their re-entry into the community can be seen as barriers that impede or obstruct the re-entry process (Göbbels, Ward, & Willis, 2012). Research has found that individuals who go on to reoffend after release to the community face more barriers than those who do not reoffend (e.g. Zamble & Quinsey, 1997). In an attempt to better understand the re-entry process, researchers have examined a variety of factors that relate to the likelihood that an individual will give up crime and achieve successful re-entry upon release (e.g. Bahr, Harris, Fisher, & Armstrong, 2010; LeBel, Burnett, Maruna, & Bushway, 2008; Shinkfield & Graffam, 2009). This literature will be discussed in more detail in following sections of this thesis. Before doing so, I will briefly discuss the concept of desistance.

Desistance from Criminal Behaviour

The discussion presented thus far has focused predominately on the process of re-entry. However, it is important to point out that re-entry can be seen as falling within the broader process of desistance from criminal behaviour. In general, desistance is defined as the process of moving from active offending to non-offending (Maruna, 2001). Desistance is not a discrete event; it is a dynamic and gradual process, and often involves a number of false starts and intermittent patterns of offending (Kazemian, 2007; Walker, Bowen, Brown, & Sleath, 2014). The non-linear and dynamic nature of desistance creates difficulties for defining and measuring desistance. A particularly important issue is the follow-up period required to determine whether desistance has occurred (Kazemian, 2007). If desistance is a gradual process that occurs over time, does it make sense to select a specific follow-up period in which to measure desistance? There is inconsistency among researchers regarding this issue,

and currently there is no consensus as to the measurement of desistance. Maruna and Farrall (2004) proposed that desistance can be divided into two stages: *primary desistance*, defined as any gap in criminal behaviour; and *secondary desistance*, defined as a long-term absence of offending where individuals develop a new sense of identity as a non-offender or ‘changed person’. Although there is no consensus regarding the follow-up length required to measure desistance, it is generally accepted that secondary desistance is a gradual process that occurs over longer periods of time.

As stated above, re-entry is a small, yet important, aspect of the desistance process. For those who have spent a period of time in prison, it is seen as one phase in the process of giving up crime (Göbbels et al., 2012). During the period of re-entry to the community, individuals must deal with a number of challenges, and their ability to navigate through these challenges is likely to be important for the long-term goal of desistance. However, in order for an individual to achieve desistance in the community, they must first achieve successful re-entry. Therefore, the focus of this thesis will be on the factors that are important for successful re-entry, rather than the factors related to the longer-term process of desistance (e.g. change in identity).

Predicting Re-entry Success or Failure: Who is more Likely to Succeed?

Previous literature has identified a number of factors that either promote or reduce the likelihood of successful re-entry. These factors can be conceptualised as either facilitators or barriers to the re-entry process (Göbbels, Willis, & Ward, 2014). Some factors are subjective or internal to the individual (e.g. attitudes toward crime and mental health), while others are external to the individual (e.g. accommodation and employment; Serin & Lloyd, 2009). There has been disagreement among researchers regarding the relative importance of internal and external factors during the re-entry period; however, it is now recognised that successful

re-entry involves complex interactions between internal and external factors (LeBel et al., 2008).

Before discussing the re-entry literature in more detail, it is important to clarify what is meant by the term ‘successful re-entry’ or ‘re-entry success’. Researchers define successful re-entry in a number of different ways. For example, some researchers determine re-entry success or failure according to whether or not an individual has been reconvicted or reimprisoned after a certain amount of time in the community (e.g., Baldry, McDonnell, Maplestone, & Peeters, 2006; LeBel et al., 2008). Others adopt a broader definition of successful re-entry that includes a number of outcomes such as being employed, refraining from substance use, and obtaining stable accommodation (e.g., Graffam & Shinkfield, 2006). The varying definitions of re-entry success and failure within the literature can lead to confusion, as some studies use terms such as ‘successful re-entry’ without providing a clear definition of what is meant by this phrase. For the purposes of this thesis, re-entry success will be defined narrowly unless otherwise specified: as the absence of recidivism after a period of time in the community.

It is important to point out that many of the re-entry factors that will be discussed in this thesis are also referred to as ‘risk factors’ or ‘protective factors’ in the literature. For example, antisocial associates and substance use are referred to as risk factors, whereas social support and employment may be referred to as protective factors. Put simply, risk factors are “characteristics of people and their circumstances that are associated with an increased chance of future criminal activity” (Andrews & Bonta, 2010, p. 20). Conversely, protective factors refer to “characteristics of people and their circumstances that are associated with reduced chances of criminal activity (Andrews & Bonta, 2010, p. 22). The re-entry factors referred to here could be conceptualised as risk factors or protective factors, as they are associated with an increased or decreased likelihood of criminal activity; however, re-entry

factors occur specifically within the re-entry period and are associated with criminal activity across a narrower range of time. Furthermore, re-entry factors are associated with criminal activity in samples of individuals who have been released from prison, rather than general populations of people who have been convicted of crimes. Given that the focus of this thesis is on the re-entry process, this section will discuss factors measured during re-entry that have been found to be related to later recidivism (i.e., re-entry factors), rather than general risk and protective factors for criminal behaviour.

As discussed earlier, individuals face a multitude of challenges during the transition from prison to the community. Accordingly, there are a multitude of factors that may be related to the likelihood of re-entry success or failure, some of which may be more important than others. Maslow (1943) developed a theory of motivation that can be usefully applied to the process of re-entry from prison to the community. According to Maslow's (1943) theory, people are motivated by a hierarchy of needs, and lower level needs must be secured before individuals can progress to higher, more complex needs. Maslow argues that physiological, safety, and social needs must be satisfied before higher-order needs such as self-esteem and self-actualisation can be achieved. According to Maslow, re-entry factors such as accommodation, social support, and employment all reflect needs that sit in the lower steps of the hierarchy. During the initial period after release, individuals are likely to be working towards these basic needs, and only after these needs are met will they be able to achieve the higher-order need of living a prosocial life. Therefore, in the initial period following release it appears that the basic, practical aspects of life are of the greatest importance. In other words, it is more about surviving life in the community, rather than thriving. Consequently, this thesis will focus on the basic needs that individuals often need to secure in the initial period after release, and examine whether obtaining these needs predicts the likelihood of successful re-entry.

Accommodation. Finding safe and stable accommodation is often cited as being crucial to successful re-entry (e.g., Bucklen & Zajac, 2009). Accordingly, research has demonstrated that accommodation is a significant predictor of re-entry outcomes, such that individuals who are able to obtain safe and stable accommodation after release from prison are less likely to be reimprisoned than those with unstable living arrangements (Baldry et al., 2006; Metraux & Culhane, 2004).

In a sample of 238 Australian individuals who were interviewed nine months after their release from prison, it was found that those who were in unstable accommodation (i.e., relocated two or more times) were significantly more likely to return to prison than those who remained in the same accommodation or relocated only once (Baldry et al., 2006). After controlling for gender, type of housing, heroin use, and debt, results showed that people who moved often were between two and eight times more likely to be reimprisoned (Baldry et al., 2006). Additionally, individuals who were living with support people, such as partners or family members, after release were less likely to be reimprisoned than those living without support people (Baldry et al., 2006). Although these findings demonstrate that unstable accommodation significantly predicted recidivism, the authors did not statistically control for a number of factors that may have contributed to the results; for example, criminal history or risk of reoffending. It could be that individuals who are at high risk of reoffending have characteristics that increase the likelihood that they will have unstable accommodation *and* the likelihood that they will reoffend. Therefore, risk of offending could explain the observed relationship between unstable accommodation and recidivism. Consequently, the results of this study must be interpreted with caution.

The use of homeless shelters after release from prison has been found to be related to the likelihood of later reimprisonment. In a large longitudinal study, the relationship between shelter use and reimprisonment was examined among a sample of 48,424 individuals who

were released from prison to New York City between 1995 and 1998 (Metraux & Culhane, 2004). Results showed that people who were in an unstable housing situation and had experienced a stay in a homeless shelter after release from prison were significantly more likely to be reimprisoned than those with no record of shelter use (Metraux & Culhane, 2004).

Although accommodation is often cited as important for successful re-entry, some research has found that difficulty in finding accommodation after release is not associated with the likelihood of achieving success on parole. In a large study examining a number of variables thought to correlate with parole success, a series of surveys, interviews, and focus groups were conducted with 542 parole violators and 704 successful parolees in Pennsylvania (Bucklen & Zajac, 2009). In this study, parole success was defined as “an individual who had been on parole supervision for at least three years, with no violations or other return to incarceration” (Bucklen & Zajac, 2009, p. 7). Results showed that there was no significant difference between parole violators and those who succeeded on parole with regard to their difficulty in finding a place to live after release from prison (Bucklen & Zajac, 2009). In fact, the majority of participants did not experience difficulty in finding a place to live, suggesting that accommodation was not a significant re-entry concern for this group of individuals released from prison in Pennsylvania. The inconsistency between these findings and those mentioned above could be a result of differences in re-entry practices and the availability of accommodation in different regions of the world. In this study, individuals were released from a single state correctional system in Pennsylvania at a particular point in time (Bucklen & Zajac, 2009). Therefore, it is unclear whether the results generalise across time or to other parts of the world.

There is an absence of research examining possible explanations for the finding that unstable accommodation is related to an increased likelihood of recidivism. One possibility is

that people who access short-term accommodation, such as hostels or homeless shelters, after release from prison are exposed to environmental factors that increase their risk of reoffending; for example, substance use and engaging with criminal peers. Another possibility is that people without stable living arrangements after release from prison do not have access to adequate social support and therefore, may not have the resources necessary to achieve successful re-entry. Future research is needed to explore possible mechanisms underlying the relationship between unstable accommodation after release and recidivism.

Employment. A number of studies have demonstrated that obtaining employment is associated with successful re-entry (e.g., Bahr et al., 2010; Solomon et al., 2006; Visser et al., 2008). A comprehensive, longitudinal study of re-entry used data from 740 people released from prison in the United States in order to investigate whether obtaining employment contributes to a person's likelihood of achieving successful reintegration into the community (Visser et al., 2008). After controlling for a number of factors including age, race, criminal history, substance use at two months after release, type of release (supervised or not), and pre-prison education, results showed that individuals who had secured employment two months after release were more likely to successfully avoid recidivism in the first eight to twelve months after release than those who were unemployed (Visser et al., 2008). Furthermore, the higher the wage earned by an individual, the lower the likelihood that they would be reimprisoned 12 months after release (Visser et al., 2008).

Similarly, in a study examining the relationship between accommodation and employment, and re-entry success, results showed that there was a significant difference in reimprisonment rates between those who were unemployed and those who were employed or in full-time study (Baldry et al., 2006). After excluding participants who were not seeking work or were incapable of work due to disabilities, it was found that 54% of the remaining

sample who were unemployed had returned to prison compared to 8% of those employed or in full-time study (Baldry et al., 2006).

In contrast, some studies have found that employment is not related to the likelihood of re-entry success. For example, the aforementioned study conducted in Pennsylvania found there was no significant difference in the rates of employment between those who violated parole and those who achieved parole success; that is, those who had been on parole for three years without any parole violations or other return to prison (Bucklen & Zajac, 2009). In fact, in this study the majority of participants were able to secure employment at some point while on parole (83% of parole violators and 88% of those who succeeded on parole; Bucklen & Zajac, 2009). The high base rates of employment among this sample may explain the lack of a significant relationship between employment and parole success, and may be a reflection of the overall state of the labour market in Pennsylvania.

With the aim of developing a better understanding of what differentiates successful parolees from unsuccessful parolees, Bahr and colleagues (2010) conducted a study of the experiences of 51 parolees in the United States. In this study, the authors defined parole success as “being discharged from parole by three years after release” (Bahr et al., 2010, p. 667). According to this definition, parolees could be rearrested but subsequently improve and be formally discharged from parole (i.e. achieve parole success). This broad definition of parole success was chosen because the authors wanted to capture the idea that achieving success while on parole is a process that occurs over time rather than a single event (Bahr et al., 2010). With regard to employment, whether a parolee was employed one month, three months, or six months after release was not related to later parole success (Bahr et al., 2010). However, the number of hours participants worked was related to parole success; of those who were worked 40 or more hours per week, 63% achieved parole success, whereas only 10% of those who worked fewer than 40 hours per week achieved parole success (Bahr et al.,

2010). It is important to note, however, in this analysis the authors did not control for other variables that have been found to be related to recidivism (e.g. criminal history or risk of reconviction; Andrews & Bonta, 2010). Thus, we cannot be sure whether the observed relationship between employment and recidivism is accurate or is in fact explained by a third factor, such as risk of reconviction. It could be that individuals who were able to secure and maintain fulltime employment after release were those individuals who were already at low-risk of future reconviction. Although the methodology used in this study was not robust, the results suggest that the amount of time individuals work per week after they are released from prison may be an important factor related to re-entry success.

A number of these studies have shown that individuals who obtain employment after release from prison are significantly less likely to reoffend than those who do not secure employment. As such, these studies provide support for the idea that employment is an important factor for successful re-entry. Researchers have put forward a number of possible explanations for the relationship between employment and recidivism. For example, according to life course theory, employment may increase bonds to conventional society, provide more time to associate with prosocial peers, and reduce the amount of time spent with antisocial or deviant peers (Davis, Bahr, & Ward, 2012; Laub & Sampson, 1993; Morizot & Le Blanc, 2007). Furthermore, individuals may be less likely to participate in criminal activity due to concerns about the potential loss of their job and financial income (Davis et al., 2012). Although employment appears to be important during re-entry, little empirical research has tested these possible explanations.

Social support. A small number of studies have demonstrated that social support is an important factor that may impact on re-entry success or failure (e.g., Bucklen & Zajac, 2009; La Vigne et al., 2004). For the majority of individuals who have spent time in prison, family is their main source of social support following release (La Vigne et al., 2004; Naser

& La Vigne, 2006). In order to investigate the importance of family support for re-entry outcomes, researchers have examined the relationship between recidivism and the level of family support available to individuals after release. In a comprehensive longitudinal study using self-report data from 329 individuals who had been released from prison, 71% of participants identified family support as the most important factor in helping them avoid returning to prison (La Vigne et al., 2004). Furthermore, family support, as measured by a number of self-report family support scales, was found to be predictive of post-release employment and recidivism. Prior to their release, participants completed family support scales that included items such as whether they felt close to and supported by members of their family, and whether they had a family member they could talk to about problems or go to for advice (La Vigne et al., 2004). Released individuals who scored higher on family support scales before prison were less likely to be reconvicted or reimprisoned within 11 or 13 months, respectively, than those with lower scores (La Vigne et al., 2004). Additionally, those with negative family relationships in which family members hurt or threatened them prior to their imprisonment were more likely to be reconvicted or reimprisoned (La Vigne et al., 2004). These findings suggest that family contact on its own is not enough to help individuals achieve re-entry success after release from prison; it is the quality of the support that is important.

Contrary to expectations, another study found that being married, having a partner or children, and being close to family members were not associated with parole success (Bahr et al., 2010). However, in the qualitative analysis conducted in this study, unsuccessful parolees reported difficulties in their family relationships. The authors examined qualitative information from interviews with individuals after their release from prison and coded the information to identify general themes. This analysis revealed that unsuccessful parolees who identified their family as a resource reported a number of problems and stresses in their

family relationships, suggesting that the quality of the family relationships is important rather than simply having contact with family members (Bahr et al., 2010). A possible explanation for the finding that family support was not associated with parole success is that the study did not use a robust measure of family support; interview questions focused more on the presence or absence of family members who could provide support rather than on the type or quality of the support.

Research suggests that the availability of family support during an individual's time in prison may also be important for re-entry success. For example, individuals who were visited by family or friends while in prison were significantly less likely to be reconvicted within two years after release than those who were not visited (Bales & Mears, 2008). In fact, for those who were visited in prison, the likelihood of reconviction was 30.7% lower than the likelihood of reconviction for those who were not visited (Bales & Mears, 2008). These findings were apparent after controlling for a number of factors known to be related to recidivism, including gender, age, race, criminal history and length of time spent in prison (Bales & Mears, 2008). In this study, the authors overcame some of the limitations of prior research by including both male and female prisoners who were released from multiple types of prisons in Florida.

Research suggests that having a stable and supportive marriage or relationship may also be related to re-entry success. To illustrate, in an aforementioned study it was found that those who achieved success on parole were significantly more likely to live with a spouse or significant other than those who violated parole (34% versus 22%; Bucklen & Zajac, 2009). Qualitative data also indicated that those who succeeded on parole consistently stated that they were in stable and supportive relationships (Bucklen & Zajac, 2009). However, it is not clear whether the observed relationship between parole success and living with a spouse is

due to the effects of being in a supportive relationship or due to the effects of securing stable accommodation.

Although these studies demonstrate that social support may influence the likelihood of recidivism after release from prison, more empirical research is needed to identify exactly how social support influences re-entry success or failure. In addition, researchers have paid less attention to other types of social support that may be important during re-entry; for example, involvement with various community support agencies after release from prison.

Antisocial associates. A significant body of literature has demonstrated that association with antisocial peers has a strong influence on the onset and persistence of criminal behaviour (Andrews & Bonta, 2010). In fact, antisocial associates has been identified as one of the factors that is most strongly associated with criminal behaviour (Andrews & Bonta, 2010). By having contact with criminal peers, individuals have increased access to opportunities for offending and are exposed to attitudes and beliefs supportive of criminal behaviour (Serin & Lloyd, 2009). The majority of research examining the relationship between antisocial associates and crime focuses on the influence of peers in the onset of criminal behaviour. However, some researchers have investigated the influence of antisocial associates on criminal behaviour during the period of re-entry to the community. Using a sample of male prisoners in Canada, one study found that individuals who recidivated after release were more likely to spend time with criminal peers in the community than those who did not reoffend (Zamble & Quinsey, 1997).

A more recent study found that individuals who violated parole after release were significantly more likely to associate with criminal or antisocial peers than those who achieved parole success (58% versus 40%; Bucklen & Zajac, 2009). This study suggests that association with criminal peers after release from prison is related to a decreased likelihood of achieving success on parole. However, the methodological approach used in this study

prevents an examination of possible explanations for the relationship between association with antisocial peers and re-entry failure. The study employed a cross-sectional design and examined whether a number of factors were associated with parole success using correlational data analytic strategies with no statistical controls. As a result, it cannot be said with any degree of certainty that association with antisocial peers after release is directly related to re-entry failure.

Substance use. Drug and alcohol use is another factor that has been found to be related to the likelihood of re-entry success or failure. Research has demonstrated that those with histories of substance use and those who engage in substance use after release from prison are more likely to be rearrested after release (La Vigne et al., 2004; Solomon et al., 2006). In a sample of 329 people released from prison in Chicago, those who were reconvicted or reimprisoned within 11 or 13 months of release respectively, were more likely to have used alcohol or drugs after release than those who were not reconvicted or reimprisoned. Similarly, in the study mentioned above, individuals who violated parole were significantly more likely to report that they used alcohol and drugs while on parole than those who succeeded on parole (57% versus 22%; Bucklen & Zajac, 2009). The qualitative interviews with participants in this study showed that difficulties with managing stress was a primary factor that contributed to alcohol and drug use among both parole violators and those who succeeded on parole (Bucklen & Zajac, 2009). This finding suggests that people who have spent time in prison may be engaging in substance use after release as a result of other underlying problems such as poor coping skills. Additionally, heavy alcohol use is related to problems in other areas important to re-entry, including employment, finances, and interpersonal relationships (Shinkfield & Graffam, 2009).

Physical and mental health. There is relatively little empirical research examining the relationship between physical and mental health, and recidivism after release; however,

some authors suggest that health and wellbeing could be important for successful re-entry to the community. In an aforementioned longitudinal study, a number of predictive analyses were conducted in order to determine whether mental and physical health was related to recidivism (La Vigne et al., 2004). The analyses revealed that people displaying symptoms of Post-Traumatic Stress Disorder (PTSD) after release from prison were more likely to be subsequently reconvicted (La Vigne et al., 2004). Perhaps individuals with PTSD symptoms did not have the resources necessary to achieve re-entry success. Conversely, results showed that those who scored highly on a depression scale after release were less likely to be reconvicted or reimprisoned (La Vigne et al., 2004). The authors hypothesised that individuals experiencing symptoms of depression after release from prison may have avoided interacting with others and spent more time at home, thus reducing their opportunities for offending (La Vigne et al., 2004).

Brief review of other factors that may contribute to recidivism after release. So far this section has discussed a number of factors that may be present at release and may relate to the likelihood that a person will achieve successful re-entry after release from prison. In order to gain a thorough understanding of the relationship between experiences after release and re-entry success, it is necessary to understand the role of other factors that may contribute to the likelihood that an individual will remain crime-free after release to the community. Previous research with the present sample and other related samples has examined the contributions to recidivism made by individuals' pre-release static and dynamic risk levels, and how well prepared they were for release. Accordingly, this section will briefly review a number of factors that have been found to be related to recidivism in previous empirical research. These variables will be included as covariates in some later analyses, to enhance our understanding of their relationships to or independence from the re-entry factors that will be examined.

Prior research in New Zealand has demonstrated that men who completed one of the High Risk Special Treatment Unit (HRSTU) rehabilitation programmes were significantly less likely to recidivate after release than those who did not undertake the programme (Polaschek, Yesberg, Bell, Casey & Dickson, in press; Polaschek, 2011). Specifically, when compared to a comparison sample of men at a high risk of reoffending, men who completed one of the HRSTU programmes showed significant reductions in recidivism rates across four indices of recidivism: breaches of parole conditions, any new convictions, any new violent conviction, and any conviction that resulted in reimprisonment. Relative to a comparison sample of men at a high risk of reoffending, men who had not completed an HRSTU programme, there was a 16 to 34% reduction in recidivism for the treatment sample (Polaschek, et al., in press). These findings show that treatment status is significantly related to recidivism and therefore, should be considered in research examining the relationship between parole experiences and re-entry success.

