

**“You Can Get Prepared, But It’s Still Scary Walking Out The Door”:
Exploring the Role of Dynamic Re-entry Factors in Release Planning for High-Risk
Offenders**

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Te Whare Wānanga o te Ūpoko o te Ika a Māui

*This thesis is dedicated, with love, to
Milan and Mary Trifunovich*

“Some of the world’s greatest teachers are grandparents”

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Abstract

The task of preparing high-risk prisoners for the multitude of challenges they will face once released is vital to their chances of successful re-entry. Recent research in New Zealand has found that developing good quality plans for life after prison is associated with reduced rates of reoffending after release – but how? One suggestion is that release plans help to ameliorate risks in offenders’ release environments. However, research examining how these risk factors are affected by the quality of release plans is scarce. This thesis investigates whether release planning has an indirect relationship with recidivism through its influence on dynamic risk and protective factors in re-entry, as measured by a risk management tool used by Community Probation Services in New Zealand: the Dynamic Risk Assessment for Offender Re-entry (DRAOR; Serin, 2007). A coding protocol to assess the quality of release plans was developed and retrospectively applied to a sample of 303 high-risk male parolees. Outcomes of interest were “short-term recidivism” (within 100 days of release) and “longer-term recidivism” (within one year of release) across four different indices. Results indicated that parolees who did not reoffend within the first 100 days of release had significantly better quality release plans than those who did reoffend. Better quality release plans also predicted greater stability in acute risk factors, and greater improvements in overall DRAOR scores, within the first 100 days of release. Logistic mediation analyses confirmed that release planning had an indirect relationship with both short-term and longer-term recidivism through its influence on DRAOR total scores. Together, these findings suggest that release planning may facilitate successful re-entry by reducing the impact of acute triggers or destabilisers in the release environment, thus protecting against a potential relapse. Theoretical and practical implications of these findings are discussed, along with limitations of the study and suggested directions for future research.

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Introduction

Consider the case of a hypothetical prisoner named James, who is due to be released after serving a five year sentence for aggravated robbery. James is in his mid-20s and this is not his first time in prison – however, he assures you it will be his last. James tells you that when he is released, he will be returning to live with his mother and older brothers. Much of James’s wider family are gang-affiliated, and the household is well-known to local police. James also tells you that he has no job lined up for his release and he has not thought about how he will cope financially. James is excited to be returning home and is especially looking forward to seeing his girlfriend again; he has a conviction for domestic violence against her, but he tells you that his anger is no longer a problem. He believes he is only violent when he has been drinking, and he plans to only drink alcohol on special occasions after his release. How likely do you think James is to reoffend in the community? If he had a more robust plan for his release, do you think that his chances of staying out of prison would be higher? And, more importantly, why might that be?

In the wake of popular “get-tough-on-crime” initiatives, recent decades have witnessed unprecedented growth in prison populations, followed by a rapid increase in the numbers of offenders being released back into their communities. Yet many of them will not survive in the community for long. Faced with a multitude of practical, social, economic, and personal barriers upon leaving prison, coupled with the stigma of a criminal record, many offenders find themselves unprepared and ill-equipped for the daunting challenge of returning home (Solomon, Gouvis, & Waul, 2001; Visser & Travis, 2012). This lack of preparation has been shown to have serious consequences for both ex-prisoners and the communities to which they return: the risk of suicide, drug overdose, and homicide for ex-prisoners during the first two weeks of their release is more than 12

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times that of the general population (Binswanger et al., 2007). It is also well established that recidivism rates are at their peak during the early months of release, with the probability of arrest declining the longer the parolee survives in the community (Berg & Huebner, 2011; National Research Council, 2007). In New Zealand, research examining the recidivism rates of released prisoners indicate that the odds of a high-risk offender returning to prison is up to 60% within the first 100 days of release (Nadesu, 2007).

Often, the assumption is that prisoners who “fail” re-entry¹ are simply not committed to desistance; that they have not made enough effort or have no desire to turn their life around. However, re-entry proponents argue that what causes an individual to return to prison is not simply a result of person-based criminal propensity, but also an inability to secure access to fundamental needs after release (Polaschek, Yesberg, & Chauhan, 2015). Many prisoners struggle to find appropriate housing, income, and support, and a growing body of evidence suggests those who have difficulty adjusting post-release are more likely to reoffend (Garland, Wodahl, & Mayfield, 2011). Thus, in the interest of both community safety and the welfare of former prisoners, there is a critical need to support offenders’ transitions from prison back into mainstream society.

One approach to preparing prisoners for the challenges they will face in re-entry is release planning, whereby prisoners develop plans for their basic needs after release and are provided assistance to improve weak plans. Recent research in New Zealand has demonstrated that better quality release plans can reduce the likelihood of recidivism for two offender populations who are especially vulnerable to the difficulties of re-entry: child sex offenders (Willis & Grace, 2008, 2009) and high-risk violent offenders

¹ Re-entry success is commonly measured by the successful completion of parole (e.g., Bahr, Harris, Fisher, & Armstrong, 2010; Bucklen & Zajac, 2009). For the purposes of this thesis, re-entry success and failure is defined as the presence or absence of a recidivism event within the follow-up period.

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(Dickson & Polaschek, 2015; Dickson, Polaschek, & Casey, 2013). However, the mechanisms underlying the efficacy of release planning remain unclear. In other words, *how* do release plans aid the re-entry process and help to reduce recidivism risk? Do release plans help to stabilise offenders during the unpredictable re-entry transition, or do they perhaps remove or provide a buffer against risk factors for re-entry failure? The purpose of the current thesis is to explore these questions and examine the relationship between release planning and predictors of re-entry success or failure, and investigate whether these dynamic re-entry factors can explain the relationship between release planning and reoffending.

The following literature review provides an overview of what is currently known about prisoner re-entry and the role of release planning in reducing recidivism risk. This review begins with a brief summary of how re-entry is defined and conceptualised within the literature, followed by a discussion of key factors that hinder successful re-entry. Recent evidence from studies of release planning in New Zealand are presented; I also highlight critical knowledge gaps that lay the foundation for the current study. Finally, this review discusses the nature of dynamic risk and protective factors, with a particular emphasis on the re-entry context and predicting successful transitions back into the community. Drawing these domains together, I then present the rationale and research questions for the current study.

Life after Prison: Challenges to Successful Re-entry

Prison release represents an important turning point: will an ex-prisoner return to his former lifestyle and fall back into old habits and criminal behaviour, or will he view his release as an opportunity for change (Nelson, Deess, & Allen, 1999). The initial period of release from prison, known as “re-entry”, is a particularly stressful time for

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offenders, during which they must overcome a range of obstacles to re-join the community and secure access to necessities such as housing, social support, and an income (Mears & Cochran, 2014). According to Göbbels and colleagues' (2012) Integrative Theory of Desistance from Sex Offending (ITDSO), one of the most important tasks during re-entry is sustaining motivation and effort to abstain from criminal activity. Commitment to change may be hindered by the presence of barriers (e.g., criminal peers, lack of employment, unstable housing) or beneficially influenced by facilitators (e.g., positive social capital, careful planning, high expectations). Generally, a smooth transition process is theorised to promote desistance, whereas those experiencing problematic re-entry are more likely to experience a relapse (Göbbels et al., 2012).

The barriers faced by returning offenders are widely acknowledged in re-entry literature (Davis, Bahr, & Ward, 2013; Garland et al., 2011; Graffam, Shinkfield, Lavelle, & McPherson, 2004; Griffiths, Dandurand, & Murdoch, 2007; Visser & Travis, 2012). Some of these challenges are a result of the individual's past experiences and vulnerabilities, while others are more directly associated with the 'collateral consequences' of being incarcerated, including stigma and unmet survival needs (Abrams & Snyder, 2010; Borzycki, 2005; Thompson, 2003). These challenges can make re-entry an especially unstable and unpredictable time for former prisoners. The precise mechanisms linking re-entry barriers and recidivism are complex and rarely specified in the literature; however, there is a broad consensus that the accumulation of barriers and destabilising lifestyle factors creates significant stress and criminogenic strains that may trigger a relapse into criminal activity (Haggård-Grann & Gumpert, 2005; Listwan, Sullivan, Agnew, Cullen, & Colvin, 2013; Taxman & Pattavina, 2013; Western, Braga, Davis, and Sirois, 2015; Zamble & Quinsey, 1997).

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A comprehensive review of the literature to date has identified four domains that are critical to successful community reentry: (a) accommodation and neighbourhood factors, (b) employment, (c) social networks and social support, and (d) personal conditions (Graffam, et al, 2004; Hammett, Roberts, & Kennedy, 2001; Seiter & Kadela, 2003; Taxman, Young, & Byrne, 2002; Visher, La Vigne, & Travis, 2004). The remainder of this section summarises the literature relating to each of these challenges.

Accommodation. Accommodation is considered to be, “the lynchpin that holds the reintegration process together” (Bradley, Oliver, Richardson, & Slayter, 2001, p. 1). Offenders who experience difficulties finding accommodation face a more complicated reentry process, and are at significantly increased risk of recidivism (Hammett et al., 2001; Metraux & Culhane, 2004; Morenoff & Harding, 2011; Roman & Travis, 2004). More than just a place to sleep, having a home provides offenders with a stable base to seek employment, comply with community supervision, and focus on treatment needs (Lutze, Rosky, & Hamilton, 2014). Yet obtaining suitable accommodation is complicated by a range of factors, including availability and affordability, eligibility restrictions, and long waits for public housing (Graffam et al., 2004). Many residential providers are unwilling to accept tenancy applicants with criminal histories or substance abuse problems, and affordable public housing options are generally limited to unsuitable neighbourhoods, characterised by high rates of poverty, unemployment, crime, and drug use (Clark, 2007; Griffiths et al., 2007). Most inmates are released with very little money and therefore cannot afford housing rent and furnishings on their own. Up to 80% of prisoners will instead reside with family members immediately after release (Pogrebin, West-Smith, Walker, & Unnithan, 2014; Visher et al., 2004); however, this is not always a viable option due to strained relationships, parole restrictions (such as being ‘banished’ from their hometown, or not permitted to reside near previous victims), criminal histories

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of family members, and practical or economic limitations. Even family members with the best intentions may simply not be in a position to provide long-term support. As a consequence of these barriers, former inmates frequently struggle to secure housing and many end up living in unstable temporary accommodation, or homeless (Roman & Travis, 2004; Baldry, McDonnell, Maplestone, & Peeters, 2002).

Employment. Finding a job after release is one of the most highly-valued goals for newly released prisoners. Despite evidence that criminal behaviour is responsive to changes in employment status (e.g., Uggen, 2000) and job attachment (e.g., Simons, Stewart, Gordon, Conger, & Elder, 2002), studies of life after prison have found that unemployment and financial struggles are the norm (Nally, Lockwood, Ho, & Knutson, 2014; Shinkfield & Graffam, 2009; Zamble & Quinsey, 1997). Two-thirds of recidivist offenders are unemployed at the time of their arrest (Borzycki, 2005) and those who are unemployed after release from prison are reincarcerated at twice the rate as those who had secured post-release employment (Stephen, Harker, Guild, Paul, & James, 2005). The reentry literature summarises a range of direct and indirect barriers confronting offenders trying to enter the workforce, including employers' negative attitudes to crime, legal restrictions against certain professions, lack of job contacts (due to segregated and antisocial networks), poor work experience and employment history, lack of formal qualifications, limited financial resources, and personal difficulties such as low self-esteem, poor motivation, and lack of basic skills (Graffam et al., 2004; Harris & Keller, 2005; Webster, Hedderman, Turnbull, & May, 2001). Increases in sentence lengths over the past decade has exacerbated these difficulties because offenders spend more time removed from potential contacts and work

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opportunities, while their job skills and work habits are likely to deteriorate (Solmon, Johnson, Travis, & McBride, 2004). When employment *is* found, it is typically with low-skilled and low-paid jobs, leaving many offenders struggling financially, and consequently feeling uninspired and unmotivated to change (Borzycki, 2005). In turn, offenders may resort to illegitimate means of making money because it is more lucrative, provides them with a sense of mastery (i.e. they are able to use specialised street skills), or because they feel it is their only option.

Social Support. A large body of empirical research confirms that positive social bonds can ease the stresses of reentry, providing essential practical, financial, and emotional support, while associating with antisocial peers is consistently linked to reoffending (Andrews, Bonta, & Wormith, 2006; Horney, Osgood, & Marshall, 1995; Laub & Sampson, 2001; Travis & Visser, 2005; Visser & Travis, 2003). As noted above, family resources can help with securing accommodation and employment, and ex-prisoners with multiple close relationships within their family network tend to do better on parole (Bahr et al., 2005; Hepburn & Griffin, 2004; Shapiro & Schwartz, 2001; Sullivan, Mino, Nelson, & Pope, 2002). Prisoners who are able to maintain prosocial ties during their incarceration appear better adjusted (Bales & Mears, 2008; Jiang & Winfree, 2006); however, the prison experience frequently destabilises families, isolates offenders, and reduces social capital. There are numerous additional barriers to social support at the point of re-entry, including stigmatization and discrimination, loss of social standing, fear and hostility among the community, limited family contact, and isolation (Graffam et al., 2004; Visser, Baer, & Naser, 2006). Family relationships can become strained and family members may be unwilling to resolve this conflict, or withdraw their support altogether (Petersilia, 2003). Moreover, Stephens and colleagues (2005) reported that at least one-third of offenders in their sample had another family member incarcerated, while many

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others had family members involved in antisocial activities and substance abuse, thus limiting the availability of prosocial support people in their lives.

Importantly, offenders with predominantly criminogenic social networks can experience significant loneliness and boredom as they attempt to avoid former antisocial peers (Davis et al., 2013). Research further suggests that although ex-prisoners desire social support from friends and family, their own feelings of stigma and isolation may prevent them receiving the benefits (Clear, Rose, & Ryder, 2001).

Personal Conditions. Navigating the above challenges is a daunting task for anyone, yet former prisoners are further disadvantaged by multiple personal vulnerabilities. Physical and mental health problems are extremely prevalent among prison populations, including disproportionately high rates of substance abuse, mental illness, learning disabilities, and chronic diseases (Hammett et al., 2001; Mallik-Kane & Visher, 2008). Poor educational attainment and low levels of self-esteem and social competencies is also common (Graffam et al., 2004; Petersilia, 2003). High-risk offenders in particular tend to also have anger management issues and poor coping strategies (Rakis, 2005), making them especially vulnerable to the stresses and temptations of their release environments. It is not uncommon for some to quickly relapse into drug use or fall back into “familiar, yet dysfunctional, coping patterns” under the strains of re-entry (Gunnison & Helfgott, 2013, p. 53). Due to such high levels of need, only a small proportion of prisoners will receive in-prison treatment and community-based services are generally under-resourced and over-burdened (Seiter & Kadela, 2003). Barriers to seeking help may include a lack of knowledge about what services are available in their community or how to access assistance; they may be ineligible for funding, lack access to transportation, or there may not be appropriate healthcare or rehabilitative services in

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their neighbourhood (Hammett et al., 2001; Travis, Solomon, & Waul, 2001).

Maintaining engagement and treatment adherence is also more challenging once offenders have been released, and some offenders may deliberately reoffend so they can return to prison to get treatment (Hammett et al., 2001).

Summary. Like all people, ex-prisoners need more than rules and punishments to live a law-abiding lifestyle – they require safe and affordable housing, basic necessities such as food, clothing, and healthcare, opportunities for education and employment, and supportive and prosocial relationships within their communities (Dougherty, 2013). The reality, however, is that many prisoners do not return to nourishing release environments. The stigma of a prison record, limited social capital, and lack of educational and employment achievement among released prisoners can create substantial barriers to attaining fundamental needs after release (Berg & Huebner, 2011; Makarios, Steiner, & Travis, 2010; Rosenfield, Petersilia, & Visser, 2008). These re-entry conditions often make it difficult for offenders to focus on desistance and avoid recidivism, due to the multiple stressors, triggers, and temptations around them. Preparing prisoners for these challenges prior to their release is one way to facilitate a smoother transition back into the community (Göbbels, Willis, & Ward, 2014).

Planning for Release

Growing recognition of re-entry challenges over the past decade has led to the development of a number of diverse approaches to preparing prisoners for release, and supporting them as they transition back into the community. Ideally, reentry programming should (a) prepare offenders for their return to their community; (b) establish the necessary links with community agencies and individuals that can address known risk and protective factors; and (c) ensure the delivery of post-release services, support, and supervision (Altschuler & Brash, 2004). One such approach is release

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planning, which involves examining an offender's plans for life after release and, where needed, providing assistance in transitional areas such as housing, employment, and family relationships (Seiter & Kadela, 2003).

A number of influential re-entry scholars have advocated the importance of comprehensive release planning to address reintegrative needs (e.g. Graffam et al., 2004; Petersilia, 2003; Seiter & Kadela, 2003; Taxman, 2004). In the United States, nearly every correctional system now provides some form of release planning (La Vigne, Davies, Palmer, & Halberstadt, 2008). Outcome evaluations of these efforts are limited² and have yielded inconsistent findings (e.g., Braga, Piehl, & Hureau, 2009; Lattimore & Visser, 2009; Severson, Bruns, Veeh, & Lee, 2011; Wilson & Davis, 2006). However, the emerging trend suggests that while re-entry initiatives may not have a visible impact on recidivism in the short-term, they may facilitate longer-term desistance. For example, analyses of more than 2000 high-risk offenders across sixteen U.S. states concluded that participation in local re-entry initiatives was associated with modest improvements in a range of post-release outcomes including employment and self-reported substance use (Lattimore et al., 2012; Lattimore & Visser, 2009). While there was no discernible difference in recidivism outcomes at 21-months post-release, by 56-months follow up those who had participated in re-entry planning exhibited significantly lower rates of rearrest and reincarceration (Lattimore et al., 2012).

The New Zealand approach. A key component of these international programmes is preparing offenders for the challenges they will face in the

² Examples of particularly well-executed programmes have included the Boston Reentry Initiative (Braga, Piehl, & Hureau, 2009), the New Jersey Serious and Violent Offender Reentry Initiative (Veysey, Ostermann, Lanterman, 2014), and the North Dakota Serious and Violent Offender Reentry Initiative (Bouffard & Bergeron, 2006).

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community. In New Zealand, a similar approach is taken by assisting prisoners to develop plans for their release. For the majority of prisoners this process is relatively informal, typically with the assistance of a case manager who identifies the offender's rehabilitation and reintegration needs (e.g. behaviours and attitudes, housing, education, financial issues, offending needs), and works with the offender to develop a comprehensive plan. If nothing in the individual's situation has changed by the time of release, they are arguably no less likely to offend than they were prior to their incarceration. A good plan should cover housing, employment, prosocial support, and strategies for managing risky situations.

Ideally, the case manager will oversee the plan throughout the offender's sentence and assist with resolving barriers to rehabilitation and facilitating external services to meet their reentry needs (Department of Corrections, 2013). In some instances, additional support may be offered via community volunteers, who visit prisoners in the months prior to their release and help develop plans and connect prisoners with community support agencies. Prisoners attending Special Treatment Unit rehabilitation programmes (STURP) will also participate in a specific module relevant to release planning. Release preparation is integrated into programme tasks, with an emphasis on fostering agency and ownership of the plan (Polaschek et al., 2015). Release planning is a particular focus for prisoners who are anticipating an early release on parole. Parole boards will inevitably ask prisoners about their intentions for life after release, including where they will live and what job opportunities are available to them (Seiter & Kadela, 2003), creating an incentive for men hoping for early release to ensure they have solid plans. For those being released at the end of their sentence, there may be no incentive to improve one's plan, and there is usually no way to delay a prisoner's release due to a weak or insufficient plan.

Empirical evidence. Recent research conducted by Gwenda Willis and colleagues (Willis & Grace, 2008; 2009; Scoones, Willis & Grace, 2012; Willis & Johnston, 2012) sought to address the paucity of research regarding prisoner's plans for release, and is the first of its kind to systematically examine release planning and test its empirical relationship with recidivism. To begin, Willis and Grace (2008) developed a coding protocol to evaluate the quality and comprehensiveness of release plans for child sex offenders, based on factors commonly identified as barriers to successful reintegration: (a) accommodation, (b) social support, (c) idiosyncratic risk factors, (d) employment, (e) personally meaningful prosocial goals, and (f) offenders' motivation to follow through with release plans. They used the protocol to retrospectively code a matched sample of recidivists ($N = 39$) and non-recidivists ($N = 42$) who had graduated from the Kia Marama Special Treatment Unit, a prison-based treatment programme for men convicted of sexual offences against children. Their findings suggested that men who reoffended after release from prison had significantly poorer quality release plans in terms of overall scores, and for items of accommodation, employment, and prosocial goals. However, recidivists also had significantly lower intelligence and greater overall deviance scores, potentially confounding the differences found in release planning.

To confirm their findings, a subsequent validation study (Willis & Grace, 2009) was conducted using a similar group of graduates from the Te Piriti Special Treatment Unit for child sex-offenders ($N = 30$ recidivist, $N = 30$ non-recidivist; matched for static risk level and time since release). Consistent with their earlier results, Willis and Grace found that the overall quality of release planning, as well as planning for employment and social support, was poorer for recidivists compared to non-recidivists. In addition, the between-group differences identified previously did not reappear in this validation study,

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suggesting that release planning was not confounded by differences in static risk, dynamic risk, or IQ.

The researchers further hypothesised that if poor release planning was a *causal* factor for recidivism, it should be associated with time to reoffending. They pooled the data of their previous two studies to conduct additional analyses. Survival analyses results indeed confirmed that poorer release plans were associated with shorter time to re-offence, and also demonstrated that items for accommodation, employment, and social support provided the best predictive model for recidivism - with an accuracy that rivalled that of static risk models ($AUC = .71$; Willis & Grace, 2009). While these findings offer promising evidence for linking better quality release plans to lower rates of reoffending upon release, the average time to reoffending across these studies was more than 10 years. This not only raises questions of whether plans can be conceptually linked to experiences a decade later, but also whether such findings are generalizable to high-risk offenders who are known to reoffend within weeks or even days of release.

To answer these questions, Dickson, Polaschek, and Casey (2013) replicated the Willis and Grace studies using a sample of high-risk violent offenders from the Te Whare Manaakitanga Special Treatment Unit ($N = 49$). Making slight adjustments to the original coding protocol to tailor it to this new offender sample, Dickson and colleagues similarly found that men who were reimprisoned as a result of their recidivism ($N = 13$, 26.5%) had significantly poorer release plans overall compared to those who were not reimprisoned. However, release planning was not predictive of less serious reoffending (i.e. reconvictions that did not lead to reincarceration). Nonetheless, their findings support the notion that release planning is an effective means of reducing recidivism, and is important regardless of offender type (Dickson et al., 2013). Moreover, the temporal proximity of release to failure in this study, compared to the much longer lag-time in Willis and

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colleagues' research, suggests quite a direct relationship between release planning and recidivism. Closer examination of release plans made by the men further indicated that plans appeared to fall into one of two categories – avoidance-oriented (e.g. avoiding risks and antisocial peers in the release environment) and approach-oriented (e.g., gaining employment). Interestingly, men with avoidance plans were less likely to be reconvicted within six months of release, tentatively suggesting that planning to avoid risk may be more important than planning for positive aspects of life after release, at least in the early months (Dickson & Polaschek, 2014).

Underlying mechanisms. Less is known, however, about *how* release plans actually affect rates of recidivism or what mechanisms underlie their predictive efficacy. Initial findings from the studies mentioned above prompted the pivotal question of whether release planning was simply another means of measuring dynamic risk factors, such that plans may be acting as a proxy for the offender's existing level of risk. To see if this was the case, the relative contributions of both static and dynamic risk factors were examined in predictions of child sex offender recidivism (Scoones et al., 2012) and reimprisonment of high-risk violent offenders (Dickson et al., 2013). Findings from both studies indicated that release planning items contributed significant incremental predictive validity beyond that of the static and dynamic risk measures. In other words, rather than it simply being a case of higher-risk prisoners creating poorer plans for release, release plans appear to be tapping into variance that is distinct from existing measures of risk.

The most comprehensive study of release plan functioning to date is S. R. Dickson's (2014) doctoral research on the relative contributions of, and interactions between, internal and external pathways. The "internal" pathway examined the hypothesis that good quality release plans create higher levels of self-efficacy, motivation to desist,

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and prosocial identity, which in turn promotes desistance from crime. The “external” pathway considered the possibility that release planning translates into good quality experiences in the community, such as improved housing and employment opportunities, making them less likely to reoffend. Based on a sample of 104 male offenders ($N = 46$ had completed high-intensity rehabilitative treatment; $N = 58$ comparison group), Dickson created measures to assess psychological processes (e.g. autonomy, competence, intrinsic motivation) and release plan quality; parole experiences were coded using ratings made by probation officers.

While internal motivation to desist was found to play a marginal role, Dickson’s overall results supported the “external” pathway hypothesis, indicating that better quality release plans reduced reoffending by improving offenders’ experiences in the community after release. Better community experiences also had a positive impact on motivation to desist. These findings are consistent with Maslow’s (1943) hierarchy of human needs, suggesting that physiological and safety needs (e.g., external experiences of accommodation, employment, social support) are a priority for survival during the initial months of re-entry. Furthermore, while release planning generally correlates with actual re-entry experiences (Willis & Johnston, 2012), Dickson found that release plans did not translate into parole experiences in direct or predictable ways. For example, a negative correlation was found between plans for release environment and experiences of accommodation, suggesting that planning to reduce risky environments may result in living with less stable accommodation (Dickson, 2014). The complexity of this relationship indicates release plans are affecting reoffending through multiple indirect routes.