Initial research in New Zealand found a relationship between readiness for release, as measured by the Release Proposal Feasibility Assessment-Revised (RPFA-R; Wilson, 2011), and recidivism. Release plans assessed as being more feasible were associated with a reduction in reoffending after release ($AUC = .71$; Polaschek, Kilgour, & Wilson, 2013). A further study by Polaschek and colleagues (in press) demonstrated that RPFA-R scores were significantly predictive of reconviction, violent reconviction, and reimprisonment. However, RPFA-R scores were not predictive of breaches of parole conditions (Polaschek et al., in press). In contrast, research conducted by Yesberg (2014) demonstrated that the RPFA-R was a significant predictor of breaches of parole. This discrepancy may be due to the difference in sample size and associated statistical power between the two studies.

In a similar study RPFA-R scores were significantly correlated with reconviction in the positive direction, indicating that the men who had poorer plans for release were more

likely to be convicted of a new offence than those who were better prepared for release (Polaschek, Yesberg, & Chauhan, 2015). Additionally, readiness for release, as measured by the RPFA-R, has been found to have a significant indirect relationship to reconviction such that better readiness for release leads to a longer period of parole, and in turn, reduces the likelihood of reconviction (Polaschek et al., 2015).

With regard to other measures of criminal risk, research conducted in New Zealand has demonstrated that both the Risk of Re-Conviction X Risk of Re-Imprisonment (RoC*RoI; Bakker, Riley, & O'Malley, 1999) and the Violence Risk Scale (VRS; Wong & Gordon, 2000) are predictive of recidivism (Dickson, Polaschek, & Casey, 2013; Nadesu, 2007; Yesberg & Polaschek, 2015). Furthermore, international studies have found that the VRS has the ability to predict both violent reconviction and general reconviction in large samples of people who have been convicted of crimes (e.g., Wong & Gordon, 2006; Yang, Wong, & Coid, 2010). The RoC*RoI is risk assessment tool that is based on static criminal history and demographic variables, whereas the VRS assesses both static and dynamic (changeable) risk factors. Although both risk measures are good predictors of recidivism in New Zealand samples, the VRS includes additional dynamic risk factors that are not captured by the RoC*RoI.

Methodological and Conceptual Critique

The discussion thus far has outlined a number of factors that have been found to correlate with re-entry success (typically defined as a lack of recidivism) or predict the likelihood of re-entry success after release from prison. Although the available research suggests that these factors may contribute to the likelihood that an individual will achieve success after release from prison, there are a number of methodological limitations that warrant further exploration. First, many of the studies investigating re-entry factors and recidivism after release have been conducted in one location; for example, a single state in

the United States (e.g., La Vigne et al., 2004; Metraux & Culhane, 2004) or a small number of cities in the same country (e.g., Bahr et al., 2010; Baldry et al., 2006; Naser & La Vigne, 2006; Visher et al., 2008). In addition, some studies draw on samples of individuals who are released from a single correctional facility. As a result the samples may not be representative of larger populations of people who have committed crimes, and the results found in individual studies may not be generalisable to populations in different regions. Given the differences in legislation and re-entry practices adopted in different regions of the world, and the differences in the availability of resources, it is likely that the experience of men and women during re-entry also differs depending on their place of residence. As such, caution must be taken when attempting to apply research conducted in one location such as Pennsylvania, United States to other parts of the world such as New Zealand. At present, very little research has examined how a person's experiences during the period of re-entry to the community relate to the likelihood that they achieve re-entry success in a New Zealand sample.

Second, a number of the studies that sought to examine whether re-entry factors predict recidivism did not statistically control for other factors that are related to recidivism (e.g., criminal history, risk of recidivism; Andrews & Bonta, 2010). If these factors are not controlled for in the analysis, they may influence the results such that the observed relationship between two variables (e.g., employment and recidivism) may be due, to a large extent, to the influence of other variables that have not been controlled for (e.g., criminal history). To elaborate, individuals with an extensive history of criminal activity may be less likely to gain employment after release from prison *and* more likely to reoffend after release. Therefore, the observed relationship between employment and recidivism may not be accurate; instead, it may be contaminated by the influence of a third factor, namely, criminal history. Without controlling for factors that have been found to predict recidivism, it is not

possible to obtain an accurate indication of the relationship between the variable in question and the likelihood of recidivism.

Third, some research in the area of re-entry adopts a cross-sectional study design rather than a longitudinal design (e.g., Bucklen & Zajac, 2009). This method simply provides a ‘snapshot’ of the relationship between two variables at a single point in time, and does not allow for inferences to be made about causality. By adopting longitudinal study designs researchers are able to examine whether variables of interest predict recidivism over time, thus providing an indication of the sequence of events. Although longitudinal designs do not provide evidence of a causal relationship between variables, this method is preferred over a cross-sectional study design.

Fourth, it is important to note that many of these studies rely solely on self-reported data. This data collection method allows us to gather information about a person’s own perceptions of their experiences in the community, and may result in richer data that includes more information than official data. Research has found support for the validity of self-report data in populations of people who have been convicted of criminal offences (e.g., Nieves, Draine, & Solomon, 2000). However, some authors have noted that self-reported data may include factual inaccuracies, as participants’ memory for events may be inaccurate, and participants may overreport or underreport certain experiences or behaviours (La Vigne et al., 2004). As a result, it may be a beneficial research practice to obtain self-report data and attempt to corroborate reports through obtaining information from other sources or including information from official records.

In addition to the above methodological limitations, there are a number of conceptual issues within the re-entry literature that warrant discussion. Prior research has identified a number of factors that correlate with re-entry success or predict re-entry success; however, these studies are largely descriptive in nature and little research has examined the

mechanisms underpinning these associations. For example, some studies have demonstrated that unstable accommodation is related to the likelihood of recidivism but they do not explain *how* having unstable accommodation increases the likelihood of recidivism or reimprisonment. This lack of attention to mechanisms is reflective of the re-entry literature more broadly; the majority of the research does not pay adequate attention to the mechanisms behind any observed associations.

Most previous research does not allow us to determine whether the re-entry factors found to predict recidivism are causal in nature or whether they serve as proxies for other characteristics about the person. To illustrate, it is possible that engaging in substance use causes subsequent reoffending; however, an alternative explanation is that people engage in substance use as a result of other underlying problems such as poor coping skills. Additionally, some variables such as employment status may serve as proxies for characteristics about the person, such as the strength of their existing employment-related skills. Conversely, they may serve as proxies for characteristics of the environment, such as the state of the labour market. At present the research examining re-entry factors and recidivism does not allow for these distinctions to be made.

The complexity of the interactions between various re-entry factors makes it difficult to ascertain whether any given variable is causally related to recidivism. As people navigate the difficult transition from prison to the community, there are a number of factors that relate to the likelihood that they will succeed in remaining crime-free (see sections above). These factors, however, do not occur in isolation from one another; they interact and influence each other in various ways. Substance use, for example, is a re-entry factor that has been found to be associated with recidivism, yet heavy alcohol use is also related to problems in other areas important to successful re-entry, including employment, finances, and interpersonal problems (Shinkfield & Graffam, 2009). Further, as mentioned above, the level of substance use a

person engages in may be influenced by other factors such as their level of problem solving skills or their ability to cope with stressors (Bucklen & Zajac, 2009). Similarly, the relationship between unstable accommodation and recidivism is likely to be influenced by various other factors such as the person's level of social support and their current financial situation. Attempting to disentangle the relative contributions of these different factors is a challenging task that tends to be overlooked in the literature. Further challenges arise when attempting to unravel the differential impacts of factors internal to the individual (e.g., motivation and mental health) and external factors within the individual's environment (e.g., accommodation and employment). For example, it is difficult to determine whether changes in an individual's external circumstances are precipitated by subjective changes in their wellbeing, cognitions and motivations or whether these subjective changes unfold when the individual's external circumstances are at a satisfactory level.

Given these methodological and conceptual limitations, it is difficult to form any firm conclusions regarding the impact of the aforementioned re-entry factors on the likelihood of re-entry success after release. Furthermore, given the current state of the literature, we cannot determine the precise causal pathways behind any observed associations between re-entry factors and later re-entry success. There is a need for further research in this area; however, a critical first step is to overcome the limitations of previous studies and use more rigorous methodology in order to establish whether experiences during re-entry predict the likelihood of re-entry success. This critical first step will be the focus of the current research.

Introduction to the Current Research

The present research aimed to investigate the quality of individuals' experiences during re-entry from prison to the community and examine whether these experiences predict the likelihood that they will achieve successful re-entry into the community. This research adopted a longitudinal design and examined the re-entry experiences of a sample of men at a

high risk of reoffending, released to the community from four prisons around New Zealand. In order to assess the type and quality of parolee's experiences during re-entry, the Parole Experiences Measure (PEM) was developed. This measure allowed for an in-depth examination of the re-entry experiences of men across a number of different areas thought to be important during re-entry.

The PEM was then used to address the fundamental aim of the present research which was to determine how the quality of parole experiences relates to the likelihood that a person at a high risk of recidivism will achieve re-entry success after their release from prison. For the purposes of this research, re-entry failure and re-entry success were defined as recidivism after release or the absence of recidivism after release, respectively. Over two follow-up periods – two months and twelve months, three indices of recidivism were examined, varying in severity from breaching a parole condition to committing an offence that resulted in reimprisonment. Specifically, the present research addressed four main questions. First, do initial parole experiences, as measured by the PEM, predict who will fail quickly after release from prison (i.e., recidivate in the first two months after release)? Based on previous research, it was expected that men who had better initial parole experiences, as measured by the PEM, would be less likely to fail quickly after release than men who had poorer parole experiences. Secondly, which particular aspects of a person's experience on parole (during the first two months after release) are significant predictors of fast failure? Due to a lack of research examining the relative contribution of particular aspects of individuals' experiences to the prediction of recidivism, this research question was exploratory and therefore, no specific predictions were made. Thirdly, do initial parole experiences, as measured by the PEM, predict the likelihood that a person who is at a high risk of reoffending will recidivate within the first year in the community? Again, it was expected that men who had better initial parole experiences would be less likely to recidivate than men who had poorer experiences

on parole. Finally, which particular aspects of a person's experience on parole (during the first two months after release) are significant predictors of recidivism in the first year after release? Given the lack of research examining the relative contribution of particular aspects of individuals' experiences to the prediction of recidivism, this research question was exploratory.

This study addressed some of the methodological limitations of previous studies by adopting a longitudinal study design, controlling for possible confounding variables in statistical analyses, and including men released from four prisons around New Zealand in the sample.

Chapter 2: Method

The Parole Project

The data used in the present research were taken from the Parole Project, a large longitudinal study conducted by Professor Devon Polaschek's research team at Victoria University of Wellington, New Zealand. The Parole Project began in November 2010, and was designed to prospectively follow a group of New Zealand men at high risk of reoffending for the first 12 months after their release from prison. During this follow up period, a wide range of data was gathered with the aim of increasing our understanding of the rehabilitation and re-entry of men considered to be of a high risk of recidivism.

Two groups of men about to be released from prison onto parole were recruited to participate in the Parole Project. The men were either (a) graduates from one of the four High Risk Special Treatment Unit (HRSTU) rehabilitation programmes in New Zealand (Puna Tatari at Spring Hill Prison, Karaka at Waikeria Prison, Te Whare Manaakitanga at Rimutaka Prison, and Matapuna at Christchurch Men's Prison) or (b) other high-risk men who had not completed a HRSTU programme, but were eligible for referral.

Prisoners who consented to participate in the Parole Project were interviewed prior to their release from prison (within six weeks) and were interviewed again two months and six months following release. A small number of men were also interviewed after 12 months in the community. In addition, the parolees' probation officers were interviewed two months, six months, and occasionally twelve months after the men were released from prison. The present research used information gathered during the two-month follow up interviews. The procedure section of this thesis will discuss the methods used to recruit and interview the Parole Project participants and their probation officers.

Eligibility Criteria

In order to be eligible to participate in the project, men were required to meet the

following criteria: over 19 years of age, high static risk ($\text{RoC} \times \text{RoI}^2 > .65$), sentenced to at least two years imprisonment, and released from prison onto parole between November 2010 and November 2013. Cases included in the present analyses required a complete pre-release Violence Risk Scale (VRS; Wong & Gordon, 2000; see Measures section), a Release Plan Feasibility Assessment-Revised score (RPFA-R; Wilson, 2011; see Measures section), and two-month interview data from both the participant and his probation officer. One hundred and nineteen cases could not be included in the current research due to a lack of complete interview data. Thirteen men were excluded due to the absence of a VRS, and one man was excluded due to the absence of a RPFA-R score.

Sample

The sample for this research consisted of 178 men who were released from New Zealand prisons between November 2010 and November 2013 and were interviewed after approximately two months in the community. Of the total sample, 92 participants had completed one of the HRSTUs while on their sentence. The remaining 86 participants were drawn from a comparison sample that included men who had engaged in one-on-one psychological treatment, men who had completed lower intensity programmes (e.g., the Medium Intensity Rehabilitation Programme), men who had spent time within a Māori Focus Unit, HRSTU non-completers, men who had completed an HRSTU programme on a previous sentence (and were then reconvicted), and men who had attended no programmes of note during the current imprisonment sentence. Table 1 presents demographic and criminal history data for the entire sample. The majority of the men in the sample identified as Māori (61.2%),

² The Risk of Re-Conviction X Risk of Re-Imprisonment ($\text{RoC} \times \text{RoI}$; Bakker, Riley, & O'Malley, 1999) is a static risk assessment tool that provides an estimate of an offender's risk of reconviction leading to reimprisonment over a period of five years in the community. $\text{RoC} \times \text{RoI}$ scores range from 0 (low) to 1.0 (very high).

32.6% as European, 5.1% as Pacifika, and 1.1% as Other³. On average, the men were aged 33 at the time of their release, and 16 at the time of their first conviction. They had a mean 74% likelihood of returning to prison within the five years following release as estimated by the RoC*RoI. The mean VRS score for the sample was 52, indicating that, on average, the men had a high risk of future violent offending (Wong & Gordon, 2006). The majority of the men committed a violent index offence (62.9%), 35.4% committed a non-violent index offence, and 1.7% were convicted of justice/administrative offences⁴. Of those who committed a violent index offence, 9% committed a sexual index offence (e.g., unlawful sexual connection). Participants had an average of 73 previous convictions and five previous violent convictions.

Ten of the men included in the sample were sentenced to life imprisonment and two men were sentenced to preventive detention. The remaining 166 men had sentence lengths ranging from 256 days to 5569 days, with an average sentence length of 1559 days. Approximately 60% of the sample were granted early parole, while the remaining 40% were released at the end of their sentence. The average length of parole was 354 days.

³ The reported ethnicities were coded into four categories: (1) New Zealand Māori, (2) European (included NZ European, Pakeha, European, and Australian), (3) Pacific Peoples (included Cook Island, Cook Island Māori, Niuean, Pacific Island, and Samoan), Other (included Laotian and Russian).

⁴ The index offences were coded into three categories: (1) Violent offences (e.g., assault with intent to injure, sexual violation by unlawful sexual connection, and aggravated robbery offences), (2) Non-violent offences (e.g., property and drug-related offences), (3) Justice/Administrative offences (e.g., breach of Corrections Act).

Table 1

Means, Standard Deviations, Ranges, and Percentages for Demographic Variables for the Overall Sample

| | <i>M</i> | <i>SD</i> | Range |
|--|-------------|-----------|-------------------------|
| RoC*RoI | .74 | .12 | .16 ^d to .96 |
| VRS Total | 52.01 | 8.43 | |
| Age at release | 32.92 | 8.78 | 19 to 60 |
| Age at first conviction | 15.96 | 1.98 | 11 to 27 |
| Number of previous convictions | 73.17 | 55.50 | 3 to 442 |
| Number of previous violent convictions | 5.16 | 4.54 | 0 to 20 |
| Sentence length ^a | 1558.63 | 1079.77 | 256 to 5569 |
| Parole length ^a | 354.08 | 254.39 | 178 to 1799 |
| Percentage of sample | | | |
| Completed HRSTU | 92 (51.7%) | | |
| Ethnicity | | | |
| Māori | 109 (61.2%) | | |
| European | 58 (32.6%) | | |
| Pacific Peoples | 9 (5.1%) | | |
| Other | 2 (1.1%) | | |
| Index Offence | | | |
| Violent | 112 (62.9%) | | |
| Non-violent | 63 (35.4%) | | |
| Justice/ | 3 (1.7%) | | |
| Administrative | | | |
| Released early ^c | 108 (60.7%) | | |

Note. ^a 12 men were on sentences on indeterminate length (life or preventive detention) and so were excluded from this analysis, ^b 11 men were sentenced to life on parole and so were excluded from this analysis, ^c men on preventive detention or life sentences were coded as parolees who had been released early. ^d Typically, offenders must have a RoC*RoI of .7 or above to be eligible for entry into a HRSTU Rehabilitation Programme. However, this rule can be overridden if an individual's behavior in prison indicates that he is of much higher risk than his RoC*RoI score suggests. A small number of men in the current sample entered a HRSTU despite having a low RoC*RoI score, leading to the low value in the range of RoC*RoI scores presented here.

Measures

The Parole Experiences Measure. The Parole Experiences Measure (PEM) was developed for the current study in order to measure parolees' experiences of life in the community after their release from prison. The procedure for developing this measure is described in more detail below. The PEM consists of 12 items that are split evenly between two subscales (see Appendix A for a list of the PEM items). For all items, lower scores indicate poorer parole experiences and higher scores indicate better parole experiences. The first subscale, named *external circumstances*, assesses parolees' experiences in the following areas: accommodation, personal support, finances, antisocial associates, alcohol use, and drug use. The other subscale, *subjective wellbeing*, measures factors related to an individual's current perceptions of their wellbeing, including mental health, physical health, negative emotions, positive emotions, and how they were feeling overall on the day of the interview, and over the last month. The PEM provides an external circumstances score (mean of the external circumstances items), a subjective wellbeing score (mean of the subjective wellbeing items), and a total PEM score (mean of all PEM items) for each person in the sample. The psychometric properties of the PEM were examined for the present research and will be described at the beginning of the Results section.

The Risk of Re-Conviction X Risk of Re-Imprisonment. The Risk of Re-Conviction X Risk of Re-Imprisonment (RoC*RoI; Bakker, Riley, & O'Malley, 1999) is an actuarial risk assessment tool developed in New Zealand by the Department of Corrections and cross-validated on two samples, each of 24, 000 people who had been convicted of a criminal offence. The RoC*RoI provides a computer-generated score, ranging from 0 (low) to 1 (very high), that represents the probability that an individual will be reconvicted resulting in reimprisonment over a five-year period in the community. For example, a RoC*RoI score of 0.74 indicates that the person has a 74% likelihood of being reimprisoned within five years

in the community. The RoC*RoI is based entirely on static (fixed) factors that relate to a person's demographic characteristics (e.g., age, gender) or criminal history (e.g., number of previous convictions, age at first conviction; Bakker et al., 1999). Previous analysis demonstrated that the RoC*RoI had moderate to high predictive validity during development (AUC = .76; Bakker et al., 1999). Subsequent analysis found that the RoC*RoI had good predictive validity over three years post-release (Nadesu, 2007).

The Violence Risk Scale. The Violence Risk Scale (VRS; Wong & Gordon, 2000) is a 26-item staff-rated instrument comprising 6 static (e.g., age at first violent offence) and 20 dynamic (e.g., offence supportive attitudes) risk factors for violence and crime in people with convictions for violence. Each item is rated on a 4-point Likert scale, with a score of 0 indicating the factor has no relation to violence and a score of 3 indicating a strong association with violent offending. The sum of the static and dynamic items represents an individual's level of risk for violent offending. The dynamic items that are considered to be a risk factor for the individual (those rated either a 2 or a 3) are given a second rating based on the individual's stage of change (precontemplation, contemplation, preparation, action, or maintenance), thus providing a measure of the individual's current level of engagement in change on each item. VRS scores have been found to predict both general and violent recidivism (Wong & Gordon, 2006). Previous research in New Zealand found that the VRS was predictive of reconviction and reimprisonment in a New Zealand sample (Dickson et al., 2013).

The Release Proposal Feasibility Assessment-Revised-Version 4 (RPFA-R). The RPFA-R is an 11-item measure that is used by probation officers, parole board members, sentence planners, and psychologists to make structured assessments of the release plans and reintegrative needs of people about to be released from prison (Wilson, 2011). The RPFA-R includes items such as personal support, non-compliance with previous conditions/parole,

and suitable accommodation. Each item is rated on a 3-point scale ranging from 0 (not a risk factor) to 2 (a definite risk factor). Currently, the RPFA-R has limited empirical support; however, initial research in New Zealand found that release plans assessed as being more feasible were associated with a reduction in reoffending ($AUC = .71$; Polaschek, Kilgour, & Wilson, 2013).

Recidivism. Recidivism data were extracted from the New Zealand national conviction records database on 30 September 2014. Time from release from prison to data extraction averaged 768 days ($SD = 295$; range 363 to 1313). Recidivism was defined as any new conviction or breach of parole conditions within two months or twelve months following release from prison to the community, depending on the follow-up period used in the analysis. Three indices of recidivism were examined: breaches of parole conditions, any new conviction (excluding breaches of parole, but including any other conviction), and any conviction leading to imprisonment. All of the recidivism indices were coded dichotomously (0 = no, 1 = yes) for each participant.

Procedure

Data collection. The Victoria University of Wellington School of Psychology Human Ethics Committee and the New Zealand Department of Corrections granted ethical approval for this research. Participants were recruited by members of the Parole Project research team, which was comprised mainly of senior PhD students from Victoria University of Wellington. The participants were recruited through liaison with staff at the New Zealand Parole Board and the HRSTUs, or were selected from a list provided by the Department of Corrections that included all soon-to-be-released men finishing a sentence of at least two years imprisonment who had a high risk of future imprisonment (as measured by the RoC*RoI). Participation in the research was voluntary and all participants gave their consent prior to each phase of data collection (see Appendix B for the Parole Project information sheet and consent form).

If a person consented to participate, he was interviewed in person (for approximately 1.5 to 2.5 hours) in an interview room within the prison units or in the visitor centre. Interviews were completed as close to the person's release date as possible (within six weeks). A single member of the research team interviewed each participant, and only the researcher and the participant were present for each interview. At the beginning of each interview, confidentiality was discussed and participants were provided with more information about the study. They were informed that they could withdraw consent at any stage throughout the research process, and that the project was independent from the Department of Corrections. At the end of the interview, participants were informed of the follow up interview, and researchers gained consent to contact the participant two months after their release.

Approximately two months after the men were released, a member of the Parole Project research team contacted their probation officers. The probation officers were asked to speak with the men to establish whether they would still like to participate in the study and to provide the researchers with a contact number for the participant or a time to call him at Community Probation Services. A confidential phone interview was then conducted with the participant (for approximately 30 to 40 minutes). If the participant was back in prison, the interview was conducted over the phone. In these interviews, men were asked about their experiences in a number of areas including accommodation, employment, finances, social and community support, use of leisure time, substance use, physical and psychological health, time with criminal peers, and attitudes towards and engagement in criminal activity. In order to thank the men for their participation, they were offered either a \$30 supermarket voucher or a \$30 top-up voucher for their cell-phone.

Participants' probation officers were also interviewed at the two-month follow up in order to gather information about their perceptions of their client's progress in the

community. These interviews were conducted over the phone and lasted approximately 40 minutes. The interviews with probation officers were conducted separately from the interviews with the parolees and the interviewers ensured that any information gathered from either interview remained confidential.

Development of the PEM. Initially, the available interview data were examined and a number of items that captured parolees' external circumstances were identified. The following eight variables were selected: accommodation, personal support, community support, employment, finances, antisocial associates, alcohol use, and drug use. Next, it was decided that each item would be coded on a 4-point rating scale (1-4), with scores of 1 indicating poorer experiences and scores of 4 indicating better experiences. An even-numbered metric was selected over an odd-numbered metric, as research has found that middle response categories are sometimes used as a 'dumping ground' for unsure or ambiguous responses (Kulas & Stachowski, 2009). Selecting a 4-point scale ensured that coders could not rely on a middle rating and therefore had to be more decisive when scoring items.

Two raters then constructed a comprehensive coding scheme that detailed the responses required for each rating on each item. First, the responses required for a score at the extreme ends of the scale (a rating of 1 or 4) were identified and guidelines were negotiated between the two raters. Next, the criteria needed to obtain ratings of 2 or 3 were established. The criteria were developed by drawing on relevant literature regarding re-entry from prison to the community, and were based not only on the presence or absence of each variable, but also on the *quality* of each variable. In order to corroborate participants' self-report responses, the decision was made to supplement the information provided by a parolee with information gathered in interviews with his probation officer. Once the initial criteria were agreed upon, a sample of interviews (approximately 100) were examined and any

responses that did not fit within the coding scheme were noted. The coding scheme was then adjusted accordingly. Any vague or ambiguous responses were discussed until a consensus was reached.

Once the initial coding scheme had been developed, the two raters independently coded a sample of 40 interviews and then systematically compared the scores they had allocated for each item. Any discrepancies between raters were noted and common areas of confusion were identified. The coding scheme was then adjusted in order to make it more objective and well defined. Following these revisions, a sample of 40 participant interviews (20 HRSTU treatment completers; 20 comparison) was randomly selected and coded by the two independent raters. In order to determine the consistency between the two raters, kappa coefficients were calculated using SPSS Version 22. The kappa values for three items (personal support, antisocial associates, and finances) were not at a satisfactory level ($\kappa > .70$); therefore, the decision was made to further revise the coding scheme. The majority of the discrepancies between the two raters were due to ambiguities in responses or inconsistencies between parolee responses and probation officer responses. Consequently, more explicit instructions regarding how to manage discrepancies between parolee and probation officer responses were required. The raters decided to first examine the parolee's response because including parolees' own impressions of their situation and experiences was important. The parolee's response determined whether they were at the high or low end of the scale (i.e. 1-2 or 3-4). The probation officer's response was then examined to aid in determining which specific rating would be given. This process allowed for both the inclusion of parolees' own perceptions of their experiences and the corroboration of their responses by their probation officers. The coding protocol for the other items was also adjusted slightly to fit with this rationale (see Appendix C for the final coding protocol). Following these revisions, further analyses were conducted to assess the level of reliability

between the two raters.

Inter-Rater reliability. In order to establish inter-rater reliability, two independent raters coded a randomly selected sample of 40 participant interviews (20.7% of the total sample; 20 HRSTU treatment completers, 20 comparison). Typically, unweighted kappas are used when any disagreements between two raters are of equal importance. However, when using ordinal scales, discrepancies between raters are of unequal importance and therefore, it is important to consider the *degree* of disagreement between raters (Sim & Wright, 2005). Cohen (1968) developed the weighted kappa statistic so that varying levels of agreement between raters can be taken into account and weighted accordingly. With regard to the current rating scale, a discrepancy of 1-scale point (e.g., ratings of 2 and 3) is more accurate than a discrepancy of 2-scale points (e.g., ratings of 1 and 4); therefore, weighted kappa values were used. Weighted kappa coefficients were calculated using the VassarStats website (Lowry, 2015). Linear kappa weightings were used instead of quadratic kappa weightings, as the differences between each rating were of equal importance (i.e., the difference between ratings of 1 and 2 were equally as important as the difference between ratings of 2 and 3).

The linear weighted kappa values for individual items ranged from 0.82 to 1, indicating an almost perfect level of agreement between the two raters on all items (Landis & Koch, 1977; see Table 2).

Table 2

Inter-Rater Reliability for the PEM

| PEM item | κ (SE) | 95% CI |
|-----------------------|---------------|--------------|
| Accommodation | 0.92 (0.04) | [0.84, 1.00] |
| Employment | 0.89 (0.06) | [0.68, 0.96] |
| Personal Support | 0.91 (0.05) | [0.82, 0.99] |
| Community Support | 0.82 (0.07) | [0.68, 0.96] |
| Antisocial Associates | 0.89 (0.05) | [0.79, 0.99] |
| Finances | 0.88 (0.05) | [0.78, 0.98] |
| Alcohol Use | 0.96 (0.04) | [0.88, 1.00] |
| Drug Use | 1.00 (0.00) | [1.00, 1.00] |
| Thoughts About Crime | 0.98 (0.02) | [0.94, 1.00] |

Once the coding scheme was deemed to have adequate inter-rater reliability, it was used to retrospectively code the remaining data gathered during the two-month interviews.

Additional PEM items. Six additional items from the parolee interviews were also selected to be included in the PEM. These items included mental health, physical health, negative emotions, positive emotions, how the person was feeling overall on the day of the interview, and over the last month. Four of the items, namely mental health, physical health, feeling today, and feeling over the last month, were rated by parolees on a 6-point Likert scale with lower scores indicating poorer experiences and higher scores indicating better experiences. The remaining two items, positive emotions and negative emotions, were developed through calculating the sum of parolees' ratings of their experience of various positively or negatively valenced emotions. Men rated how often they had experienced different emotions over the last two weeks⁵, ranging from 1 (not at all) to 3 (a lot) and these ratings were added to give a positive emotions and negative emotions score. Following these

⁵ Note. Offenders who were convicted of a criminal offence or a breach of parole conditions before the two-month follow up interviews were asked about their experience of different emotions in the two weeks prior to their arrest.

calculations, the negative emotions item was reverse coded. These six items were then combined with the items included in the coding scheme to give a total of 15 items. Inter-rater reliability analyses were not required for these additional six items, as the parolees rated the items during the interviews.

Data Analysis

The statistical methods used in the present research are outlined below. All analyses were conducted using IBM SPSS Statistics version 22.

Psychometric analysis of the PEM. A number of analytic strategies were employed to examine additional psychometric properties of the PEM. To investigate the factor structure of the PEM, a Principal Components Analysis (PCA) was conducted. This technique examines the intercorrelations among a set of variables in order to identify any underlying groups or clusters within the variables. PCA was chosen over Confirmatory Factor Analysis because we did not have a specific hypothesis about the underlying factor structure and the relationships between the observed variables were unclear.

Cronbach's alpha analyses were employed to evaluate the internal reliability of the PEM. Generally, alpha values $\geq .70$ reflect an acceptable level of reliability (Nunnally & Bernstein, 1994). Corrected item-total correlations were also calculated to further assess the reliability of the PEM. Corrected item-total correlations give an indication of the internal reliability of individual items by assessing the degree to which each item correlates with the total score. In a reliable scale, item-total correlations should be at least .2 (Nunnally & Bernstein, 1994). Pearson's correlations were used to examine the strength and direction of the relationships between PEM scores, other possible predictor variables (e.g., age at release and RoC*RoI score), and recidivism. Cohen (1988) recommended the following guidelines for interpretation of the strength of a correlation coefficient: $r = .10$ to $.29$ indicates a small

correlation between the two variables of interest, $r = .30$ to $.49$ indicates a medium correlation, and $r = .50$ to 1.0 indicates a large correlation.

Logistic regression. To investigate the predictive validity of the PEM, logistic regression was used. Logistic regression is a statistical technique that allows us to predict a categorical outcome variable (e.g., recidivism) with a set of categorical or continuous predictor variables. Logistic regression generates an odds ratio that indicates the change in the odds of being in one of the outcome categories as a result of a unit change in the predictor. An odds ratio greater than 1.00 indicates that increases in the predictor are associated with increases in the odds of the outcome (e.g., recidivism) occurring (Field, 2013). Conversely, a value less than 1.00 indicates that increases in the predictor are associated with decreases in the odds of the outcome (e.g., recidivism) occurring (Field, 2013). In the present research, binary logistic regression was used over multinomial logistic regression because the categorical outcome variable was dichotomous.

Chapter 3: Results

The results are presented in two parts. Part I examines the psychometric properties of the Parole Experiences Measure (PEM) and Part II investigates the relationships between the PEM and three recidivism outcomes: breach of parole conditions, any new conviction excluding breach, and any new conviction leading to reimprisonment. All numerical values are reported to two decimal places, with the exception of statistical significance (p values), which is reported to three decimal places.

Part I Psychometric Analysis of the PEM

Part I investigates the psychometric properties of the PEM. First, the results of the exploratory factor analysis are presented. Next, the internal reliability of the PEM is assessed, and finally the process of computing PEM subscale scores is outlined.

Exploratory factor analysis. Prior to performing the Principal Components Analysis (PCA), data were assessed for their suitability for factor analysis. An examination of the correlation matrix revealed many coefficients of .3 and above. The Kaiser-Meyer-Olkin measure of sampling adequacy (KMO) value was .79, exceeding the recommended minimum value of .6, and Bartlett's Test of Sphericity ($\chi^2_{105} = 751.74, p < .001$) was statistically significant, indicating that the data were suitable for factor analysis. Using PCA, four components with eigenvalues exceeding Kaiser's criteria of 1.0 were identified (Kaiser, 1960). These four components explained 56.41% of the variance. According to Kaiser's criterion, all factors with eigenvalues greater than 1.0 should be retained for further investigation (Kaiser, 1960). In this case, Kaiser's criterion recommends extracting four factors. Research has demonstrated that Kaiser's criterion is generally accurate when the number of variables is less than 30 and the communalities after extraction are all greater than .7 (Field, 2005). Additionally, Kaiser's criterion is accurate when the sample size is greater than 250 and the average communality is greater than .6 (Field, 2005). An analysis of the data

presented here revealed that there were no communalities greater than .7, the sample size was 192⁶, and the average of the communalities after extraction did not exceed .6. As a result, reliance on Kaiser's criterion may produce an inaccurate solution. Cattell's scree test is an alternative approach that can be used to determine how many factors to retain (Cattell, 1966). An examination of the scree plot revealed a clear break after the second component, suggesting that two factors be retained (see Figure 1).

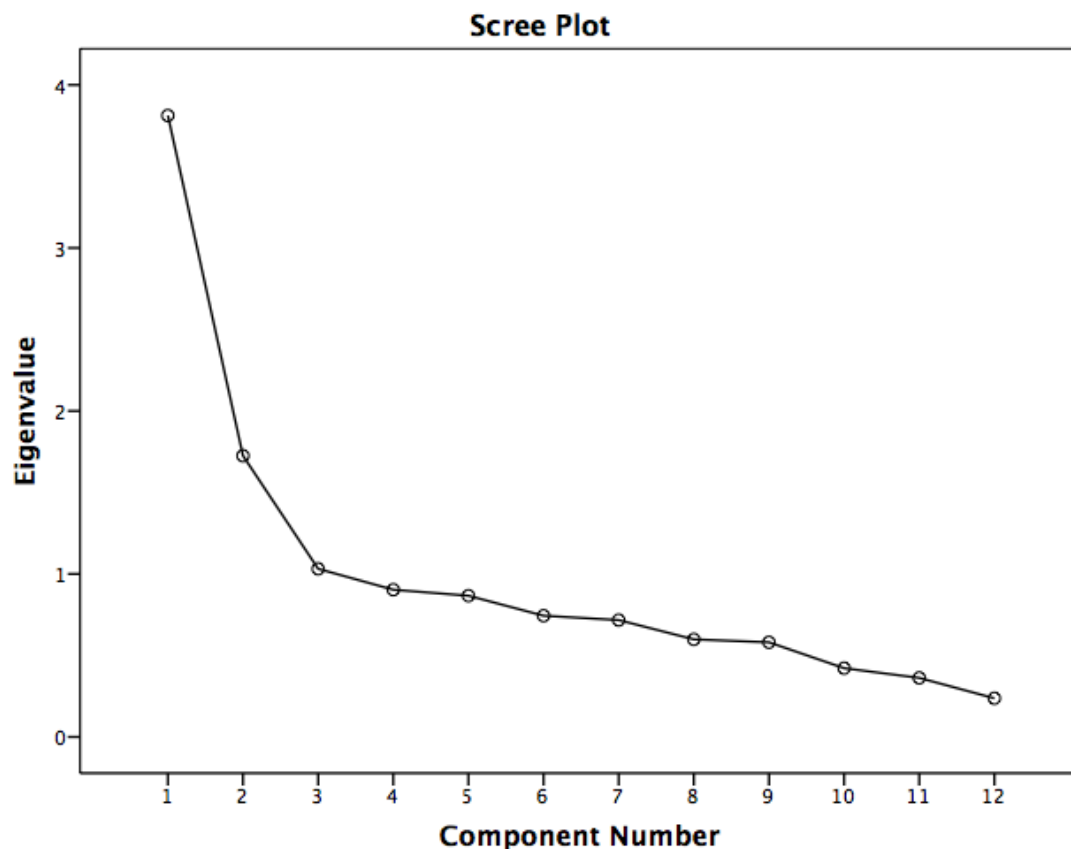


Figure 1. Scree plot from the Principal Components Analysis

Based on the above analysis, it was decided to retain two components for further investigation. The two components accounted for 39.93% of the variance, with component 1 contributing 28.15% and component 2 contributing 11.78%. To aid in the interpretation of

⁶ This sample size is larger than the overall sample mentioned above because the factor analysis was conducted before participants without VRS and RPFA-R scores were excluded in order to increase the sample size and associated statistical power.

the two factors, orthogonal rotation using the varimax method was performed⁷. Varimax rotation was chosen because it attempts to minimise the number of variables that load highly on each factor, thus simplifying the interpretation of factors (Field, 2005). Further, varimax rotation is the recommended method for an initial analysis (Field, 2005). The rotated solution revealed the presence of a number of strong loadings (above .4) on both components. The factor loadings provide an indication of the substantive importance of a variable to a given factor (Field, 2005). According to Steven's (1992) recommendations, loadings greater than .4 represent substantive values and therefore, only factor loadings with a value greater than .4 should be interpreted. In the analysis presented here, two items (employment and community support) did not load substantially on either of the components and were therefore removed. It is likely that these items did not load strongly on either component because of the small amount of variance within the data for these items; most participants obtained low scores on the employment and community support items. In addition, one item (thoughts about crime) loaded on both components; therefore, this item was also excluded.

Following the exclusion of the above three items, the analysis was repeated. The KMO value (.80) and Bartlett's Test of Sphericity ($\chi^2(66) = 600.60, p < .001$) indicated that the exclusion of the three items did not affect the suitability of the data for factor analysis. The final two-factor solution explained 46.15% of the variance, with component 1 contributing 31.77% and component 2 contributing 14.38%. The eigenvalues for the unrotated solution were 3.81 and 1.73. In the rotated solution, the eigenvalues for the two components evened out to 3.21 and 2.32. The loadings for each component are presented in Table 3. In the rotated solution, both components showed a number of strong loadings and

⁷ Oblique (oblimin) rotation was first performed to examine the degree of correlations between the components. The solution was the same as for the orthogonal rotation; therefore, only the orthogonal solution is presented here.

each variable loaded substantially on only one component. Component 1, which was subsequently labelled *subjective wellbeing*, consisted of six items pertaining to parolees' own perceptions of their physical, mental, and emotional wellbeing. The strongest loadings were for "mental health" and "feeling today". Component 2, labelled *external circumstances*, consisted of six items that relate to individuals' environmental circumstances after release from prison. The strongest loadings for this component were "personal support" and "finances". The remainder of the analyses were conducted using these two new subscales.

Table 3

Factor Loadings for Principal Components Analysis With Orthogonal Rotation

| PEM Item | Component 1 | Component 2 |
|----------------------------|-------------|-------------|
| E1 Accommodation | -.04 | .59 |
| E2 Personal Support | .14 | .71 |
| E3 Antisocial Associates | .05 | .60 |
| E4 Finances | .08 | .65 |
| E5 Alcohol Use | .13 | .47 |
| E6 Drug Use | .23 | .58 |
| S1 Physical Health | .42 | -.05 |
| S2 Mental Health | .81 | .15 |
| S3 Positive Emotions | .75 | .12 |
| S4 Feeling Today | .79 | .13 |
| S5 Feeling Over Last Month | .78 | .26 |
| S6 Negative Emotions | .69 | .15 |

Note. The highest item loadings on a given factor are highlighted in bold.

Internal reliability. Cronbach's alphas and corrected item-total correlations for the subjective wellbeing subscale, the external circumstances subscale, and the total PEM were calculated. The Cronbach's alpha analyses indicated that the subjective wellbeing subscale of the PEM demonstrated adequate internal consistency ($\alpha = .82$). Pearson's corrected item-total correlations for the subjective wellbeing subscale ranged between .27 and .71, reflecting

adequate internal consistency. The Cronbach alpha coefficient for the external circumstances subscale of the PEM was .66, providing tentative evidence for acceptable internal reliability. Given the small number of items contained within the subscale, lower Cronbach's alpha values can be expected (Pallant, 2010). The corrected item-total correlation values for the external circumstances subscale ranged between .31 and .48, reflecting acceptable internal consistency. The Cronbach alpha coefficient for the total PEM was .79, indicating acceptable internal reliability. Corrected item-total correlations for the total PEM ranged from .22 to .63. Overall, internal reliability analyses revealed that the PEM demonstrated an acceptable level of internal reliability.

Computing subscale scores. After examining the psychometric properties of the two subscales, mean scores for each subscale were calculated. Before this calculation could be performed, a small number of missing data points had to be imputed. The data were missing due to a small number of participants failing to complete the two-month interview in its entirety. In total, eight missing data values from the subjective wellbeing subscale were estimated and inserted into the dataset. This task was achieved by calculating the mean of a participant's own observed items for the remainder of the subscale and inserting this mean in the place of the missing value. Given that the reliability of the subjective wellbeing subscale was high ($\alpha = .82$), this method provided the most likely estimate of the missing values. Further, this method was preferred over case deletion, as deleting cases can lead to bias within the sample (Schafer & Graham, 2002).

Once the missing data values had been estimated and imputed into the data set, a total PEM score (mean of all 12 items) and mean scores for the two subscales were calculated for each participant. Given that items were on different metrics, standardised scores for each item were used in these calculations. The total PEM score and mean subscale scores were used for subsequent analyses.

Part II Examining the Relationships Between the PEM and Recidivism

Part II investigates the predictive validity of the PEM by examining whether PEM scores predict both short-term recidivism (i.e., recidivism in the first two months after release) and slightly longer-term recidivism (i.e., recidivism in the first 12 months after release). Three indices of recidivism were examined: breaches of parole conditions, any new conviction (excluding breaches of parole), and any conviction leading to imprisonment. Part II opens with the results of descriptive analyses examining base rates of recidivism and PEM scores in the present sample. Next, the rationale for the inclusion of covariates in subsequent analyses is discussed. Finally, the results of a series of statistical analyses examining the following four research questions are presented:

1. Do initial parole experiences, as measured by the PEM, predict who will fail quickly after release from prison (i.e., who will recidivate in the first two months after release)?
2. Which particular aspects of a person's experience on parole (during the first two months after release⁸) are significant predictors of fast failure?
3. Do initial parole experiences, as measured by the PEM, predict recidivism in the first 12 months after release from prison?
4. Which particular aspects of a person's experience on parole (during the first two months after release) are significant predictors of recidivism in the first 12 months after release?