One suggestion put forward by Willis and Grace (2008, 2009) was that the challenges faced during re-entry may increase the likelihood of *acute dynamic risk factors*

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arising, which would increase the likelihood of reoffending. Acute dynamic risks reflect highly transient environmental and interpersonal stressors, conditions, or events, which are related to imminent recidivism (e.g., negative mood, intoxication; Hanson, Harris, Scott, & Helmus, 2007). They theorised that good release planning may facilitate returns into communities or release environments in which the activation and impact of these acute risks would be minimised (Willis & Grace, 2008). This hypothesis recognises that risk of violence is not only related to the individual offender, but also the environment in which he lives and interacts with.

Risk in the Release Environment

Individual offending is often explained in terms of person-based factors that influence an individual's predisposition for criminal behaviour, with little consideration given to the social situation that an offender is released into (Kubrin & Stewart, 2006; Morgan, Kroner, Mills, Serna, & McDonald, 2013). There is no denying that factors such as antisocial personality, antisocial attitudes, and antisocial beliefs, play a critical role in determining the likelihood of reoffending; indeed, a key principle in effective correctional programming states these criminogenic needs should be targeted directly to reduce recidivism (Andrews, Bonta, & Wormith, 2011; Andrews & Bonta, 2010). Yet despite being empirically well-established empirically, this "individual approach" has been critiqued for overlooking the reality that individual risks and criminal behaviours are contextually determined (Wright, Pratt, Lowenkamp, & Latessa, 2012). For instance, some social contexts may allow for conventional ties to be re-established during re-entry (e.g., access to stable and affordable housing, contact with prosocial others, suitable employment opportunities) whereas other release contexts – particularly those with multiple barriers – are marked by the relative absence of these needs, thus reducing opportunities for establishing stability and stakes in conformity (Visser & Travis, 2003).

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An ecological approach to recidivism may seem incompatible with current models that prioritise individual characteristics; however, from an aetiological perspective the two are not entirely dissimilar (Beech & Ward, 2004; Turner & Petersilia, 2007).

Growing attention to the nature of criminal risk over recent decades has recognised that even the most purportedly high-risk offenders are not committing offences all of the time. Rather, an individual's risk of violence "ebbs and flows" over time and across contexts, dependent on biological, social, and psychological forces (Douglas & Skeem, 2005; Yang, Wong, & Coid, 2010). A small body of research has begun documenting the role of environmental risk factors; however, less is known about the processes through which these contextual risks are translated into individual behaviours. Wang and colleagues (2014) suggest that social context may play a moderating role in individual-level risk factors by affecting the immediate opportunities and pressures for crime, thereby triggering or exacerbating an individual's criminal propensity. Beech and Ward's (2004) aetiology of risk proposes that triggering events in the environment push underlying vulnerabilities or psychological dispositions for crime in acute affective states (e.g., anger, emotional collapse), thus increasing an individual's recidivism risk by reducing self-regulation and increasing the likelihood of risky and self-defeating behaviours (Harris, Rice, Quinsey, & Cormier, 2015).

Similarly, Zamble and Quinsey's (1997) coping-relapse model of the recidivism process suggests that reoffending is the end result of a complex chain of external events and internal states. This framework meshes seamlessly with current literature on dynamic risk assessment. Specifically, recidivism is theorised to be triggered by one or more *acute dynamic factors*, which are typically based in the environment (e.g., job loss, relationship conflict), but may then stimulate a series of emotionally-based or *acute dynamic responses* (e.g., anger, frustration, depression). This in turn results in attempts to deal

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with the situation, yet because offenders often lack appropriate coping and problem-solving skills, this is often unsuccessful. Individuals who appraise the problematic situation as beyond their ability to cope will experience elevated stress, and a relapse into recidivism can occur (Jones et al., 2010; Zamble & Quinsey, 1997). The idea that there is a *process* of recidivism implies dynamic factors that can change during the post-release or re-entry period, and that changes in these factors will in turn affect the risk of recidivism (Harris et al., 2015).

The dynamic nature of risk. Criminal risk assessment has evolved greatly over recent decades, advancing from unreliable and unstructured professional judgments, to the development of empirically-validated risk assessment instruments. Earlier versions of these tools were comprised of static (i.e. historical) risk factors, such as age at first offence or number of previous convictions, to determine inter-individual differences in risk. Yet because of their fixed nature, these tools were unable to assess change over time to reflect an individual's *current* functioning, and provided little guidance for ongoing intervention and risk management efforts (Wong & Gordon, 2006). Thus, the task of improving the accuracy and utility of predictions turned towards identifying characteristics of offenders and their circumstances that were subject to change (Douglas & Skeem, 2005). The subsequent generation of risk assessment instruments overcame these limitations by incorporating dynamic risk factors – those which are also empirically related to recidivism, but are amenable to change.

The recognition of risk as dynamic, fluctuating, or changeable, has played a key role in the shift from risk *prediction* to risk *management* (Douglas & Skeem, 2005). Broadly, risk prediction is associated with a one-time assessment, typically for the purposes of identifying who is at risk of reoffending and making decisions regarding sentencing and probation conditions. On the other hand, risk management is generally

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concerned with reducing risk and intervening to prevent recidivism (Douglas & Skeem, 2005; Lussier & Gress, 2014). Such information is essential for effective risk management, and the ability to anticipate and prevent failures during re-entry (Brown, 2002). Dynamic risk factors can inform probation staff how to stabilise or decrease an individual's risk of reoffending upon returning to the community. These factors can be further subdivided into *stable* and *acute* variables depending on their temporal stability. Stable dynamic predictors, which change gradually over months or years, are regarded as suitable for making longer-term predictions, while acute risk factors fluctuate rapidly within minutes or hours, and are better suited to very short-term predictions of recidivism (Glover, Nicholson, Hemmati, Bernfeld, & Quinsey, 2002; Harris et al., 2015). Importantly, shifts in acute dynamic risk factors can signal impending failure, and should be closely monitored by probation staff as a warning sign for recidivism (Jones et al., 2010)

In their seminal paper, Douglas and Skeem (2005) emphasised the importance of ongoing reassessment of dynamic risk factors, rather than assuming that single time-point estimates would remain valid indefinitely. Yet over the past decade, a limited number of studies have actually examined whether purportedly dynamic variables do change over time and – more importantly – whether changes in dynamic risk factors are associated with changes in subsequent recidivism risk. Researchers have advocated the consideration of at least three waves of assessment to capture fluctuations in dynamic risk (Douglas & Skeem, 2005; Hanson, Harris, Scott, & Helmus, 2007; Quinsey, Jones, Book, & Barr, 2006). However, research teams tend to vary in their respective conceptualizations of dynamic change (Jones et al., 2010). Some studies have demonstrated fluctuations over time in dynamic risk factors (e.g., Belfrage & Douglas, 2002; Viljoen et al., 2012); others have examined changes between two or more time-points (e.g., Hanson & Harris, 2000;

Hildebrand & de Ruiter, 2012; Hudson, Wales, Bakker, & Ward, 2002; Jones et al., 2009) or used change scores to predict recidivism outcomes (e.g., Vose, Lowenkamp, Smith, & Cullen, 2009). In a recent critique of the extant literature, Serin and colleagues (2013) concluded there was clear support for intra-individual change in domains of antisocial attitudes, antisocial beliefs and personality patterns, social support, and substance misuse, as predictors of recidivism. However, subsequent studies have found this is not always the case (e.g., Klepfisz, O'Brien, & Daffern, 2014; Whittington et al., 2014)

Predicting re-entry success or failure. A number of internal and external risk factors have been identified that can predict whether or not an offender will successfully re-join the community (LeBel, Burnett, Maruna, & Bushway, 2008). The most commonly mentioned contextual factors implicated in re-entry failure have included unstable living conditions, boredom and negative affect, socialisation with antisocial peers, economic stressors, intoxication, relationship conflict, and access to victims (e.g., Cantor & Ioannou, 2004; Constantinou, Freestone, Marsh, Fenton, & Coid, 2015; Haggard-Grann & Gumpert 2005; Hanson & Harris, 2000; Hanson & Morton-Bourgon, 2004).

In Zamble and Quinsey's (1997) retrospective study on the antecedents to parole failure, it was determined that those who reoffended shortly after release faced a greater number of challenges in the community (e.g., criminal socialisation, financial problems, employment problems, interpersonal conflicts, loneliness, depression, substance abuse) and appraised these problems as more serious, compared to non-recidivists. Crucially, while both groups exhibited poor coping skills, recidivists were also significantly less able than non-recidivists to cope with life in the community. A decade later, Brown, St Amand, and Zamble (2009) conducted a prospective, three-wave study ($N = 136$) examining several measures of static, stable dynamic, and acute dynamic risk factors during re-entry (assessed at pre-release, 1 month, and 3 month post-release), and found

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strikingly similar results. Employment difficulties, negative affect, perceived problem level, substance abuse, and poor social support were found to be strong predictors of parole revocation, while perceived global stress and poor coping were identified as moderate predictors of revocation.

However, what about those who face challenging re-entry experiences and manage to not reoffend? Qualitative research across the first three months of release suggests that a range of factors are implicated in facilitating successful re-entry transitions, including avoiding socialisation with pro-criminal peers, acquiring employment, having close relationships with children and family members, and having confidence in one's ability to abstain from drugs (Bahr, Armstrong, Gibbs, Harris, & Fisher, 2005). Additional studies have identified that factors such as prosocial attitudes, decision-making skills, realistic expectations, working full-time hours, positive family support, and making a conscious effort to stay away from antisocial friends, are all extremely important to success on parole (Bahr et al., 2010; Bucklen & Zajac, 2009; MacKenzie, 2006).

More recently, tools have been developed specifically for use during re-entry, and to capture individual strengths and acute fluctuations in risk. The Dynamic Risk Assessment for Offender Re-entry (DRAOR) was developed by Serin and colleagues (Serin, 2007; Serin, Mailloux, & Wilson, 2012) to assist probation officers with monitoring offenders' circumstances in the community, so they may respond with appropriate supervision strategies. The tool combines stable and acute dynamic risk factors, along with protective factors. Recent research with the DRAOR has found that improvements in environmentally-based acute scores (e.g., interpersonal relationships, living situation) and total scores (i.e. overall risk corrected for protective factors) over the first 100 days of release predicted reduced rates of violent reconvictions at one year post-

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release (Yesberg, 2015). Moreover, in a large sample of parolees in New Zealand ($N = 3498$), Hanby (2013) demonstrated men who recidivated within the first year of release exhibited a significant spike in acute dynamic risk factors in the second month prior to reoffending, and sharp decreases in protective factors in the month prior to reoffending.

Together, these studies illustrate that acute contextual risks and dynamic variables are particularly relevant for the task of predicting who will (or will not) reoffend after release from prison. Many of these factors are implicated in release environments characterised by re-entry barriers and stressful social contexts. Importantly, more recent findings also suggest that consideration of protective factors can offer a more comprehensive understanding of an individual's likelihood of surviving re-entry (Serin & Lloyd, 2009).

Protective factors. There has been a growing interest in attending to protective factors, particularly in light of research that suggests a focus on offender's strengths and resources (in addition to their risks) can yield more accurate predictions of recidivism risk (e.g., de Vries Robbe, de Voegek, Douglas & Nijman, 2015; de Ruiter & Nicholls, 2011; Serin et al., 2010). Moreover, Rogers (2000) asserts that an exclusive focus on risk factors promotes a biased and inaccurate appraisal of human behaviour. Consideration of offenders' strengths and positive attributes may also provide therapeutic benefits such as strengthening the relationship between offenders and their probation officers, and helping to establish treatment goals (de Vries Robbe, de Vogel, & de Spa, 2011).

Protective factors have been variously conceptualised in the literature, and there is little agreement as to what these factors actually represent, nor the mechanisms underlying their positive effect on risk reduction (de Vries Robbe, 2014; Polaschek, 2015). While some scholars have defined protective factors as simply inverse of risk

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factors, others suggest they may be better understood as factors that buffer the effect of risk, or independent factors that promote resiliency (e.g., Farrington & Loeber, 2000; Lodewijks, de Ruiter, & Doreleikers, 2010). Broadly, protective factors can be understood as the characteristics and assets of an offender which may mitigate their likelihood of engaging in criminal behaviours (Serin et al., 2010). It is theorised that the more protective factors an individual possesses, the more resilient they will be to the risks they experience.

Introduction to the Current Study

Risk and protective factors are an important part of the discussion on offender re-entry, with risk factors being those variables that jeopardise successful re-entry, and protective factors being those that promote or support successful re-entry. Estimating an offender's likelihood of offending once released into the community is one of the most important tasks for correctional agency. It is also vital to be able to detect *changes* in an offender's level of risk, so that potential failures can be anticipated and prevented. By carefully monitoring risk and protective factors related to recidivism through risk management, it is possible to provide appropriate interventions before an offender spirals into a relapse (Hanson, 2009).

The overall aim of this thesis is to explore mechanisms underlying the relationship between release planning and recidivism rates. Based on the reintegration and risk assessment literature, it is hypothesised that release environments with greater barriers or difficulties are more likely to present dynamic risk factors that can trigger a relapse, therefore increasing recidivism risk (Lussier & Gress, 2014). Challenging re-entry circumstances are also more likely to destabilise offenders and threaten their commitment to change (Göbbels et al., 2012). Thus, I aim to investigate the influence of release plans

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on dynamic risk and protective factors in re-entry, and test whether these dynamic re-entry factors mediate the relationship between release planning and recidivism.

Specifically, my research questions are (1) whether men with better release plans show lower risk and higher protective factors at release, (2) can good release plans increase the stability of acute risk scores over the course of post-release supervision, (3) can good release plans lead to greater reductions over time in overall risk assessment scores, and (4) do dynamic risk and protective factor assessment scores mediate the relationship between release plan quality and recidivism?

Method

Background: The Parole Project

The current thesis takes its data from “The Parole Project”, a longitudinal research project conducted by the Criminal Justice Laboratory within Victoria University of Wellington’s School of Psychology. Launched in November 2010, the project has prospectively followed the personal experiences and recidivism outcomes of high-risk male offenders around New Zealand over the first 12 months following their release from prison. The project aims to improve understanding of the rehabilitation, re-entry, and reintegration of high-risk violent offenders. Ethical approval was granted by Victoria University of Wellington’s School of Psychology Human Ethics Committee (SoPHEC) in November 2010, and full informed consent was obtained from all participants prior to data collection.

The men recruited for the Parole Project were either (a) graduates of one of the high-risk Special Treatment Unit Rehabilitation Programmes³ (STURP; “*treatment completers*”), or (b) a comparison sample of equally high-risk men who had not completed a STURP (“*treatment as usual*”). Members of the comparison sample served similar sentence lengths as the STURP graduates but did not undergo specialist treatment, primarily due to unwillingness to participate or because their security level exceeded the acceptable limit for entry (minimum to low-medium). Men in the comparison sample who underwent treatment as usual included those who had participated in one-on-one psychological treatment (32% of the sample) and men who had completed lower intensity interventions: 25% had completed the Dependency Treatment Unit (for alcohol and drug

³ High intensity treatment programmes are provided for inmates who are at high risk of reoffending. These prison-based, therapeutic community environments include intensive reintegration and safety planning for release. Recruitment for the Parole Project targeted the four STURPS that cater to violent and adult sex offenders: Puna Tatari at Spring Hill Prison, Karaka at Waikeria Prison, Te Whare Manaakitanga at Rimuataka Prison, and Matapuna at Christchurch Men’s Prison

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related issues), 18% had completed a Medium Intensity Rehabilitation Programme, 15% had resided within a Māori Focus Unit, and 10% had participated in a Short Motivational Programme. Four men in this sample had completed a STURP on a previous sentence and ten men were STURP non-completers on their current sentence. The comparison group also included men who had not participated in any treatment programmes during their incarceration (23%). Additional selection criteria stipulated that all participants were aged over 19, serving a sentence of at least two years imprisonment, were due to be released within 10 weeks, and were at high risk of future reoffending. Participation in the Parole Project was voluntary and did not affect how participants were treated in prison or on parole.

Prisoners who consented to take part in the Parole Project were interviewed within six weeks of their release date by senior PhD students from Victoria University. Interviews were conducted in person (in prison) as close as possible to a prisoner's release date, and lasted 1.5 to 3 hours. Follow-up interviews were conducted via telephone at 2, 6, and 12 months post-release. Recidivism data, criminal histories, and demographic information were later extracted from the Department of Corrections Integrated Offender Management System (IOMS) database and the national convictions records database.

Participants

The sample for the present study consisted of 303 Parole Project participants who were released from prison between November 2010 and January 2014. Approximately half of the sample ($N = 150$, 49.5%) were treatment completers and the remaining half ($N = 153$, 50.5%) were comparison men. Despite not being matched on variables related to their propensity to reoffend when recruited, independent samples t -tests found no

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statistically significant differences between treated and comparison men with regards to their age, ethnicity, level of criminal risk, or criminal histories. Therefore, the following characteristics are presented for the sample as a whole. Overall, 64.7% of the sample identified as Māori, 27.4% identified as New Zealand European, 6.6% identified as Pacific Island, and 1.3% identified as other ethnicities. Participants ranged in age from 19 to 60 years old ($M = 31.96$, $SD = 8.57$) at the time of their release from prison. They received their first conviction, on average, at the age of 16 and their first violent conviction at the age of 19.

The average RoC*RoI score (Bakker, O'Malley, & Riley, 1999) for the sample was .74 ($SD = .11$), indicating an estimated 74% likelihood of returning to prison within five years of release⁴. The average Violence Risk Scale⁵ score (VRS; Wong & Gordon, 2006) for the sample was 52 ($SD = 8.7$). They had an average of 68 prior convictions, including 5 convictions for violent offending. The index offence for the majority of the sample (53.1%) was a violent offence; this included aggravated robbery or robbery by assault, minor assault, serious injury or wounding, kidnapping, threats to kill, rape, manslaughter, murder, and attempted murder. Other index offences included dishonesty offences (31.4%), sexual offences (6.6%), drug and antisocial offences (5.3%) and property offences (2.6%).

A total of 13 men (4.29% of the sample) were serving a life sentence, meaning that they were subject to parole conditions for the rest of their lives⁶. The remaining 290

⁴ The RoC*RoI is a static risk instrument used by the NZ Department of Corrections to calculate the relative probability of reconviction leading to reimprisonment over five years in the community. See *Measures* section below for more information on the RoC*RoI.

⁵ The VRS is an actuarial measure primarily used to assess the risk of violence for prisoners being considered for release. Possible scores range between 0 and 78, with higher scores indicating a greater propensity for violence. Individuals with scores greater than 50 are considered "high risk" (Wong & Gordon, 2013). See *Measures* section below for more information on the VRS.

⁶ Offenders sentenced to life imprisonment in New Zealand must serve a minimum of 10 years before they can be considered for parole, or 17 years in more severe cases. If released from prison, they remain on parole for life in the community and can be recalled to prison at any time.

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men were sentenced to between 2 and 15 years in prison ($M = 3.84$ years), and had served an average of 3.36 years in prison at the time of their release⁷. Of these men, 43% ($N = 129$) were released at the end of their sentence and 57% ($N = 174$) were released before their sentence end date (i.e. granted early parole). The average length of parole to be served in the community was 760 days⁸.

Measures

Risk assessment scales.

Risk of Conviction * Risk of Imprisonment (RoC*RoI). The RoC*RoI is an actuarial risk assessment tool that was developed and cross-validated in New Zealand (Bakker et al., 1998). The RoC*RoI is used by the New Zealand Department of Corrections to enhance the combined prediction of an offender's risk of conviction and likelihood of reimprisonment. The measure is based on historic ("static") predictors, including personal characteristics and seriousness of prior offending. Scores are generated via a computer algorithm and expressed as a probability, ranging from 0 to 1.0 to reflect the likelihood of being reconvicted within five years of release. It should be noted that in this context, "risk" refers to the probability of imprisonment; a high score does not necessarily imply that the offence leading to reimprisonment will be a serious violent or sexual offence (Nadesu, 2007). The RoC*RoI has demonstrated moderately high levels of

⁷ Offenders sentenced to more than two years in prison become eligible for parole after serving one third of their sentence, unless they were given a longer minimum non-parole period at the time of sentencing. Time spent incarcerated in remand is also often subtracted from an offender's prison sentence.

⁸ In New Zealand, all prisoners who are sentenced to two years or greater must complete a mandatory minimum parole period of six months, even if they serve their prison sentence in full. Prisoners who are released at the end of their full sentence must adhere to standard conditions of release (e.g. regularly report to probation officer, reside at an approved residence). Prisoners who are granted early release serve the remainder of their sentence on parole in the community, on top of the mandatory minimum. They may also have special release conditions imposed by the New Zealand Parole Board (for the purpose of reducing risk of reoffending, facilitating rehabilitation or reintegration, or providing for reasonable concerns of the offender's victims).

predictive validity (AUC = 0.76; Bakker et al., 1998), confirmed over three years post-release (Nadesu, 2007).

Violence Risk Scale (VRS). The VRS uses ratings of static and dynamic risk predictors to assess the risk of violent recidivism, particularly for offenders who are being considered for release from prison (Wong & Gordon, 2000; 2006). The assessment tool is made up of six static risk factors (e.g., age at first violent offence) and 20 dynamic risk factors (e.g., criminal peers, impulsivity, insight into violence, weapon use), each rated on a 4-point scale (0 – 3). The sum of the static and dynamic risk factor scores reflects the offender's level of violence risk, with higher scores reflecting higher risk, and identifies criminogenic needs/ treatment targets for that individual. The VRS is also designed to measure how much progress an individual has made in treatment by incorporating assessment of well-established stages of change: pre-contemplation, contemplation, preparation, action, and maintenance (Prochaska, DeClemente, & Norcross, 1992). Several validation studies of the VRS have reported good levels of internal consistency, interrater reliability, and predictive validity, in samples of violent offenders followed up for approximately four years (Wong & Gordon, 2006), seven years (Wong & Parhar, 2011), and five years (Lewis, Olver, & Wong, 2013) in the community.

Release Plan Feasibility Assessment-Revised (RPFA-R). The RPFA-R is an 11-item structured protocol used to evaluate a prisoner's readiness for release. Originally developed in 2002 to assist the New Zealand Parole Board decision-making process, the RPFA-R requires users to assess dynamic reintegrative factors surrounding an offender's release from prison, by scoring each item on a 3-point scale (Wilson, 2011). A score of "0" indicates that item is not a risk factor for the offender, a score of "1" indicates that item is possible risk factor, and a score of "2" indicates that item is a serious risk factor for the offender. Items in the RPFA-R include previous parole noncompliance, ability to

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deal with stress, suitable accommodation, exposure to destabilisers, and community/personal support. The RPFA-R has limited empirical support currently; however, recent research in New Zealand has found that more feasible plans are associated with reductions in reoffending among high-risk men (Kilgour & Polaschek, 2012).

Dynamic Risk Assessment for Offender Re-entry (DRAOR). The DRAOR is a 19-item risk assessment tool developed to assist probation officers in their management of offenders on parole in the community (Serin, 2007; now in its third version, Serin, Mailloux, & Wilson, 2012). The DRAOR itself represents an integration of several theoretical works: stable dynamic risk items were adapted from research on risk factors for sexual offending, to reflect the criminogenic needs of general and/ or violent offenders (Andrews & Bonta, 2010; Hanson & Harris 2000), while the acute dynamic risk items reflect proximal indicators of risk state (Douglas & Skeem, 2005). Protective items inform crime desistance, and consist of internal assets and external strengths that may reduce the probability of engaging in offending (Tamatea & Wilson, 2009). The integration of these three domains make the DRAOR "uniquely relevant for re-entry research" (Serin, Lloyd, & Hanby, 2010, p. 57). The DRAOR has been piloted in both New Zealand and the United States, and was adopted as the national standard in New Zealand by Community Probation Services in 2010. Preliminary research has found the instrument to be a valid and reliable measure of risk of reoffending for including general offenders (Hanby, 2013; Tamatea & Wilson, 2009); high-risk offenders (Yesberg & Polaschek, 2014, 2015), sex offenders (Smeth, 2013), and female offenders (Yesberg, Scanlan, Polaschek, Hanby, & Serin, 2015).

Probation officers score an offender's current presentation on the DRAOR after each supervision meeting (typically held between twice weekly to fortnightly, depending on the offender's risk level and how long they have been on parole). The initial session

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provides a baseline measure, and repeated administration is necessary to capture the dynamic nature of its items and to ensure probation officers are aware of any changes in an offender's circumstances. Acute factors are generally rescored at each subsequent session; stable and protective items are reassessed at the parole officer's discretion as new information emerges (Wilson, 2011). All items are scored on a three-point scale. A score of "0" indicates that the item is not present, a score of "1" indicates that the item is somewhat present or evidence is inconsistent, and a score of "2" indicates that the item is definitely present. In practice, items in each domain (i.e. stable, acute, and protective) are totalled to provide a summary of potential problems. For research purposes, a "total score" is also generated by summing the scores of the stable and acute subscales, and subtracting the protective subscale score, to provide an overall measure of re-entry risk that is corrected for protective factors. DRAOR total scores can range from -12 to 26, with lower scores reflecting lower risks and greater protective factors, and higher scores reflecting greater risks and lower protective factors.

Stable Subscale	Internal Acute Subscale	External Acute Subscale	Protective Subscale
Peer associations	Substance abuse	Interpersonal relationships	Responsive to advice
Attitudes towards authority	Anger/ hostility	Living situation	Prosocial identity
Impulse control	Negative mood	Attachment with others	High expectations
Problem-solving			Costs/ benefits
Sense of entitlement			Social supports
Employment			Social control
Opportunity/ access to victims			

Figure 1. Four-subscale DRAOR structure

The theoretically-derived structure of the DRAOR was recently examined using Principal Component Analysis, and a new four-factor structure was found to best fit the data (Yesberg & Polaschek, 2015; see Figure 1 on previous page). The primary difference between the original and new structures is that the acute dynamic risk subscale is split into 'internal acute' and 'external acute' factors. The four-factor DRAOR will be used in the present study as it has been validated on the same high-risk offender sample. A description of each factor is outlined below (Serin et al., 2010)⁹.