Base rates of recidivism. Of the total sample, 23 (12.9%) men were convicted of a breach of parole conditions in the first two months following their release from prison, 28 (15.7%) were convicted of a criminal offence (excluding breaches), and 22 (12.4%) were

⁸ The Parole Project researchers attempted to conduct the first follow up interviews as close to two months post-release as possible; however, this was not always feasible. Thus, 'the first two months after release' refers to the period of time between an offender's release from prison and their two-month follow up interview rather than an exact two-month time period.

convicted of a criminal offence leading to reimprisonment. In the first 12 months after release from prison, 67 (37.6%) of the 178 men in the sample were convicted of a breach of parole conditions, 97 (54.5%) were convicted of a criminal offence (excluding breaches), and 62 (34.8%) were convicted of a criminal offence resulting in reimprisonment.

Description of the sample's parole experiences at two months post-release. As mentioned above, raw PEM scores were standardised before calculation of total PEM scores (mean of all 12 PEM items) and mean subscale scores because of differences in the metrics of various PEM items. Although this method was required to ensure that each item contributed equally to the total PEM and subscale scores, standardised scores are difficult to interpret qualitatively. Therefore, solely for the purpose of describing and visually comparing the sample's parole experiences, all PEM items were recoded to fit on a scale from 0 to 1 (e.g., the accommodation item is scored on a 4-point metric and was recoded so that a score of 0 is equivalent to a score of 1 on the original metric, a score of 0.33 is equivalent to a score of 2, a score of 0.66 is equivalent to a score of 3, and a score of 1 is equivalent to a score of 4 on the original metric). Following this recoding process, total subscale scores for the external circumstances subscale and the subjective wellbeing subscale were calculated by summing the items contained within each subscale. Means, standard deviations, and ranges for each PEM item and subscale totals are presented in Table 4. Recall that higher scores on each item indicate better parole experiences. On average, men in the sample scored between 0.54 and 0.85 on individual items. The items that had the highest mean scores were physical health and how the person was feeling on the day of the two-month interview. The lowest mean scores were given for antisocial associates and finances. Overall, the average total score for the external circumstances subscale was 4.11 ($SD = 1.22$) out of a possible score of 6, while the average total score for the subjective wellbeing subscale was 4.73 ($SD = 0.96$) out of a possible score of 6.

Table 4

Means, Standard Deviations, and Ranges for PEM Items

| PEM Item | <i>M</i> | <i>SD</i> | Range |
|----------------------------|----------|-----------|-------|
| E1 Accommodation | 0.68 | 0.28 | 4 |
| E2 Personal support | 0.67 | 0.37 | 4 |
| E3 Antisocial associates | 0.54 | 0.33 | 4 |
| E4 Finances | 0.62 | 0.29 | 4 |
| E5 Alcohol Use | 0.82 | 0.30 | 4 |
| E6 Drug Use | 0.79 | 0.38 | 4 |
| External circumstances | 4.11 | 1.22 | |
| subscale total | | | |
| S1 Physical health | 0.85 | 0.20 | 6 |
| S2 Mental health | 0.76 | 0.23 | 6 |
| S3 Feeling today | 0.83 | 0.23 | 6 |
| S4 Feeling over last month | 0.77 | 0.25 | 6 |
| S5 Positive emotions | 0.77 | 0.25 | 5 |
| S6 Negative emotions | 0.73 | 0.17 | 21 |
| Subjective wellbeing | 4.73 | 0.96 | |
| subscale total | | | |

Note. All variables were recoded to fit on a scale from 0 to 1. The range indicates how many points there were on the original scale (e.g., 4 = original item was rated 1 to 4.)

Selection of covariates to include in subsequent analyses examining the relationship between PEM scores and recidivism. Prior to conducting analyses examining the relationship between the PEM and recidivism outcomes, we considered the impact of possible confounding variables and identified any variables that may need to be statistically controlled for in subsequent analyses. A combination of methods was used to determine which variables to include as covariates. To examine the strength of the relationships between possible predictor variables and recidivism outcomes, Pearson bivariate correlations were performed (see Table 5 and Table 6). To ensure that there was a sound rationale for including each covariate, a brief review of the relevant literature was also conducted to

identify variables that have been found to predict recidivism in this and other research samples. This review was presented in the introduction section of this thesis.

Determining the number of covariates to include in subsequent analyses. Before deciding which variables to include as covariates in subsequent logistic regression models, it was important to consider the sample size required for regression analyses, as problems can arise if the small sample size is small and a large number of predictor variables are included in the model (Pallant, 2010). To determine the number of predictor variables that could be included given our sample size, a formula developed by Peduzzi and colleagues (1996) was used. Through this method, an estimate of the minimum sample size required is calculated using the formula $N = 10 k/p$, where k is the number of predictors (independent variables), and p is the smaller of the proportions of positive and negative cases in the sample; that is, the proportion of the sample that was reconvicted (positive) or the proportion of the sample that was not reconvicted (negative). The results of these calculations demonstrated that the sample size criterion would be satisfied if a maximum of 5 predictors were included in logistic regression analyses predicting breaches of parole conditions ($10 \times 5/.376 = 132.98$) and any new conviction resulting in reimprisonment ($10 \times 5/.348 = 143.68$). In addition, the calculations revealed that the criterion would be satisfied if a maximum of 6 predictors were included in logistic regression analyses predicting any new conviction (excluding breaches; $10 \times 6/.455 = 131.87$). Thus, in addition to the 2 PEM subscale scores, 3 covariates could be included in analyses predicting breaches of parole conditions and reimprisonment, and 4 covariates could be included in analyses predicting reconviction.

Theoretical rationale for the selection of covariates to include in subsequent analyses. In the introduction to this thesis, there was a brief review of research that has identified factors that are significantly predictive of various indices of recidivism (see section entitled Brief review of other factors that may contribute to recidivism after release). This

review provided the theoretical rationale for selecting the covariates to include in later regression analyses. To summarise, given their ability to predict recidivism in previous research, treatment status (i.e., High Risk Special Treatment Unit versus comparison sample), the Release Proposal Feasibility Assessment-Revised (RPFA-R), the Risk of Re-Conviction X Risk of Re-Imprisonment (RoC*RoI), and the Violence Risk Scale (VRS) were selected as possible covariates to be statistically controlled for in subsequent analyses examining the relationship between PEM scores and recidivism outcomes of varying length and severity.

Correlates of fast fail status for each recidivism outcome. Next, to ensure a sound empirical rationale for the selection of each covariate to include in later analyses examining research questions one and two, correlation analyses were conducted. Pearson bivariate correlations were performed to examine the strength and direction of the relationships between possible predictor variables and fast fail status (i.e., recidivism in the first two months after release or not) for three recidivism outcomes: breach of parole conditions, any new conviction (excluding breaches), and any new conviction leading to reimprisonment.

Fast fail status for breach of parole conditions. As shown in Table 5, the total PEM score, the external circumstances subscale score, and the subjective wellbeing subscale score were significantly correlated with fast fail status (i.e., breach of parole conditions in first two months after release) in the negative direction; men with higher PEM scores were less likely to be convicted of a breach of parole conditions in the first two months after their release than those with lower PEM scores. There was a small, positive correlation between VRS scores and fast fail status, indicating that men with higher VRS scores were more likely to breach parole quickly after release than men with lower VRS scores (see Table 5). Treatment status was significantly correlated with fast fail status in the negative direction, demonstrating that completing a High Risk Special Treatment Unit (HRSTU) treatment programme was associated with a decreased likelihood of being convicted of a breach in the first two months

after release. In light of these findings, treatment status and VRS scores were selected for inclusion as covariates in subsequent analyses examining the relationship between PEM scores and fast fail status for breaches of parole. Additionally, there was a small, negative correlation between parole length and fast fail status for breaches. However, parole length could not be included in subsequent regression analyses, as it was strongly correlated with treatment status ($r = .52, p < .001$) and could therefore lead to problems of multicollinearity (see Multicollinearity section below). Given the strong relationship between parole length and treatment status in the current sample, it is likely that statistically controlling for treatment status will control for some of the variance explained by parole length in subsequent regression models predicting fast fail status. Finally, although the RPFA-R was not significantly correlated with fast fail status for breaches of parole, RPFA-R will also be included as a covariate in subsequent analyses, as it has been found to predict breaches in a variant of the sample used in the present research (Yesberg, 2014).

Fast fail status for any new conviction (excluding breaches of parole). As shown in Table 5, the total PEM score, external circumstances subscale score, and subjective wellbeing subscale score were significantly correlated with fast fail status for any new conviction (i.e., reconviction in the first two months post-release). These correlations were in the negative direction, indicating that men with higher PEM scores were less likely to be reconvicted in the first two months after release than men with lower PEM scores. Additionally, there was a small, negative correlation between treatment status and fast fail status, demonstrating that completing a HRSTU treatment programme was associated with a decreased likelihood of reconviction in the first two months after release. There was a small, positive correlation between VRS scores and fast fail status for reconviction such that men with higher VRS scores were more likely to fail quickly after release than men with lower scores on the VRS. Consequently, treatment status and VRS scores were statistically controlled for in later

analyses examining the relationship between PEM scores and fast fail status for reconviction. Parole status and parole length were also significantly correlated with fast fail status for reconviction. However, these two variables were strongly correlated with treatment status and therefore, were excluded from regression models containing treatment status as a predictor so as to avoid problems of multicollinearity. Because of the strong relationships between parole status and treatment status ($r = .56, p < .001$; Pallant, 2010), and parole length and treatment status ($r = .52, p < .001$) in the current sample, it is likely that statistically controlling for treatment status will control for some of the variance explained by parole status and parole length in subsequent regression models predicting fast fail status. Given its ability to predict recidivism in prior research using a variant of the present sample, the RPFA-R was also selected as a covariate to be statistically controlled for in later analyses predicting fast fail status for reconvictions (Yesberg, 2014).

Fast fail status for any new conviction leading to reimprisonment. Again, total PEM score, external subscale score, and subjective wellbeing score were significantly correlated with fast fail status (i.e., any new conviction leading to reimprisonment in the first two months after release) in the negative direction (see Table 5). These results demonstrated that men with higher PEM scores were less likely to be convicted of an offence resulting in reimprisonment in the first two months after their release than men with lower PEM scores. There was a small, negative correlation between treatment status and fast fail status for reimprisonment, demonstrating that completing an HRSTU programme was associated with lower rates of reconviction leading to reimprisonment in the first two months after release. Therefore, treatment status was selected as a covariate to include in subsequent analyses exploring the relationship between the PEM and fast fail status for reimprisonment. Both VRS scores and RPFA-R scores were significantly correlated with fast fail status for reimprisonment in the positive direction (see Table 5), indicating that men with higher scores

on these risk instruments were more likely to fail quickly and be reimprisoned in the first two months after release than men with lower risk scores. Consequently, the RPFA-R and the VRS were statistically controlled for in later analyses predicting fast fail status for reimprisonment. Parole status and parole length were also correlated with fast fail status for reimprisonment; however, these variables were excluded from subsequent analyses to avoid problems of multicollinearity.

Table 5

Correlations Between Possible Predictor Variables and Fast Fail Status (i.e., Recidivism within Two months Post-Release) for Three Recidivism Outcomes

| | Fast fail status (Breach of parole conditions) | Fast fail status (Reconviction) | Fast fail status (Reimprisonment) |
|------------------------------------|--|------------------------------------|--------------------------------------|
| Total PEM | -.30** | -.35** | -.37** |
| External circumstances subscale | -.25** | -.37** | -.43** |
| Subjective wellbeing subscale | -.25** | -.21** | -.19* |
| Treatment status | -.16* | -.26** | -.29** |
| Age at release | .03 | -.14 | -.14 |
| Parole status | -.14 | -.28** | -.26** |
| Parole length | -.20** | -.18* | -.17* |
| RoC*RoI | .04 | .09 | .05 |
| VRS Total | .17* | .23** | .22** |
| RPFA-R | .09 | .15 | .15* |

Note. Fast fail status (i.e., recidivism in first two months after release) was coded dichotomously for each recidivism outcome (0 = no, 1 = yes). Treatment status (i.e., completed HRSTU programme or not) and parole status (i.e., early release from prison or not) were also coded dichotomously (0 = no, 1 = yes).

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

Summary: Covariates to include in subsequent analyses examining the relationship between PEM scores and fast fail status for each recidivism outcome. In all subsequent

regression analyses predicting fast fail status (i.e., recidivism in the first two months after release), we statistically controlled for the influence of possible confounding variables. For analyses examining fast fail status for breaches of parole conditions, reconviction (excluding breaches), and any new conviction that resulted in reimprisonment, VRS scores, RPFA-R scores, and treatment status were chosen for inclusion as covariates.

Correlates of recidivism outcomes at 12 months post-release. Further correlation analyses were conducted to ensure a sound empirical rationale for the selection of covariates to include in subsequent analyses examining research questions three and four. Pearson bivariate correlations were performed to investigate the relationships between possible predictor variables and three recidivism outcomes at 12 months post-release: breach of parole conditions, any new conviction (excluding breaches), and any new conviction leading to reimprisonment.

Breach of parole conditions. As is evident in Table 6, the total PEM score, the external circumstances subscale score, and the subjective wellbeing subscale score were significantly correlated with breaches in the negative direction. These results indicate that men with higher scores on the PEM were less likely to be convicted of a breach of parole conditions in the first year after their release than those with lower PEM scores. There were no significant correlations between any of the other variables and breaches of paroles conditions in the first 12 months after release (see Table 6). However, given their ability to predict recidivism in other samples, treatment status, RPFA-R, and VRS were selected as covariates to be statistically controlled for in subsequent analyses examining the relationship between PEM scores and breaches of parole conditions. It is important to note that the RPFA-R and the VRS were not designed to predict breaches of parole conditions and most studies examining the predictive validity of these tools do not include breaches of parole as a recidivism outcome. However, both the RPFA-R and the VRS have been found to predict

breaches of parole conditions in a variant of the present sample and therefore, were included as covariates in regression models predicting breaches (Yesberg, 2014).

Any new conviction (excluding breaches of parole). As shown in Table 6, the total PEM score, the external circumstances subscale score, and the subjective wellbeing subscale score were significantly correlated with reconviction in the expected negative direction, indicating that higher PEM scores were associated with lower rates of reconviction. As is evident in Table 6, the RoC*RoI, the VRS, and the RPFA-R were significantly correlated with reconvictions in the positive direction, with higher scores on the risk instruments associated with higher rates of reconviction. In addition, there was a small, negative correlation between treatment status and reconviction, indicating that completing an HRSTU treatment programme was associated with lower rates of reconviction. In light of these findings, the RoC*RoI, the VRS, the RPFA-R, and treatment status were chosen to be included as covariates in subsequent analyses.

Although parole status and parole length were also significantly correlated with reconviction in the negative direction, these variables could not be included in subsequent analyses, as they were strongly correlated with treatment status and could therefore lead to problems of multicollinearity.

Any new conviction leading to reimprisonment. As demonstrated in previous analyses, the total PEM score, the external circumstances subscale, and the subjective wellbeing subscale were significantly correlated with reimprisonment in the negative direction, indicating that those with higher scores on the PEM were less likely to be convicted of a new offence that resulted in reimprisonment (see Table 6). There was a small, positive correlation between the RPFA-R and reimprisonment, with higher scores on the RPFA-R associated with higher rates of reconviction leading to reimprisonment. Similarly, there was a small, positive correlation between the VRS and reimprisonment, indicating that men with higher scores on

the VRS were more likely to be reimprisoned than those with lower VRS scores. As a result, the RPFA-R and VRS were statistically controlled for in later analyses examining the relationship between the PEM and reconviction resulting in reimprisonment. Treatment status was significantly correlated with reimprisonment in the negative direction, indicating that completing an HRSTU treatment programme was associated with lower rates of reconviction leading to reimprisonment. Consequently, treatment status was also selected to be included as a covariate in subsequent analyses exploring the relationship between the PEM and reimprisonment.

Table 6

Correlations Between Possible Predictor Variables and Three Recidivism Outcomes Within 12 Months Post-Release

| | Breach of parole conditions | Reconviction | Reimprisonment |
|------------------------------------|--------------------------------|--------------|----------------|
| Total PEM | -.26** | -.32** | -.35** |
| External circumstances subscale | -.18* | -.36** | -.38** |
| Subjective wellbeing subscale | -.24** | -.19* | -.21** |
| Treatment status | -.11 | -.23** | -.24** |
| Age at release | .00 | -.07 | -.01 |
| Parole status | .01 | -.37** | -.18* |
| Parole length | -.14 | -.41** | -.25** |
| RoC*RoI | .07 | .16* | .13 |
| VRS Total | .09 | .23** | .19* |
| RPFA-R | .01 | .26** | .19* |

Note. All recidivism indices were coded dichotomously (0 = no, 1 = yes). Treatment status (i.e., completed HRSTU programme or not) and parole status (i.e., early release from prison or not) were also coded dichotomously (0 = no, 1 = yes).

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

Summary: Covariates to include in subsequent analyses examining the relationship between PEM scores and recidivism at 12 months post-release. In all subsequent regression analyses, we statistically controlled for the influence of possible confounding variables. For analyses examining breaches of parole conditions, VRS scores, RPFA-R scores, and treatment status were chosen for inclusion as covariates. For analyses examining reconviction, VRS scores, RPFA-R scores, RoC*RoI scores, and treatment status were chosen to be included as covariates. Finally, VRS scores, RPFA-R scores, and treatment status were selected as covariates to be statistically controlled for in analyses examining any new conviction that resulted in reimprisonment.

Multicollinearity. Multicollinearity is a statistical phenomenon that occurs when two or more predictors in a regression model are highly correlated (Pallant, 2010). Multicollinearity can lead to poor estimates of the impact of predictor variables on the outcome variable. For example, if predictors X and Y are highly correlated the impact of predictor Y on the outcome is not independent of predictor X, thus leading to a poor estimate of the impact of predictor Y on the outcome. Instead, the predictor variables should be correlated with the dependent variable but not strongly related to each other.

As shown in Table 7, there were significant correlations between a number of predictor variables. Multicollinearity was examined using the Variance Inflation Factor (VIF). A VIF value of < 10.00 indicates that multicollinearity is not a problem and therefore will not have an impact on subsequent regression models (Pallant, 2010). The VIF for all final predictors selected for the next analyses were < 2.00 , indicating the absence of multicollinearity.

Table 7

Correlations Between Possible Predictor Variables

| | Treatment status | Total PEM | External circumstances subscale | Subjective wellbeing subscale | Age at release | Parole Status | Parole length | RoC*RoI | VRS Total |
|------------------------------------|---------------------|--------------|---------------------------------------|-------------------------------------|-------------------|------------------|------------------|---------|-----------|
| Total PEM | .31** | | | | | | | | |
| External circumstances subscale | .34** | .79** | | | | | | | |
| Subjective wellbeing subscale | .18* | .85** | .35** | | | | | | |
| Age at release | .09 | -.10 | -.08 | -.09 | | | | | |
| Parole status | .56** | .24** | .39** | .04 | .10 | | | | |
| Parole length | .52** | .29** | .44** | .07 | .10 | .84** | | | |
| RoC*RoI | -.04 | -.09 | -.20** | .04 | -.27** | -.11 | -.19* | | |
| VRS Total | -.28** | -.14 | -.26** | .00 | -.12 | -.36** | -.40** | .26** | |
| RPFA-R | -.23** | -.28** | -.37** | -.11 | -.08 | -.37** | -.37** | .14 | .62** |

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

Research questions 1 and 2: Do initial parole experiences, as measured by the PEM, predict who will fail quickly after release from prison? Which particular aspects of a person's experience on parole are significant predictors of fast failure? The following section examines whether PEM scores predict who will fail quickly after release from prison; that is, who will be convicted of an offence in the first two months after release. After examining the ability of total PEM scores to predict fast fail status (i.e., recidivism in the first two months after release), we investigated the relative contribution of the external circumstances subscale and the subjective wellbeing subscale to the prediction of fast fail status. For each recidivism outcome, the results of analyses examining the predictive validity of the total PEM are presented first. Next, the results of analyses investigating the relative contribution of the two subscales to the prediction of fast fail status are outlined.

A series of binary logistic regressions was performed to evaluate whether total PEM scores, external circumstances subscale scores, and subjective wellbeing subscale scores predicted fast fail status (i.e., recidivism in the first two months after release)⁹, after controlling for the influence of possible confounding variables. Three recidivism outcomes were examined: breach of parole conditions, any new conviction excluding breach, and any new conviction resulting in reimprisonment. In all regressions, the covariates were entered together in the first block and the PEM scale score was entered into the second block as the predictor variable. When assessing whether the PEM subscale scores uniquely predicted fast fail status, the external circumstances subscale score and the subjective wellbeing subscale score were entered into the second block together, as they were strongly correlated. This method was chosen so that we could determine whether an individual subscale predicted fast

⁹ Fast fail status was coded dichotomously (0 = no, 1 = yes) for each offender for each type of recidivism.

fail status when the variance explained by the other subscale was statistically controlled for.

It is important to note that two of the items contained in the subjective wellbeing subscale asked participants to state how they were feeling at the time of the two-month interview and in the month prior to the interview. For those participants who were convicted of a breach or a new offence before the two-month interview, the two items may have measured their subjective wellbeing *after* they had experienced reconviction. Consequently, they cannot be used to prospectively predict reconviction. In order to assess whether this problem may significantly affect the results of this study, the two items were removed from the PEM and all logistic regression analyses predicting fast fail status were run again. The pattern of results was very similar, suggesting that the inclusion of the two items in the subjective wellbeing scale did not substantively affect the results of regression analyses. However, there was one exception; in the regression analysis examining the relative contribution of the external circumstances subscale and the subjective wellbeing subscale to the prediction of fast fail status for breaches of parole, results differed when the two problematic items were removed. This finding suggested that inclusion of the two subjective wellbeing items would be problematic for analyses exploring whether the PEM subscales predicted fast fail status for breaches of parole conditions. As a result, we decided to conduct the regression analyses predicting fast fail status with a reduced version of the PEM that did not contain the two problematic subjective wellbeing items (feeling on the day of the interview and feeling over the past month).