Stable factors. Stable dynamic risk items include peer associations, attitudes toward authority, impulse control, problem-solving, sense of entitlement, opportunity/access to victims, and employment. The presence of these items would indicate having antisocial peers, predominantly antagonistic attitudes toward others, poor self-regulation and impulsivity, failure to consider consequences, inflated self-worth, having access to preferred victims, and being unemployed.

External Acute factors. Acute dynamic risk factors reflecting offenders' social environments include interpersonal relationships, living situation, and attachment with others. The presence of these items would indicate being in a conflicted relationship, lacking accommodation or being in an unstable living situation, and callousness or indifference toward others.

Internal Acute factors. Acute dynamic factors reflecting offender characteristics include substance abuse, anger/ hostility, and negative mood. The presence of these items would reflect continued, problematic use of drugs and/ or alcohol, marked current presence of anger or hostility, and acute or persistent negative mood.

⁹ See Appendix B for relevant research relating to the 19 items

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Protective factors. Protective factors are typically dynamic and context specific, and include prosocial identity, responsiveness to advice, high expectations of success, costs/ benefits, social support, and social control. The presence of these items indicate a legitimate, prosocial shift in identity, conscientiously following direction from positive influences, having high expectations regarding reintegration and rehabilitative success, viewing prosocial behaviour as more rewarding than criminal behaviour, access to meaningful prosocial supports, and having strong, internalised, prosocial bonds.

Release Plan Quality Coding Protocol (RPQ). The RPQ was developed to rate the extent to which an offender's plans for release are likely to facilitate successful reentry into the community. The coding protocol assesses the quality and comprehensiveness of offenders' plans across five domains: accommodation, employment, prosocial support, antisocial associates, and idiosyncratic risk management strategies. Each domain is rated on a four-point scale, with a rating of '1' indicating non-existent or unhelpful plans, and a rating of '4' indicating plans that are constructive, stabilising, and confirmed. Total scores are the sum of ratings across each domain, producing an overall RPQ score between 5 and 20. The development of this coding protocol is described further in the Procedures section and the full protocol is provided in Appendix A. Release plan quality was retrospectively coded using individual file information obtained with permission from the Department of Corrections, and pre-release interview transcripts produced by the Parole Project. The sources of information used are outlined below.

Parole Assessment Report. This report is compiled prior to an offender's appearance before the New Zealand Parole Board. It provides an overview of the offender's progress to date, including behaviour, attitude, activities, and issues of non-compliance or disciplinary action. The report also highlights the offenders' rehabilitative

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needs (including any actions taken) and briefly outlines their proposed plans for rehabilitative programmes, accommodation, employment, financial, relationships community/ whanau support, victim issues, and healthcare.

Sentence Plan. Sentence plans were maintained throughout an offender's period of incarceration and documented ongoing case monitoring of offending needs, behaviour, attitude and compliance, education and work, health, wellbeing, lifestyle and support, housing, finance, and victim-related issues.

Psychological Treatment Report. This report is written by a psychologist from the Department of Corrections. It typically provides a clinical formulation and summary of the offender's background, current presentation, offence details, treatment provided (including engagement and participation), potential to reoffend, risk factors and high-risk situations, release plan proposal, and professional recommendations.

Pre-release Interviews. As part of the Parole Project, senior PhD students from Victoria University conducted structured, face-to-face interviews with all participants, usually within the fortnight leading up to their release from prison. Interview questions were primarily open-ended and explored a range of themes pertaining to offenders' attitudes, feelings, reflections, and plans towards their impending release. Topics discussed included criminogenic beliefs and attitudes, cultural factors, plans for antisocial and prosocial behaviour in the community, commitment to and confidence in one's ability to desist from offending, goals and activities for life in the community, plans for accommodation, employment/ study, and personal/ community support, and plans and attitudes toward addressing rehabilitative needs in the community (including motivation, compliance, and expectations of parole officers). Offenders' responses were recorded verbatim where possible, with the assurance that their responses were confidential and would not be shared with correctional staff. This offered the advantage of offenders

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divulging information they had not previously disclosed to Department of Corrections staff, such as attitudes toward substance use or intentions to maintain gang affiliations.

Recidivism. Recidivism data were extracted from the national convictions records database. Four indices of recidivism were examined: breach of parole conditions, any new conviction (excluding breaches), any new violent conviction, and any new conviction leading to reimprisonment. To examine reoffending outcomes at different points of the re-entry process, *short-term recidivism* was defined as occurring within the first 100 days of release from prison, and *long-term recidivism* was defined as occurring within the first year of release. Participants were allocated a dichotomous code (0 = absent/ no conviction recorded or 1 = present/ conviction recorded) for each of the four indices of recidivism, across both time intervals. To accurately measure the total amount of time that offenders were at genuine risk of reoffending, survival days for all recidivism outcomes were corrected for any time spent back in prison during the first year. Thus, only days spent “at risk” in the community were counted when determining the follow-up period.

Procedure

A coding protocol to assess the quality of offenders’ release plans was developed for the purpose of this thesis (see the RPQ, above). This measure was adapted from existing coding protocols published by Dickson and colleagues (Dickson, 2014; Dickson et al., 2013), and Willis and Grace (2008), that have been used in earlier research regarding release planning for both violent offenders and sex offenders.

The Dickson (2014) coding protocol assessed the quality of men’s plans in areas of employment (rated on a 0 – 3 scale), accommodation (0 – 2), prosocial support (0 – 2), antisocial associates (0 – 1), and release environment (0 – 1). These scores were then summed to provide a total Release Plan Quality score, with higher scores indicating better

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quality plans. Previous versions of this coding protocol also included ratings of safety plan (0 - 2) and post-release treatment (0-2) (Dickson et al., 2013). Prior research had shown this coding protocol was a valid predictor of post-release reconviction resulting in reimprisonment; however, our own attempts to follow Dickson's coding protocol and build upon her existing dataset yielded very poor inter-rater reliability. This was likely due to differences in the detail and breadth of file information that was now available for the Parole Project sample, compared to Dickson's earlier research. We therefore made the decision to reformulate the protocol to make it suitable for the present study and recode all files in the Parole Project archive¹⁰. We were blind to recidivism outcomes throughout the development of the coding protocol and the coding process itself.

The process of revising the coding protocol conformed to Rourke and Anderson's (2004, p. 8) steps to developing a "theoretically valid" protocol: identifying the purpose of the coding data, identifying behaviours that represent the construct, reviewing categories and indicators, holding preliminary try-outs, and finally developing guidelines for administration and scoring of the coding scheme. Ultimately, two key amendments were made to the Dickson (2014) coding protocol. The first amendment involved reframing the "release environment" item to better utilise available file information. Rather than attending to the physical locality of the offenders' release environment, we decided it was more useful to assess high-risk situations or criminogenic needs unique to the individual offender (e.g., substance abuse, antisocial attitudes), and analyse what kinds of tailored strategies or treatment interventions were in place to manage these upon release. Upon reviewing the relevant literature we found similar objectives reflected in

¹⁰ The revised coding protocol was developed by myself and another postgraduate student, Sarah Robson. The revision process was overseen by Professor Devon Polaschek (head of the Parole Project), and in consultation with the original protocol developer, Sophie Dickson.

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Willis and Grace's (2008) "idiosyncratic risk factors" item. This item was subsequently rewritten as 'idiosyncratic risk management'.

The second amendment was extending the rating scales to put them all on a consistent metric, such that each item was coded on a four-point scale (1-4). This was done to capture greater variability and richness of detail within the data, as well as removing the option of assigning a 'middle' code. When reviewing the scoring categories within each domain, we thought it was important to capture not only the presence or absence of each item, but also the qualities that made it conceptually relevant to improving re-entry outcomes. For instance, what is it about employment that can reduce a parolees' likelihood of relapsing into criminal behaviour? Evidence suggests that job acquisition alone is not a significant predictor of parole success; rather, parolees who successfully complete parole are more likely to be employed full-time, have greater job stability, be satisfied with their work, and hold more realistic and positive attitudes towards employment (Bucklen & Zajac, 2009; Latessa, 2011). Therefore, offenders whose plans for employment indicated such factors would earn a higher rating for the 'employment' item than offenders who may have a job confirmed, but lacked commitment to their work or believed their job would not provide sufficient income to survive.

Extending the rating scales also ensured that sufficient variability could be generated among participants for subsequent statistical analyses (Stone, 1978). While there is evidence to suggest that between four and seven categories is sufficient to maximise a scale's psychometric properties (Lozano, Garcia-Cueto, & Muniz, 2008), we opted not to extend to the traditional odd-numbered 5- or 7-point scale (Colman, Norris & Preston, 1997), to avoid relying on middle codes when there was not enough evidence to make an informed decision. This experience was akin to Kulas and Stachowski's (2009)

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view that middle response categories are occasionally utilised as a “dumping ground” for uncertain or ambivalent responses. Removing the mid-point forced us to be more decisive in our coding; however it also carried the risk of exacerbating differences between coders.

We mitigated this risk to the best of our ability by developing specific criteria for each response category of each item (see Appendix B) and negotiating explicit guidelines for administering the coding protocol. For example, we were aware that offenders facing release are likely to under-report or minimise potential difficulties (known informally as “gate-fever”; Wilson, 2011), so close attention was paid to whether information from prison staff corroborated with potentially idealistic self-reports. An offender with a long history of substance abuse and drug-related offending may not receive a high rating for his plan to suddenly abstain from drinking and using drugs, if his recent Parole Assessment Report indicated numerous relapses and refusal to attend a Drug Treatment Unit. However, a similar offender who demonstrated insight into his addiction, had worked with a prison psychologist to develop relapse prevention strategies, and had incorporated community Alcoholics Anonymous meetings into his sentence planning, would receive higher scores to reflect the quality of his plan. Greater weighting was also given to most recent, rather than historic, file information. Any uncertainties were resolved through discussion and consensus, and we regularly checked in with each other throughout the development and coding process to build a shared conception of the phenomena we were coding.

Following these revisions, the second coder and I each independently coded a randomly-selected sample of 50 participants (25 treatment completers; 25 comparison sample) to establish inter-rater reliability. Given the ordinal nature of the scale, weighted

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Kappa coefficients¹¹ were calculated using SPSS to determine consistency between the two coders. Linear weights were calculated over quadratic weights based on the assumption that differences between each category were all of equal importance (for example, the difference between ratings of ‘1’ and ‘2’ were equally as important as the difference between ratings of ‘2’ and ‘3’).

Table 1.

Inter-rater Reliability for the RPQ Coding Protocol (n = 50)

<i>RPQ item</i>	<i>Kappa (SE)</i>	<i>95% CI</i>
Accommodation	0.80 (0.07)	[0.66, 0.94]
Employment	0.90 (0.07)	[0.77, 1.00]
Prosocial Support	0.58 (0.09)	[0.40, 0.76]
Antisocial Associates	0.70 (0.08)	[0.55, 0.86]
Idiosyncratic Risk Management	0.71 (0.07)	[0.58, 0.84]
Total Score	0.79 (.0.3)	[0.74, 0.85]

Data Preparation

A number of steps were taken to prepare the collated data for analysis. First, total RPQ scores were calculated for each parolee by summing ratings of the five domains of

¹¹ The standard Kappa statistic treats all instances of disagreement as equal, and does not consider the magnitude of disagreement between coders, whereas a weighted Kappa statistic incorporates the size of discrepancies by using weights to describe the closeness of agreement between coders (Viera & Garrett, 2005). For example, if one coder assigned a score of “1” for a particular item, and the other coder assigned a score of “3”, this discrepancy would be given greater weighting than if the other rater had assigned a score of “2” that was closer in agreement with the first coder.

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release plan quality. The data were then subjected to a series of psychometric evaluations (outlined further in Data Analytic Strategy below) prior to use in my analyses.

Second, *initial* and *mean* DRAOR scores were extracted from the Parole Project database. For analyses using *initial* assessment scores at release, the rating closest to two weeks post-release was selected as the baseline. This timeframe was chosen because it remains an initial time period, but it is far enough along for probation officers to become accustomed to the tool and develop sufficient rapport with the offender¹². For analyses investigating overall dynamic risk and protective factors within the first few months of re-entry, all DRAOR scores administered across the first 100 days of release were averaged to produce a *mean* DRAOR score for each participant. If a participant reoffended during this follow-up period, his *mean* score reflected all DRAOR administrations up until the date of his new offence (i.e. up to and including the proximal score). This re-entry period (i.e. the first 100 days) is particularly critical for high-risk offenders, as those who do reoffend are most likely to fail within the first three months (Nadesu, 2007). Taking the average of multiple ratings over time can reduce error and enhance temporal stability of findings, and incorporates greater variance than one score in isolation. Previous research also indicates that mean scores of dynamic risk measured over a specified time period can provide a better prediction of recidivism than single time-point ratings, such as “peak” risk scores (i.e. the highest risk state observed over the recent past) or one’s most recent risk score (e.g., Chu, Thomas, Daffern, & Ogloff, 2013; Hanson et al., 2007).

Next, additional variables were created to address research questions regarding overall change and stability of dynamic re-entry factors. Three types of DRAOR data

¹² Previous research has suggested that an offender’s third DRAOR assessment is more reliable than their first assessment rating, for the reasons noted above (Hanby, 2013). However, attempts to follow this convention in the current study were not appropriate, because in some cases third ratings were dated beyond one month post-release and could not be considered “initial” scores. We therefore decided to take the score closest to two weeks post-release to ensure a balance between reliability and proximity to release.

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were explored: (a) *net change* during the re-entry period, (b) *variability* in scores during re-entry, and (c) *cumulative change* during re-entry. These variables were only created for men who had sufficient DRAOR data, which was defined as having their first DRAOR score taken within one fortnight of release plus at least three additional DRAOR administrations within the first 100 days. Men with insufficient DRAOR data were excluded from analyses.

Net change scores were calculated for the purpose of assessing overall change in DRAOR subscales and total scores, by subtracting the last rating made within 100 days from the first rating following release¹³. Because there is a lack of consensus regarding the best methodology to capture fluctuations in dynamic risk (see Jones et al., 2010), stability was measured by assessing both *variability* (i.e. calculating standard deviations on all scores an offender had within the first 100 days of release), and *cumulative change* scores. The latter is a novel variable that was formulated following consultation with the developers of the DRAOR (C. Lloyd, personal communication, October 12, 2014). Each time that a subscale total changed (either positively or negatively) from that of its previous administration, a cumulative ‘point’ was counted. The sum of cumulative points provided a parolees’ cumulative change score for that subscale.

To illustrate how these three change variables are operationalised, imagine two parolees who each have seven DRAOR administrations across the initial re-entry period (see Table 2). The pattern of their Internal Acute scores appear to reflect two distinct experiences of re-entry; however, both parolees would receive identical *variability* scores ($SD = 1.07$). Parolee One has made greater *net change* than Parolee Two, going from an initial rating of ‘3’ down to a final rating of ‘1’. Parolee Two appears to have made no

¹³ The first score refers to the first time that the DRAOR was administered to the offender following release, not the proxy “initial” score.

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change between his first and last DRAOR administrations, yet he would receive a higher *cumulative change* score than Parolee One because his subscale total has changed six times in comparison to Parolee One's single shift in score at T5.

Table 2.

Illustrating Patterns of Change in DRAOR Variables

	DRAOR administrations over time (Internal Acute subscale)						
	T1	T2	T3	T4	T5	T6	T7
<i>Parolee One</i>	3	3	3	3	1	1	1
<i>Parole Two</i>	3	1	3	1	3	1	3

Data Analytic Strategy

Data analysis for the current study was conducted in two stages. First, the revised Release Plan Quality (RPQ) coding protocol was subject to a series of psychometric evaluations. Preliminary evaluation analyses included summarising the distribution and descriptive statistics of release plan quality, calculating inter-rater and internal reliability, and assessing construct validity relative to other measures of risk and release readiness. In addition, I assessed whether release plan quality differentiated between parolees who recidivated (i.e. breached parole, were reconvicted, or returned to prison), and those who did not.

Next, returning to the primary objectives of the current study, I investigated the relationship between release plan quality and the factors that influence the process of offender re-entry (i.e. stable and acute dynamic risk factors, and protective factors). Descriptive data for the DRAOR outcomes were inspected to investigate differences

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across the four subscales (i.e. did the Acute variables exhibit the most fluctuation, did one subscale change more than others?). Linear regression analyses were conducted to examine whether release plan quality was predictive of dynamic risk and protective factors at release and during re-entry (i.e. *initial* and *mean* DRAOR scores). Multiple regression analyses were also used to test incremental predictive validity; that is, whether release plan quality predicted DRAOR scores over and above existing measures of offender risk and release readiness used by the Department of Corrections. A further series of multiple regression analyses were then performed to investigate whether release plan quality was predictive of net change, variability, and cumulative change in DRAOR scores. In all analyses, the total number of days between the first and last DRAOR rating was controlled for. Initial DRAOR scores and number of DRAOR administrations were also controlled for in analyses predicting net change and cumulative change.

Finally, the remainder of the results used logistic mediated regression to explore whether release plan quality had an indirect effect on recidivism outcomes through the DRAOR. Mediation analyses are performed to test whether the relationship between a predictor (*X*) and an outcome (*Y*) is partially or fully explained by the influence of a third mediating variable (*M*) (Jose, 2013). The most widely-used method for conducting mediation is Baron and Kenny's (1986) *causal steps approach*, in which the significance of the relationship between *X* and *Y* is tested both before and after controlling for *M*. However, recent critiques of this approach have argued that it is no longer necessary to require a significant *X-Y* relationship prior to testing for mediation (Rucker, Preacher, Tormala, & Petty, 2011; Hayes, Preacher, and Myer, 2011; Zhao, Lynch, & Chen, 2010; MacKinnon & Fairchild, 2009). Thus, regardless of whether a statistically significant association was found between release plan quality and recidivism outcomes, the role of the DRAOR as a potential mediator would still be explored. As Hayes (2009, p. 415)

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posits, “[a] failure to test for indirect effects in the absence of a total effect can lead you to miss some potentially interesting, important, or useful mechanisms by which *X* exerts some kind of effect on *Y*”.

Mediation analyses were conducted for all indices of recidivism at both short-term (i.e. within 100 days) and longer-term (i.e. within one year) intervals. Because the outcome variable was dichotomous, and the predictor and mediator variables were continuous, analyses were performed using the SPSS syntax file provided by Dr Nathaniel Herr’s website (<http://www.nrpsych.com/mediation/logmed.html>) so that coefficients were made comparable across the regression equations. The Sobel test was performed to test the statistical significance of the indirect effects using calculation tools from Kristopher Preacher’s website (<http://quantpsy.org/sobel/sobel.htm>).

Results

All analyses were conducted using SPSS (version 21). Kolmogorov-Smirnov (K-S) tests were conducted to test whether the distribution of Release Plan Quality (RPQ) scores significantly differed from a normal distribution, which is confirmed by a significant test result (Field, 2009). The K-S test statistics for all items of the RPQ coding protocol were significant, indicating that assumptions of normality had been violated. Normality was further inspected through an examination of probability plots, histograms, and values of skew and kurtosis. Total scores for the RPQ appeared normally distributed (skewness = .15, $SE = .28$). However, individual items tended to be positively skewed, with the exception of '*accommodation*', which was negatively skewed. To err on the side of caution, non-parametric analyses have been used where possible as they do not make assumptions about the underlying population distribution (Pallant, 2007). All figures are reported to two decimal places, with the exception of tests for statistical significance (p -values), which are reported to three decimal places for clarity.

Preliminary Analyses: Evaluating the RPQ Coding Protocol

Quality of release plans. Descriptive statistics were performed to evaluate the quality of release plans for the sample overall. Mean scores are presented in Table 3, with higher scores representing better quality release plans. Scores indicate that, on average, men showed at least some planning in all aspects of their release and scored approximately 47% of the maximum possible score (possible RPQ total scores range between 5 and 20). The median score for each item paints a picture of what a typical release plan looked like: accommodation was confirmed and relatively stable or supportive, the offender had no employment or educational alternative lined up for release, prosocial support was available, but limited, the offender had no plans to avoid

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antisocial associates, and the offender demonstrated minimal insight into their offending and lacked strategies for managing risky situations. A detailed description of the distribution of scores for each item is as follows:

Accommodation. Close to half the sample (46.5%) were planning to reside in independent, prosocial living environments, and a further 27.1% planned to live in residential support programs or with family/ individuals not identified as prosocial. About one-quarter of the sample (23.1%) had short-term plans to stay in unstructured, supported accommodation, such as Salvation Army hostels or shelters, and just 10 offenders (3.3%) disclosed that they were homeless or had no viable options for accommodation.

Employment. Two-thirds of offenders (67.3%) had no plans for working immediately upon release. A small proportion of this unemployed group implied or explicitly stated that they would continue to support themselves financially through illegitimate means, because it was easier and more lucrative. Twenty-nine offenders (9.6%) were in the process of securing a job upon release or had plans to enter study or training, while a further 30 offenders (9.9%) had secured employment but it was unlikely to keep them occupied or motivated. Just 13.2% of offenders reported having confirmed employment that they found engaging and were committed to. Work opportunities were most commonly obtained through family connections or a ‘second chance’ granted by previous employers.

Prosocial support. Two-fifths of the sample (40.6%) lacked any prosocial support beyond professional services, or support people who had a history of antisocial tendencies (e.g., family members with gang affiliation or prior criminal offending). About one-third of offenders (37.6%) had prosocial support available that was limited in either range or practical influence, and 14.9% described having good relationships with at least 3

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personal supports who the offender said he would listen to and be influenced by. Just 6.9% reported having no prosocial support people in their life at all. Offenders commonly acknowledged difficulty in receiving and following the advice of their support people. They also appeared to hold incompatible ideas about family members or intimate partners being supportive and being prosocial, with some offenders nominating gang-related or antisocial partners and family members as their most valued support people.

Antisocial associates. Two-thirds of offenders (66%) were likely to maintain contact with antisocial friends or family, with 12.5% of them reporting active gang involvement or membership. Although 30.4% of offenders expressed an explicit intention to no longer associate with their former or current criminal peers, only 3.6% of the sample generalised beyond this to plan for avoiding any association with antisocial or criminal others. Offenders rarely considered that their peers had a negative influence on their own behaviours, and many deferred to avoidance tactics (e.g., “It won’t be a problem, I’m moving to a new town so I just won’t hang out with them anymore”) rather than making a concrete plan to dissociate themselves from antisocial peers.

Idiosyncratic Risk Management. One-fifth of offenders (20.1%) continued to express explicitly pro-criminal attitudes and show no acknowledgement of high-risk situations. Many offenders (41.6%) had some awareness of their potential risks or triggers upon release, such as alcohol use or boredom, but were unable to describe strategies for managing such risks (e.g., “I’ll just take it as it comes”). A further one-quarter of offenders (27.7%) expressed greater insight and had ideas for managing risky situations, while a small number (10.6%) were able to articulate specific plans or coping strategies for managing their identified high-risk situations.

Inter-rater reliability. Cohen's Kappa statistics (with linear weighting, as described in procedures section) were calculated on a random selection of 50 cases (16%) to assess consistency among coders. Overall, inter-rater reliability was found to be $\kappa = 0.79$, with individual item kappas ranging from 0.57 to 0.90 (presented in Table 3, see previous page). Peat (2001) suggests that Kappa values of 0.5 indicate moderate agreement, above 0.7 indicates good agreement, and above 0.8 indicates very good agreement. Therefore, the obtained values generally indicate good inter-reliability and are consistent with previous versions of release plan protocols (Dickson, 2014; Willis, 2009).

Internal reliability. Two analyses were performed to evaluate both the internal consistency and unidimensionality of the Release Plan Quality scale. Cronbach's alpha coefficients were generated to assess whether items of the coding protocol were measuring the same underlying construct. The overall alpha was 0.63, indicating strong item covariance and good levels of internal scale reliability (Churchill, 1979; Pallant, 2007). It is worth noting that the removal of one item ("employment") would increase reliability, but only marginally so ($\alpha = .69$, if item deleted). Interestingly, despite low inter-rater reliability for the "prosocial support" item, removing this item would substantially decrease internal reliability of the scale ($\alpha = .49$, if item deleted). Next, non-parametric item-total correlations were conducted between each item in the coding protocol and the total RPQ score (see Table 3). A set of items can be considered 'unidimensional' (i.e. measuring one thing in common) if there exists a latent, or unobservable, variable that 'explains' the correlations observed between items (Falissard, 1999). For a group of items to reflect measurement of a single latent construct it is expected that individual items would positively correlate with one other, and with the scale overall (DeVellis, 2012). Spearman's Rank-Order Correlation Coefficients confirmed that all items were indeed positively correlated, and 12 of these 15 correlations

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were significant. These results indicate that none of the items were spurious and the inter-item correlations generally fit the recommended range for scale unidimensionality (i.e. .15 to .50; Clark & Watson, 1995).

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Table 3.