New total PEM scores (mean of the remaining 10 PEM items) and new mean scores for the subjective wellbeing subscale were computed after the removal of the two items. Next, we examined the internal reliability of the reduced total PEM and the

reduced subjective wellbeing subscale. Results indicated that the reduced subjective wellbeing subscale demonstrated adequate internal reliability ($\alpha = .71$). Pearson's corrected item-total correlations for the subjective wellbeing subscale ranged between .30 and .62, reflecting adequate internal consistency. The Cronbach alpha coefficient for the reduced total PEM was .72, indicating acceptable internal reliability. Corrected item-total correlations for the total PEM ranged from .21 to .50. Overall, internal reliability analyses revealed that the reduced PEM demonstrated an acceptable level of internal reliability and therefore, the new total PEM scores and the new mean subjective wellbeing subscale scores were used for subsequent regression analyses predicting fast fail status for all three recidivism outcomes. For comparative purposes, the results of regression analyses predicting fast fail status with the original PEM and the original PEM subscales can be found in Appendix D of this thesis.

Fast fail status for breach of parole conditions. Binary logistic regressions were performed to evaluate whether total PEM score, external circumstances subscale score, and subjective wellbeing subscale score predicted fast fail status for breaches (i.e., breach of parole conditions in the first two months post-release). Recall that the VRS, the RPFA-R, and treatment status were selected for inclusion as covariates in these regression analyses. In all regressions, the risk instruments and treatment status were entered as covariates in the first block and the PEM score was entered into the second block as the predictor variable.

Total PEM. First, we examined the ability of the total PEM to predict fast fail status for breaches of parole conditions, after controlling for level of risk, release readiness, and treatment status. As is evident in Table 8, the model containing the risk instruments and treatment status significantly predicted fast fail status for breaches of parole conditions. Overall, the model explained between 4.4% (Cox and Snell

pseudo- R^2) and 8.1% (Nagelkerke pseudo- R^2) of the variance in fast fail status, and correctly classified 87.1% of cases. No variables made a unique statistically significant contribution to prediction. When the total PEM score was added to the model, the chi-squared statistic for the model significantly improved, indicating that the total PEM made a significant contribution to the prediction of fast fail status for breaches of parole conditions. After controlling for the VRS, RPFA-R, and treatment status, the total PEM explained an additional 5.5-10.4% of the variance in fast fail status, correctly classifying 86% of cases. As shown in Table 8, the total PEM and the VRS made a unique statistically significant contribution to prediction, with total PEM score emerging as the strongest predictor of fast fail status. There was a significant positive relationship between VRS scores and fast fail status such that men with higher VRS scores were more likely to be convicted of a breach of parole conditions in the first two months after release than those with lower VRS scores. The odds ratio of the VRS was 1.08, indicating that for every additional point in VRS score, respondents were 8% more likely to be convicted of a breach of parole in the first two months after release. Conversely, the relationship between total PEM score and fast fail status was in the expected negative direction, indicating that men with higher PEM scores were less likely to fail quickly than those with lower PEM scores. The odds ratio of the total PEM score for fast fail status (i.e., breach of parole in the first two months after release) was .23, demonstrating that for every additional point in PEM score, respondents were 77% less likely to be convicted of a breach of parole conditions in the first two months after their release.

External circumstances and subjective wellbeing subscales. Next, we explored the relative contribution of the external circumstances subscale and the subjective wellbeing subscale to the prediction of fast fail status for breaches of parole

conditions. Recall that the model containing the risk instruments and treatment status was statistically significant (see Table 8). When the external circumstances and the subjective wellbeing subscale scores were added, the chi-squared statistic for the model significantly improved. After the two subscales were added, the model explained an additional 5.6-10% of the variance in fast fail status for breaches of parole conditions, and correctly classified 86% of cases. As is evident in Table 8, the subjective wellbeing subscale, the external circumstances subscale, and the VRS made a unique statistically significant contribution to prediction. These results indicate that both of the PEM subscales and the VRS are significant predictors of fast fail status, after controlling for the other covariates included in the model. Results showed that men with higher VRS scores were more likely to fail quickly after release than men with lower VRS scores. The odds ratio of the VRS was 1.08, demonstrating that for every additional point in VRS score, men were 8% more likely to be convicted of a breach of parole in the first two months after release. The external circumstances subscale was the strongest predictor of fast fail status, with an odds ratio of .44, indicating that for every additional point in external circumstances score, respondents were 56% less likely to be convicted of a breach in the first two months after release. The odds ratio for the subjective wellbeing subscale was .47. This finding demonstrated that for every additional point in subjective wellbeing score, respondents were 53% less likely to be convicted of a breach of parole conditions in the first two months after their release.

Table 8

Logistic Regressions Predicting Likelihood of Fast Fail Status for Breach of Parole Conditions Using the PEM

| Scale | <i>B</i> (SE) | Wald (<i>df</i> = 1) | Odds ratio | <i>p</i> | 95% CI |
|------------------------------------|---------------|--------------------------|---------------|---------------|--------------|
| Block 1 ^a | | | | | |
| RPFA-R | -.03(.07) | .13 | .97 | .720 | [.84, 1.13] |
| VRS Total | .06(.04) | 2.48 | 1.06 | .115 | [.99, 1.14] |
| Treatment status | -.81(.50) | 2.57 | .45 | .109 | [.17, 1.20] |
| Block 2 ^b | | | | | |
| RPFA-R | -.11(.08) | 1.86 | .89 | .172 | [.76, 1.05] |
| VRS Total | .08(.04) | 4.14 | 1.08 | .042* | [1.00, 1.16] |
| Treatment status | -.32(.55) | .34 | .73 | .558 | [.25, 2.12] |
| Total PEM | -1.47(.47) | 9.92 | .23 | .002** | [.09, .57] |
| Block 1 ^c | | | | | |
| RPFA-R | -.03(.07) | .13 | .97 | .720 | [.84, 1.13] |
| VRS Total | .06(.04) | 2.48 | 1.06 | .115 | [.99, 1.14] |
| Treatment status | -.81(.50) | 2.57 | .45 | .109 | [.17, 1.20] |
| Block 2 ^d | | | | | |
| RPFA-R | -.11(.08) | 1.78 | .89 | .182 | [.76, 1.05] |
| VRS Total | .08(.04) | 4.18 | 1.08 | .041* | [1.00, 1.17] |
| Treatment status | -.32(.55) | .35 | .72 | .554 | [.25, 2.12] |
| External circumstances subscale | -.83(.41) | 4.09 | .44 | .043* | [.20, .98] |
| Subjective wellbeing subscale | -.64(.31) | 4.11 | .47 | .043* | [.29, .98] |

Note. pseudo- R^2 = Cox & Snell – Nagelkerke. Fast fail status was coded dichotomously (0 = no, 1 = yes).

^apseudo- R^2 = .04–.08; Model χ^2 (3) = 7.95, p = .047

^bpseudo- R^2 = .10–.19; Model χ^2 (4) = 18.63, p = .001; Block χ^2 (1) = 10.68, p = .001

^cpseudo- R^2 = .04–.08; Model χ^2 (3) = 7.95, p = .047

^dpseudo- R^2 = .10–.19; Model χ^2 (5) = 18.66, p = .002; Block χ^2 (2) = 10.72, p = .005

* p < .05, ** p < .01, *** p < .001.

Fast fail status for any new conviction (excluding breaches). Binary logistic regressions were performed to evaluate whether the total PEM score, external circumstances subscale score, and subjective wellbeing subscale score predicted fast fail status for reconviction (i.e., reconviction in the first two months post-release). Recall that the VRS, the RPFA-R, and treatment status were selected for inclusion as covariates in these regression analyses. In all regressions, the risk instruments and treatment status were entered as covariates in the first block and the PEM score was entered into the second block as the predictor variable.

Total PEM. First, we evaluated whether the total PEM was a significant predictor of fast fail status for reconviction, after controlling for the influence of risk level, release readiness, and treatment status. As shown in Table 9, the model containing the VRS, RPFA-R, and treatment status was statistically significant, indicating that the model was able to predict fast fail status for reconviction (excluding breaches). The model explained between 9.4% (Cox & Snell pseudo- R^2) and 16.2% (Nagelkerke pseudo- R^2) of the variance in fast fail status, correctly classifying 84.3% of cases. As is evident in Table 9, treatment status made a unique contribution to the prediction of fast fail status, with an odds ratio of .26. The relationship between treatment status and fast fail status was in the negative direction, indicating that completing an HRSTU programme was associated with a decreased likelihood of being reconvicted in the first two months after release. After the addition of the total PEM score, the chi-squared statistic for the model significantly improved (see Table 9). Thus, the total PEM made a significant contribution to the prediction of fast fail status for reconviction. After controlling for VRS, RPFA-R, and treatment status, total PEM score explained an additional 6.1-10.4% of the variance in fast fail status for reconviction, and the model correctly classified 83.7% of cases. The total

PEM score and the VRS each made unique statistically significant contributions to the prediction of fast fail status for reconviction, with total PEM score emerging as the strongest predictor (see Table 9). Results indicated that men with higher VRS scores were more likely to fail quickly after release than men with lower scores on the VRS. The odds ratio of the VRS was 1.09, indicating that for every additional point in VRS score, respondents were 9% more likely to be convicted in the first two months after release. As expected, the relationship between total PEM score and fast fail status was in the negative direction, demonstrating that higher total PEM scores were associated with a decreased likelihood of being reconvicted in the first two months after release. The odds ratio of the total PEM was .23, indicating that for every additional point in PEM score, respondents were 77% less likely to be reconvicted in their first two months in the community.

External circumstances and subjective wellbeing subscales. Next, we investigated the relative contribution of the external circumstances subscale and the subjective wellbeing subscale to the prediction of fast fail status for reconviction (excluding breaches). Recall that the model containing the VRS, RPFA-R, and treatment status was significantly predictive of fast fail status for reconviction. When the external circumstances and subjective wellbeing subscales were added, the chi-squared statistic for the model significantly improved (see Table 9). This finding indicated that together the subscales made a significant contribution to the prediction of fast fail status, after controlling for the influence of risk level, readiness for release, and treatment status. After the two subscales were added, the model explained an additional 7.1-12.2% of the variance in fast fail status for reconviction, and correctly classified 86% of cases. Both the VRS and the external circumstances subscale made a unique statistically significant contribution to the prediction of fast fail status for

reconviction, with the external circumstances subscale emerging as the strongest predictor (see Table 9). Again, the relationship between VRS scores and fast fail status was in the positive direction, indicating that men with higher VRS scores were more likely to be reconvicted in the first two months after release than men with lower scores. The odds ratio of the VRS was 1.08, demonstrating that for every additional point in VRS score, men were 8% more likely to be reconvicted in the first two months after release. The external circumstances subscale was a significant predictor of fast fail status for reconviction, with an odds ratio of .26. This finding demonstrated that for every additional point in external circumstances subscale score, respondents were 74% less likely to be reconvicted in the first two months after their release.

Table 9

*Logistic Regressions Predicting Likelihood of Fast Fail Status for Reconviction
(Excluding Breaches) Using the PEM*

| Scale | <i>B</i> (SE) | Wald (<i>df</i> = 1) | Odds ratio | <i>p</i> | 95% CI |
|------------------------------------|---------------|--------------------------|---------------|---------------|--------------|
| Block 1 ^a | | | | | |
| RPFA-R | .01(.07) | .01 | 1.01 | .942 | [.87, 1.16] |
| VRS Total | .06(.03) | 2.98 | 1.06 | .084 | [.99, 1.14] |
| Treatment status | -1.34(.51) | 7.07 | .26 | .008** | [.10, .70] |
| Block 2 ^b | | | | | |
| RPFA-R | -.09(.08) | 1.18 | .92 | .277 | [.78, 1.01] |
| VRS Total | .08(.04) | 5.13 | 1.09 | .023* | [1.01, 1.17] |
| Treatment status | -.89(.53) | 2.74 | .41 | .098 | [.14, 1.18] |
| Total PEM | -1.49(.45) | 11.21 | .23 | .001** | [.09, .54] |
| Block 1 ^c | | | | | |
| RPFA-R | .01(.07) | .01 | 1.01 | .942 | [.87, 1.16] |
| VRS Total | .06(.03) | 2.98 | 1.06 | .084 | [.99, 1.14] |
| Treatment status | -1.34(.51) | 7.07 | .26 | .008** | [.10, .70] |
| Block 2 ^d | | | | | |
| RPFA-R | -.11(.08) | 1.63 | .90 | .202 | [.76, 1.06] |
| VRS Total | .08(.04) | 4.41 | 1.08 | .036* | [1.01, 1.16] |
| Treatment status | -.88(.54) | 2.61 | .42 | .106 | [.14, 1.21] |
| External circumstances subscale | -1.33(.41) | 10.53 | .26 | .001** | [.12, .59] |
| Subjective wellbeing subscale | -.24(.30) | .64 | .79 | .425 | [.43, 1.42] |

Note. pseudo- R^2 = Cox & Snell – Nagelkerke. Fast fail status was coded dichotomously (0 = no, 1 = yes).

^apseudo- R^2 = .09–.16; Model χ^2 (3) = 17.62, p = .001

^bpseudo- R^2 = .16–.27; Model χ^2 (4) = 29.90, p < .001; Block χ^2 (1) = 12.29, p < .001

^cpseudo- R^2 = .09–.16; Model χ^2 (3) = 17.62, p = .001

^dpseudo- R^2 = .17–.28; Model χ^2 (5) = 32.06, p < .001; Block χ^2 (2) = 14.44, p = .001

* p < .05, ** p < .01, *** p < .001.

Fast fail status for any new conviction leading to reimprisonment. Binary logistic regressions were performed to evaluate whether total PEM score, external circumstances subscale score, and subjective wellbeing subscale score predicted fast fail status for reimprisonment (i.e., any new conviction resulting in reimprisonment in the first two months post-release). The VRS, the RPFA-R, and treatment status were selected for inclusion as covariates in these regression analyses. In all regressions, the risk instruments and treatment status were entered as covariates in the first block and the PEM score was entered into the second block as the predictor variable.

Total PEM. Initially, we examined the ability of the total PEM to predict fast fail status for reimprisonment, after controlling for VRS, RPFA-R, and treatment status. As shown in Table 10, the model containing the risk instruments and treatment status was statistically significant, indicating that the model was significantly predictive of fast fail status for reimprisonment. Overall, the model explained between 10.6% (Cox & Snell pseudo- R^2) and 20.1% (Nagelkerke pseudo- R^2) of the variance in fast fail status for reimprisonment, and correctly classified 87.6% of cases. Treatment status emerged as the only variable that made a unique statistically significant contribution to prediction, with an odds ratio of .15. The relationship between treatment status and fast fail status was in the negative direction, indicating that completing an HRSTU programme was associated with a reduced likelihood of being reimprisoned in the first two months after release. When the total PEM score was added to the model, the chi-squared statistic for the model significantly improved, indicating that the total PEM score made a significant contribution to the prediction of fast fail status for reimprisonment (see Table 10). After controlling for the influence of VRS, RPFA-R, and treatment status, the total PEM explained an additional 7.3-14% of the variance in fast fail status, and the model correctly classified 89.3% of

cases. As shown in Table 10, the VRS and the total PEM made a unique statistically significant contribution to the prediction of fast fail status for reimprisonment. The total PEM was the strongest predictor of fast fail status, with an odds ratio of .16. This finding indicated that for every additional point in PEM score, men were 84% less likely to be convicted of an offence resulting in reimprisonment in the first two months after their release. The odds ratio of the VRS was 1.08, demonstrating that for every additional point in VRS score, respondents were 8% more likely to be convicted of an offence resulting in reimprisonment in the first two months after release.

External circumstances and subjective wellbeing subscales. Following this analysis, we investigated the relative contribution of the external circumstances subscale and the subjective wellbeing subscale to the prediction of fast fail status for reimprisonment. Recall that the model containing the VRS, RPFA-R, and treatment status was predictive of fast fail status. As is evident in Table 10, after the subscale scores were added, the chi-squared statistic for the model significantly improved. This finding demonstrated that the subscales made a significant contribution to the prediction of fast fail status for reimprisonment, after controlling for the influence of risk level, readiness for release, and treatment status. With the addition of the two subscales, the model explained an additional 9.4-17.8% of the variance in fast fail status, correctly classifying 89.9% of cases. As shown in Table 10, the external circumstances subscale made a unique statistically significant contribution to prediction. The relationship between external circumstances subscale score and fast fail status was in the negative direction, demonstrating that higher external circumstances scores were associated with a decreased likelihood of any new conviction resulting in reimprisonment in the first two months after release. The odds

ratio of the external circumstances subscale was .16, indicating that for every additional point in external circumstances score, respondents were 84% less likely to be convicted of an offence leading to reimprisonment in the first two months after release. Treatment status no longer made a unique significant contribution to prediction when the PEM subscales were added.

Table 10

*Logistic Regressions Predicting Likelihood of Fast Fail Status for Reconviction
Resulting in Reimprisonment Using the PEM*

| Scale | <i>B</i> (SE) | Wald (<i>df</i> = 1) | Odds ratio | <i>p</i> | 95% CI |
|------------------------------------|---------------|--------------------------|---------------|----------------|--------------|
| Block 1 ^a | | | | | |
| RPFA-R | .03(.08) | .10 | 1.03 | .757 | [.88, 1.20] |
| VRS Total | .06(.04) | 2.06 | 1.06 | .151 | [.98, 1.14] |
| Treatment status | -1.87(.66) | 8.15 | .15 | .004** | [.04, .56] |
| Block 2 ^b | | | | | |
| RPFA-R | -.10(.10) | 1.13 | .90 | .287 | [.75, 1.09] |
| VRS Total | .09(.04) | 4.50 | 1.09 | .034* | [1.01, 1.19] |
| Treatment status | -1.30(.69) | 3.51 | .27 | .061 | [.07, 1.06] |
| Total PEM | -1.84(.51) | 13.15 | .16 | .000*** | [.06, .49] |
| Block 1 ^c | | | | | |
| RPFA-R | .03(.08) | .10 | 1.03 | .757 | [.88, 1.20] |
| VRS Total | .06(.04) | 2.06 | 1.06 | .151 | [.98, 1.14] |
| Treatment status | -1.87(.66) | 8.15 | .15 | .004** | [.04, .56] |
| Block 2 ^d | | | | | |
| RPFA-R | -.14(.10) | 1.95 | .87 | .163 | [.71, 1.06] |
| VRS Total | .08(.04) | 3.64 | 1.09 | .056 | [1.00, 1.18] |
| Treatment status | -1.32(.71) | 3.46 | .27 | .063 | [.07, 1.07] |
| External circumstances subscale | -1.84(.49) | 13.96 | .16 | .000*** | [.06, .42] |
| Subjective wellbeing subscale | -.18(.34) | .28 | .84 | .594 | [.43, 1.62] |

Note. pseudo- R^2 = Cox & Snell – Nagelkerke. Fast fail status was coded dichotomously (0 = no, 1 = yes).

^apseudo- R^2 = .11–.20; Model χ^2 (3) = 19.95, $p < .001$

^bpseudo- R^2 = .18–.34; Model χ^2 (4) = 35.21, $p < .001$; Block χ^2 (1) = 15.29, $p < .001$

^cpseudo- R^2 = .11–.20; Model χ^2 (3) = 19.95, $p < .001$

^dpseudo- R^2 = .20–.38; Model χ^2 (5) = 39.61, $p < .001$; Block χ^2 (2) = 19.66, $p < .001$

* $p < .05$, ** $p < .01$, *** $p < .001$.

Summary: Do parole experiences, as measured by the PEM, predict who will fail quickly after release from prison? As expected, across all three recidivism indices, total PEM scores significantly predicted fast fail status (i.e., recidivism in the first two months after release), after controlling for possible confounding variables. These results demonstrated that men who had higher PEM scores and therefore, better experiences on parole, were significantly less likely to fail quickly after release from prison than those with lower scores on the PEM.

Summary: Which particular aspects of a person's experience on parole are significant predictors of fast failure? With regard to the two PEM subscales, results differed depending on which recidivism outcome was under investigation. In the regression analysis predicting fast fail status for breaches of parole conditions, both the external circumstances subscale and the subjective wellbeing subscale made a unique contribution to prediction, after controlling for risk level, readiness for release and treatment status. These findings indicated that men who had higher subjective wellbeing and external circumstances scores were less likely to breach their parole conditions in the first two months after release than those with lower scores. For analyses predicting fast fail status for reconviction and any new conviction resulting in reimprisonment, the external circumstances subscale made a unique statistically significant contribution to prediction. As expected, men who had higher external circumstances subscale scores were significantly less likely to be convicted of any new offence or any new offence resulting in reimprisonment in the first two months after release than those with lower scores. These results held after controlling for risk level, release readiness, treatment status, and subjective wellbeing.

Research questions 3 and 4: Do initial parole experiences, as measured by the PEM, predict recidivism in the first 12 months after release from prison?

Which particular aspects of a person's experience on parole are significant predictors of recidivism in the first 12 months after release? After exploring the relationship between parole experiences and re-entry success or failure in the first two months after release from prison, we examined whether parole experiences predicted recidivism over a slightly longer follow-up period of 12 months. After assessing whether total PEM scores were predictive of recidivism within the first 12 months after release, we investigated the relative contribution of the external circumstances subscale and the subjective wellbeing subscale to the prediction of recidivism. For each recidivism outcome, the results of analyses examining the predictive validity of the total PEM are outlined first. Next, the results of analyses investigating the relative contribution of the two subscales to the prediction of recidivism are presented.