Mean and Standard Deviation, Median Score, Cohen's Kappa statistic, Correlations to Total Release Plan Score, and Spearman's Inter-item Correlations for the Release Plan Quality Coding Protocol (n = 303)

<i>Scale Item</i>	<i>Mean (SD)</i>	<i>Median</i>	<i>Kappa</i>	<i>2</i>	<i>3</i>	<i>4</i>	<i>5</i>	<i>Total</i>
1. Accommodation	3.16 (0.90)	3	0.80	0.23**	0.44**	0.06	0.26**	0.63**
2. Employment	1.69 (1.10)	1	0.90	-	0.23**	0.00	0.11	0.53**
3. Prosocial Support	2.61 (0.82)	3	0.58	-	-	0.30**	0.51**	0.76**
4. Antisocial Associates	2.25 (0.71)	2	0.80	-	-	-	0.57**	0.53**
5. Risk Management	2.28 (0.90)	2	0.71	-	-	-	-	0.73**
Total	11.99 (2.86)	12	0.79	-	-	-	-	-

* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

Does the RPQ relate to measures of risk and release readiness? The validity of a measure refers to the degree to which it measures what it is intended to measure. To evaluate construct validity of the RPQ, I examined its relationship to other measures of criminal risk and readiness for release that I hypothesised would be associated with (convergent validity) or vary independently of (discriminant validity) our coding protocol scores (Cronbach & Meehl, 1955; Westen & Rosenthal, 2003). Results are presented in Table 4. There is little consensus among researchers as to what correlation size constitutes adequate convergent or discriminant validity (e.g., Andrews, Kiessling, Mickus & Robinson, 1986; Trochim & Donnelly, 2007); however, the general condition posited by Campbell and Fiske (1959) to support evidence of construct validity is that discriminant validity coefficients should be lower than convergent validity coefficients. As a rule of thumb, Cappelleri and colleagues (2004; 2013) suggest evidence for convergent validity should be based on a Pearson's correlation of 0.40 or higher, which is consistent with a 'meaningful correlation' (see also Stevens, 2002), while evidence for divergent validity is based on correlations of less than 0.30.

Prior research has raised the question of whether release planning functions as a proxy of pre-existing risk levels; however, extant findings suggest that good quality release plans help to protect against reoffending in spite of individual risk level (e.g., Dickson et al., 2013; Scoones et al., 2012). Thus, divergent validity was tested using the RoC*RoI (a static measure of criminal risk). The measures considered for convergent validity were the VRS (a combined static and dynamic measure of criminal risk) and the RPFA-R (a dynamic measure of preparedness for release) because they share similar items relating to plan quality, and the RPFA-R in particular aims to evaluate prisoners' reintegrative risks and needs. Although I did not expect strong correlations between the

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RPQ and the RPFA-R, I anticipated that correlations would be greater than those between the RPQ and the two risk measures.

Table 4.

*Correlations Between Release Plan Quality Items and RoC*RoI, VRS, and RPFA-R (n = 303)*

	RoC*RoI	VRS Static	VRS Dynamic	RPFA-R
Accommodation	-.08	-.06	-.14*	-.28***
Employment	-.16**	-.12	-.21***	-.27***
Prosocial support	-.07	-.09	-.25***	-.38***
Antisocial associates	.05	.002	-.26***	-.25***
Idiosyncratic Risk Management	-.07	-.10	-.33***	-.37***
RPQ Total	-.11	-.12*	-.36***	-.48***

* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

The VRS dynamic total and the RPFA-R were significantly correlated with all RPQ items and the RPQ total score. The VRS static total was correlated with the RPQ total score only, and the RoC*RoI was correlated with just one item of the RPQ (employment). Correlations were all in the expected direction and these results suggest that the RPQ is inversely related to both static and dynamic risk measures. That is, men with better quality release plans appear to also be at lower risk of recidivism and have more feasible release plans. However, it must be noted that the significant correlations are weak to moderate (Cohen, 1988) with stronger relationships found between the RPQ and dynamic measures, than with static measures. This indicates that multicollinearity is

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unlikely to be of any concern (Field, 2009) and supports the notion that release plans are not simply a proxy for other risk measures. Following Cappelleri et al's (2004) convention, the correlation coefficients provide evidence of moderate convergent validity between the RPQ and RPFA-R, and discriminant validity with the VRS and RoC*RoI. That is, although conceptual similarities exist between the RPQ and existing measures of risk and release readiness, the RPQ coding protocol does not measure the same constructs as assessed by the other measures.

Does the RPQ differentiate between recidivists and non-recidivists? To

evaluate the relationship between release plan quality and reoffending, I looked at recidivism outcomes at 100 days following release ("short-term recidivism"), and one year following release ("long-term recidivism"). I then conducted a series of Mann-Whitney U tests to compare the RPQ total scores of men who (a) had breached parole, (b) were reconvicted of any new offence, (c) were reconvicted of any new violent offence, or (d) were reimprisoned during these time periods, to men who had remained offence-free in the community. Predictive validity of risk assessment instruments in psychology is commonly investigated by calculating Receiver Operating Characteristic analyses (ROC) and area under the curve (AUC) statistics, which represent the probability that a randomly selected recidivist will score higher on a measure than a randomly selected non-recidivist (see, for example, Borum, Lodewijks, Bartel, & Forth, 2010; Catchpole & Gretton, 2003; Singh, Grann, & Fazel, 2011). However, due to violations of the normality assumption, as well as recent critiques of the AUC method (e.g., Hand, 2009, 2012; Lobo, Jiménez-Valverde, & Real, 2008), I opted to report the non-parametric alternative (Mann-Whitney U-statistics).

Overall recidivism outcomes. Within 100 days of being released into the community, 22.4% (and 42.2% within one year) of the sample breached parole

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conditions, 24.1% (57.8% within one year) were convicted of a new offence (excluding breaches), 5.3% (18.5% within one year) were convicted of a new violent offence, and 18.8% (40.6% within one year) were reimprisoned. The average length of time between release and the offence date ranged from 121 days for breaches to 211 days for offences leading to reimprisonment.

Comparison of recidivists and non-recidivists on release plan quality. Results of the Mann-Whitney U tests revealed a significant difference in RPQ scores of offenders who, within 100 days of release, breached conditions, were reconvicted of any new offence, or were reimprisoned, compared with those who did not reoffend. Median values presented in Table 5 show that men who reoffended had poorer quality release plans overall compared to men who did not reoffend. The effect sizes (r) are small (Pallant, 2007), but are generally consistent with recidivism effects found in meta-analytic studies of community rehabilitation for offenders (e.g., Lipsey & Cullen, 2007). No significant difference in release plan quality was found for offenders who were convicted of a new violent offence, compared to those who did not receive a violence conviction; this may have been due to the low base-rate of violent convictions in the sample. There was also no significant difference in RPQ scores for any of the four long-term recidivism outcomes, which subsumed all shorter-term offending.

Table 5.

Comparisons on Release Plan Quality: Recidivists and Non-recidivists

	Recidivist	Non-recidivist				
Offence type	Mdn	Mdn	<i>U</i>	<i>Z</i>	<i>p</i>	<i>r</i>
Short-term						
Breach of parole	11	12	6611.00	-2.18	.02*	-.13
Any new conviction	11	12	7052.50	-2.02	.02*	-.12
Violent conviction	10.5	12	1895.00	-1.18	.12	-.07
Reimprisonment	11	12	6008.00	-1.69	.04*	-.10
Long-term						
Breach of parole	12	12	10626.00	-.77	.22	-.04
Any new conviction	12	12	10065.50	-1.51	.13	-.09
Violent conviction	11	12	5853.00	-1.81	.07	-.10
Reimprisonment	12	12	10539.50	-.71	.24	-.04

* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

Note. Results of ROC analyses produced similar findings, with AUC values between 0.57 and 0.59 for short-term recidivism outcomes, and between 0.52 and 0.58 for longer-term recidivism outcomes. The effect sizes of these AUC values are considered small (Rice & Harris, 2005)

Summary of preliminary analyses. The revised RPQ coding protocol was generally found to be a good measure of release plan quality. Despite assumptions of normality being violated, in part due to the skew of ‘accommodation’ and ‘employment’ items, the response categories for the remaining items were fairly evenly distributed. Measures of inter-rater reliability and internal consistency reliability met acceptable standards, indicating that the coding protocol should perform in consistent, predictable

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ways. Levels of inter-rater agreement were comparable to other widely-used risk assessment tools such as the HCR-20 (Douglas, Ogloff, & Hart, 2003) and the LSI-R (Lowenkamp, Holsinger, Brusman-Lovins, & Latessa, 2004), as well as earlier versions of release plan coding protocols (Dickson, 2014; Scoones et al., 2012; Willis & Grace, 2008). The RPQ also demonstrated good construct validity, as evidenced by construct inter-correlations that met the accepted conventions of supporting convergent and discriminant validity from other measures of criminal risk (e.g., Campbell & Fiske, 1959; Cappelleri et al., 2004; 2013). The quality of offenders' overall release plans was able to discriminate between men who recidivated during the initial 100-day re-entry period and men who did not recidivate, although effect sizes were small (Cohen, 1988). Release plan quality was not able to differentiate between recidivists and non-recidivists at one year following release. Taken together, these findings suggest evidence of a link between release plans and short term recidivism, warranting further analyses that can explore the underlying mechanisms of this potential relationship.

Exploring Dynamic Risk and Protective Factors in Re-entry

The next stage of my research was to investigate the role of dynamic risk and protective factors in re-entry, and how they might be influenced by release plan quality. Recall that multiple DRAOR outcomes were examined: one score in isolation (i.e. *initial* score), an average of all scores during the early re-entry period (i.e. *mean* score), overall change in DRAOR scores within the first 100 days (i.e. *net change* score), and the stability of Internal Acute and External Acute subscales scores (i.e. *variability* and *cumulative change* scores).

Below I present the descriptive data for each DRAOR outcome. Of the 303 men in the sample, 27 were excluded from analyses because they had insufficient DRAOR data

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within the first 100 days¹⁴. The remaining 276 men had an average of 14 DRAOR administrations (range of 5 to 28 ratings, $SD = 4.07$) across the early re-entry period ($M = 92$ days, $SD = 12.91$). A series of analyses were performed to investigate (1) whether release plan quality predicted *initial* Stable, Internal Acute, External Acute, and Protective subscales scores, (2) whether release plan quality added incremental validity to the prediction of *initial* and *mean* DRAOR total scores, above existing measures of risk and release feasibility, (3) whether release plan quality predicted stability of Internal Acute and External Acute subscale scores during re-entry, and finally (4) whether release plan quality predicted overall changes in DRAOR scores during re-entry.

Descriptive statistics for dynamic re-entry factors.

The mean and standard deviation for each DRAOR outcome is presented in Table 6. Recall that each parolee's *initial* score was the rating his probation officer completed closest to two weeks following his release. Because each subscale is comprised of different numbers of items, the average item score for each subscale was also calculated for the purpose of making comparisons across subscales (rather than using the total score for each subscale, which is the sum of all items). For example, the average *initial* rating of Stable subscale items was 1.27 out of 3, whilst for External Acute items the average *initial* rating was 0.9 out of 3.

¹⁴ Recall that inclusion criteria was defined as having their first DRAOR assessment within a fortnight of release, plus at least 3 additional DRAOR administrations within 100 days

Table 6.

Means and Standard Deviations for DRAOR Subscale Total and Average Item Scores

	Initial	Mean	Variability	Change
	<i>M (SD)</i>	<i>M (SD)</i>	<i>M (SD)</i>	<i>M (SD)</i>
Subscale Total Score				
Stable Subscale	8.80 (2.60)	8.65 (2.48)	0.73 (0.69)	0.37 (2.17)
Internal Acute Subscale	1.53 (1.26)	1.48 (1.10)	0.61 (0.43)	0.46 (1.61)
External Acute Subscale	2.68 (1.22)	2.64 (1.15)	0.42 (0.36)	0.28 (1.24)
Protective Subscale	5.64 (2.32)	5.79 (2.19)	0.58 (0.68)	-0.39 (2.09)
Total Score	7.37 (5.46)	6.98 (5.42)	1.19 (0.95)	1.50 (5.12)
Average Item Scores Across Subscale				
Stable Items (7 items)	1.27 (0.37)	1.24 (0.35)	0.14 (0.12)	0.06 (0.31)
Internal Acute Items (3 items)	0.51 (0.42)	0.50 (0.36)	0.38 (0.27)	0.16 (0.54)
External Acute Items (3 items)	0.90 (0.41)	2.65 (1.14)	0.44 (0.39)	0.09 (0.41)
Protective Items (6 items)	0.94 (0.39)	0.96 (0.36)	0.11 (0.13)	-0.07 (0.35)

There was considerable variation across the sample with total scores for both *initial* and *mean* DRAOR administrations ranging from -8 to 22 ($M = 7.37$, $SD = 5.46$ for *initial* DRAOR scores; $M = 6.98$, $SD = 5.42$ for *mean* DRAOR scores). Recall that individual items are scored on a 0 - 3 scale with higher scores indicating the presence of that item, regardless of whether it is a risk or protective factor. On average, men scored between 0.36 and 1.59 on individual items. Individual item scores overall revealed that all risk factors posed at least a slight challenge for offenders. Encouragingly, offenders also appeared to possess a range of possible assets, or protective factors, during re-entry.

A one-way repeated-measures ANOVA was conducted to compare *initial* DRAOR scores across subscales, using the average item scores. A significant main effect was found, Wilks' $\lambda = .28$, $F(3, 273) = 229.12$, $p < .001$, $\eta p^2 = .72$, suggesting a significant difference in how the items were scored across the subscales¹⁵. Post-hoc Bonferroni comparisons revealed that Stable subscale scores were significantly higher than scores for the three other subscales ($p < .001$ for all). External Acute and Protective subscale scores were both significantly higher than Internal Acute subscale scores ($p < .001$) but were not significantly different from each other ($p = 1.00$).

Comparisons of *mean* DRAOR scores across subscales again found a significant main effect of subscale, Wilks' $\lambda = .13$, $F(3, 273) = 632.27$, $p < .001$, $\eta p^2 = .87$; however, this time External Acute subscale scores were significantly higher than scores for the other three subscales ($p < .001$ for all). Stable subscale scores were significantly higher than Protective subscale scores ($p < .001$), which in turn were significantly higher than Internal Acute subscale scores ($p < .001$). Effect sizes for both ANOVA analyses were very large (Cohen, 1988). Taken together, these results suggest Internal Acute subscale scores and Protective subscale scores remained low across the initial re-entry period, while repeated administrations (i.e. *mean* scores) of the DRAOR see the External Acute subscale scores increase to surpass the Stable subscale as the highest-scoring subscale. The *variability* and *net change* outcomes outlined below provide additional insight into the nature of these changes.

In the first 100 days after release, External Acute subscale scores were the most variable ($M = 0.44$), closely followed by Internal Acute subscale scores ($M = 0.38$). There

¹⁵ Partial-eta squared (ηp^2) is a measure of effect size; it tells us the proportion of variance in the dependant variable that is attributable to the factor in question. Values for partial-eta squared are interpreted as: .01 = small effect; .06 = moderate effect; .14 = large effect (Cohen, 1988)

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was a significant main effect of subscale, Wilks' $\lambda = .42$, $F(3, 273) = 127.82$, $p < .001$, $\eta^2 = .58$, indicating differences in *variability* across the four subscales. Post-hoc Bonferroni comparisons revealed items in the External Acute subscale were significantly more variable than items in the Internal Acute subscale ($p = .046$), the Stable subscale ($p < .001$), and the Protective subscale ($p < .001$). Internal Acute items were significantly more variable than both Stable subscale and Protective subscale items ($p < .001$ for both), and items in the Stable subscale were also significantly more variable than Protective subscale items ($p = .007$).

Finally, looking at *net change* in DRAOR scores over the initial (100-day) re-entry period revealed that items in the Internal Acute subscale demonstrated the greatest amount of change ($M = 0.16$), while items in the Stable subscale demonstrated the least amount of change ($M = 0.06$). A significant main effect of subscale was found, Wilks' $\lambda = .90$, $F(3, 273) = 9.77$, $p < .001$, $\eta^2 = .10$, suggesting that the subscales differed in the amount of change made. Post-hoc Bonferroni comparisons indicated that items in the Internal Acute subscale exhibited significantly greater change than items in the Stable subscale ($p = .011$) and Protective subscale ($p < .001$), but did not significantly differ from items in the External Acute subscale ($p = .344$). Surprisingly, items in the Stable and External Acute subscales made similar amounts of change ($p = .936$). Items in the Protective subscale exhibited less change than items in the External Acute subscale ($p < .001$) but significantly greater change than those in the Stable subscale ($p = .003$).

Cumulative change scores were also calculated for the Internal Acute and External Acute subscales. Cumulative scores reflect the number of times a parolee's subscale score changed across the first 100 days of parole. For the Internal Acute subscale, the number of rating changes ranged from 0 to 16 ($M = 3.24$, $SD = 2.81$). For the External Acute subscale, the number of rating changes ranged from 0 to 11 ($M = 2.25$, $SD = 2.32$). There

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was a significant and moderate positive correlation between *cumulative change* scores for Internal Acute and External Acute subscales, $r(275) = 0.47, p < .001$, indicating that greater number of changes in one Acute risk subscale was associated with an increase in cumulative changes in the other.

Does release plan quality predict dynamic risk and protective factors at release?

Hypothesis 1. Offenders with better quality release plans will score lower on the risk subscales, and higher on the protective subscale, immediately following their release from prison

A series of linear regression analyses were performed to explore the relationship between release plan quality and *initial* DRAOR scores. Specifically, I wanted to investigate whether better quality release plans were predictive of lower dynamic risk factors, and higher protective factors, at the time of release from prison. A series of analyses were performed in which total release plan quality scores were regressed on each of the *initial* subscale totals and DRAOR total scores. Consistent with the previous analyses, 27 offenders were excluded due to insufficient DRAOR data. Results for the remaining 276 men are presented in Table 7.

Release plan quality was found to be a significant predictor of all DRAOR variables, explaining between 3.7% and 8.7% of variance in dynamic risk factors, 8.0% of variance in protective factors, and 10.9% of variance in total DRAOR scores. Overall, results indicated that offenders with better quality release plans had lower total scores on their *initial* DRAOR assessment, which reflects lower levels of risk and greater protective factors. Standardised regression weights for the four subscales confirmed that increases in release plan quality predicted decreased dynamic risk scores and increased protective factor scores. Release plan quality appeared to exert greatest influence on External Acute

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dynamic risk factors ($\beta = -.30, p < .001$); however, because the confidence intervals overlapped considerably it is plausible the impact of release plan quality was similar across all subscales. These findings support the first hypothesis.

Table 7.

Release Plan Quality as a Predictor of Initial DRAOR Ratings

<i>Outcome</i>	<i>R²</i>	<i>B (SE)</i>	<i>β</i>	<i>t</i>	<i>95% CI</i>
Stable Dynamic Risk	.037***	-.17 (.05)	-.19**	-3.40	[-.28, -.07]
Internal Acute Dynamic Risk	.047***	-.10 (.03)	-.22***	-3.85	[-.15, -.05]
External Acute Dynamic Risk	.087***	-.13 (.02)	-.30***	-5.37	[-.17, -.08]
Protective Factors	.080***	.23 (.04)	.28***	5.12	[.14, .32]
Total DRAOR	.109***	-.63 (.10)	-.33***	-6.07	[-.83, -.42]

* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

Does release plan quality contribute incrementally to the prediction of DRAOR scores?

Before continuing to address the remaining hypotheses, incremental predictive power was investigated to determine whether the RPQ adds to the prediction of DRAOR total scores, over and above what can be predicted by currently-used measures of risk and release feasibility. Earlier results have indicated the RPQ is significantly related to these measures; hence, I was interested to see whether the RPQ total score was still predictive of *initial* DRAOR total scores once I controlled for the variance explained by the RoC*RoI, the VRS, and the RPFA-R. I also included analyses of *mean* DRAOR total scores to test whether the findings held across repeated administrations (i.e. as the

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DRAOR is used in practice, and to factor in change in the community). Hierarchical multiple regressions were conducted to evaluate incremental predictive validity. The RoC*RoI, VRS, and RPFA-R were entered together into the first block of each model, and the RPQ total score was entered in the second block.

Table 8 shows that the VRS and RPFA-R were significant predictors of both *initial* and *mean* DRAOR total scores, explaining between 14.4 – 17.4% variance (see Table 8). Surprisingly, the RoC*RoI did not make any significant contribution to the DRAOR¹⁶. With all three risk measures controlled for, the RPQ total score added significant incremental predictive validity to both of the models and explained an additional 2.1 – 2.6% variance in DRAOR total scores. Incremental contributions were in the expected negative direction; that is, for every 1-point increase in RPQ total score, the *initial* DRAOR total score would decrease by .35 after controlling for the RoC*RoI, VRS, and RPFA-R (similarly, *mean* DRAOR total scores decreased by .32). It is interesting to note that the RPFA-R was no longer a significant predictor of DRAOR total scores once the RPQ was added to the second block of the model. This finding indicates that when both release plan measures are included in the model, the variance that was originally accounted for by the RPFA-R is slightly better explained by the RPQ. These results confirm that our measure of release plan quality can provide increased predictive accuracy for risk and protective factors in re-entry, beyond that of currently used measures of risk and release readiness.

¹⁶ Previous research by Hanby (2013) and Yesberg (2015) has found that initial total DRAOR scores are significantly and positively correlated with the RoC*RoI. I tested additional models entering the RoC*RoI alone into the first block and confirmed that, even in the absence of other risk measures, it was not a statistically significant predictor of *initial* ($p = .378$) or *mean* ($p = .055$) DRAOR total scores

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Table 8.

Incremental Validity of the RPQ Predicting Initial and Mean DRAOR Total Scores

	<i>Initial DRAOR</i>					<i>Mean DRAOR</i>				
	R ²	ΔR ²	B (SE)	B	95% CI	R ²	ΔR ²	B (SE)	β	95% CI
Block 1	.144***					.174***				
RoC*RoI			.80 (2.74)	.02	[-4.58, 6.20]			3.73 (2.73)	.08	[-1.66, 9.11]
VRS			.14 (.04)	.23***	[.06, .23]			.16 (.05)	.25***	[.07, .25]
RPFA-R			.27 (.09)	.20**	[.09, .45]			.25 (.10)	.19**	[.07, .44]
Block 2	.170**	.026				.195*	.021			
RoC*RoI			.48 (2.71)	.01	[-4.85, 5.81]			3.29 (2.71)	.07	[-2.05, 8.62]
VRS			.13 (.04)	.21**	[.05, .22]			.15 (.04)	.23***	[.06, .23]
RPFA-R			.16 (.10)	.12	[-.03, .36]			.16 (.10)	.12	[-.04, .36]
RPQ			-.35 (.12)	-.19**	[-.60, -.12]			-.32 (.12)	-.17*	[-.56, -.08]

* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

Does release plan quality predict stability in acute DRAOR scores?

Hypothesis 2. Better quality release plans will improve the stability of acute dynamic risk scores during the first 100 days of re-entry.

Having confirmed that the RPQ was a significant predictor of both *initial* and *mean* DRAOR scores, I then investigated whether release plan quality was predictive of stability in acute dynamic risk scores across re-entry (i.e. the first 100 days following release). I conducted a series of hierarchical linear regression analyses to investigate whether RPQ total scores predicted *variability* and *cumulative change* in Internal Acute and External Acute DRAOR scores. Recall that these variables provide an estimate of the magnitude and frequency of fluctuations in acute dynamic risk factors during the first 100 days of release. Because there was considerable diversity in the regularity of DRAOR administrations a parolee had during this time period (between 5 and 28 administrations, $M = 14$, $SD = 4.07$), the number of administrations recorded during the follow-up period was controlled for in all analyses. When examining *cumulative change* scores, the length of the time between the first and last DRAOR administration during the follow-up period¹⁷ was also controlled for, because previous research has reported less observable change in dynamic risk factors in shorter reassessment intervals compared to longer reassessment intervals (Blanchard, 2013). Stable subscale scores from parolees' first DRAOR administration were also controlled for in *cumulative change* analyses, to take initial differences into consideration (Dalecki & Willits, 1991). Results are presented in Table 9.

¹⁷ The follow-up period was defined as 100 days from the date of release. However, some parolees did not have regular DRAOR administrations throughout the entire follow-up period, typically because of a return to prison. The length of time between parolees' first and last DRAOR administration within the follow-up period ranged between 28 and 100 days ($M = 92$, $SD = 12.91$)

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Table 9.

Release Plan Quality as a Predictor of Variability and Cumulative Change in Internal Acute and External Acute DRAOR Subscales

		<i>Internal Variability</i>					<i>External Variability</i>				
		R ²	ΔR ²	B (SE)	β	95% CI	R ²	ΔR ²	B (SE)	β	95% CI
Block 1	No. ratings	.01		-.001 (.01)	-.02	[-.004, .01]	.002		-.001 (.01)	-.05	[-.01, .01]
Block 2 ^a	No. ratings	.02	.01	-.001 (.01)	-.01	[-.004, .01]	.01	.007	-.001 (.01)	-.04	[-.004, .01]
	RPQ total			-.01 (.01)	-.09	[-.03, .004]			-.01 (.01)	-.10	[-.03, .003]
		<i>Internal Cumulative</i>					<i>External Cumulative</i>				
		R ²	ΔR ²	B (SE)	β	95% CI	R ²	ΔR ²	B (SE)	β	95% CI
Block 1	First Stable	.20***		.12 (.06)	.10	[-.01, .24]	.16***		-.06 (.05)	-.06	[-.16, .05]
	No. ratings			.31 (.04)	.45** *	[.23, .39]			.24 (.04)	.43** *	[.18, .31]
	No. days			-.02 (.01)	-.08	[-.04, .01]			-.01 (.01)	-.07	[-.03, .01]
Block 2 ^b	First Stable	.21*	.01	.10 (.06)	.09	[-.03, .23]	.19**	.03	-.08 (.05)	-.08	[-.19, .03]
	No. ratings			.31 (.04)	.45** *	[.23, .39]			.25 (.03)	.43** *	[.18, .31]
	No. days			-.02 (.01)	-.08	[-.04, .01]			-.01 (.01)	-.06	[-.03, .01]
	RPQ total			-.11 (.05)	-.11*	[-.21, -.01]			-.13 (.05)	-.16**	[-.22, -.04]

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

In the first set of models, the regression analyses revealed that release plan quality was not a statistically significant predictor of Internal Acute *variability* ($p = .129$) or External Acute *variability* ($p = .103$). Note, however, that the relationship was in the right direction (i.e. regression coefficients were negative), which indicates that higher RPQ scores were associated with less variability in acute dynamic risk factors. In the second set of models, release plan quality predicted cumulative change in both Internal Acute subscale scores ($F [4, 271] = 17.86, p = .048$) and External Acute subscale scores ($F [4, 271] = 15.82, p = .004$), explaining an additional 1.2 – 2.5% of the variance. Taken together, these findings indicate that after controlling for irregular administration of the DRAOR, having a better quality plan for release predicted fewer changes or fluctuations (i.e. greater stability) in scores for both Acute subscales.