For each of these sets of analyses, the men who were reconvicted for the relevant recidivism outcome within two months of release (i.e. those with fast fail status) were first removed from the dataset. The removal of these participants meant that the PEM measured participants' external circumstances and subjective wellbeing at two months post-release; that is, *before* they were reconvicted. As a result, we were able to use the original PEM and the original subjective wellbeing subscale for all subsequent analyses. Next, a series of binary logistic regressions was performed to assess the predictive validity of the total PEM, the external circumstances subscale, and the subjective wellbeing subscale on three recidivism outcomes (breach of parole conditions, reconviction excluding breach, and reconviction resulting in reimprisonment) within the first 12 months after release. Logistic regressions were performed to evaluate whether the PEM scale scores were predictive of recidivism after controlling for the variance explained by other factors found or expected to be related to the likelihood of recidivism. In all regressions, the covariates were entered

together in the first block and the PEM scale score was entered into the second block as the predictor variable. As before, when evaluating whether the subscales of the PEM predicted recidivism, the external circumstances subscale score and the subjective wellbeing subscale score were entered into the second block together, as they were positively correlated. By including the two subscales together, we could assess whether an individual PEM subscale predicted recidivism when the variance explained by the other subscale was statistically controlled for.

Breach of parole conditions.

Exclusion criteria. For the analyses in this section, 23 men were excluded because they had been convicted of a breach before the date of their two-month follow up interview. As a result, the total sample size was 155 for these analyses. Of these 155 men, 44 (28.4%) were convicted of a breach of parole conditions in the first 12 months after their release from prison.

Logistic regressions. Binary logistic regressions were performed to evaluate whether the total PEM, the external circumstances subscale, and the subjective wellbeing subscale were predictive of breaches of parole conditions within 12 months in the community, after controlling for the influence of VRS, RPFA-R, and treatment status. In all regressions, the risk instruments and treatment status were entered as covariates in the first block and the PEM scale score was entered into the second block as the predictor variable.

Total PEM. First, we assessed whether total PEM scores were predictive of breaches of parole conditions in the first 12 months after release. Table 11 shows that the model containing the risk instruments and treatment status did not significantly predict breaches of parole conditions. When the total PEM score was added to the regression model, the block chi-squared statistic significantly improved, indicating

that adding the PEM score significantly improved the model's ability to predict breaches of parole conditions. The chi-squared statistic for the overall regression model was not statistically significant. This result demonstrated that the overall model did not significantly predict breaches of parole conditions in this sample. However, as expected the total PEM made a statistically significant unique contribution to the prediction of breaches of parole conditions. The relationship between total PEM scores and breaches of parole conditions was in the expected negative direction, indicating that higher scores on the PEM were associated with a reduced likelihood of a breach. The odds ratio was .49, indicating that for every additional point in PEM score, respondents were 51% less likely to be convicted of a breach of parole conditions in the first year after their release from prison (see Table 11).

External circumstances and subjective wellbeing subscales. Next, we explored the relative contribution of the external circumstances subscale and the subjective wellbeing subscale to the prediction of breaches in the first 12 months post-release. As shown in Table 11, the model containing the risk instruments and treatment status was not significantly predictive of breaches of parole. When the external circumstances and subjective wellbeing subscale scores were added, the model still was not statistically significant. These results indicate that neither the external circumstances subscale nor the subjective wellbeing subscale significantly predicted breaches of parole conditions. Further, no individual predictors made a statistically significant contribution to the prediction of breaches.

Table 11

Logistic Regressions Predicting Likelihood of Breach of Parole Conditions in the First 12 Months Post-Release Using the PEM

| Scale | B (SE) | Wald (df = 1) | Odds ratio | p | 95% CI |
|------------------------------------|------------|------------------|---------------|--------------|-------------|
| Block 1 ^a | | | | | |
| RPFA-R | -.05 (.06) | .77 | .95 | .378 | [.85, 1.06] |
| VRS Total | .02 (.03) | .30 | 1.02 | .585 | [.96, 1.07] |
| Treatment status | .16 (.37) | .18 | 1.17 | .673 | [.56, 2.43] |
| Block 2 ^b | | | | | |
| RPFA-R | -.08 (.06) | 1.93 | .92 | .164 | [.82, 1.04] |
| VRS Total | .02 (.03) | .70 | 1.02 | .404 | [.97, 1.08] |
| Treatment status | -.05 (.39) | .02 | .95 | .904 | [.44, 2.06] |
| Total PEM | -.71 (.36) | 3.89 | .49 | .049* | [.24, .997] |
| Block 1 ^c | | | | | |
| RPFA-R | -.05 (.06) | .77 | .95 | .378 | [.85, 1.06] |
| VRS Total | .02 (.03) | .30 | 1.02 | .585 | [.96, 1.07] |
| Treatment status | .16 (.37) | .18 | 1.17 | .673 | [.56, 2.43] |
| Block 2 ^d | | | | | |
| RPFA-R | -.08 (.06) | 1.65 | .93 | .199 | [.82, 1.04] |
| VRS Total | .03 (.03) | .78 | 1.03 | .376 | [.97, 1.09] |
| Treatment status | -.03 (.39) | .01 | .97 | .941 | [.45, 2.10] |
| External circumstances subscale | -.17 (.35) | .25 | .84 | .619 | [.43, 1.66] |
| Subjective wellbeing subscale | -.49 (.28) | 3.01 | .62 | .083 | [.36, 1.07] |

Note. pseudo- R^2 = Cox & Snell – Nagelkerke.

^apseudo- R^2 = .01–.01; Model χ^2 (3) = .95, p = .814

^bpseudo- R^2 = .03–.04; Model χ^2 (4) = 4.86, p = .302; Block χ^2 (1) = 3.92, p = .048

^cpseudo- R^2 = .01–.01; Model χ^2 (3) = .95, p = .814

^dpseudo- R^2 = .03–.05; Model χ^2 (5) = 5.25, p = .387; Block χ^2 (2) = 4.30, p = .117

* p < .05.

Any new conviction (excluding breaches of parole).

Exclusion criteria. For the analyses in this section, 28 men were excluded because they had been reconvicted before the date of their two-month follow up interview. As a result, the total sample size was 150 for these analyses. Of these 150 men, 69 (46%) were reconvicted (excluding breaches) within their first 12 months in the community.

Logistic regression. A series of binary logistic regressions was performed to assess whether the total PEM, the external circumstances subscale, and the subjective wellbeing subscale were predictive of criminal reconviction (excluding breaches) within 12 months in the community, after controlling for the influence of VRS, RPFA-R, RoC*RoI scores, and treatment status. In all regressions, the risk instruments and treatment status were entered as covariates in the first block and the PEM score was entered into the second block as the predictor variable.

Total PEM. Initially, we assessed whether total PEM scores significantly predicted reconviction (excluding breaches) within 12 months in the community. As shown in Table 12, the model containing the risk instruments and treatment status was statistically significant, indicating that the model was able to significantly predict reconviction. The model explained between 8.4% (Cox and Snell pseudo- R^2) and 11.2% (Nagelkerke pseudo- R^2) of the variance in recidivism status, and correctly classified 63.3% of cases. As shown in Table 12, the RPFA-R made a unique statistically significant contribution to the model, with an odds ratio of 1.12. This finding indicated that for every additional point in RPFA-R score, respondents were 12% more likely to be convicted of a new offence (excluding breaches) in their first year in the community. When the total PEM was added into the model, the chi-squared statistic for the model significantly improved, indicating that the total PEM

made a significant contribution to the prediction of reconviction. After controlling for the VRS, RPFA-R, RoC*RoI, and treatment status, the block that included the total PEM score explained an additional 2.6-3.5% of the variance in reconviction status, correctly classifying 64% of cases. The RPFA-R's contribution was rendered nonsignificant once the PEM score was added to the model. These results indicate that the total PEM significantly predicted reconviction (excluding breaches) after controlling for level of static and dynamic risk, readiness for release, and treatment status. The relationship between total PEM scores and reconviction was in the expected negative direction, indicating that higher scores on the PEM were associated with reductions in reconviction. The odds ratio of the total PEM score for criminal reconviction (excluding breaches) was .47, indicating that for every additional point in PEM score, respondents were 53% less likely to be reconvicted in their first year in the community.

External circumstances and subjective wellbeing subscales. Next, we examined the relative contribution of the external circumstances and subjective wellbeing subscales to the prediction of reconviction. Recall that the model containing the risk instruments and treatment status was statistically significant, with the RPFA-R making a unique statistically significant contribution to the model (see Table 12). When the external circumstances and subjective wellbeing subscale scores were added, the chi-squared statistic for the model significantly improved (see Table 12). This finding indicated that the subscales made a significant contribution to the prediction of reconviction after controlling for the variance explained by the risk instruments, release readiness, and treatment status. With the addition of the two subscales, the model explained an additional 3.4-4.5% of the variance in reconviction status, correctly classifying 67.3% of cases. As shown in Table 12, the external

circumstances subscale made a unique statistically significant contribution to the model. The relationship between external circumstances subscale scores and reconviction was in the negative direction, indicating that higher external circumstances scores were associated with a decreased likelihood of reconviction. The odds ratio of the external circumstances subscale for reconviction (excluding breaches) at 12 months was .47, indicating that for every additional point in external circumstances score, respondents were 53% less likely to be reconvicted in their first 12 months in the community. The RPFA-R's contribution was no longer significant when the subscale scores were added.

Table 12

Logistic Regressions Predicting Likelihood of Reconviction (Excluding Breaches) in the First 12 Months Post-Release Using the PEM

| Scale | <i>B</i> (SE) | Wald (<i>df</i> = 1) | Odds ratio | <i>p</i> | 95% CI |
|------------------------------------|---------------|--------------------------|---------------|--------------|---------------|
| Block 1 ^a | | | | | |
| RPFA-R | .12 (.05) | 4.51 | 1.12 | .034* | [1.01, 1.25] |
| VRS Total | .00 (.03) | .00 | 1.00 | .986 | [.95, 1.05] |
| RoC*RoI | 2.17 (1.60) | 1.84 | 8.81 | .175 | [.38, 204.63] |
| Treatment status | .50 (.35) | 2.03 | 1.65 | .154 | [.83, 3.30] |
| Block 2 ^b | | | | | |
| RPFA-R | .09 (.06) | 2.30 | 1.09 | .129 | [.98, 1.22] |
| VRS Total | .01 (.03) | .15 | 1.01 | .698 | [.96, 1.07] |
| RoC*RoI | 2.04 (1.64) | 1.54 | 7.68 | .215 | [.31, 192.63] |
| Treatment status | .32 (.37) | .76 | 1.38 | .385 | [.67, 2.82] |
| Total PEM | -.77 (.38) | 4.03 | .47 | .045* | [.22, .98] |
| Block 1 ^c | | | | | |
| RPFA-R | .12 (.05) | 4.51 | 1.12 | .034* | [1.01, 1.25] |
| VRS Total | .00 (.03) | .00 | 1.00 | .986 | [.95, 1.05] |
| RoC*RoI | 2.17 (1.60) | 1.84 | 8.81 | .175 | [.38, 204.63] |
| Treatment status | .50 (.35) | 2.03 | 1.65 | .154 | [.83, 3.30] |
| Block 2 ^d | | | | | |
| RPFA-R | .08 (.06) | 1.98 | 1.08 | .159 | [.97, 1.21] |
| VRS Total | .01 (.03) | .11 | 1.01 | .746 | [.96, 1.07] |
| RoC*RoI | 1.63 (1.66) | .96 | 5.11 | .327 | [.20, 132.79] |
| Treatment status | .31 (.37) | .70 | 1.36 | .402 | [.66, 2.81] |
| External circumstances subscale | -.75 (.38) | 3.99 | .47 | .046* | [.23, .99] |
| Subjective wellbeing subscale | -.14 (.29) | .23 | .87 | .635 | [.50, 1.53] |

Note. pseudo- R^2 = Cox & Snell – Nagelkerke.

^a pseudo- R^2 = .08–.11; Model χ^2 (4) = 13.17, p = .010

^b pseudo- R^2 = .11–.15; Model χ^2 (5) = 17.42, p = .004; Block χ^2 (1) = 4.25, p = .039

^c pseudo- R^2 = .08–.11; Model χ^2 (4) = 13.17, p = .010

^d pseudo- R^2 = .11–.15; Model χ^2 (6) = 18.75, p = .005; Block χ^2 (2) = 5.58, p = .061

* p < .05.

Any new conviction leading to reimprisonment.

Exclusion criteria. For the analyses in this section, 22 men were excluded because they had been convicted of an offence that resulted in reimprisonment before the date of their two-month follow up interview. As a result, the total sample size was 156 for these analyses. Of the remaining 156 men, 40 (25.6%) were convicted of an offence resulting in reimprisonment in the first 12 months after their release from prison.

Logistic regression. Binary logistic regressions were performed to evaluate whether the total PEM, the external circumstances subscale, and the subjective wellbeing subscale were predictive of reconviction resulting in reimprisonment in the first 12 months in the community, after controlling for the influence of VRS and RPFA-R scores, and treatment status. In all regressions, the risk instruments and treatment status were entered as covariates in the first block and the PEM score was entered into the second block as the predictor variable.

Total PEM. First, we assessed the ability of the total PEM to predict reimprisonment in the first 12 months in the community. As shown in Table 13, the model containing the risk instruments and treatment status was not predictive of reimprisonment. When the total PEM score was added, the regression model was not statistically significant; however, the model was approaching significance ($p = .057$) for predicting reimprisonment at 12 months post-release and the total PEM score made a significant unique contribution to prediction. The relationship between total PEM scores and reimprisonment was in the expected negative direction, indicating that higher scores on the PEM were associated with a decreased likelihood of reimprisonment. The odds ratio of the total PEM score for reimprisonment was .44,

indicating that for every additional point in PEM score, participants were 56% less likely to be reimprisoned in their first year in the community.

External circumstances and subjective wellbeing subscales. Following this analysis, we explored the relative contribution of the external circumstances subscale and the subjective wellbeing subscale to the prediction of reimprisonment. The model containing the risk instruments and treatment status was not significantly predictive of reconviction resulting in reimprisonment at 12 months (see Table 13). When the external circumstances and subjective wellbeing subscale scores were added, the model remained nonsignificant, indicating that neither the external circumstances subscale nor the subjective wellbeing subscale significantly predicted reimprisonment within 12 months in the community. However, the model was approaching significance ($p = .080$) for predicting reimprisonment at 12 months post-release (see Table 13). In addition, results of the regression analysis showed that the ability of the external circumstances subscale to predict reimprisonment was approaching significance ($p = .076$).

Table 13

Logistic Regressions Predicting Likelihood of Reconviction Resulting in Reimprisonment in the First 12 Months Post-Release Using the PEM

| Scale | <i>B</i> (SE) | Wald (<i>df</i> = 1) | Odds ratio | <i>P</i> | 95% CI |
|------------------------------------|---------------|--------------------------|---------------|--------------|-------------|
| Block 1 ^a | | | | | |
| RPFA-R | .08 (.06) | 1.61 | 1.08 | .204 | [.96, 1.21] |
| VRS Total | .00 (.03) | .00 | 1.00 | .988 | [.94, 1.06] |
| Treatment status | .43 (.38) | 1.24 | 1.53 | .266 | [.72, 3.23] |
| Block 2 ^b | | | | | |
| RPFA-R | .04 (.06) | .39 | 1.04 | .532 | [.92, 1.18] |
| VRS Total | .01 (.03) | .17 | 1.01 | .684 | [.95, 1.07] |
| Treatment status | .24 (.40) | .36 | 1.27 | .550 | [.58, 2.75] |
| Total PEM | -.81 (.38) | 4.64 | .44 | .031* | [.21, .93] |
| Block 1 ^c | | | | | |
| RPFA-R | .08 (.06) | 1.61 | 1.08 | .204 | [.96, 1.21] |
| VRS Total | .00 (.03) | .00 | 1.00 | .988 | [.94, 1.06] |
| Treatment status | .43 (.38) | 1.24 | 1.53 | .266 | [.72, 3.23] |
| Block 2 ^d | | | | | |
| RPFA-R | .03 (.06) | .28 | 1.03 | .596 | [.91, 1.17] |
| VRS Total | .01 (.03) | .11 | 1.01 | .738 | [.95, 1.07] |
| Treatment status | .22 (.40) | .31 | 1.25 | .578 | [.57, 2.72] |
| External circumstances subscale | -.68 (.38) | 3.15 | .51 | .076 | [.24, 1.07] |
| Subjective wellbeing subscale | -.24 (.28) | .77 | .78 | .380 | [.46, 1.35] |

Note. pseudo- R^2 = Cox & Snell – Nagelkerke.

^a pseudo- R^2 = .03–.04; Model χ^2 (3) = 4.45, p = .217

^b pseudo- R^2 = .06–.08; Model χ^2 (4) = 9.19, p = .057; Block χ^2 (1) = 4.74, p = .030

^c pseudo- R^2 = .03–.04; Model χ^2 (3) = 4.45, p = .217

^d pseudo- R^2 = .06–.09; Model χ^2 (5) = 9.85, p = .080; Block χ^2 (2) = 5.40, p = .067

* p < .05.

Summary: Do parole experiences, as measured by the PEM, significantly predict recidivism in the first 12 months after release from prison? Logistic regression analyses revealed that the predictive validity of the PEM was mixed. The total PEM significantly predicted reconviction at 12 months post-release, after controlling for the influence of possible confounding variables. Results differed when assessing the ability of total PEM scores to predict breaches of parole and reimprisonment. The overall regression models that included the covariates and the total PEM were not predictive of breaches or reimprisonment in the first year post-release. However, results showed that total PEM scores made a unique statistically significant contribution to the prediction of both breaches and reimprisonment. Higher total PEM scores were associated with a decreased likelihood of a breach of parole conditions, any new conviction, and any new conviction resulting in reimprisonment within 12 months after release.

Summary: Which particular aspects of a person's experience on parole are significant predictors of recidivism in the first 12 months after release? At the subscale level, the external circumstances subscale score emerged as a unique statistically significant predictor of reconviction. This result held after controlling for the influence of RPFA-R score, VRS score, RoC*RoI score, treatment status, and subjective wellbeing subscale scores. Higher external circumstances subscale scores were associated with reductions in reconviction in the first 12 months after release, whereas subjective wellbeing subscale scores were not uniquely predictive of reconviction. When evaluating whether the PEM subscales were uniquely predictive of reimprisonment, the external circumstances subscale was predictive of reimprisonment at a level that was approaching significance ($p = .076$), after controlling for risk level, treatment status, and the subjective wellbeing subscale.

Chapter 4: Discussion

Although we have a general understanding of the challenges people face when re-entering the community after time in prison, little research has examined how the re-entry experiences of men at high risk of reoffending relate to the likelihood that they will remain crime-free. This thesis went some way towards addressing this gap in the literature. The first aim of this research was to develop a measure to assess the type and quality of individuals' experiences after their release from prison onto parole. Accordingly, we developed the Parole Experiences Measure (PEM) and conducted an in-depth evaluation of its psychometric properties. The PEM was then used to address a central aim of this research, which was to investigate how experiences during re-entry relate to the likelihood that an individual at high risk of reoffending will remain conviction-free during their first two months, and then their first year in the community. This discussion opens with an overview of the main findings of this research. Next, the findings are discussed with reference to the relevant literature on re-entry from prison to the community and criminal recidivism. I will discuss the theoretical and practical implications of this research and finally, limitations of this study and possible directions for future research will be discussed.

Summary of Findings

The first part of this research involved the development of the PEM, a measure designed to assess the quality of individuals' experiences after release from prison onto parole. A series of analyses was conducted to examine the psychometric properties of the PEM. Because we did not have a specific hypothesis regarding the underlying factor structure of the PEM, we subjected the PEM items to a Principal Components Analysis (PCA). The results of preliminary analyses suggested a two-factor solution be retained for further investigation. Subsequent analyses revealed that

six PEM items loaded strongly on each of the two components. Interestingly, one component appeared to reflect individuals' own perceptions of their wellbeing (*subjective wellbeing subscale*) and the other component contained items related to the person's environment (*external circumstances subscale*). Both subscales and the total PEM demonstrated an acceptable level of internal reliability, and inter-rater reliability was almost perfect. Overall, the PEM was deemed to be a reliable measure that allowed us to assess the quality of high-risk parolees' experiences during the first two months after their release from prison.

Research question one examined whether a person's parole experiences during the first two months after release from prison predicted whether he would fail quickly; that is, whether he would be convicted in the first two months after release. Three recidivism outcomes were examined: breaches of parole conditions, any new conviction (excluding breaches of parole), and any new conviction leading to reimprisonment. A series of binary logistic regression analyses was used to evaluate whether PEM scores predicted fast failure. Across all three recidivism outcomes, total PEM scores significantly predicted who would fail quickly after release (i.e., reoffend in the first two months after release), after controlling for the influence of treatment status, readiness for release, and level of criminal risk. As expected, men who had better parole experiences, as measured by the PEM, were less likely to fail quickly after release than men who had poorer experiences on parole. Interestingly, the VRS was also an independent predictor of fast fail status for breaches of parole, reconviction, and reimprisonment, and the combination of the VRS and the PEM led to the best overall model.