Does release plan quality predict change in DRAOR scores?

Hypothesis 3. Better quality release plans will lead to greater reductions over time in overall re-entry risk assessment scores.

Next, a further series of two-stage hierarchical multiple regressions were conducted to investigate whether release plan quality was predictive of overall change in dynamic re-entry factors during the first 100 days of release. Simple change models were constructed by entering scores from parolees' first DRAOR administration into Block 1 to control for baseline risk¹⁸, before regressing *net change* scores (for each subscale, and the DRAOR total score) on the RPQ total score. As per the previous regression models, the number of administrations, the total number of days between first and last DRAOR administrations, and the first DRAOR score were also controlled for.

¹⁸ Previous research has shown that offenders with the greatest capacity to change tend to have higher underlying levels of risk (e.g., Beggs & Grace, 2011; Olver, Kingston, Nicholaichuk, & Wong, 2014)

Table 10.

Release Plan Quality as a Predictor of Net Change in DRAOR Subscales and Total Score

<i>Outcome</i>	R^2	B (SE)	β	95% CI
Stable Change ^a	.12	.05 (.04)	.06	[-.04, .13]
Internal Acute Change ^b	.34	.07 (.03)	.12*	[.01, .12]
External Acute Change ^c	.24	.05 (.02)	.12*	[.01, .03]
Protective Change ^d	.13	-.15 (.04)	-.15***	[-.23, -.06]
DRAOR Total Change ^e	.12	.26 (.11)	.11*	[.05, .47]

* $p < .05$, ** $p < .01$, *** $p < .001$ ^a Adjusted $R^2 = .10$, $\Delta R^2 = .01$ ^b Adjusted $R^2 = .34$, $\Delta R^2 = .01$ ^c Adjusted $R^2 = .23$, $\Delta R^2 = .01$ ^d Adjusted $R^2 = .11$, $\Delta R^2 = .04$ ^e Adjusted $R^2 = .10$, $\Delta R^2 = .02$

Note: R^2 values refer to Block 2 of the models, after controlling for first DRAOR score, number of days between first and last DRAOR administrations within 100 days, and number of DRAOR administrations within 100 days.

Table 10 presents the unique contribution that release plan quality made to each of the models. The results indicate that release plan quality did not predict change in Stable subscale scores ($p = .310$); however, RPQ total scores did make statistically significant contributions to overall change in the three remaining subscales, as well as DRAOR total scores. In other words, better quality release plans were related to reductions in acute dynamic risk factors and DRAOR total score, and increases in protective factors, over the first 100 days of release. Introducing the RPQ to the models explained an additional 1.4% of the variation in Internal Acute Change, ($F [4, 271] = 35.57, p < .001$), an additional 1.3% of the variation in External Acute Change ($F [4, 271] = 21.01, p < .001$), an additional 3.8% of the variation in Protective Change ($F [4, 271] = 9.65, p < .001$), and an additional 2% of the variation in Total Change ($F [4, 271] = 8.82, p < .001$). Examination

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of the standardised regression coefficients indicates that release plan quality had the greatest impact on change in Protective subscale scores. However, due to overlapping confidence intervals it is again plausible that the impact of release plan quality was similar across all significant outcomes. These findings support the hypothesis that parolees with better quality release plans exhibit greater reductions in overall dynamic re-entry risk assessment scores.

Investigating the DRAOR as a Mediating Variable

Hypothesis 4. DRAOR scores will mediate the relationship between release plan quality and recidivism.

The results thus far have indicated that parolees with better quality release plans demonstrate lower risk and higher protective factors, both at the time of release and across the re-entry period, and also exhibit more positive change and greater stability during the re-entry process. The following analyses investigate the role of dynamic risk and protective factors as an underlying mechanism of successful release planning. I hypothesised that factors that influence the re-entry process (i.e. stable and acute dynamic risk factors and protective factors) would mediate the relationship between release plan quality and recidivism. Two sets of mediation models were tested to explore both the initial period of release (i.e. the first 100 days of re-entry), when reoffending rates are at their peak (Burnett, 2009; Nadesu, 2007) and the first year in the community.

Recall that four indices of recidivism were examined: breach of parole, any new conviction (excluding breaches), any new violent conviction, and reimprisonment. When investigating short-term recidivism (i.e. within 100 days), *initial* DRAOR scores were tested as potential mediators. Men who recidivated prior to their *initial* DRAOR assessment; that is, within the first fortnight of release, were excluded from analysis. This

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resulted in varying sample sizes for each of the four recidivism outcomes: $n = 279$ for breach of parole conditions; $n = 290$ for new reconvictions; $n = 303$ for new violent reconvictions; and $n = 294$ for reimprisonment. For analyses investigating long-term recidivism (i.e. within one year), *mean* DRAOR scores were tested as potential mediators. As per previous analyses, 27 men were excluded due to insufficient DRAOR data. To maximise retention of the remaining 276 participants, rather than further excluding men who recidivated before the date of their last DRAOR score during the re-entry period, we opted to adjust *mean* DRAOR scores to exclude DRAOR administrations that occurred following a reoffence. In other words, for recidivist offenders their *mean* DRAOR score reflected the average of all DRAOR ratings the individual had up until the date they committed a new offence (i.e. the rating most proximal to recidivism). For non-recidivists, their *mean* DRAOR score reflected the average of all available DRAOR ratings within the first 100 days of release.

Constructing a mediation model. A series of logistic mediational analyses were conducted to test whether DRAOR scores mediated the relationship between release plan quality and recidivism. “Simple mediation” models represent a hypothesised causal chain, designed to explain the relationship between a proposed causal agent (independent variable X) and an outcome (dependent variable Y), via a third, intervening variable (mediator M ; see Figure 2 on following page). Mediation is said to occur if the effect of X on Y is wholly or partly transmitted by M .

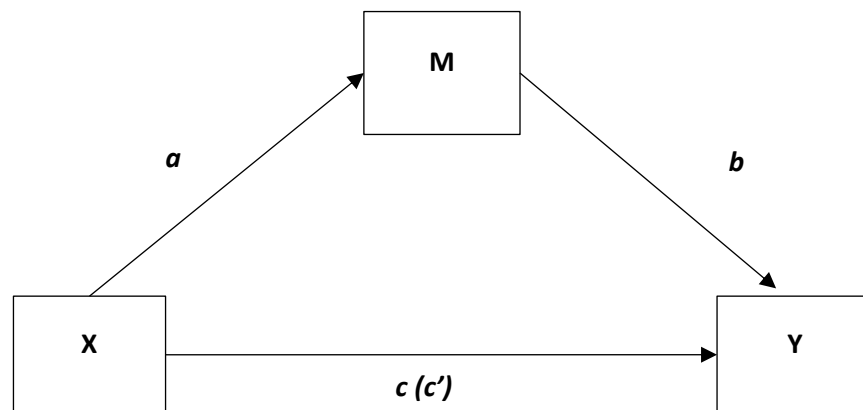


Figure 2. Simple three-variable mediation model

Baron and Kenny's (1986) causal-steps approach has been the most widely used method of testing mediation, yet it has also faced heavy criticism in recent years (see Hayes, 2009, 2012). The major point of contention is the central requirement of a significant relationship between the independent and dependent variable (i.e. pathway "c", known as the '*total effect*'). While traditional approaches have asserted that mediation cannot proceed if this pathway is not significant, emerging perspectives are encouraging researchers to abandon the requirement for a significant total effect, positing instead that exploration of mediation should be guided by theory (e.g., Hayes, 2009, 2012; Rucker et al., 2011; Shrout & Bolger, 2002; Zhao et al., 2010). In accordance with these new recommendations, the present analyses sought to establish mediation by testing the significance of the '*indirect effect*' (the influence of *X* on *Y* through the mechanism represented by *M*, via pathways *a* and *b*; Jose, 2013). This was done by way of the Sobel test, which examines whether reductions in the effect of the predictor variables on the outcome variable are significant once the mediator is introduced.

To construct the mediation models, regressions were run to test the relationships between the variables using the syntax provided by Dr Nathaniel Herr. In order to test for

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indirect effects, two relationships are essential. First, the predictor variable (i.e. release plan quality) must be related to the potential mediator (i.e. the DRAOR), resulting in a significant pathway “*a*”. Second, the potential mediator must be related to the outcome variable (i.e. recidivism), resulting in a significant pathway “*b*”. The final series of regression analyses involves testing the relationship between release plan quality and recidivism when controlling for the DROAR (i.e. pathway “*c*”). Standardised regression coefficients and Sobel’s *z* values are presented in Table 11.

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Table 11.

Pathway Coefficients and Sobel's z for Mediation Analyses of Indirect Effects

	<i>Short-term Recidivism</i>						<i>Long-term Recidivism</i>					
	<i>a</i>	<i>b</i>	<i>c</i>	<i>c'</i>	<i>z</i>	<i>p</i>	<i>a</i>	<i>b</i>	<i>c</i>	<i>c'</i>	<i>z</i>	<i>p</i>
Breach of parole	-.57***	.06*	-.12*	-.09	-1.92	.055	-.63***	.05	-.03	-.01	-1.87	.062
Any new conviction	-.59***	.13***	-.07	.00	-3.26	.001	-.66***	.11***	-.06	-.001	-3.48	.001
New violent conviction	-.63***	.05	-.08	-.05	-1.04	.296	-.66***	.09**	-.09	-.03	-2.67	.008
Reimprisonment	-.58***	.09**	-.08	-.03	-2.53	.011	-.66***	.10***	-.03	.02	-3.24	.001

Note: Short-term recidivism models refer to initial DRAOR scores and recidivism within 100 days; long-term recidivism models refer to mean DRAOR scores and recidivism within one year

Do initial DRAOR scores mediate the relationship between release plan quality and short-term recidivism? Contrary to earlier findings, there was no direct relationship between release plan quality and any new conviction ($p = .158$), new violent conviction ($p = .372$), or reimprisonment ($p = .151$) within the first 100 days of release. Release plan quality did, however, predict breaches of parole conditions within the short-term re-entry period ($p = .003$). Looking to the relationships required for testing indirect effects, after excluding offenders who rapidly reoffended (i.e. prior to their *initial* DRAOR rating), release plan quality was a strong and significant predictor of *initial* DRAOR scores (a significant pathway “*a*”). In turn, *initial* DRAOR scores significantly predicted three of the four short-term recidivism outcomes: breach of parole, any new conviction, and reimprisonment (a significant pathway “*b*”). As *initial* DRAOR scores did not predict new violent convictions ($p = .293$) this model was not examined further.

Having established that the necessary preconditions for indirect mediation were met, the next step was to determine whether the path between release plan quality and recidivism decreased when controlling for *initial* DRAOR scores. Standardised regression coefficients for the “*c*” pathway show that this relationship was weakened for all three potential models. In order for these changes to indicate mediation, the decrease was tested for significance (Preacher & Hayes, 2004). Sobel’s z was significant for short-term recon convictions ($p = .001$) and short-term reimprisonment ($p = .011$); these models are presented in Figures 2 and 3. No significant indirect effect was found for short-term breaches ($p = .06$); however, Sobel’s z was nearing significance.

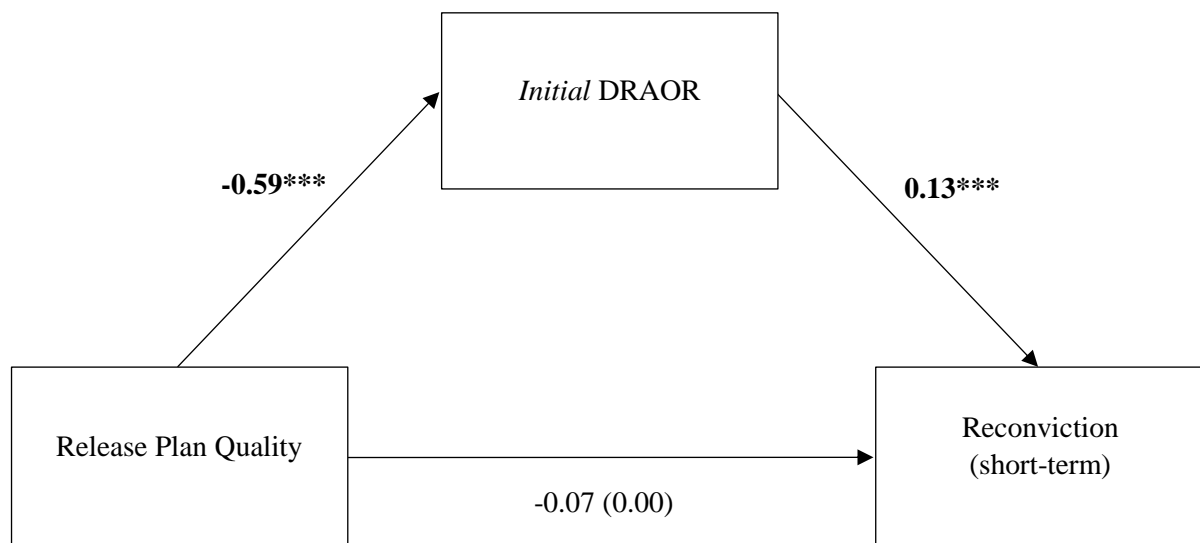


Figure 3. The relationship between release plan quality and short-term reconviction as mediated by *initial* DRAOR scores

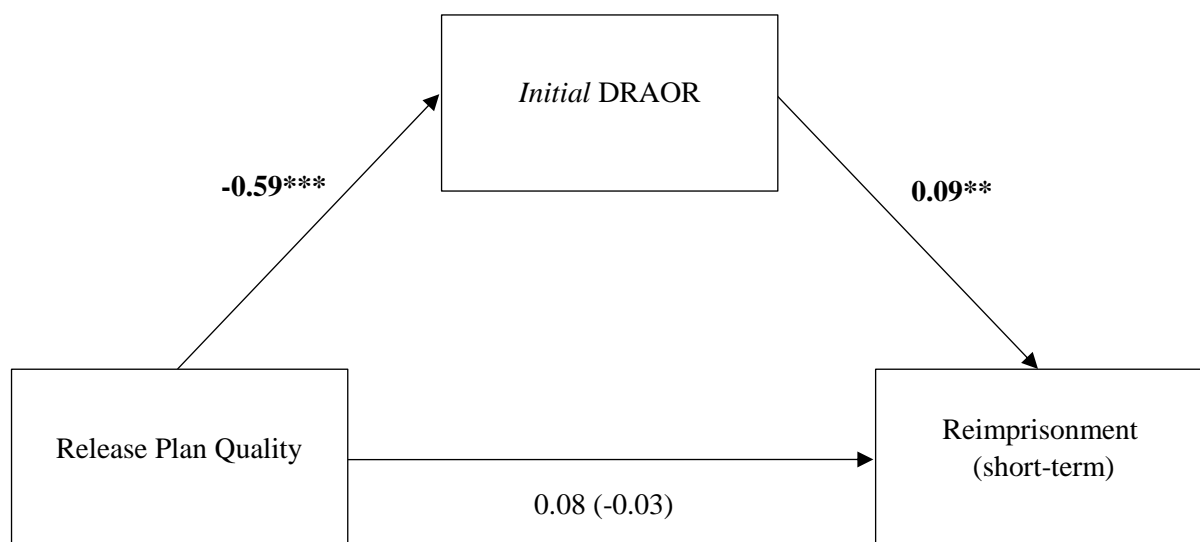


Figure 4. The relationship between release plan quality and short-term reimprisonment as mediated by *initial* DRAOR scores

Do mean DRAOR scores mediate the relationship between release plan quality and longer-term recidivism? Referring back to Table 9, release plan quality was again a strong, significant predictor of adjusted *mean* DRAOR scores. In turn, *mean* DRAOR scores significantly predicted three of the four long-term recidivism outcomes: any new reconviction, new violent reconviction, and reimprisonment. As *mean* DRAOR scores did not predict breaches of parole conditions ($p = .062$) this model was not examined further.

In the three remaining models, the pathways between release plan quality and long-term recidivism decreased when controlling for *mean* DRAOR scores (i.e. the figure in parentheses). Sobel tests showed these decreases were significant for all three models; these are presented in Figures 4, 5, and 6.

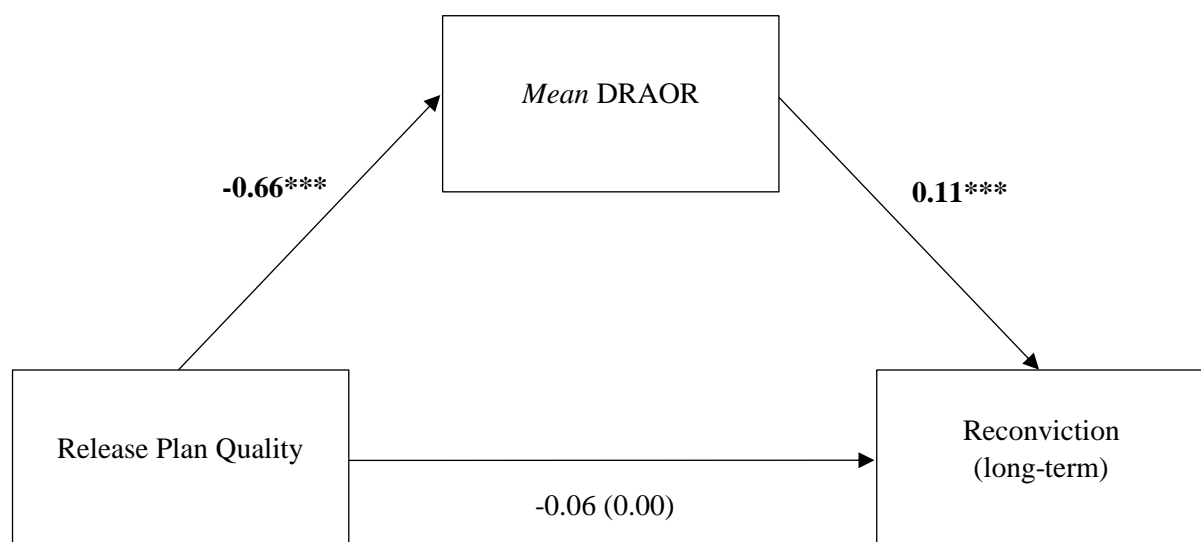


Figure 5. The relationship between release plan quality and long-term reconviction as mediated by *mean* DRAOR scores

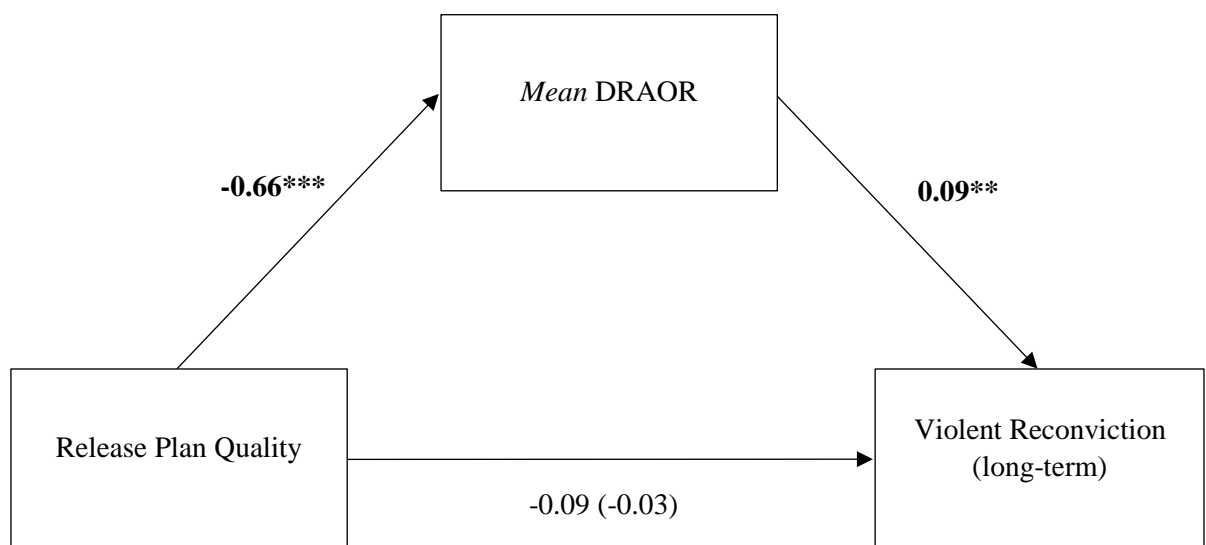


Figure 6. The relationship between release plan quality and long-term violent reconviction as mediated by *mean* DRAOR scores

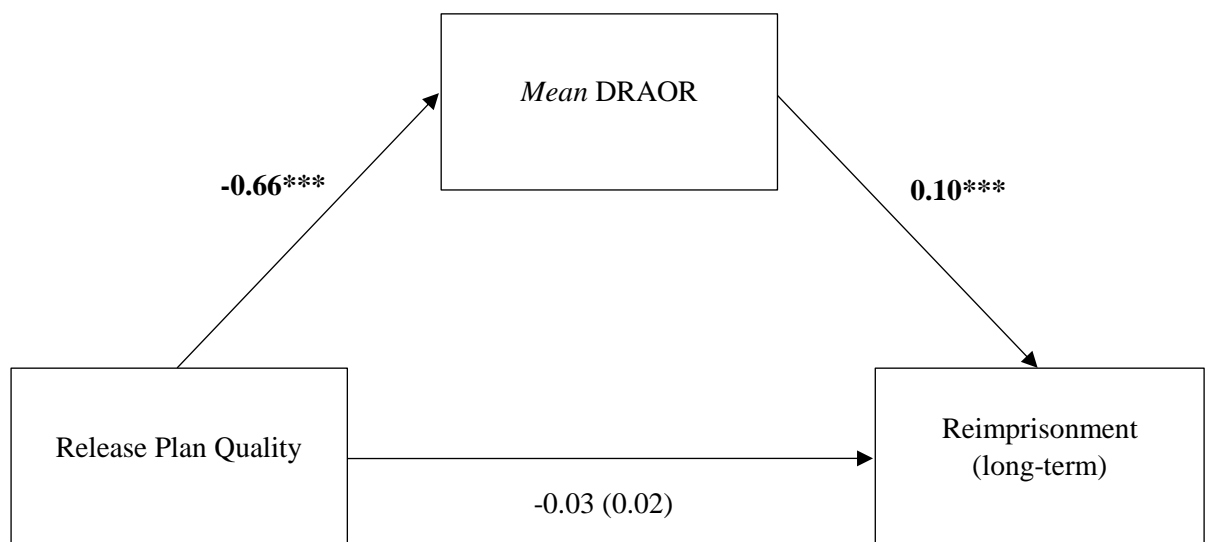


Figure 7. The relationship between release plan quality and long-term reimprisonment as mediated by *mean* DRAOR scores

Interpretation of mediation findings. Taken together, results of the mediation analyses indicate that initial assessments of dynamic risk and protective factors explain a significant amount of the relationship between release plan quality and reconvictions and reimprisonment within 100 days of release. Further, taking the average risk assessment scores across the re-entry period continues to significantly explain this relationship over the first year of release from prison.

The models presented are consistent with what Zhao and colleagues (2010) term as ‘indirect-only mediation’, whereby a mediated effect exists in the absence of a direct effect. This pattern of results suggest that DRAOR scores fully mediate the relationship between release plan quality and recidivism outcomes, because they are explaining all the variance that release plans could be predicting.¹⁹.

¹⁹ Distinguishing mediation as partial or full depends on whether the c' pathway (i.e. the effect of release plan quality on recidivism that is not mediated by the DRAOR) is statistically significant (Warner, 2013). Although full mediation suggests there is no need to test for other potential mediating variables, it is necessary to note that a single mediator rarely explains the entire relationship between a predictor and an outcome (Yesberg, 2015). Thus, despite meeting the threshold for “full mediation”, it is certainly possible that other third variables, not accounted for here, may also be acting as potential mediators.

Discussion

The purpose of this thesis was to explore factors that influence the re-entry process (i.e. dynamic risk and protective factors) as a potential mechanism underlying the effectiveness of release planning for high-risk offenders. The major aims of the current study were twofold. The first aim was to investigate the influence of release plans on dynamic risk and protective factors, as measured by the DRAOR, in parolees' release environments. Release plans help offenders to prepare for the risks they will face in the community; however, very little is known about how these risk factors are affected by the quality of offenders' plans for life after prison. The second aim was to examine *how* release planning may help to reduce reoffending in the community, by testing whether these dynamic re-entry factors mediated the relationship between release plan quality and recidivism. To accomplish these aims, we revised a coding protocol to assess the quality of prisoners' plans for release, which was then retrospectively applied to a large sample of high-risk prisoners across New Zealand. Prospective data on the men's dynamic risk and protective factors during re-entry were gathered from DRAOR assessments conducted by Probation staff during the first three months following release. In the following sections, I provide an overview of the main empirical findings and address the hypotheses posed in the opening of this thesis. Theoretical and practical implications of the key research findings are subsequently discussed with reference to relevant literature on release planning, re-entry experiences and challenges, the recidivism process, and current correctional practice in New Zealand. Limitations of the current study are then reviewed, along with suggested directions for future research.

Overview of Empirical Findings

A preliminary task for the current study was to evaluate whether the revised coding protocol could be used as a valid and reliable measure of release plan quality. The RPQ demonstrated good levels of inter-rater reliability and internal reliability, indicating that items were clearly operationalised such that the protocol could be consistently applied by outside raters. One item in particular (*prosocial support*) had markedly lower inter-rater agreement, which may suggest coders were attending to different kinds of information and this item could benefit from further clarification. Testing the convergent and discriminant validity of the RPQ indicated reasonable construct validity.

Additionally, the RPQ could reliably differentiate between recidivists and non-recidivists in the first three months of re-entry, but did not differentiate at the first year of release.

The finding suggests that release plans may have their greatest direct influence during the early months of re-entry, when parolees are still finding their feet and are at their most vulnerable, and the influence of pre-release plans may diminish over time as other factors come into play. As anticipated, release planning was of significantly poorer quality for the recidivists compared to the non-recidivists.

Overall, parolees' plans were not particularly comprehensive. Men in the current study scored, on average, less than half the maximum possible score (47%), which is consistent with much of the research internationally and within New Zealand, illustrating that prisoners are often not well-prepared for their release (e.g., Makarios, Steiner, & Travis, 2010; Visser et al., 2006). This finding in itself is noteworthy because very little is currently known about the re-entry circumstances of offenders in New Zealand, let alone high-risk parolees. Most of the sample were living in accommodation that was relatively stable but not permanent; they were unemployed, had limited prosocial support available, were likely to have some contact with antisocial associates, and had weak plans

for managing their individual risks. Parolees who had better quality release plans overall (i.e. plans that were more constructive, prosocial, and confirmed) were more likely to score lower on stable and acute dynamic risk factors, and higher on protective factors, within the first fortnight of being released from prison, which was consistent with the first hypothesis for this research. Additional analyses confirmed that release plan quality was not merely a proxy for parolees' pre-existing risk level; the RPQ provided significant incremental validity above the RoC*RoI, VRS, and the RPFA-R. This pattern of findings was consistent with predictions of *mean* DRAOR scores across the first 100 days of re-entry.

Hypotheses 2 and 3 focused on the relationship between release plan quality and intraindividual change in DRAOR scores. Interestingly, at the time of release parolees had the lowest average-item scores for Internal Acute risk factors (e.g., negative mood, substance abuse) and External Acute risk factors (e.g., living situation, interpersonal relationships); however, these subscales exhibited the greatest amount of change and variability during the re-entry period. This finding suggests that although these risk factors were assessed as least problematic at release, they were also the least stable over time (consistent with their conceptualisation in risk literature; Hanson & Harris, 2000). Stable and Protective subscales showed significantly less overall change and variability during re-entry, indicating a more stable or enduring nature compared to the acute factors. As predicted, having a better quality plan for release improved the stability of acute dynamic risk scores (Hypothesis 2). Parolees with better quality release plans also exhibited greater reductions in DRAOR total scores during the early months of re-entry (Hypothesis 3). Significant prediction of net change scores is analogous to within-subject moderation (Judd, Kenny, & McClelland, 2001), suggesting that release plan quality is a moderator of the extent of change made on DRAOR total scores.

Drawing these findings together, Hypothesis 4 tested whether release plans have an indirect relationship with recidivism through their relationship to the re-entry process. Indices of ‘short-term’ and ‘longer-term’ recidivism were examined to measure reoffending within the early months of re-entry (when recidivism risk is at its peak; Nadesu, 2007) as well as throughout the first year of release. The two general mediation models tested were: (1) the indirect effect of release plans on short-term recidivism through *initial* DRAOR scores and (2) the indirect effect of release plans on longer-term recidivism through *mean* DRAOR scores. Results of the mediation analyses supported our final hypothesis, such that having a better quality plan for release was associated with lower scores on parolees’ *initial* DRAOR administration, and in turn were less likely to be reconvicted or return to prison within the first 100 days of release. Similarly, parolees with better quality release plans exhibited lower *mean* DRAOR total scores across re-entry, which in turn related to lower rates of general and violent reconvictions, and reimprisonment, within the first year of release. Together, the results support a full, indirect-only mediation, implying that release planning helps to reduce reoffending through its impact on the dynamic risk and protective factors that influence the re-entry process.

Getting out the gate: Release plans and early re-entry risk.

The findings of the current study provide fresh insight into the release circumstances faced by high-risk prisoners in New Zealand, and contribute to our understanding of the relationship between pre-release plans and immediate post-release risks. Existing research on prisoner re-entry suggests that relapses into criminal behaviour are heavily contingent on prisoners’ post-release environments (Kubrin & Stewart, 2006). However, there is a general absence of research in New Zealand that can speak to ex-prisoner’s experiences of transitioning back into the community (see Opie, 2012). The

first question for my research was to examine whether men with better quality release plans were receiving lower risk scores, and higher protective scores, within the first fortnight of their release into the community.

Although there was evidence of some planning across all domains of re-entry, the release plans held by men in the current sample were essentially “survival plans” (Polaschek, 2015) that typically addressed the bare minimum of their needs for release. Anecdotally, a number of men expressed feelings of frustration and resentment when discussing their plans for release; some felt they were being ‘set up to fail’ due to strict conditions and, for example, the Department vetoing multiple housing options. However, there were also many instances where these conditions worked in the men’s favour, such as referring to non-association conditions in their plans as a means to help distance themselves from former criminal peers.

Perhaps unsurprisingly, men in the current study also faced a multitude of risks upon their release. It is interesting to note that prior research with a similar sample of high-risk male parolees found that, on the basis of file notes from Community Probation Services, the majority of men (58.2%) had no risk factors identified in their release environment (e.g., gang activity, isolation, victim contact), while less than 10% had more than one risk factor evident (Dickson, 2014). In the current study, men were found to have at least several potential risks in their release environment at the time of release, highlighting the efficacy of using a structured assessment tool such as the DRAOR for assisting probation officers with the assessment (and reassessment) of parolees’ circumstances during this transition.

Initial ratings of Internal Acute risk factors (e.g. negative mood, anger) were notably lower than other subscales of the DRAOR at release; this may reflect the

tendency for prisoners to initially feel highly enthusiastic about their release (La Vigne, Shollenberger, & Debus-Sherrill, 2009; Phillips & Lindsay, 2011), typically expressing greater optimism regarding their chances of success than is realistic (Mears & Cochran, 2014). However, RPQ ratings also indicated that men in the current study were poorly equipped to cope with life in the community, and did not seem to know how they might handle risky situations such as being approached by former criminal friends, abstaining from drugs and alcohol, or managing their anger. Plans for dealing with antisocial associates and idiosyncratic risks largely centred on avoidance, which is a predominant coping strategy for prisoners managing re-entry difficulties (Phillips & Lindsay, 2011). This finding was particularly concerning given that about half the men had completed an intensive rehabilitation programme during their sentence.

As hypothesised, the current findings indicated that having a poor plan for release translates to overall heightened risk in the community. One possible reason why release planning predicted DRAOR scores may lie in our construction of the coding protocol, and the nature of information available to be coded. Revisions made to the coding protocol were largely guided by the availability and quality of relevant file information, the majority of which was predominantly risk-oriented (e.g., psychologist reports, reports to the Parole Board). Higher quality plans were conceptualised as those that featured fewer destabilising factors and would support the overall functioning of individuals in the community, as this reflects the priorities of a risk management perspective. Thus, by their very definition, good release plans were those that presented fewer risks (e.g. unstable housing, isolation, financial difficulties). Using these sources also made it difficult to code more constructive or protective areas of planning, such as recreational activities or reclaiming child custody, unless men explicitly mentioned it during their pre-release interview. In light of this, it is somewhat surprising that the RPQ was a significant

predictor of protective factors during re-entry; however, there is little evidence to support the notion that protective factors within the DRAOR are genuinely independent of risk (Yesberg & Polaschek, 2014; see Harris & Rice, 2015). It therefore remains unclear whether release plans are making a unique contribution to men's protective assets – perhaps there is something about the way men with better quality plans present to their probation officers that results in them being perceived as having greater strengths.

Alternatively, it is possible that release plans are facilitating a return to release environments that are less likely to trigger dynamic risk factors. Research conducted within our Criminal Justice lab at Victoria University found almost two-thirds of the current sample returned to a familiar release environment; typically back to the community they were living in prior to their incarceration (Robson, 2015). Thus, unless an offender had a good quality plan or something significant had changed in his circumstances, he would likely return to very similar – and potentially very criminogenic – release environment. The RPQ appeared to have its greatest impact on External Acute items of the DRAOR, which is consistent with recent findings that release plans primarily influence experiences external to the offender (Dickson & Polaschek, 2015). However, due to the overlapping confidence intervals I cannot draw firm conclusions to support this trend. Nonetheless, this finding raises interesting implications regarding the influence of release planning on environmental stressors, which ought to be explored in future studies. In their earlier research, Willis and Grace (2008, 2009) raised the suggestion that successful release planning should minimise the likelihood of triggering events in one's release environment, and thus reduce the activation of dynamic risk factors. This could occur in a multitude of ways. For example, having a steady job places restrictions on an offender's routines, thereby reducing their exposure to situations conducive to crime (Berg & Huebner, 2011). Employment also enables individuals to pay their bills and

secure stable housing (reducing stress and other negative emotional states) and develop a wider network of social ties with conventional members of society (i.e. promote protective factors; Petersilia, 2003).

While these findings may be expected, to the best of our knowledge the assumption that release planning leads to fewer dynamic risk factors in the release environment has not been empirically tested. Moreover, previous studies have cautioned that having a plan does not guarantee improved outcomes: Luther and colleagues (2011) described how pre-release plans can fall apart almost immediately after release, while Dickson (2014) discovered that attempts to avoid some re-entry risks can inadvertently exacerbate others (e.g., relocating to a new town to avoid former gang mates may cut off options for employment and prosocial support). It is therefore particularly encouraging to find empirical support for this first hypothesis.

Facilitating change and stability during re-entry

The current findings also raise interesting implications for the influence of release planning on the stability of acute risks during re-entry, and the extent of overall change made in DRAOR scores. Parolees are frequently subject to situations while on release that may increase (or decrease) their likelihood of reoffending. Internal and External Acute risk factors changed the most during the first 100 days of re-entry, in terms of both *variability* and *net change* scores. Items in the External Acute subscale (e.g., living situation, interpersonal relationships) were the most variable during re-entry, although Internal Acute total scores (e.g., negative mood, substance abuse) fluctuated more frequently and made the most amount of change between first and last administrations. Together, these descriptive findings suggest that a more complete picture of re-entry risk can be gathered by using a combination of measures.

On average, Acute subscale scores shifted about once per week. This is consistent with the notion of re-entry being a time of “significant flux” (Harding et al., 2014) and highlights the importance of frequent reassessments to capture abrupt changes in re-entry risk. Unsurprisingly, the number of DRAOR administrations across the first 100 days of release was a positive predictor of cumulative change: logically, more frequent rescoring offers more opportunities to capture change. However, even after controlling for these differences, men with better plans for release demonstrated fewer changes in both their External Acute (e.g., interpersonal relationships, living situation) and Internal Acute (e.g., negative mood, anger/ hostility) subscale scores. In light of evidence that returning prisoners face significant social and structural barriers to achieving stability (Abrams & Snyder, 2010; Mears & Cochran, 2014), this finding tentatively indicates that release planning may offer additional protection by buffering against the disruptions and destabilisers common in re-entry. In other words, beyond just returning to a lower-risk release environment, men appear to be returning to more stable circumstances. This finding is particularly important as researchers have emphasised the accumulation of difficulties causes greater strain and aggravation, thus increasing the likelihood of relapse (Graffam et al., 2004; Lussier & Gress, 2014; Mears & Cochran, 2014).

Having a better plan for release was negatively associated with cumulative change, but unrelated to variability in Internal Acute and External Acute subscales, suggesting that release planning may reduce the frequency of disruptions in the release environment, but is less indicative of the magnitude of such hassles (i.e. the spread or dispersion of scores, as measured by standard deviation). The cumulative change variable may have been a more valid measure of what we were trying to capture; that is, the need for all persons – not just former prisoners – to achieve some degree of stability in their living circumstances and relationships (Austin, Irwin, & Hardyman, 2001). Finding that

release plans predicted Internal Acute outcomes, as well as External Acute outcomes, suggests planning also affects emotionally-based risk factors (e.g., hostility, negative mood) not just risks present in their social environment. In accordance with aetiological models of risk (Beech & Ward, 2004), we can speculate that shifts in contextual risk factors (i.e. External Acute items) may trigger a subsequent shift in emotional states (i.e. Internal Acute items). The moderate correlation ($r = 0.47$) confirms that the two are linked; if triggering events result in cognitive appraisals and negative emotions, then fewer disruptions or fluctuations in offenders' relationships and living situations may contribute to more stable mood.

It must be noted that these interpretations rest on the assumption that fewer fluctuations in acute risk is a good thing – in other words, that less cumulative change is in some way linked to lowered recidivism risk. Of course, the alternative is that some men may start out with elevated risk and make little or no change throughout re-entry. It is therefore particularly encouraging to find that – while an average reduction of 1.5 points was found across the sample - men with better quality release plans made significantly greater reductions in their DRAOR total scores²⁰. Upon closer examination, release planning predicted reductions in Internal and External Acute risks, and increases in Protective factors; however, release planning was unrelated to change in the Stable subscale. This may be because stable dynamic risk factors reflect more enduring traits and are slow to change (recent findings suggest it may take between six and twelve months for meaningful change in stable dynamic risk factors; Wooditch, Tang, & Taxman, 2014); hence, the follow up period of 100 days may have been insufficient. It may also be that reductions in risk were being assessed as improvements in Protective items. Anecdotally,

²⁰ Whilst encouraging, it is also acknowledged that men who are assessed as high risk have more scope for change to occur.

probation officers are known to be more reluctant to change scores for a Stable item, and more willing to change scores for Protective items (N. Wilson, personal communication, 23 November 2015) which may also explain why we did not see a great amount of change in the Stable subscale.

Together, these findings indicate that beyond reducing the likelihood of acute triggers in the release environment, release planning appears to increase the stability of these factors also. As outlined in the literature review of this thesis, challenging re-entry circumstances have been shown to exacerbate the incidence of contextual triggers for recidivism. Release planning may be offering additional protective effects by reducing the accumulation of strains during re-entry and facilitating a smoother transition back into the community.

An interesting next step for this research will be to investigate whether these intraindividual changes predict recidivism. Recall that observed changes in acute dynamic risk factors, in theory, are closely associated with imminent recidivism outcomes (Brown et al., 2009; Hanson & Harris, 2000; Serin, Chadwick, & Lloyd, 2015). Further research should also examine whether men whose risk level fluctuates less during re-entry have a lower likelihood of recidivism than men who show consistent decreases in risk over time.

The protective nature of release plans

Previous research in this field has shown that better quality release plans help to protect ex-prisoners from reoffending, and that this relationship is partially explained by the impact of planning on improved experiences in the community (Dickson & Polaschek, 2015). For this research I extended the previous findings by examining another potential mechanism: dynamic risk and protective factors during re-entry. The significant mediation results in the current study provide support for the protective nature

of release plans, demonstrating that men with better quality plans transition through an overall lower-risk re-entry process and, as a result, are less likely to reoffend.

Contrary to previous studies, however, release plan quality did not predict recidivism as expected. Although men who reoffended within the first 100 days of release did have significantly poorer plans for release than those who did not reoffend, no difference was found between the two groups when examining longer-term recidivism (i.e. within the first year of release). Results of the mediation analyses found no *direct* relationship between release planning and recidivism outcomes at either interval, with the exception of short-term breaches. Moreover, although release plan quality remained a significant direct predictor of short-term breaches, this relationship was not mediated by *initial* DRAOR scores.

Recall that in the earlier comparative analyses (i.e. Mann-Whitney U tests) all men were included, whereas in the mediation analyses men were excluded if they reoffended prior to their *initial* DRAOR assessment (i.e. for short-term recidivism) or if they had insufficient data for a *mean* DRAOR score to be calculated (i.e. for longer-term for recidivism): usually because they had been reimprisoned soon after release. It was necessary to remove these men because they had ‘failed’ prior to the mediator being measured. Thus, the mediation analyses did not include men who rapidly reoffended after release. One explanation for the unexpected relationship with recidivism may therefore be that the predictive validity of release planning – and its mechanisms of protecting against recidivism – change with time. Release planning may also be more predictive for higher-risk offenders or less-motivated offenders, who tend to reoffend more rapidly after release.

The first weeks of re-entry are associated with securing and stabilising the offender in basic survival areas, and attending to how these unmet needs may impact a parolees' ability to refrain from offending (Taxman, 2004). Beyond this early survival phase, the focus shifts to strengthening the parolee's commitment to change and making positive advancements in his quality of life (Gobbels et al., 2012). It may be that, in the very early stages of re-entry, release plans directly protect against reoffending by addressing fundamental needs and alleviating the immediate strains or stressors of re-entry (e.g., not having to find shelter by oneself the day they are released). In the latter stages, more indirect outcomes such as risk and protective factors may be most influential and directly impact on whether or not relapse occurs.

This immediate survival is logically what release plans may be expected to directly predict, while longer-term survival may suggest release plans set off a chain of events leading to more distal outcomes. Further, it makes sense that poor planning for release would have a direct bearing on parole violations, as an overall low score on the RPQ reflects a multitude of barriers and unmet needs that would hinder an individual's ability to comply fully with release conditions. For example, a man with plans for temporary housing may incur a technical violation for failing to report in to his probation officer, because he has no fixed abode or reliable means of transportation. This may indicate that behaviours likely to incur a technical violation of release conditions are a direct result of unfavourable or unstable re-entry circumstances, such as failing to report in to one's probation officer due to problematic accommodation or the unanticipated influence of antisocial family members.

There are a number of potential explanations for the mediating role of the DRAOR. First, good quality plans may help to reduce exposure to high-risk situations, thereby minimising the likelihood of encountering acute contextual risks in the release

environment (e.g., housing instability, relationship conflict). For example, carefully planned accommodation may have minimised the likelihood of men being exposed to gang-affiliated peers or substance use. Theoretically this makes sense, as External Acute and Internal Acute dynamic risk factors incorporated in the DRAOR parallel the environmental triggers and dysphoric emotional states that precipitate reoffending (Brown, et al., 2009; Zamble & Quinsey, 1997).

Referring back to the literature on re-entry obstacles, it is important to reiterate that although challenges such as unstable housing and unemployment are not considered direct causes of recidivism, these circumstances of strain and deprivation can trigger dynamic risk factors that may lead to recidivism (Lussier & Gress, 2014; Taxman & Pattavina, 2013). The stress alone of adjusting to life in the community may be enough to trigger a relapse (Western et al., 2015). Thus, men who faced fewer obstacles (e.g., by having stable housing and a job lined up for release) as a result of their good release plans would likely be exposed to fewer environmental stressors (i.e. External Acute risks). In turn, they are less likely to experience the subsequent negative spiral of anger, frustration, and other dysphoric emotions (i.e. Internal Acute risks), thereby potentially averting a relapse into crime. Though it is unlikely that even the best quality release plans can remove all potential triggering events (and keeping in mind that offenders – like all people – exert agency over their actions), we can also speculate that by reducing at least some of these strains, men may be less overwhelmed and thus better able to respond to unanticipated triggers when they do arise (Graffam et al., 2004; Listwan et al., 2013).

However, it must be noted that the difference in average ratings of release plan quality between recidivists and non-recidivists in the current study was very small (i.e. a 1-point difference). Thus, while release planning was negatively associated with acute risks in the release environment, the small effect size suggests that release environments

themselves featured similar barriers and were actually not too dissimilar. Perhaps then, release planning is protecting men in other ways beyond just reducing risk. It may be that, as other researchers have found, men who reoffended *perceived* more problems in their release environment and appraised these problems as more serious (e.g., Bucklen & Zajac, 2009; Zamble & Quinsey, 1997). Release planning may help foster more realistic expectations and better position men for prosocial connections. For example, bringing family members in prior to release to re-establish bonds or putting parolee in touch with faith-based community support services.

Practical Implications

This research also offers several key implications for practice. First, the current study tentatively supports the risk reduction potential of release planning for New Zealand prisoners that has been highlighted in previous research. Although I cannot draw firm conclusions from these findings due to uncertainty around how men acquired their release plans (see Limitations below), it appears that better quality release plans are linked to reduced risk in the release environment. Contemporary approaches to addressing prisoner recidivism have tended to emphasise *either* ‘promoting re-entry’ or ‘reducing risk’ (Pager, 2006). While in-prison rehabilitation is undoubtedly desirable, success also depends on whether opportunities and triggers for criminal activity present to an individual who is predisposed to seize them (Dickey & Klingele, 2004). It is argued that while reducing individual criminogenic needs or propensity to offend can be considered a long-term – and often a more socially desirable – goal, reducing exposure to opportunities, temptations, and stressors in the immediate release environment is an equally important short-term aim (Cullen et al., 2002). Thus, if release plans are helping to mitigate such opportunities and triggers, there is the potential to facilitate better re-

entry outcomes even for men who may not have made significant change during their sentence.

An important contribution of the current study is the provision of a new tool to measures prisoners' release plans. The five-item coding scheme was as good a predictor of post-release recidivism risk as instruments currently used by the Department of Corrections. In fact, the RPQ added significantly to the predictive validity of these tools, and appeared to outperform the RPFA-R – a measure of release plan feasibility. While currently-used measures offer good predictive validity, initial evidence suggests the RPQ offers a fairly reliable means of assessing key re-entry needs, as well as the advantage of predicting acute risks or destabilising factors in the release environment. Future research to enhance to the psychometric properties of the RPQ could see it being useful for fast and easy assessment of prisoners' release plans, and identifying and guiding specific areas for improvement.

The relationship between release plan quality and DRAOR scores suggest the RPQ has the potential to enhance the accuracy of risk assessments and offers a relatively simple, yet effective, means of identifying prisoners who are more likely to struggle during re-entry. Having a poor release plan may signal to probation officers the need to pre-empt re-entry difficulties; they may try to lower environmental stressors or increase support services. For example, men with poorer quality plans should be identified for more frequent DRAOR assessments as they appear more likely to experience greater instability in their day-to-day life. Greater understanding of these fluctuations in risk may contribute to more personalised and informed decisions about making changes to supervision, such as when to introduce an intervention (Douglas & Skeem, 2005).

Limitations and Directions for Future Research

While this study has a number of strengths and implications, there are nevertheless some limitations that provide avenues for future study. First, and most critically, the current findings appear to suggest that working with offenders to improve the quality of their release plans can reduce recidivism risk; however, it remains unclear how prisoners *acquire* their release plans, and the role of prison staff, family members, and the prisoners themselves in plan development and quality. For instance, though differences between men who received high-intensity treatment and those who received ‘treatment-as-usual’ were not examined in this study²¹, we know that men who participate in the STURPS receive much greater planning assistance (and likely have more resources available to them) than men who are left to make their own plans. Consequently, I cannot be sure whether the planning process itself is protective, in terms of identifying areas of weakness and building up preparation for release, or whether better-quality release plans simply reflect the resources/ social capital men already had available to draw on. This distinction is important for future research because it will help us to better understand whether pre-release planning is a dynamic, or more fixed/ stable variable – in other words, what is the potential for the quality of plans to change throughout a men’s prison sentence? Can a man who is estranged from his family and unemployed prior to his incarceration be reconnected with potential support people and employers? Alternatively, can a man who enters prison with a relatively high-quality plan retain these supports and assets during his sentence, or will the separation from his family and community inevitably erode his access to social capital and resources?

²¹ Additional research within the Criminal Justice Lab at Victoria University has found the RPQ to be weakly correlated with treatment status ($r = .29$)

Second, there are measurement concerns regarding the DRAOR and recidivism outcomes that ought to be explored further in future research. Although a number of validation studies of the DRAOR have been performed, there is no information available about inter-rater reliability and how probation officers score the DRAOR. This makes it difficult to know whether, for example, probation officers across the country have the same understanding of the evidence that merits a rating of “2” (definite risk) compared to a “1” or even a “0”. Some items in particular (e.g., Internal Acute risks) may be more subjective to score than others; we also do not know how the therapeutic relationship between parolees and their officer may influence the quality/ accuracy of information disclosed, or what additional information probation officers in this study used to make their appraisals. Probation officers have been known to rely on a range of offender characteristics when conducting risk/ need assessments, including tattoos, body language, and “how healthy they appear” (Miller, Copeland, & Sullivan, 2015, p. 185). Moreover, Jones and colleagues (2010) raised the possibility that some probation officers may develop a greater vested interest in the success of offenders under their own supervision. A parolee who does not achieve goals to the satisfaction of their probation officer may be rated higher risk at successive meetings, even if no actual change had occurred.

With regard to recidivism outcomes, as specified in the opening of this thesis, “re-entry success” was conservatively defined as the absence of recidivism outcomes within the follow-up periods (i.e. 100 days and one year post-release). Recidivism is often considered the “gold standard” by which to measure the effectiveness of correctional programming; however, it must be acknowledged there are a number of conceptual and methodological limitations with its accurate measurement (see Anderson & Skardhamar, 2014; Ruggero, Dougherty, & Klofas, 2015). The current research made some allowance for the zig-zag nature of desistance (Burnett, 2004) by measuring multiple indices of

recidivism across two distinct time-points; however, future research ought to utilise more sensitive and descriptive measures of individual offending trajectories than a simple reoffence/ no reoffence dichotomy (e.g., time to failure, reductions in the severity/frequency of crime). Moreover, recidivism is just one way of assessing re-entry success, and potentially overlooks a number of other important intermediate outcomes. Future research would benefit from examining a range of performance measures or intermediate markers of re-entry success, such as holding down a job, maintaining sobriety, establishing family contact and stability, and community involvement. The “Re-entry Logic Model” presented by the Bureau of Justice Assistance (2015) outlines a number of prosocial outcome measures that could be applied in future studies, including number of parolees gainfully employed, number of parolees placed into housing, and number of parolees participating in mental health and/ or substance abuse services.