A further aim of this research was to gain a better understanding of the relative contribution of particular aspects of a person's initial parole experiences to the

prediction of recidivism. Therefore, research question two examined whether the PEM subscales were uniquely predictive of fast fail status for the three recidivism outcomes. For breaches of parole conditions, both the subjective wellbeing subscale and the external circumstances subscale emerged as unique predictors of fast fail status, after controlling for possible confounding variables. Men who had higher subjective wellbeing and external circumstances scores were less likely to breach parole conditions in the first two months after release than men with lower scores. For the two types of recidivism resulting from new criminal behaviour, a different pattern of results emerged. The external circumstances subscale was uniquely predictive of fast fail status for both reconviction and any new conviction resulting in reimprisonment. These results held after controlling for risk level, release readiness, treatment status, and subjective wellbeing scores. Men who had better external circumstances after release were less likely to fail quickly than men with poorer external circumstances. In contrast, the subjective wellbeing subscale was not a unique significant predictor of fast fail status for reconviction or reimprisonment. Overall, these findings suggest that factors within an individual's environment may be more important for short-term re-entry success than their perceived wellbeing; however, for breaches of parole, a minor form of recidivism, the combination of both environmental factors and perceived wellbeing was predictive. Another interesting finding was that the VRS was also an independent predictor of breaches of parole and reconviction, suggesting that the combination of the VRS and the PEM leads to the best predictive model for these types of recidivism.

Research question three investigated whether parolees' experiences during the first two months after release, as measured by the PEM, predicted recidivism over their first year in the community. Again, three recidivism outcomes were examined

varying in severity from breaching a parole condition to committing an offence that resulted in a return to prison. As before, a series of binary logistic regression analyses was used to assess the predictive validity of the PEM. As expected, total PEM scores significantly predicted reconviction in the first year post-release, after controlling for the influence of possible confounding variables (e.g., level of criminal risk). In line with predictions, higher total PEM scores were associated with reductions in reconviction in the first year after release. With regard to breaches of parole conditions, the overall regression model that included the covariates and the total PEM was not predictive of breaches in the first year post-release; however, results showed that the total PEM made a unique statistically significant contribution to prediction. As expected, men who had higher total PEM scores were less likely to be convicted of a breach of parole in the first 12 months post-release than men with lower scores. When evaluating whether total PEM scores predicted reimprisonment, the overall model was approaching significance ($p = .057$). Results revealed that the total PEM made a unique contribution to the prediction of reimprisonment, after controlling for level of risk, release readiness, and treatment status. In support of predictions, higher total PEM scores were associated with a decreased likelihood of reimprisonment in the first year following release.

Finally, research question four examined the relative contribution of the external circumstances and subjective wellbeing subscales to the prediction of recidivism in the first year after release. The external circumstances subscale made a unique contribution to the prediction of reconviction, after controlling for level of criminal risk, readiness for release, treatment status, and subjective wellbeing. This finding demonstrated that individuals' external circumstances (e.g., accommodation, personal support, and avoidance of criminal peers) predicted reconviction over and

above their perceived mental and physical wellbeing. In contrast, the regression models predicting breaches of parole and reimprisonment were nonsignificant, and neither PEM subscale was uniquely predictive of breaches or reimprisonment. When examining the relative contribution of subscale scores to the prediction of reimprisonment, the PEM subscales improved the model's ability to predict reimprisonment at a level that was trending towards statistical significance (Block $\chi^2(2) = 5.40, p = .067$). In addition, the unique contribution of the external circumstances subscale to the prediction of reimprisonment was approaching significance ($p = .076$), suggesting that the environmental circumstances of men after release from prison may also be important for successfully avoiding reimprisonment within their first year in the community.

Theoretical and Practical Implications

Taken together, the findings of the present research demonstrated that the quality of parolees' experiences after their release from prison onto parole significantly predicted both short-term re-entry success (i.e., an absence of recidivism in the first two months after release) and slightly longer-term re-entry success (i.e., an absence of recidivism in the first year in the community). In general, results showed that individuals' external circumstances after release from prison were better predictors of re-entry success than their own perceptions of their physical and mental wellbeing, particularly for more severe types of recidivism. These findings have a number of implications for both theory and practice.

The quality of experiences on parole as a predictor of re-entry success.

This research showed that individuals' experiences after release from prison onto parole predict whether they will achieve successful re-entry. In general, men who had better experiences during their first two months in the community evidenced

significantly lower recidivism rates than men who had poorer experiences after their release. The findings of the present research are mainly in line with previous literature examining factors that are related to re-entry success (defined as an absence of recidivism after a certain period of time in the community). Previous research has demonstrated that individuals' experiences in certain areas that are important during re-entry from prison to the community are related to whether or not they will be reconvicted or reimprisonment after a period of time following release; for example, re-entry experiences in relation to accommodation, employment, social support, antisocial associates, mental health, and alcohol and drugs have been found to predict varying types of recidivism; (Baldry et al., 2006; Bucklen & Zajac, 2009; La Vigne et al., 2004; Metraux & Culhane, 2004; Visser et al., 2008). In the present study, almost all of these factors were captured within the PEM and together, along with additional factors, predicted three indices of very short-term recidivism (breach of parole, reconviction, and reconviction resulting in reimprisonment in the first two months after release) and one slightly longer-term recidivism outcome (reconviction in the first year after release). Consistent with past research, this study found that men who had poorer experiences in the community, as measured by the PEM, were more likely to recidivate after release than men with better parole experiences (Baldry et al., 2006; Bucklen & Zajac, 2009; La Vigne et al., 2004; Solomon et al., 2006; Visser et al., 2008). Overall, the findings of the present research provide support for the argument that the high rates of recidivism found among people who are at a high risk of reoffending may, in part, be explained by the quality of their experiences during re-entry to the community.

In contrast to previous studies (e.g., Baldry et al., 2006; Bales & Mears, 2008; La Vigne et al., 2004; Metraux & Culhane, 2004; Visser et al., 2008), this research

did not examine whether individual variables (e.g., accommodation or personal support) were predictive of successful re-entry. This novel approach was chosen for two main reasons. The first reason was primarily a pragmatic one; the PEM included a total of 12 variables and therefore, to evaluate whether each variable was predictive of three recidivism indices would have required an excessive number of statistical analyses, leading to a higher likelihood of error. Second, problems arise when assessing the predictive validity of individual variables, as we cannot separate out the effects of one variable on other related variables. For example, if an individual loses his job, this loss may have a flow on effect whereby the individual then loses his financial income, is evicted from his accommodation, and loses support from prosocial work colleagues. The results of the PCA conducted in the present research provide support for the relatedness between these variables; accommodation, finances, and prosocial support loaded strongly on the same factor (subsequently termed the *external circumstances subscale*) and the internal reliability was acceptable. It is extremely difficult to disentangle the relative contribution of various re-entry factors to the prediction of recidivism (Laub & Sampson, 2001; LeBel et al., 2008); therefore, it does not make much sense to examine possible predictors at the individual variable level. By amalgamating the variables into a comprehensive measure comprised of two subscales, we were able to reliably assess parolees' experiences overall, and across two broad domains. However, as a result, we cannot make direct comparisons to other studies exploring individual predictors of successful re-entry.

The present research expanded on previous literature by exploring the effects of physical and mental wellbeing on the likelihood that an individual would achieve re-entry success after release from prison, as well as examining factors related to their

external environment. To our knowledge, very little research has explored the impact of subjective wellbeing on the likelihood of recidivism after release. In fact, influential authors, such as Andrews and Bonta (2010), do not consider subjective wellbeing to be a criminogenic need. Interestingly, in the present study both PEM subscales uniquely predicted fast failure for breaches of parole, suggesting that the combination of both external circumstances and individual wellbeing is important for successfully avoiding a breach of release conditions in the first two months after release. This finding is consistent with previous research showing that external or social factors *and* subjective factors experienced by individuals immediately before and after their release from prison were predictive of recidivism (LeBel et al., 2008). The inclusion of both external factors and internal or subjective wellbeing factors in the present study provides a more informative illustration of how experiences on parole relate to the likelihood that a person at high risk of reoffending will successfully avoid recidivism.

The present research made a significant contribution to the extant literature on the process of re-entry from prison to the community by addressing some of the methodological shortcomings of previous studies in this area. Previous research in the area of offender re-entry has a number of limitations, including the use of cross-sectional study designs (e.g., Bucklen & Zajac, 2009), failure to control for possible confounding variables (e.g., Bahr et al., 2010; Baldry et al., 2006; Bucklen & Zajac, 2009), a reliance on self-report data (e.g., Visser et al., 2008), and the inclusion of participants from a single correctional facility. In order to overcome these limitations, the present research adopted a longitudinal study design, used a reliable measure of the re-entry experiences of men at high risk of reoffending that incorporated both self-report information and probation officer responses, included a relatively large sample

of men from four prisons around New Zealand, and statistically controlled for possible confounding variables in all analyses. By employing this methodology, the present research allowed for a more methodologically rigorous examination of the relationship between parolees' experiences after release from prison onto parole and recidivism.

Fast failure versus slow failure. Research examining the recidivism rates of released prisoners has shown that many individuals who are at a high risk of reoffending are quickly reconvicted following release (Nadesu, 2007). The results of the present study suggest that the rapid rate with which these individuals are reconvicted after release may be explained by the challenging experiences they encounter during re-entry to the community. Parolees' experiences during the early days of re-entry, as measured by the PEM, consistently predicted who would fail quickly after release. In fact, the experiences of men on parole explained a considerable amount of variance in fast fail status for all three recidivism outcomes, after controlling for the influence of criminal risk level, readiness for release, and treatment status. These findings suggest that assessing an individual's experiences after release from prison onto parole may be a promising avenue for identifying who is at increased risk for recidivism in the initial period after release to the community. This information may be useful for determining who requires the most practical support during re-entry and therefore, where resources should be targeted in order to reduce rates of recidivism in the early stages after release. There are a number of risk assessment tools currently in use in New Zealand (e.g., VRS, RoC*RoI, RPFA-R). However, the present study suggests that the PEM provides unique information over and above what is captured by these risk assessment tools.

Interestingly, parole experiences during the first two months in the

community were predictive of recidivism within two months after release, when men were still navigating the re-entry period, but also within one year after release, when men had, arguably, completed the transition from prison to the community. These findings suggest that a person's experiences in the early months after their release are important not only for avoiding recidivism in the initial period after release but also for achieving re-entry success and continuing to avoid reconviction over one year in the community. It could be that men who have better experiences after release continue to have more positive and supportive experiences for the duration of their first year in the community, resulting in reductions in recidivism. Unfortunately, the present research cannot attest to this statement, as we did not assess the quality of participants' experiences after 12 months in the community.

A possible explanation for the finding that experiences during the early days after release predicted recidivism within 12 months post-release is that men who had better experiences on parole were better equipped to successfully progress through the desistance process over their first year in the community. According to the Integrated Theory of Desistance from Sexual Offending (ITDSO; Göbbels et al., 2012), re-entry is a crucial component of the process of giving up crime. The ITDSO proposes that there are four phases in the desistance process. In the first phase, termed decisive momentum, the person who has previously engaged in criminal behaviour experiences a life event that may act as a catalyst for change. As a result, the person begins to become dissatisfied with his offending behaviour and develops a commitment to change (Göbbels et al., 2012). During the rehabilitation phase, the individual begins to reconstruct his identity, develops new skills and strategies to live a more prosocial life, and overcomes internal and external obstacles (including dynamic risk factors; Göbbels et al., 2014). The next phase of the ITDSO is re-entry

from prison back into the community. During this time, people can have experiences that either facilitate successful re-entry or act as barriers to re-entry; however, it is likely that individuals will face many challenges during this time (Göbbels et al., 2012). Göbbels and colleagues (2014) argue that successful re-entry promotes the desistance process, whereas a stressful and problematic re-entry experience is likely to hinder the desistance process and increase the likelihood of recidivism. The authors state that a “successful re-entry phase facilitates the ex-offender’s achievement of long-term desistance” (Göbbels et al., 2014; p.356). Perhaps individuals who had better experiences in the first few months after release were better equipped to achieve successful re-entry and subsequently, after one year in the community, had begun to progress to the final phase of desistance, normalcy/reintegration.

The final phase in the desistance process is an extension of the re-entry phase where an individual who has been convicted of previous crimes has maintained a commitment to change, developed an identity as a ‘non-offender’, and desisted from offending for a long period of time. Although the present research only followed individuals through their first year in the community, having better experiences and fewer barriers during re-entry may have facilitated a shift towards beginning to view oneself as a non-offender; a key part of the ITDSO’s final phase of desistance. To elaborate, better experiences with regard to re-entry factors, such as levels of prosocial support, employment opportunities and finances, and reduced contact with antisocial peers, may positively reinforce an individual’s commitment to change and endorse the development of a non-offender identity. In contrast, men who have poorer experiences during re-entry, such as low levels of prosocial support, poor employment and accommodation prospects, and frequent contact with antisocial peers, may not enter environments that reinforce their commitment to change and foster new self-

perceptions as a non-offender; instead, they may have experiences that discourage desistance and reinforce the individual's maladaptive identity as a person who engages in criminal behaviour (Göbbels et al., 2012). Thus, better experiences during the first two months after release may have reinforced the individual's commitment to change and commitment to prosocial behaviour, and in turn, facilitated a shift towards the development of a 'non-offender' identity. Of course, this argument assumes that men who did not reoffend after release were committed to desistance and were in an active state of behaviour change. These factors were not measured in the present research. Future research would benefit from an exploration of whether other factors, such as commitment to desistance, play a role in the relationship between re-entry experiences and successful re-entry.

The relative contribution of external circumstances and subjective wellbeing experiences. An interesting finding of the present research was that the PCA separated the PEM items into two components that mirrored those described in previous desistance literature; one of the components appeared to reflect individuals' internal or subjective wellbeing (*subjective wellbeing subscale*) and the other contained factors related to individuals' external and social environment (*external circumstances subscale*). The distinction between internal and external characteristics has been documented by other researchers in the area of re-entry and desistance (e.g., Göbbels et al., 2012; LeBel et al., 2008). In the desistance literature, researchers often make the distinction between subjective/internal factors (e.g., identity, motivation) and social/environmental factors (e.g., accommodation, employment) when examining factors that may be related to desistance from crime (LeBel et al., 2008). It is important to note that the distinction between external experiences and internal/subjective experiences is somewhat artificial, as they are closely related. For

example, an individual's alcohol and drug use (external circumstances factor) may be inextricably linked to their experience of negative emotions (subjective wellbeing factor). However, this distinction is useful in that it allows us to assess which aspects of an individual's experiences after release from prison are of the most importance for successful re-entry and desistance from crime; thus, enabling us to identify areas to direct the often scant resources that are available to people after their release from prison.

In the present research, we explored the relative contribution of individuals' external circumstances and subjective wellbeing after release from prison to the prediction of recidivism within their first two months in the community, and their first year in the community. The results showed that when external circumstances and subjective wellbeing were included in regression models together, external circumstances emerged as a unique predictor of recidivism in the majority of the analyses. The relative importance of a person's external circumstances after release from prison over their subjective wellbeing provides support for Maslow's (1943) theory of human motivation. As discussed in earlier sections of this thesis, Maslow's theory argues that individuals must secure lower level needs, such as physiological, safety, and social needs, before they can motivate themselves to move toward satisfying higher-order needs, such as self-esteem and self-actualisation. When applying this theory to re-entry to the community after time spent in prison, it follows that factors related to individuals' external circumstances (e.g., accommodation, finances, and social support) sit at lower steps of the hierarchy than factors related to individuals' subjective wellbeing (e.g., mental health and experience of positive emotions). In the initial period after release, people are likely to be working towards basic needs, such as finding shelter and accommodation, establishing social supports,

and obtaining financial assistance. An individual's internal or subjective wellbeing may reflect the higher-order need of self-esteem, which may not be achieved until the lower level physiological and safety needs are satisfied.

Another possible explanation for the relatively poor predictive validity of the subjective wellbeing subscale in the present research relates to the narrow range of subjective factors that were measured. This research only examined subjective factors related to parolees' mental health, physical health, and emotional wellbeing. In previous research other subjective or internal factors such as commitment to desistance, hope, and identity have been found to predict various types of recidivism after release from prison (Burnett & Maruna, 2004; Maruna, 2001; Polaschek & Yesberg, 2015). If we included a wider range of internal factors in the present study, we may have seen a different pattern of results with regard to the relative contribution of external circumstances and subjective wellbeing to the prediction of recidivism.

The Good Lives Model. Although this research did not explore the mechanisms underlying the relationship between parole experiences and re-entry success, the Good Lives Model (GLM; Ward & Stewart, 2003) provides a possible explanation of *how* the experiences of men after release from prison may contribute to reductions in recidivism over the first two months, and the first year in the community. The GLM is a strengths-based rehabilitation framework that aims to provide individuals with the internal and external resources necessary to live a good life that is socially acceptable and meaningful to the individual and by doing so, reduce their risk of recidivism. A core assumption of the GLM is that people who have been convicted of crimes, like all other human beings, are goal-directed and predisposed to seek primary human goods, which are actions, experiences and states of being that are likely to increase the individual's sense of well-being and allow them

to lead fulfilling and meaningful lives. Secondary goods represent concrete means to secure primary goods (e.g., a certain type of work may be the means by which an individual achieves the primary good of excellence in work). The GLM proposes that if people who have been previously engaged in criminal behaviour are provided with the necessary conditions and resources (e.g., social supports, skills, and opportunities) for meeting their needs in more adaptive ways, they will be less likely to commit further crimes (Ward, Yates, & Willis, 2011). Although the GLM is primarily a model of rehabilitation, it provides a useful framework for understanding how positive and supportive experiences during re-entry may lead to reductions in criminal behaviour. The quality of individuals' experiences in certain areas after release from prison may promote or hinder their ability to achieve certain primary goods; that is, the basic human needs or goods necessary for living a fulfilling, meaningful, and offence-free life (Ward & Stewart, 2003). To elaborate, prosocial relationships may allow the primary good of relatedness to be achieved, and employment may fulfil the primary goods of knowledge and excellence in work and play (Ward et al., 2011). In the present study, men who had better experiences on parole may have had the conditions necessary to achieve their primary goods in socially acceptable ways; thus, improving their quality of life and reducing their risk of recidivism.

Assisting people to succeed after release from prison. The findings of this research demonstrated that men who had better experiences after release were significantly less likely to be reconvicted than men with poorer experiences. It follows that assisting people to successfully navigate the re-entry process could be a promising avenue for interventions aimed at reducing rates of recidivism. At present, providing people with psychological treatment during their prison sentence is the main strategy for reducing their risk of recidivism. The present research suggests that

correctional agencies should also target resources at improving the quality of individuals' experiences after their release from prison. Currently, the New Zealand Department of Corrections adopts a number of strategies aimed at improving the experiences of individuals after their release. For example, New Zealand's High Risk Special Treatment Unit (HRSTU) programmes include a component that focuses on helping men plan for life after release (e.g., discussing employment options, planning where they will live), and men who do not go through an HRSTU receive assistance with release planning from case managers within the department. Furthermore, probation officers work with men in the community after their release from prison to assist them in improving practical aspects of their life and gaining access to services. Past research (e.g., Dickson et al., 2013; Willis & Grace, 2009) and the present research provides support for the use of such strategies. The findings of this study also suggest that service providers working with men after their release from prison should pay particular attention to helping them obtain basic needs after release from prison, such as accommodation, financial support, prosocial supports and if necessary, substance abuse treatment. Initiatives aimed at supporting people throughout the re-entry process have the potential to help them to live more fulfilling lives while also protecting the community by reducing their risk of recidivism. In support of this assertion, a recent study found that a re-entry initiative that helped people who had spent time in prison prepare for re-entry and provided them with resources during re-entry (e.g., assistance with employment, substance abuse treatment, and financial aid) led to reduced rates of recidivism (see Veysey, Ostermann, & Lanterman, 2014).

Limitations and Future Research Directions

There are several limitations of this research that must be acknowledged. First, the sample used in this research only included men who had complete interview data

from the two-month follow up interviews. If we were not able to interview parolees or their probation officers at two months post-release they were excluded from this study. Some men were not interviewed because the research team were unable to locate them for the interview, others did not consent to participate in the interviews. In total, 119 men were excluded due to incomplete interview data and as a result, we do not have information about the quality of their experiences after release. It may be that the men who were not interviewed at two months post-release were those who had the worst experiences during the transition from prison to the community. Therefore, the overall quality of the sample's parole experiences that was evident in this study may not be accurate; the sample's average scores on the PEM may be more favourable than what would have been found if we included all eligible men in the sample. If the present results do in fact overestimate the quality of parolees' experiences after release, we may have found an even stronger relationship between parole experiences and recidivism if we had a more representative sample.

Second, the use of a sample comprised solely of men who were at a high risk of recidivism is a potential limitation of this research. It is important to conduct research into the re-entry experiences of these men, as they have the highest risk of reoffending and therefore require the most support during the re-entry process (Nadesu, 2007). However, the exclusive focus on men at high risk of reoffending in this research means that the results are not representative of the wider general population of people who have been convicted of crimes. Furthermore, men who are considered to be high-risk have characteristics that may make them more likely to have poor experiences after release, thus, reducing the variability in PEM scores within the sample. Future research should explore the relationship between the quality of experiences after release and recidivism in samples of individuals with criminal

convictions who have varying risk levels.

Third, there was a potential measurement issue with regard to the subjective wellbeing subscale of the PEM. Two items contained in the subjective wellbeing subscale asked men to rate how they were feeling on the day of the two-month interview and in the month prior to the interview. Therefore, for those who had been convicted of a breach or a criminal offence in the first two months after release, the two items measured their wellbeing *after* they had been reconvicted. To assess whether inclusion of the two problematic items affected the results, we repeated logistic regression analyses using the PEM to predict fast failure after we had removed the two items from the measure (see Results section). The results revealed that inclusion of the two items would have an impact on the results; thus, we decided to remove the two items from the measure and use a new reduced version of the PEM for the analyses predicting fast failure. Fortunately, analyses revealed that the internal reliability of the reduced version of the PEM was at an acceptable level. However, the removal of the two items meant that we could not make direct comparisons between the results of analyses predicting fail failure (i.e., recidivism in the first two months after release) and those predicting recidivism over the first year in the community.