Finally, the generalisability of these findings to other offender populations is questionable. The current sample was limited to high-risk male offenders; as such, the results may not be representative of the wider prison population. Furthermore, this sample would have limited the amount of variability in both the RPQ and DRAOR scores, which may account for the small effect sizes found in this research. Additional validation procedures could refine the predictive accuracy of the RPQ, and re-test it on a population separate to the Parole Project sample (i.e. other than that on which it was developed). Current evidence supports the efficacy of planning for child sex offenders and high-risk offenders – two populations known to be especially vulnerable to the challenges associated with re-entry. The utility and applicability of the RPQ should be examined on lower-risk populations, as well as on specific subpopulations such as Māori, female prisoners, and youth. While all returning prisoners will undoubtedly require the basics such as housing and financial support, there may be culture- or gender-specific needs that

we failed to capture with the RPQ, such as reconnecting with iwi or parenting and childcare needs.

Conclusion

The current research supports the conceptualisation of release planning as a facilitator for desistance (Gobbels et al., 2012, 2014). Having a good quality plan for release appears to not only reduce immediate barriers to survival and protect against post-release recidivism; it also appears to facilitate intermediate goals of reducing the occurrence of triggering events in the release environment. Results of the current study also suggest better quality release plans may also provide enhanced stability and “breathing space” (Harding et al., 2014) for the offenders to concentrate on tasks such as successfully meeting probation conditions or learning new job skills, without having to worry about short-term destabilisers or material needs. In turn, those with better quality plans evidence greater improvements in protective factors, and reduced acute dynamic risks, as they progress throughout re-entry.

The fundamental question for re-entry is not whether prisoners can successfully be resettled in the community, but “whether society will agree to their resettlement” (Opie, 2012, p. 31). Offenders hoping to desist from crime must maintain this motivation over time, and exercise prosocial choices in their everyday lives (Gobbels et al., 2012, 2014). But, crucially, the availability of such choices is dependent on preparations made prior to their release and the preparedness of community members to consider former prisoners as more than a criminal (Opie, 2012).

References

- Abrams, L. S., & Snyder, S. M. (2010). Youth offender reentry: Models for intervention and directions for future inquiry. *Children and Youth Services Review*, 32, 1787-1795. doi: 10.1016/j.childyouth.2010.07.023
- Altman, D. G. (1991). *Practical statistics for medical research*. London: Chapman & Hall
- Altschuler, D. M., & Brash, R. (2004). Adolescent and teenage offenders confronting the challenges and opportunities of reentry. *Youth Violence and Juvenile Justice*, 2(1), 72-87. doi: 0.1177/1541204003260048
- Andersen, S. N., & Skardhamar, T. (2015). Pick a Number: Mapping Recidivism Measures and Their Consequences. *Crime & Delinquency*. Advance online publication. doi: 10.1177/0011128715570629
- Andrews, D. A., & Bonta, J. (2010). *The psychology of criminal conduct* (5th ed.). New Providence, NJ: LexisNexis.
- Andrews, D. A., Bonta, J., & Wormith, S. J. (2006). The recent past and near future of risk and/or need assessment. *Crime and Delinquency*, 52, 7-27.
- Andrews, D. A., Bonta, J., & Wormith, S. J. (2011). The Risk-Need-Responsivity (RNR) Model: Does adding the Good Lives Model contribute to effective crime prevention? *Criminal Justice and Behaviour*, 38(7), 735-755. doi: 10.1177/0093854811406356
- Andrews, D. A., Kiessling, J. J., Robinson, D., & Mickus, S. (1986). Risk Principle of Case Classification: An Outcome Evaluation with Young Adult Probationers. *Canadian Journal of Criminology*, 28(4), 377-384.
- Austin, J., Irwin, J., & Hardyman, P. (2001). *Exploring the needs and risks of the returning prisoner population*. Washington, D.C.: The Urban Institute.
- Bahr, S. J., Armstrong, A. H., Gibbs, B. G., Harris, P. E., & Fisher, J. K. (2005). The reentry process: How parolees adjust to release from prison. *Fathering: A Journal of Theory, Research, and Practice about Men as Fathers*, 3(3), 243-265.

- Bahr, S. J., Harris, L., Fisher, J. K., & Armstrong, A. H. (2010). Successful Reentry What Differentiates Successful and Unsuccessful Parolees? *International Journal of Offender Therapy and Comparative Criminology*, 54(5), 667-692. doi: 10.1177/0306624X09342435
- Bakker, L., Riley, D., & O'Malley, J. (1999). *Risk of reconviction: Statistical models predicting four types of re-offending*. Wellington, NZ: Department of Corrections Psychological Service.
- Baldry, E., McDonnell, D., Maplestone, P., & Peeters, M. (2002). Australian Prisoners' Post-release Housing. *Current Issues in Criminal Justice*, 15(2), 155-169.
- Bales, W. D., & Mears, D. P. (2008). Inmate social ties and the transition to society: Does visitation reduce recidivism? *Journal of Research in Crime and Delinquency*, 45(3), 287-321. doi: 10.1177/0022427808317574
- Baron, R. M., & Kenny, D. A. (1986). The moderator-mediator variable distinction in social psychological research: Conceptual, strategic, and statistical considerations. *Journal of Personality and Social Psychology*, 51, 1173-1182.
- Beech, A. R., & Ward, T. (2004). The integration of etiology and risk in sexual offenders: A theoretical framework. *Aggression and Violent Behaviour*, 10(1), 31-63. doi: 10.1016/j.avb.2003.08.002
- Beggs, S. M., & Grace, R. C. (2010). Treatment gain for sexual offenders against children predicts reduced recidivism: a comparative validity. *Journal of Consulting and Clinical Psychology*, 79, 182-192. doi: 10.1037/a0022900
- Belfrage, H., & Douglas, K. (2002). Treatment Effects on Forensic Psychiatric Patients Measured With the HCR-20 Violence Risk Assessment Scheme. *International Journal of Forensic Mental Health*, 1(1), 25-36. doi: 10.1080/14999013.2002.10471158
- Berg, M. T. & Huebner, B. M. (2011). Reentry and the Ties that Bind: An examination of Social Ties, Employment, and Recidivism. *Justice Quarterly*, 28(2), 382-410. doi: 10.1080/07418825.2010.498383
- Binswanger, I. A., Stern, M. F., Deyo, R. A., Heagerty, P. J., Cheadle, A., Elmore, J. G., & Koepsell, T. D. (2007). Release from prison—a high risk of death for former

- inmates. *New England Journal of Medicine*, 356(2), 157-165. doi: 10.1056/NEJMsa064115
- Blanchard, A. J. E. (2013). *Dynamic Risk Factors in Violence Risk Assessment: A multiple time-point evaluation of the HCR-20 and START*. (Unpublished Masters thesis). Simon Fraser University: British Columbia, Canada.
- Borum, R., Lodewijks, H., Bartel, P. A., & Forth, A. E. (2010). Structured Assessment of Violence Risk in Youth (SAVRY). In R.K. Otto & K.S. Douglas (Eds.), *Handbook of Violence Risk Assessment* (pp. 63-79). New York: Routledge/Taylor & Francis Group.
- Borzycki, M. (2005). *Interventions for prisoners returning to the community*. Canberra: Attorney General's Department.
- Bouffard, J. A., & Bergeron, L. E. (2006). Reentry works: The implementation and effectiveness of a serious and violent offender reentry initiative. *Journal of Offender Rehabilitation*, 44(2), 1-29.
- Bradley, K. H., Oliver, R. B., Richardson, N. C., & Slayter, E. M. (2001). *No place like home: Housing and the ex-prisoner*. Boston: Community Resources for Justice.
- Braga, A. A., Piehl, A. M., & Hureau, D. (2009). Controlling violent offenders released to the community: An evaluation of the Boston Reentry Initiative. *Journal of Research in Crime and Delinquency*, 46(4), 411-436. doi: 10.1177/0022427809341935
- Brown, S. (2002). *The dynamic prediction of criminal recidivism: A three-wave prospective study*. (Unpublished Doctoral thesis). Queen's University, Ontario, Canada.
- Brown, S. L., Amand, M. D. S., & Zamble, E. (2009). The dynamic prediction of criminal recidivism: A three-wave prospective study. *Law and Human Behavior*, 33(1), 25-45. doi: 10.1007/s10979-008-9139-7
- Bucklen, K. B. & Zajac, G. (2009). But Some of Them Don't Come Back (to Prison!): Resource deprivation and thinking errors as determinants of parole success and failure. *The Prison Journal*, 89(3), 239-264. doi: 10.1177/0032885509339504

- Burnett, R. (2004). To Reoffend or Not to Reoffend? The Ambivalence of Convicted Property Offenders. In S. Maruna and R. Immarigeon (Eds.), *After Crime and Punishment: Pathways to Offender Reintegration* (pp. 152–180). Cullompton, Devon: Willan
- Burnett, R. (2009). Post-corrections reintegration: Prisoner resettlement and desistance from crime. In J. R. Adler, and J. M. Gray (Eds.). *Forensic Psychology: Concepts, Debates, and Practice* (2nd edition). Devon: Willan.
- Campbell, D. T., & Fiske, D. W. (1959). Convergent and discriminant validation by the multitrait-multimethod matrix. *Psychological Bulletin*, 56(2), 81-105.
- Cantor, D. V., & Ioannou, M. (2004). Criminals' emotional experiences during crimes. *International Journal of Forensic Psychology*, 1, 71-81.
- Cappelleri, J. C., Althof, S. E., Siegel, R. L., Shpilsky, A., Bell, S. S., & Duttagupta, S. (2004). Development and validation of the Self-Esteem And Relationship (SEAR) questionnaire in erectile dysfunction. *International Journal of Impotence Research*, 16(1), 30-38.
- Cappelleri, J. C., Zou, K. H., Bushmakina, A. G., Alvir, J. M. J., Alemayehu, D., & Symonds, T. (2013). *Patient-reported outcomes: Measurement, implementation and interpretation*. Boca Raton, FL: CRC Press.
- Catchpole, R. E. H. & Gretton, H. M. (2003). The predictive validity of risk assessment with violent young offenders: A 1-year examination of criminal outcome. *Criminal Justice and Behavior*, 30(6), 688-708. doi: 10.1177/0093854803256455
- Constantinou, A. C., Freestone, M., Marsh, W., Fenton, N., & Coid, J. (2015). Risk assessment and risk management of violent reoffending among prisoners. *Expert Systems with Applications*, 42(21), 7511-7529. doi: 10.1016/j.eswa.2015.05.025
- Chu, C. M., Thomas, S. D., Daffern, M., & Ogloff, J. R. (2013). Should clinicians use average or peak scores on a dynamic risk-assessment measure to most accurately predict inpatient aggression?. *International journal of mental health nursing*, 22(6), 493-499. doi: 10.1111/j.1447-0349.2012.00846.x

- Churchill, G. A. (1979). A paradigm for developing better measures of marketing constructs. *Journal of Marketing Research*, 16, 64-73.
- Clark, L. A., & Watson, D. (1995). Constructing validity: Basic issues in objective scale development. *Psychological Assessment*, 7(3), 309-319.
- Clark, L. M. (2007). Landlord attitudes toward renting to released offenders. *Federal Probation*, 71(1), 20-30.
- Clear, T. R., Rose, D. R., & Ryder, J. A. (2001). Incarceration and the community: The problem of removing and returning offenders. *Crime & Delinquency*, 47(3), 335-351. doi: 10.1177/0011128701047003003
- Cohen, L. S. (1988). *Statistical Power Analysis for the Behavioral Sciences*. Hillsdale, NJ: Erlbaum.
- Colman, A. M., Norris, C. E., & Preston, C. C. (1997). Comparing rating scales of different lengths: Equivalence of scores from 5-point and 7-point scales. *Psychological Reports*, 80(2), 355-362.
- Cronbach, L. J., & Meehl, P. E. (1955). Construct validity in psychological tests. *Psychological Bulletin*, 52(4), 281-302.
- Dalecki, M., & Willits, K. F. (1991). Examining change using regression analysis: Three approaches compared. *Sociological Spectrum*, 11(2), 127-145. doi: 10.1080/02732173.1991.9981960
- Davis, C., Bahr, S. J., & Ward, C. (2013). The process of offender reintegration: Perceptions of what helps prisoners reenter society. *Criminology and Criminal Justice*, 13(4), 446-469. doi: 10.1177/1748895812454748
- De Ruiter, C., & Nicholls, T. L. (2011). Protective factors in forensic mental health: A new frontier. *International Journal of Forensic Mental Health*, 10(3), 160-170.
- DeVellis, R. F. (2012). *Scale development: Theory and applications* (3rd ed.). Thousand Oaks, CA: SAGE Publications.
- De Vries Robbé, M. (2014). *Protective factors: Validation of the Structured Assessment of Protective Factors for Violence Risk in Forensic Psychiatry* (Unpublished Doctoral thesis). Radboud University Nijmegen.

- De Vries Robbé, M., de Vogel, V., & de Spa, E. (2011). Protective factors for violence risk in forensic psychiatric patients: A retrospective validation study of the SAPROF. *International Journal of Forensic Mental Health, 10*(3), 178-186. doi: 10.1080/14999013.2011.600232
- De Vries Robbé, M., de Vogel, V., Douglas, K. S., & Nijman, H. L. (2015). Changes in dynamic risk and protective factors for violence during inpatient forensic psychiatric treatment: Predicting reductions in postdischarge community recidivism. *Law and Human Behavior, 39*(1), 53-61. doi: 10.1037/lhb0000089
- Dickey, W., & Klingele, C. M. (2004). *Promoting public safety: A problem-oriented approach to prisoner reentry*. Washington, DC: The Urban Institute.
- Dickson, S. R. (2014). *The Role of Release Planning in the Reintegration Experiences of High-Risk, Violent Offenders*. (Unpublished Doctoral thesis). Victoria University of Wellington, Wellington, New Zealand
- Dickson, S. R., & Polaschek, D. L. L. (2014). Planning to avoid risk or planning for a positive life: the relationship between release plan valence and reoffending. *International Journal of Offender Therapy and Comparative Criminology, 58*(12), 1431-1448. doi: 10.1177/0306624X13502631
- Dickson, S. R., & Polaschek, D. L. L. (2015). The role of release planning in the reintegration experiences of high-risk offenders. *Practice: The New Zealand Corrections Journal, 3*(1). Retrieved from http://www.corrections.govt.nz/resources/journal/volume_3_issue_1_april_2015_de_sistance/the_role_of_release_planning_in_the_reintegration_experiences_of_high-risk_offenders.html
- Dickson, S. R., Polaschek, D. L. L., & Casey, A. R. (2013). Can the quality of high-risk violent prisoners' release plans predict recidivism following intensive rehabilitation? A comparison with risk assessment instruments. *Psychology, Crime and Law, 19*(4), 271-389. doi: 10.1080/1068316X.2011.640634
- Douglas, K. S., & Skeem, J. L. (2005). Violence risk assessment: Getting specific about being dynamic. *Psychology, Public Policy, and Law, 11*, 347-383. doi: 10.1037/1076-8971.11.3.347

- Douglas, K., Ogloff, J., & Hart, S. (2003). Evaluation of a model of violence risk assessment among forensic psychiatric patients. *Psychiatric Services*, 54, 1372-1379.
- Falissard, B. (1999). The unidimensionality of a psychiatric scale: A statistical point of view. *International Journal of Methods in Psychiatric Research*, 8(3), 162-167. doi: 10.1002/mpr.66
- Farrington, D. P., & Loeber, R. (2000). Epidemiology of juvenile violence. *Child and Adolescent Psychiatric Clinics of North America*, 9, 733-748.
- Field, A. P. (2009). *Discovering statistics using SPSS: and sex and drugs and rock 'n' roll* (3rd ed.). London: Sage publications
- Garland, B., Wodahl, E. J., & Mayfield, J. (2011). Prisoner reentry in a small metropolitan community: Obstacles and policy recommendations. *Criminal Justice Policy Review*, 22(1), 90-110. doi: 10.1177/0887403409359804
- Glover, A. J. J., Nicholson, D. E., Hemmati, T., Bernfeld, G. A., & Quinsey, V. L. (2002). A comparison of predictors of general and violent recidivism among high risk federal offenders. *Criminal Justice and Behavior*, 29(3), 235-249. doi: 10.1177/0093854802029003001
- Göbbels, S., Ward, T., & Willis, G. M. (2012). An integrative theory of desistance from sex offending. *Aggression and Violent Behavior*, 17(5), 453-462. doi: 10.1016/j.avb.2012.06.003
- Göbbels, S., Willis, G. M., & Ward, T. (2014). Current re-entry practices in sex offender treatment programmes: desistance facilitating or hindering?. *Journal of Sexual Aggression*, 20(3), 354-366. doi: 10.1080/13552600.2013.820850
- Graffam, J., Shinkfield, A., Lavelle, B., & Mcpherson, W. (2004). Variables affecting successful reintegration as perceived by offenders and professionals. *Journal of Offender Rehabilitation*, 40(1-2), 147-171. doi: 10.1300/J076v40n01_08
- Griffiths, C. T., Dandurand, Y., & Murdoch, D. (2007). *The social reintegration of offenders and crime prevention* (Research Report: 2007-02). Ottawa, ON: Public Safety Canada.

- Gunnison, E., & Helfgott, J.B. (2013). *Offender Reentry: Beyond Crime and Punishment*. Boulder, CO: Lynne Rienner Publishers.
- Haggård-Grann, U., & Gumpert, C. (2005). The violence relapse process – A qualitative analysis of high-risk situations and risk communication in mentally disordered offenders. *Psychology, Crime & Law*, 11(2), 199-222. doi: 10.1080/10683160500036905
- Hammett, T. M., Roberts, C., & Kennedy, S. (2001). Health-Related Issues in Prisoner Reentry. *Crime & Delinquency*, 47(3), 390-409.
- Hanby, L. (2013). *A longitudinal study of dynamic risk, protective factors and criminal recidivism: Change over time and the impact of assessment timing*. (Unpublished Doctoral thesis) Carleton University, Ottawa, Canada.
- Hand, D. J. (2009). Measuring classifier performance: a coherent alternative to the area under the ROC curve. *Machine Learning*, 77(1), 102-123. doi: 10.1007/s10994-009-5119-5
- Hand, D. J. (2012). Assessing the performance of classification methods. *International Statistical Review*, 80(3), 400-414. doi: 10.1111/j.1751-5823.2012.00183.x
- Hanson, R. K. (2009). The psychological assessment of risk for crime and violence. *Canadian Psychology*, 50(3), 172-182. doi: 10.1037/a00157
- Hanson, R. K., & Harris, A. J. R. (2000). Where should we intervene? Dynamic predictors of sexual offense recidivism. *Criminal Justice and Behavior*, 27, 6- 35. doi: 10.1177/0093854800027001002
- Hanson, R. K., Harris, A. J. R., Scott, T., & Helmus, L. (2007). *Assessing the risk of sexual offenders on community supervision: The Dynamic Supervision Project* (Corrections Research User Report No. 2007-05). Ottawa, ON: Public Safety Canada
- Harris, G. T., & Rice, M. E. (2015). Progress in violence risk assessment and communication: Hypothesis versus evidence. *Behavioural Sciences & the Law*, 33(1), 128-145. doi: 10.1002/bsl.2157

- Harris, G. T., Rice, M. E., Quinsey, V. L., & Cormier, C. A. (2015). *Violent offenders: Appraising and managing risk* (3rd ed.). Washington, D.C.: American Psychological Association.
- Harris, P. M., & Keller, K. S. (2005). Ex-Offenders Need Not Apply: The Criminal Background Check in Hiring Decisions. *Journal of Contemporary Criminal Justice*, 21(1), 6-30.
- Hayes, A. F. (2009). Beyond Baron and Kenny: Statistical Mediation Analysis in the New Millennium. *Communication Monographs*, 76(4), 408-420. doi: 10.1080/03637750903310360
- Hayes, A. F. (2012). *PROCESS: A versatile computational tool for observed variable mediation, moderation, and conditional process modelling*. Retrieved from <http://www.afhayes.com/public/process2012.pdf>
- Hayes, A. F., Preacher, K. J., & Myers, T. A. (2011). Mediation and the estimation of indirect effects in political communication research. In E. P. Bucy & R. L. Holbert (Eds.), *Sourcebook for political communication research: Methods, measures, and analytical techniques* (pp. 434-465). New York: Routledge.
- Hepburn, J. R., & Griffin, M. L. (2004). The effect of social bonds on successful adjustment to probation: An event history analysis. *Criminal Justice Review*, 29(1), 46-75.
- Hildebrand, M., de Ruiter, C. (2012). Psychopathic traits and change on indicators of dynamic risk factors during inpatient forensic psychiatric treatment. *International Journal of Law and Psychiatry*, 35(4), 276-288. doi: 10.1016/j.ijlp.2012.04.001
- Horney, J., Osgood, D. W., & Marshall, I. H. (1995). Criminal careers in the short-term: Intra-individual variability in crime and its relation to local life circumstances. *American Sociological Review*, 60, 655- 673. doi: 10.2307/2096316
- Hudson, S., Wales, D., Bakker, L., & Ward, T. (2002). Dynamic risk factors: The Kia Marama Evaluation. *Sexual Abuse: A Journal of Research and Treatment*, 14(2), 103-119.

- Jiang, S., & Winfree, L. T. (2006). Social support, gender, and inmate adjustment to prison life insights from a national sample. *The Prison Journal*, 86(1), 32-55. doi: 10.1177/0032885505283876
- Jones, N. J., Brown, S. L., & Zamble, E. (2010). Predicting Criminal Recidivism in Adult Male Offenders Researcher Versus Parole Officer Assessment of Dynamic Risk. *Criminal Justice and Behavior*, 37(8), 860-882. doi: 10.1177/009385481036892
- Jose, P. E. (2013). *Doing statistical mediation and moderation*. New York: Guilford Press.
- Judd, C. M., Kenny, D. A., & McClelland, G. H. (2001). Estimating and testing mediation and moderation in within-subject designs. *Psychological Methods*, 6(2), 115-134. doi: 10.1037//1082-989X.6.2.115
- Kilgour, T. G., & Polaschek, D. L. L. (2012). *Breaking the cycle of crime: Special Treatment Unit Evaluation Report*. Wellington, NZ: Department of Corrections.
- Klepfisz, G., O'Brien, K., & Daffern, M. (2014). Violent Offenders' Within-Treatment Change in Anger, Criminal Attitudes, and Violence Risk: Associations with Violent Recidivism. *International Journal of Forensic Mental Health*, 13(4), 348-362. doi: 10.1080/14999013.2014.951107
- Kubrin, C. E., & Stewart, E. A. (2006). Predicting who reoffends: The neglected role of neighbourhood context in recidivism studies. *Criminology*, 44(1), 165-197. doi: 0.1111/j.1745-9125.2006.00046.x
- Kulas, J. T., & Stachowski, A. A. (2009). Middle category endorsement in odd-numbered Likert response scales: Associated item characteristics, cognitive demands, and preferred meanings. *Journal of Research in Personality*, 43(3), 489-493. doi: 10.1016/j.jrp.2008.12.005
- La Vigne, N. G., Davis, E., Palmer, T., & Halberstadt, R. (2008). *Release Planning for Successful Reentry: A guide for corrections, service providers, and community groups*. Washington, D.C.: The Urban Institute.
- Landis, J. R., & Koch, G. G. (1977). The measurement of observer agreement for categorical data. *Biometrics*, 33(1), 159-174.