Fourth, in the present research it was not possible for raters to be blind to recidivism outcomes when coding the interview data using the PEM. Although there was an almost perfect level of agreement between two independent raters, we cannot be certain that there were no biases evident when each rater was coding participants' responses.

Although this research demonstrated that experiences on parole predicted rates of recidivism after release, we did not examine *how* better experiences on parole led to reductions in recidivism. A key direction for future research would be to

investigate possible mechanisms underlying the association between individuals' experiences after release and re-entry success or failure. Such information would help to identify specific areas that should be targeted in order to enhance the re-entry process and reduce rates of recidivism. Drawing on the work of Göbbels and colleagues (2012; 2014), future research could explore whether subjective factors, such as commitment to desistance and the adoption of a non-offender identity, may be the mechanism through which better experiences on parole lead to reductions in recidivism. Additionally, future research should use a prospective, longitudinal study design to examine the interplay between external factors and internal or subjective factors in the prediction of re-entry success.

The present research did not directly examine factors that may have contributed to the quality of individuals' experiences in their first two months after release from prison. As such, this research does not provide any information regarding possible characteristics or factors that may have led to high or low quality experiences in the initial stages after release. For example, it could be that the men who fared better in the community were those who had better quality and more suitable plans for release. Future research should investigate variables, such as release plans, that may influence an individual's experiences after release from prison. Given the relationships between parole experiences and recidivism identified in the present study, such research may identify specific areas to target to improve individuals' parole experiences and reduce their likelihood of recidivism.

This research used a sample of men that was comprised of both HRSTU programme completers and a comparison group of men at a high risk of reoffending. Future research should examine whether experiences on parole differ between those who have completed intensive psychological treatment and those who have not. In

particular, research should examine how completion of an intensive treatment programme relates to individuals' experiences during re-entry to the community and subsequently, their rates of recidivism. Additionally, individuals' experiences on parole could be assessed as a possible mechanism by which rehabilitation programmes lead to reductions in recidivism after release. Recent research in New Zealand has explored possible mechanisms for conviction-free survival after release, including lower levels of risk, readiness for release, and length of parole (see Polaschek, Yesberg et al., 2015). The inclusion of parole experiences in such studies would make a considerable contribution to our understanding of how some individuals are able to achieve re-entry success after release to the community.

The present research used a narrow definition of re-entry success: an absence of reconviction after two months or 12 months in the community. Although successful re-entry is an important phase in the path to desistance (Göbbels et al., 2012), the absence of a new conviction within the first year of release does not necessarily mean that an individual is progressing towards long-term desistance. Maruna and Farrall (2004) proposed that there are two phases in the desistance process: *primary desistance*, defined as any lull or gap in criminal behaviour; and *secondary desistance*, defined as a long-term absence of offending where the ex-offender develops a new sense of identity as a 'changed person'. Future research should focus on the measurement of secondary desistance and explore how individuals' experiences after release from prison relate to long-term abstinence from crime.

Finally, this research explored the quality of individuals' experiences in the first two months after release from prison. Future research should also examine how individuals' experiences after release change over time (e.g., after six months or 12 months in the community), as certain factors may be more important for re-entry

success at different stages in the re-entry process. Perhaps external circumstances are more important in the early stages after release and other factors become more important for success after longer periods of time in the community (e.g., hope, identity, or agency; Göbbels et al., 2014; Maruna, 2001). Unfortunately, the present research did not examine these additional factors. Future research would benefit from the inclusion of additional factors related to individuals' subjective experiences after longer periods of time in the community following release from prison. By doing so, we may be able to gain a more in depth understanding of how men progress through the complex process of giving up crime.

Summary/Conclusions

The transition from prison to community is a challenging time for high-risk parolees, leading to high rates of reoffending and considerable costs to society. This thesis investigated how the quality of individuals' experiences after release from prison relates to the likelihood that they will achieve successful re-entry. Results demonstrated that men who had better experiences in the first two months after their release from prison were significantly more likely to survive their first two months and their first year in the community without reconviction. In most cases, experiences related to individuals' external circumstances were uniquely predictive of re-entry success, highlighting the importance of satisfying basic needs, such as accommodation and support, in the initial stages after release.

Overall, the findings of this research demonstrate that individuals who have better experiences after release from prison are significantly more likely to remain crime-free in their first year in the community. As such, researchers, practitioners, and members of the community should endeavour to improve the quality of individuals' experiences during the difficult transition from prison back into the community. By

ensuring people who have spent time in prison are equipped to tackle the challenges they will face during re-entry, we can help to improve their quality of life and reduce the likelihood that they will reoffend after release. Not only will this approach reduce the significant financial and social costs associated with crime, but it will also increase public safety and improve the wellbeing of individuals trying to achieve successful reintegration to the community.

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Appendices

Appendix A Parole Experiences Measure

External Circumstances Subscale

1. Accommodation
2. Personal Support
3. Antisocial Associates
4. Finances
5. Alcohol Use
6. Drug Use

Subjective Wellbeing Subscale

1. Physical Health
2. Mental Health
3. Positive Emotions
4. Feeling Today
5. Feeling Over Last Month
6. Negative Emotions

Appendix B Information Sheet and Consent Form for Parole Project Data Collection



Prisoner Parole Study Information sheet for men taking part in the study

You are invited to take part in research led by Dr Devon Polaschek, Associate Professor of Psychology, at Victoria University of Wellington. The overall research project is expected to take 3 to 4 years. As men come up for release, we will be interviewing them and then catching up with them again in the community to see how they are doing. The aim of the research is to help the Department of Corrections with their rehabilitation and reintegration programmes for high-risk men, so that more men succeed on parole.

If you agree to take part today, we will take you through a series of questions covering several different areas. We will ask you for your opinions about your time in prison, your goals and plans for your life once you are released, and what challenges you expect to face. We have quite a lot of questions. Depending on how much you have to say, this interview could take anything from one to three hours, but we can take breaks whenever you need them. We will be writing down your answers on paper, but not recording them in any other way. At the end of the interview, we have some brief questionnaires we also would like you to fill out. We can help you with those if you like, or you can do them on your own.

Dr Polaschek is a registered clinical psychologist, and because she is overseeing this project, she and the other members of the research team are required to follow strict rules about ethical practice in doing this research. This project also has the approval of the Victoria University of Wellington School of Psychology's Human Ethics Committee. The project is independent of the Department of Corrections. Any information you provide is confidential to the Victoria University research team. It will have no effect on how you are treated here in prison or on parole.

We will not talk to anyone outside of the research team about what you say. No information you provide will be given to anyone from the Department of Corrections. The only exception is if you say something to us that indicates that you or someone else is at immediate risk of serious harm. Then we will have to break confidentiality if there is someone we could tell who could help prevent that harm happening.

If you agree to take part, then after the interview we will also invite one of the prison staff to give his or her opinion of how you have been doing in the unit. We will not reveal any information you have given us today, when we talk to custody staff. It is just *their* opinions we are asking them about.

We do not think that participating in this will be harmful to you in any way. In fact we think you might find it interesting. However, if you agree to take part, and then you change your mind later, you can just tell us that, and you will not have to continue the interview. If you *do* change your mind, we will ask you if you are still OK about us keeping the information you have provided up to that point, to help us in revising the interview questions. If you request we do so, we will destroy any information you have provided.

Otherwise, if you agree to take part in the interview today, we will keep the notes we take on your answers in a locked cupboard in Dr Polaschek's lab at Victoria University. The notes will not have your name on them, only an identifying number. Your consent form, which does contain your name, will be kept in a separate locked cupboard.

When we are finished the interview and the questionnaires, we will ask you whether you would be comfortable having us contact you in the first two months after you get out, to take part in the next phase of the study. That part is still being developed at the moment.

Finally, if after taking part in the session today, you have any other questions or concerns about the project, you are welcome to contact Devon Polaschek or Rebecca Bell (the project administrator) using the contact details listed below.

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Prisoner Parole Study
Consent form for men taking part in the study

I have read/heard the information about this research and any questions I wanted to ask have been answered to my satisfaction.

I understand that the project is independent of the Department of Corrections and will not affect how I am treated in prison or on parole.

I agree to participate in this research. I understand that I can change my mind and stop taking part at any time. If I do change my mind, the information I have provided up until then can be destroyed or kept in the project; it's my choice.

| | |
|------------|-------------------|
| Name: | |
| Signature: | |
| Unit: | |
| Date: | _____/_____/_____ |

Appendix C Parole Experiences Measure Coding Protocol

Accommodation

| | |
|--------|--|
| 1 = | Homeless, no fixed address, shelter |
| 2 = | Temporary accommodation such as unstructured supported accommodation (e.g. Prison Care Ministries, Salvation Army) or boarding house/hostel OR Temporary accommodation (less than 6 months) but Probation Officer (PO) rates less than 4 |
| 3 = | Residential rehabilitation programme (e.g. Odyssey) or structured supported accommodation (e.g. Pathways) OR Temporary accommodation (less than 6 months) and PO rates 4 or above OR Permanent accommodation (6 months or more) but PO rates less than 4 |
| 4 = | Permanent accommodation (i.e. no specific moving date or moving date is 6 months or more in the future) and PO rates 4 or above |

Personal support

| | |
|----|--|
| 1= | No personal support or relationship OR Support is solely from antisocial people (note: if it is unclear whether supports are antisocial then rate 1 if PO only says negative things about the person/things that indicate antisocial behaviour) |
| 2= | Personal support that is limited in range OR number (e.g. 1 person who provides a wide range of support or more than 1 person who provide only one type of support) and PO rates less than 4 |
| 3= | Personal support that is limited in range OR number (e.g. 1 person who provides a wide range of support or more than 1 person who provide only one type of support) but PO rates 4 or above OR Personal support not limited in range or number but PO rates below 4 |
| 4= | Personal support that is wide ranging from more than 1 person and PO rates 4 or above |

Community support

| | |
|----|--|
| 1= | No community support |
| 2= | Some limited community support i.e. 1 type of support from 1 organisation OR PO is only community support identified OR PO and other treatment related support (e.g. alcohol and drug counsellor) but PO rates below 4 |
| 3= | Community support that is wide ranging (i.e. more than 1 type of support from at least 1 organisation) but PO rates below 4 OR PO and other treatment related support (e.g. alcohol and drug counsellor) and PO rates above 4 |
| 4= | Community support that is wide ranging (i.e. more than 1 type of support from at least 1 organisation) and PO rates 4 or above |

Employment

| | |
|----|---|
| 1= | No employment and no study/training |
| 2= | Casual work or volunteer work OR Study (any kind) or work training OR Same employment conditions as those needed for a score of 4 except minus two of the criteria (e.g. temporary, part-time work that they enjoy) |
| 3= | Same employment conditions as those needed for a score of 4 except minus one of the criteria (e.g. permanent, part-time work that they enjoy) |
| 4= | Permanent, full-time employment that they enjoy (note: full-time = 30+ hours) |

Antisocial associates

| | |
|----|---|
| 1= | Parolee reports actively in gang or frequent contact with antisocial associates OR PO or parolee says that the parolee is not trying to avoid contact |
| 2= | Parolee reports some contact with antisocial associates and PO rates below 4 OR Parolee reports that they are having contact with antisocial associates more than once a week (excluding unavoidable contact e.g. living in supported accommodation) |
| 3= | Parolee reports some contact with antisocial associates either by choice or because it is unavoidable but PO rates 4 or above (note: if PO says parolee has told them of contact but parolee has said no contact in our interview then rate 2 or 3 depending on PO rating) OR Parolee reports no contact with antisocial associates but PO rates below 4 |
| 4= | No contact with antisocial associates reported by parolee and PO rates 4 or above |

Finances

| | |
|----|--|
| 1= | Not managing financially, no source of income or sole source of income is through illegal activity OR Some source of income but parolee reports that they are struggling to get by (note: look at both parolee and PO interviews to determine if they are struggling) |
| 2= | Enough income to live on but relying solely on benefit or family, or supplementing income through illegitimate source and PO rates less than 4 |
| 3= | Enough income to live on but relying solely on benefit or family, or supplementing income through illegitimate source and PO rates 4 or above OR Enough income to live on, not relying solely on benefit or family but PO rates less than 4 |
| 4= | Enough income to live on, legitimate source of income, not relying solely on benefit or family and PO rates 4 or above |

Alcohol

| | |
|----|---|
| 1= | Frequent alcohol use – 3 or more times a week, or 5 times in last fortnight |
| 2= | Some alcohol use – twice a week or 3 times in the last fortnight |
| 3= | Small amount of alcohol use – once a week or less |
| 4= | No alcohol use in last fortnight |

Drugs

| | |
|----|---|
| 1= | Frequent drug use – 3 or more times a week or 5 times in last fortnight OR Has used a Class A drug in the last fortnight (regardless of frequency) |
| 2= | Some drug use – twice a week or 3 times in the last fortnight |
| 3= | Small amount of drug use – once a week or less |
| 4= | No drug use in last fortnight |

Thoughts about Crime

| | |
|-----|---|
| 1 = | Frequent thoughts about crime and parolee rates below 4 OR Frequent thoughts about crime and parolee rates above 4 because of ambivalence about crime (e.g. “I acted on them”, “It’s who I am”) |
| 2 = | Occasional thoughts about crime and parolee rates less than 4 OR Frequent thoughts about crime but parolee rates 4 or above because they are managing the thoughts/are confident that they won’t act on thoughts |
| 3 = | Occasional thoughts about crime and parolee rates 4 or above |
| 4 = | No thoughts about crime |

Appendix D Logistic Regressions Predicting Fast Fail Status with Original PEM*D1. Logistic Regressions Predicting Likelihood of Fast Fail Status for Breach of Parole Conditions Using the Original PEM*

| Scale | <i>B</i> (SE) | Wald (<i>df</i> = 1) | Odds ratio | <i>p</i> | 95% CI |
|------------------------|---------------|--------------------------|---------------|---------------|--------------|
| Block 1 ^a | | | | | |
| RPFA-R | -.03(.07) | .13 | .97 | .720 | [.84, 1.13] |
| VRS Total | .06(.04) | 2.48 | 1.06 | .115 | [.99, 1.14] |
| Treatment status | -.81(.50) | 2.57 | .45 | .109 | [.17, 1.20] |
| Block 2 ^b | | | | | |
| RPFA-R | -.11(.08) | 1.81 | .89 | .179 | [.76, 1.05] |
| VRS Total | .08(.04) | 4.25 | 1.08 | .039* | [1.00, 1.17] |
| Treatment status | -.36(.54) | .44 | .70 | .507 | [.24, 2.02] |
| Total PEM | -1.48(.44) | 11.31 | .23 | .001** | [.10, .54] |
| Block 1 ^c | | | | | |
| RPFA-R | -.03(.07) | .13 | .97 | .720 | [.84, 1.13] |
| VRS Total | .06(.04) | 2.48 | 1.06 | .115 | [.99, 1.14] |
| Treatment status | -.81(.50) | 2.57 | .45 | .109 | [.17, 1.20] |
| Block 2 ^d | | | | | |
| RPFA-R | -.11(.09) | 1.74 | .89 | .187 | [.76, 1.06] |
| VRS Total | .08(.04) | 4.23 | 1.08 | .040* | [1.00, 1.17] |
| Treatment status | -.36(.55) | .44 | .70 | .509 | [.24, 2.04] |
| External circumstances | -.73(.42) | 3.03 | .48 | .082 | [.21, 1.10] |
| subscale | | | | | |
| Subjective wellbeing | -.75(.32) | 5.60 | .47 | .018* | [.26, .88] |
| subscale | | | | | |

Note. pseudo- R^2 = Cox & Snell – Nagelkerke. Fast fail status was coded dichotomously (0 = no, 1 = yes).

^apseudo- R^2 = .04–.08; Model χ^2 (3) = 7.95, p = .047

^bpseudo- R^2 = .11–.20; Model χ^2 (4) = 20.21, p < .001; Block χ^2 (1) = 12.26, p < .001

^cpseudo- R^2 = .04–.08; Model χ^2 (3) = 7.95, p = .047

^dpseudo- R^2 = .11–.20; Model χ^2 (5) = 20.21, p = .001; Block χ^2 (2) = 12.26, p = .002

* p < .05, ** p < .01, *** p < .001.

*D2. Logistic Regressions Predicting Likelihood of Fast Fail Status for Reconviction
(Excluding Breaches) Using the Original PEM*

| Scale | <i>B</i> (SE) | Wald (<i>df</i> = 1) | Odds ratio | <i>p</i> | 95% CI |
|------------------------------------|---------------|--------------------------|---------------|---------------|--------------|
| Block 1 ^a | | | | | |
| RPFA-R | .01(.07) | .01 | 1.01 | .942 | [.87, 1.16] |
| VRS Total | .06(.03) | 2.98 | 1.06 | .084 | [.99, 1.14] |
| Treatment status | -1.34(.51) | 7.07 | .26 | .008** | [.10, .70] |
| Block 2 ^b | | | | | |
| RPFA-R | -.08(.08) | 1.05 | .92 | .305 | [.79, 1.10] |
| VRS Total | .08(.04) | 5.15 | 1.09 | .023* | [1.01, 1.17] |
| Treatment status | -.95(.53) | 3.19 | .39 | .074 | [.14, 1.10] |
| Total PEM | -1.45(.42) | 11.76 | .24 | .001** | [.10, .54] |
| Block 1 ^c | | | | | |
| RPFA-R | .01(.07) | .01 | 1.01 | .942 | [.87, 1.16] |
| VRS Total | .06(.03) | 2.98 | 1.06 | .084 | [.99, 1.14] |
| Treatment status | -1.34(.51) | 7.07 | .26 | .008** | [.10, .70] |
| Block 2 ^d | | | | | |
| RPFA-R | -.11(.08) | 1.67 | .90 | .196 | [.76, 1.06] |
| VRS Total | .08(.04) | 4.66 | 1.09 | .031* | [1.01, 1.17] |
| Treatment status | -.87(.54) | 2.59 | .42 | .107 | [.15, 1.21] |
| External circumstances subscale | -1.27(.42) | 9.19 | .28 | .002** | [.13, .64] |
| Subjective wellbeing subscale | -.38(.31) | 1.57 | .68 | .210 | [.37, 1.24] |

Note. pseudo- R^2 = Cox & Snell – Nagelkerke. Fast fail status was coded dichotomously (0 = no, 1 = yes).

^apseudo- R^2 = .09–.16; Model χ^2 (3) = 17.62, p = .001

^bpseudo- R^2 = .16–.27; Model χ^2 (4) = 30.57, p < .001; Block χ^2 (1) = 12.96, p < .001

^cpseudo- R^2 = .09–.16; Model χ^2 (3) = 17.62, p = .001

^dpseudo- R^2 = .17–.29; Model χ^2 (5) = 32.99, p < .001; Block χ^2 (2) = 15.37, p < .001

* p < .05, ** p < .01, *** p < .001.

D3. Logistic Regressions Predicting Likelihood of Fast Fail Status for Reconviction Resulting in Reimprisonment Using the PEM

| Scale | <i>B</i> (SE) | Wald (<i>df</i> = 1) | Odds ratio | <i>p</i> | 95% CI |
|------------------------|---------------|--------------------------|---------------|----------------|--------------|
| Block 1 ^a | | | | | |
| RPFA-R | .03(.08) | .10 | 1.03 | .757 | [.88, 1.20] |
| VRS Total | .06(.04) | 2.06 | 1.06 | .151 | [.98, 1.14] |
| Treatment status | -1.87(.66) | 8.15 | .15 | .004** | [.04, .56] |
| Block 2 ^b | | | | | |
| RPFA-R | -.08(.09) | .79 | .92 | .375 | [.77, 1.11] |
| VRS Total | .09(.04) | 4.19 | 1.09 | .041* | [1.00, 1.18] |
| Treatment status | -1.43(.69) | 4.33 | .24 | .037* | [.06, .92] |
| Total PEM | -1.61(.47) | 11.80 | .20 | .001** | [.08, .50] |
| Block 1 ^c | | | | | |
| RPFA-R | .03(.08) | .10 | 1.03 | .757 | [.88, 1.20] |
| VRS Total | .06(.04) | 2.06 | 1.06 | .151 | [.98, 1.14] |
| Treatment status | -1.87(.66) | 8.15 | .15 | .004** | [.04, .56] |
| Block 2 ^d | | | | | |
| RPFA-R | -.14(.10) | 1.94 | .87 | .164 | [.71, 1.06] |
| VRS Total | .08(.04) | 3.65 | 1.09 | .056 | [1.00, 1.18] |
| Treatment status | -1.33(.71) | 3.53 | .27 | .164 | [.07, 1.06] |
| External circumstances | -1.82(.50) | 13.29 | .16 | .000*** | [.06, .43] |
| subscale | | | | | |
| Subjective wellbeing | -.20(.34) | .35 | .82 | .557 | [.42, 1.60] |
| subscale | | | | | |

Note. pseudo- R^2 = Cox & Snell – Nagelkerke. Fast fail status was coded dichotomously (0 = no, 1 = yes).

^apseudo- R^2 = .11–.20; Model χ^2 (3) = 19.95, p < .001

^bpseudo- R^2 = .17–.32; Model χ^2 (4) = 33.34, p < .001; Block χ^2 (1) = 13.38, p < .001

^cpseudo- R^2 = .11–.20; Model χ^2 (3) = 19.95, p < .001

^dpseudo- R^2 = .20–.38; Model χ^2 (5) = 39.67, p < .001; Block χ^2 (2) = 19.72, p < .001

* p < .05, ** p < .01, *** p < .001.