- Latessa, E. (2011). Why the risk and needs principles are relevant to correctional programs (even to employment programs). *Criminology & Public Policy*, 10(4), 973-977. doi: 10.1111/j.1745-9133.2011.00759.x
- Lattimore, P. K., & Visser, C. A. (2009). *The multi-site evaluation of SVORI: Summary and synthesis*. Washington, DC: The Urban Institute.
- Lattimore, P. K., Barrick, K., Cowell, A., Dawes, D., Steffey, D., Tueller, S., & Visser, C. A. (2012). *Prisoner reentry services: What worked for SVORI evaluation participants*. Washington, DC: National Institute of Justice.
- Laub, J. H., & Sampson, R. J. (2001). Understanding desistance from crime. *Crime and Justice*, 28, 1-69.
- La Vigne, N. G., Shollenberger, T. L., & Debus-Sherrill, S. (2009). *One Year Out: The experiences of male returning prisoners in Houston, Texas*. Washington, D.C.: The Urban Institute.
- LeBel, T. P., Burnett, R., Maruna, S., & Bushway, S. (2008). The 'Chicken and Egg' of subjective and social factors in desistance from crime. *European Journal of Criminology*, 5(2), 131-159. doi: 10.1177/1477370807087640
- Lewis, K., Olver, M. E., & Wong, S. C. P. (2013). The Violence Risk Scale: Predictive validity and linking treatment changes with recidivism in a sample of high risk offenders with psychopathic traits. *Assessment*, 20, 150-164
- Lipsey, M. W., & Cullen, F. T. (2007). The effectiveness of correctional rehabilitation: A review of systematic reviews. *Annual Review of Law and Social Science*, 3(1), 297-320. doi: 10.1146/annurev.lawsocsci.3.081806.112833
- Listwan, S. J., Sullivan, C. J., Agnew, R., Cullen, F. T., & Colvin, M. (2013). The pains of imprisonment revisited: The impact of strain on inmate recidivism. *Justice Quarterly*, 30(1), 144-168. doi: 10.1080/07418825.2011.597772
- Lobo, J. M., Jiménez-Valverde, A., & Real, R. (2008). AUC: a misleading measure of the performance of predictive distribution models. *Global Ecology and Biogeography*, 17(2), 145-151. doi: 10.1111/j.1466-8238.2007.00358.x

- Lowenkamp, C.T., Holsinger, A.M., Brusman-Lovins, L., Latessa, E.J. (2004). Assessing the Inter-Rater Agreement of the Level of Service Inventory Revised. *Federal Probation*, 68(3), 34-38.
- Lozano, L. M., García-Cueto, E., & Muñiz, J. (2008). Effect of the number of response categories on the reliability and validity of rating scales. *Methodology*, 4(2), 73-79. doi: 10.1027/1614-2241.4.2.73
- Lussier, P., & Gress, C. L. (2014). Community re-entry and the path toward desistance: A quasi-experimental longitudinal study of dynamic factors and community risk management of adult sex offenders. *Journal of Criminal Justice*, 42(2), 111-122. doi: 10.1016/j.jcrimjus.2013.09.006
- Lutze, F. E., Rosky, J. W., & Hamilton, Z. K. (2014). Homelessness and Reentry: A multisite outcome evaluation of Washington State's reentry housing program for high-risk offenders. *Criminal Justice and Behaviour*, 41(4), 471-491. doi: 10.1177/0093854813510164
- MacKinnon, D. P., & Fairchild, A. J. (2009). Current directions in mediation analysis. *Current Directions in Psychological Science*, 18(1), 16-20. doi: 10.1111/j.1467-8721.2009.01598.x
- Makarios, M., Steiner, B., & Travis, L. F. (2010). Examining the predictors of recidivism among men and women released from prison in Ohio. *Criminal Justice and Behavior*, 37(12), 1377-1391. doi: 10.1177/0093854810382876
- Mallik-Kane, K., & Visser, C. (2008). *Health and Prisoner Reentry: How Physical, Mental, and Substance Abuse Conditions Shape the Process of Reintegration*. Washington, D.C.: The Urban Institute.
- Maslow, A. H. (1943). A theory of human motivation. *Psychological Review*, 50(4), 370-396. doi: 10.1037/h0054346
- Mears, D. P., & Cochran, J. C. (2014). *Prisoner Reentry in the Era of Mass Incarceration*. California: SAGE Publications
- Metraux, S., & Culhane, D. P. (2004). Homeless shelter use and reincarceration following prison release. *Criminology & Public Policy*, 3(2), 139-160. doi: 10.1111/j.1745-9133.2004.tb00031.x

- Miller, J., Copeland, K., & Sullivan, M. (2015). Keeping them off the corner: How probation officers steer offenders away from crime opportunities. *The Prison Journal*, 95(2), 178-198. doi: 10.1177/0032885515575263
- Morenoff, J. D., & Harding, D. J. (2011). *Final Technical Report: Neighborhoods, recidivism, and employment among returning prisoners*. Michigan: Institute for Social Research.
- Morgan, R. D., Kroner, D. G., Mills, J. F., Serna, C., & McDonald, B. (2013). Dynamic risk assessment: A validation study. *Journal of Criminal Justice*, 41(2), 115-124. doi: 10.1016/j.jcrimjus.2012.11.004
- Nadesu, A. (2007). *Reconviction patterns of released prisoners: A 36-months followup analysis*. Wellington, NZ: Department of Corrections.
- Nally, J. M., Lockwood, S., Ho, T., & Knutson, K. (2014). Post-Release Recidivism and Employment Among Different Types of Released Offenders: A 5-Year follow-up Study in the United States. *International Journal of Criminal Justice Sciences*, 9(1), 380-396.
- National Research Council. (2008). *Parole, Desistance from Crime, and Community Integration*. Washington, D.C.: The National Academies Press.
- Nelson, M., Deess, P., & Allen, C. (1999). *The First Month Out. Post Incarceration Experiences in New York City*. New York: Vera Institute of Justice.
- Olver, M. E., Kingston, D. A., Nicholaichuk, T. P., & Wong, S. C. P. (2014). A psychometric examination of treatment change in a multisite sample of treated Canadian federal sexual offenders. *Law and Human Behavior*, 38(6), 544-559. doi: 10.1037/lhb0000086
- Opie, A. (2012). *From Outlaw to Citizen: Making the transition from prison in New Zealand*. Auckland: Dunmore Publishing.
- Pager, D. (2006). Evidence-based policy for successful prisoner re-entry. *Criminology & Public Policy*, 5(3), 505-514. doi: 10.1111/j.1745-9133.2006.00391.x
- Pallant, J. (2007). *SPSS Survival Manual: A step by step guide to data analysis using SPSS for Windows* (3rd ed.). Berkshire: Open University Press.

- Peat, J. (2001). *Health Science Research: A handbook of quantitative methods*. Sydney: Allen and Unwin.
- Petersilia, J. (2003). *When prisoners come home: Parole and prisoner reentry*. New York: Oxford University Press.
- Phillips, L. A., & Lindsay, M. (2011). Prison to Society: A mixed methods analysis of coping with reentry. *International Journal of Therapy and Comparative Criminology*, 55(1), 136-154. doi: 10.1177/0306624X09350212
- Pogrebin, M., West-Smith, M., Walker, A., & Unnithan, N. P. (2014). Employment isn't enough. Financial Obstacles experienced by ex-prisoners during the re-entry process. *Criminal Justice Review*, 39(4), 394-410. doi: 10.1177/0734016814540303
- Polaschek, D. L. L. (2015). Desistance and dynamic risk factors belong together. *Psychology, Crime & Law*, 1-19. doi: 10.1080/1068316X.2015.1114114
- Polaschek, D. L. L., Yesberg, J. A., & Chauhan, P. (2015). *How does psychological treatment work? An examination of factors that predict short-term reconvictions in high-risk samples of treated and untreated prisoners*. Manuscript under review.
- Prochaska, J. O., DiClemente, C. C., & Norcross, J. C. (1992). In search of how people change: Applications to the addictive behaviors. *American Psychologist*, 47, 1102-1114. doi: 10.1037/0003-066X.47.9.1102
- Quinsey, V. L., Jones, G. B., Book, A. S., & Barr, K. N. (2006). The dynamic prediction of antisocial behavior among forensic psychiatric patients: A prospective field study. *Journal of Interpersonal Violence*, 21(12), 1539-1565. doi: 10.1177/0886260506294238
- Rakis, J. (2005). Improving the employment rate of ex-prisoners under parole. *Federal Probation*, 69(1), 7-12.
- Robson, S. (2015). *Location, Location, Location? Comparing release plan quality, community experience, and recidivism rate of high-risk offenders released to a fresh start or returning to the devil they know*. (Unpublished Masters thesis). Victoria University of Wellington, Wellington, New Zealand.
- Rogers, R. (2000). The uncritical acceptance of risk assessment in forensic practice. *Law and human behavior*, 24(5), 595-605. doi: 10.1023/A:1005575113507

- Roman, C. G., & Travis, J. (2004). *Taking Stock: Housing, Homelessness, and Prisoner Reentry*. Washington, D.C.: The Urban Institute
- Rourke, L., & Anderson, T. (2004). Validity in quantitative content analysis. *Educational Technology Research and Development*, 52(1), 5-18.
- Rucker, D. D., Preacher, K. J., Tormala, Z. L., & Petty, R. E. (2011). Mediation analysis in social psychology: Current practices and new recommendations. *Social and Personality Psychology Compass*, 5(6), 359-371. doi: 10.1111/j.1751-9004.2011.00355.x
- Ruggero, T., Dougherty, J., & Klofas, J. (2015). *Measuring Recidivism: Definitions, Errors, and Data Sources* (Working paper 2015-03). Rochester: Center for Public Safety Initiatives.
- Scoones, C. D., Willis, G. M., & Grace, R. C. (2012). Beyond Static and Dynamic Risk Factors The Incremental Validity of Release Planning for Predicting Sex Offender Recidivism. *Journal of Interpersonal Violence*, 27(2), 222-238. doi: 10.1177/0886260511416472
- Seiter, R. P., & Kadela, K. R. (2003). Prisoner reentry: What works, what does not, and what is promising. *Crime & Delinquency*, 49(3), 360-388. doi: 10.1177/0011128703049003002
- Serin, R. C. (2007). *The dynamic risk assessment for offender re-entry (DRAOR)*. Unpublished user manual.
- Serin, R. C., & Lloyd, C. D. (2009). Examining the process of offender change: The transition to crime desistance. *Psychology, Crime & Law*, 15(4), 347-364. doi: 10.1080/10683160802261078
- Serin, R. C., Lloyd, C. D., & Hanby, L. J. (2010). Enhancing offender re-entry: An integrated model for enhancing offender re-entry. *European Journal of Probation*, 2, 53-75. doi: 10.1177/206622031000200205
- Serin, R. C., Mailloux, D. L., & Wilson, N. J. (2012). *The Dynamic Risk Assessment of Offender Re-entry (DRAOR)*. Unpublished user manual.
- Serin, R. C., Lloyd, C. D., Helmus, L., Derkzen, D. M., & Luong, D. (2013). Does intra-individual change predict offender recidivism? Searching for the Holy Grail in

- assessing offender change. *Aggression and violent behavior*, 18(1), 32-53. doi: 10.1016/j.avb.2012.09.002
- Severson, M. E., Bruns, K., Veeh, C., & Lee, J. (2011). Prisoner reentry programming: Who recidivates and when?. *Journal of Offender Rehabilitation*, 50(6), 327-348. doi: 10.1080/10509674.2011.582931
- Shapiro, C., & Schwartz, M. (2001). Coming home: Building on family connections. *Corrections Management Quarterly*, 5(3), 52-61.
- Shinkfield, A. J., & Graffam, J. (2009). Community reintegration of prisoners: type and degree of change in variables influencing successful reintegration. *International Journal of Offender Therapy and Comparative Criminology*, 53(1), 29-42.
- Shrout, P. E., & Bolger, N. (2002). Mediation in Experimental and Nonexperimental Studies: New procedures and recommendations. *Psychological Methods*, 7(4), 422-445. doi: 10.1037//1082-989X.7.4.422
- Simons, R. L., Stewart, E., Gordon, L. C., Conger, R. D., & Elder, G. H. J. (2002). A Test of Life-Course Explanations for Stability and Change in Antisocial Behavior from Adolescence to Young Adulthood. *Criminology*, 40, 401-43.
- Singh, J. P., Grann, M., & Fazel, S. (2011). A comparative study of violence risk assessment tools: A systematic review and metaregression analysis of 68 studies involving 25,980 participants. *Clinical Psychology Review*, 31(3), 499-513. doi: 10.1016/j.cpr.2010.11.009
- Smeth, A. (2013). *Evaluating risk assessments among sex offenders: a comparative analysis of static and dynamic factors* (Master's thesis). Carleton University.
- Solomon, A., Gouvis, C., & Waul, M. (2001). *Ex-Prisoners in the District: Ingredients for Successful Reintegration* (Summary report to the Neighborhood Re-Investment Corporation). Washington, DC: The Urban Institute.
- Stevens, J. P. (2002). *Applied multivariate statistics for the social sciences* (4th ed.). Hillsdale, NS: Erlbaum
- Sullivan, E., Mino, M., Nelson, K., & Pope, J. (2002). *Families as a resource in recovery from drug abuse: An evaluation of La Bodega de la Familia*. New York: Vera Institute of Justice.

- Tamatea, A., & Wilson, N. (2009). *Dynamic risk assessment for offender re-entry (DRAOR): A pilot study*. Unpublished government report.
- Taxman, F. S. (2004). Offender and Reentry: Supporting Active Participation in Reintegration. *Federal Probation*, 68, 31-35.
- Taxman, F. S., & Pattavina, A. (Eds.). (2013). *Simulation Strategies to Reduce Recidivism: Risk Need Responsivity (RNR) Modeling for the Criminal Justice System*. New York: Spring Science & Business Media
- Taxman, F. S., Young, D., & Byrne, J. (2002). *Offender's Views of Reentry: Implications for Processes, Programs and Services*. College Park: University of Maryland, Bureau of Governmental Research.
- Thompson, A. C. (2003). *Navigating the hidden obstacles to ex-offender reentry*. Boston College Law Review, 45(2), 225-306.
- Travis, J., & Visser, C. A. (2005). *Prisoner Reentry and Crime in America*. New York: Cambridge University Press.
- Travis, J., Solomon, A. L., & Waul, M. (2001). *From prison to home: The dimensions and consequences of prisoner reentry*. Washington, D.C.: The Urban Institute.
- Trochim, W., & Donnelly, J. P. (2007). *The Research Methods Knowledge Base* (3rd ed.). Mason, OH: Atomic Dog Publishing, Inc.
- Turner, S., & Petersilia, J. (2007). Putting Science to Work: How the principles of risk, need, and responsivity apply to reentry. In J. A. Dvoskin, J. L. Skeem, R. W. Novaco, & K. S. Douglas (Eds.), *Using Social Science to Reduce Violent Reoffending* (pp. 179-198). New York: Oxford University Press.
- Uggen, C. (2000). Work as a turning point in the life course of criminals: A duration model of age, employment, and recidivism. *American Sociological Review*, 65(4), 529-546.
- Veysey, B. M., Ostermann, M., & Lanterman, J. L. (2014). The Effectiveness of Enhanced Parole Supervision and Community Services: New Jersey's Serious and Violent Offender Reentry Initiative. *The Prison Journal*, 94(4), 435-453. doi: 10.1177/0032885514548007

- Viera, A. J., & Garrett, J. M. (2005). Understanding interobserver agreement: The Kappa Statistic. *Fam Med*, 37(5), 360-363.
- Visher, C. A., & Travis, J. (2003). Transitions From Prison To Community: Understanding individual pathways. *Annual Review of Sociology*, 29, 89-113. doi: 10.1146/annurev.soc.29.010202.095931
- Visher, C. A., & Travis, J. (2012). The characteristics of prisoners returning home and effective reentry programs and policies. In J. Petersilia & K. R. Reitz (Eds.), *The Oxford Handbook of Sentencing and Corrections* (pp. 684-706). New York: Oxford University Press.
- Visher, C. A., Baer, D., & Naser, R. (2006). *Ohio Prisoners' Reflections on Returning Home*. Washington, D.C.: The Urban Institute.
- Visher, C. A., La Vigne, N. G., & Travis, J. (2004). *Returning Home: Understanding the challenges of prisoner reentry (Maryland Pilot Study: Findings from Baltimore)*. Washington, D.C.: The Urban Institute.
- Vose, B., Lowenkamp, C. T., Smith, P., & Cullen, F. T. (2009). Gender and the Predictive Validity of the LSI-R A Study of Parolees and Probationers. *Journal of Contemporary Criminal Justice*, 25(4), 459-471. doi: 10.1177/1043986209344797
- Wang, X., Hay, C., Todak, N. E., & Bales, W. (2014). Criminal propensity, social context, and recidivism. A multilevel analysis of interactive relationships. *Criminal Justice and Behavior*, 41(3), 300-317. doi: 10.1177/0093854813507055
- Webster, R., Hedderman, C., Turnbull, P. J., & May, T. (2001). *Building bridges to employment for prisoners*. London: Home Office Research Studies.
- Westen, D., & Rosenthal, R. (2003). Quantifying construct validity: Two simple measures. *Journal of Personality and Social Psychology*, 84(3), 608-618. doi: 10.1037/0022-3514.84.3.608
- Western, B., Braga, A. A., Davis, J., & Sirois, C. (2015). Stress and Hardship after Prison. *American Journal of Sociology*, 120(5), 1512-1547.
- Willis, G. M. (2009). *From Prison into the Community: The Impact of Release Planning on Sexual Recidivism for Child Molesters*. (Unpublished Doctoral Thesis). University of Canterbury, Christchurch, New Zealand.

- Willis, G. M., & Grace, R. C. (2008). The Quality of Community Reintegration Planning for Child Molesters Effects on Sexual Recidivism. *Sexual Abuse: A Journal of Research and Treatment*, 20(2), 218-240. doi: 10.1177/1079063208318005
- Willis, G. M., & Grace, R. C. (2009). Assessment of Community Reintegration Planning for Sex Offenders Poor Planning Predicts Recidivism. *Criminal Justice and Behavior*, 36(5), 494-512. doi: 10.1177/0093854809332874
- Willis, G. M., & Johnston, L. (2012). Planning helps: The impact of release planning on subsequent re-entry experiences of child sex offenders. *Journal of Sexual Aggression*, 18(2), 194-208. doi: 10.1080/13552600.2010.506576
- Wilson, J. A., & Davis, R. C. (2006). Good Intentions Meet Hard Realities: An evaluation of the Project Greenlight Reentry program. *Criminology & Public Policy*, 5(2), 303-338.
- Wilson, N. J. (2011). *Release proposal feasibility assessment-revised*. Unpublished manuscript.
- Wong, S. & Gordon, A. (2013). *The Violence Risk Scale: A brief introduction*. Retrieved from http://www.psynergy.ca/uploads/Psynergy_Website_VRS_brief_intro.pdf
- Wong, S. C. P., & Gordon, A. (2006). The validity and reliability of the Violence Risk Scale: A treatment-friendly violence risk assessment tool. *Psychology, Public Policy, and Law*, 12, 279-309
- Wong, S. C. P., & Gordon, A. E. (2000). *The Violence Risk Scale*. Unpublished Manuscript
- Wong, S. C., & Parhar, K. K. (2011). Evaluation of the predictive validity of the Violence Risk Scale in a paroled offender sample: a seven-year prospective study. *Journal of Forensic Psychiatry & Psychology*, 22(6), 790-808. doi: 10.1080/14789949.2011.623172
- Wooditch, A., Tang, L. L., & Taxman, F. S. (2014). Which criminogenic need changes are most important in promoting desistance from crime and substance use? *Criminal Justice and Behavior*, 41(3), 276-299. doi: 10.1177/0093854813503543
- Wright, K. A., Pratt, T. C., Lowenkamp, C. T., & Latessa, E. J. (2012). The importance of ecological context for correctional rehabilitation programs: Understanding the

- micro- and macro-level dimensions of successful offender treatment. *Justice Quarterly*, 29(6), 775-798. doi: 10.1080/07418825.2011.583933
- Yang, M., Wong, S. C., & Coid, J. (2010). The efficacy of violence prediction: a meta-analytic comparison of nine risk assessment tools. *Psychological Bulletin*, 136(5), 740-767. doi: 10.1037/a0020473
- Yesberg, J. A. (2015). *Exploring Mechanisms of Change in the Rehabilitation of High-Risk Offenders*. (Unpublished Doctoral thesis) Victoria University of Wellington, Wellington, New Zealand.
- Yesberg, J. A., & Polaschek, D. L. (2014). What can the DRAOR tell us about high-risk offenders? A preliminary examination. *The New Zealand Corrections Journal*, 2(1), 13.
- Yesberg, J. A., & Polaschek, D. L. (2015). Assessing dynamic risk and protective factors in the community: Examining the validity of the Dynamic Risk Assessment for Offender Re-entry. *Psychology, Crime & Law*, 21(1), 80-99. doi: 10.1080/1068316X.2014.935775
- Yesberg, J. A., Scanlan, J. M., Polaschek, D. L. L., Hanby, L., & Serin, R. C. (2015). Predicting women's recidivism: Validating a dynamic community-based "gender-neutral" tool. *Probation Journal*, 62, 33-48. doi: 10.1177/0264550514562851
- Zamble, E., & Quinsey, V. L. (1997). *The criminal recidivism process*. Cambridge, UK: CUP
- Zhao, X., Lynch, J. G., & Chen, Q. (2010). Reconsidering Baron and Kenny: Myths and truths about mediation analysis. *Journal of Consumer Research*, 37(2), 197-206. doi: 10.1086/651257

Appendix A

Dynamic Risk Assessment for Offender Re-entry: Item Descriptions and Relevant Research

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Stable Risk Factors

Peer Associations. Contact with antisocial associates has been identified as one of the strongest correlates of criminal behaviour (one of Andrews and Bonta's "Big Four", 2010). Associating with criminal peers provides an opportunity for the role modelling and reinforcement of criminal behaviour, and facilitates the acquisition of antisocial values and attitudes. An offender who associates with antisocial others and who is relatively isolated from prosocial others has been found to have an increased risk of engaging in violent and other criminal behaviour (Gendreau, Little, & Goggin, 1996). Association with criminal peers is included in numerous risk assessment tools, including the Violence Risk Scale (VRS; Wong & Gordon, 2000) and the Level of Service Inventory-Revised (LSI-R; Andrews & Bonta, 1995). This item of the DRAOR taps into the nature and frequency of peer associations. If an offender has frequent contact with antisocial peers or is an active member of a criminal gang, peer associations is given a score of 2; if an offender has contact with only prosocial peers, a score of 0 is given. If an offender has a mixture of both prosocial and antisocial peer associations a score of 1 should be considered.

Attitude Towards Authority. This item is also captured in Andrews and Bonta's (2010) "Big Four" predictors of criminal behaviour (in the factor "antisocial cognition"). Antisocial cognition includes attitudes, values, beliefs, rationalisations and a personal identity favourable to crime. Indicators for this factor include identification with criminals and holding a negative attitude toward the law. Procriminal attitudes and values have been demonstrated to be predictive of future violent and general criminal behaviour (Harris, Rice, & Quinsey, 1993). A negative attitude towards authority is included as a dynamic risk factor in the VRS (Wong & Gordon, 2000) and a similar item is included in the STABLE-2007 in terms of the offender's cooperation with supervision (Hanson, Harris, Scott, & Helmus, 2007). In the DRAOR, this item refers to an offender's attitude towards others, especially those in authority. An offender with an antagonistic attitude towards authority would receive a score of 2 on this item, while those who are open to the guidance or direction of authority figures would score a 0.

Impulse Control. Impulsivity refers to an individual's inability to regulate or inhibit a dominant response, and is commonly reflected in poorly planned and rapidly executed behaviour (i.e., "act now and think later"). Poor impulse control has been identified as a contributor to the development and maintenance of antisocial behaviour (Andrews & Bonta, 2010) and has been found to increase risk for general, violent, and sexual offending (Andrews, Bonta & Wormith, 2006). Impulsivity is included in the VRS as a dynamic risk factor for violence (Wong & Gordon, 2000), and the STABLE-2007 considers impulsivity to be a stable risk factor for sexual offenders (Hanson et al., 2007). To score a 2 on impulse control, an offender must demonstrate poor self-regulation, including the tendency to act in the 'spur of the moment' and a failure to consider the consequences of his actions. In contrast, an offender who is reflective, able to make

decisions independently and who self-monitors would score a 0 on this item (Serin, Mailloux, & Wilson, 2012).

Problem-solving. Deficits in an individual's ability to effectively solve problems have been identified as a risk factor for criminal behaviour (Zamble & Quinsey, 1997). Deficits in problem solving include issues with information gathering, developing alternative solutions to a problem, and evaluating outcomes. Poor problem solving skills is included as a stable risk factor for sexual offenders in the STABLE-2007 (Hanson et al., 2007). In rating this item, if an offender demonstrates logic in arriving at a decision, an ability to clarify a problem, considers a range of responses, weighs the opinion of others, and considers the consequences of these strategies before implementing a solution, a score of 0 is given (Serin et al., 2012). If an offender does not consider the consequences or demonstrates an inability to effectively problem-solve, they score a 2.

Sense of Entitlement. Entitlement refers to an individual's inflated sense of self-worth. An offender's elevated sense of entitlement often includes the belief that they are different from other offenders, that they are a 'victim' of the system, and that their rights are more important than others. A sense of entitlement is associated with other criminal cognitions (Walters & White, 1989), and has been demonstrated to correlate with general and violent recidivism (Mills, Kroner, & Hemmati, 2004). To score a 2 on this item, an offender would show evidence of entitlement across time and setting, including making inappropriate requests of their probation officer and ignoring personal and professional boundaries (Serin et al., 2012). A score of 0 would suggest an offender has a realistic recognition of their limitations.

Employment. Lack of employment has been identified as a factor that contributes to parole failure. It is also included in the "Central Eight" predictors of criminal behaviour in terms of problems in school and/or work (Andrews & Bonta, 2010). Employment is included in a number of risk assessment tools, including the LSI-R (Andrews & Bonta, 1995). For this item, unemployment is scored as a 2, while maintaining a job that matches an offender's skills and expectations is scored as a 0. If an offender is participating in training or study towards employment or if they are between jobs but making efforts to secure work, a score of 1 is given.

Opportunity/Access to Victims. If an offender has a preferred victim or pattern of victim selection, opportunity or access to them increases their risk of reoffending. It is thought that access to victims or opportunities for crime can act to destabilise an offender and increase the likelihood of criminal behaviour. An example of this item includes a domestic abuser being in an intimate relationship. Opportunity for victim access is included in the ACUTE-2007 for sexual offenders (Hanson et al., 2007). This item is scored as a risk factor if the offender has contact with a victim or if the potential for contact exists. Consideration is given to the most relevant and most likely risk scenarios for the offender to identify both potential victims and opportunities that may arise. Avoidance of preferred or past victims is scored a 0.

Internal Acute Risk Factors

Substance Abuse. Substance abuse is strongly related to criminal behaviour and is included as one the "Central Eight" risk factors (Andrews & Bonta, 2010). A history of abusing alcohol and drugs is included in a number of risk assessment tools, including the VRS (Wong & Gordon, 2000) and the LSI-R (Andrews & Bonta, 1995). 214 Although a history of substance abuse is often considered to be a stable dynamic risk factor,

intoxication and the use of substances can change rapidly and has been included in the ACUTE-2007 as an acute risk factor (Hanson et al., 2007). For this item, ratings are based on recent behaviour and significant patterns of substance abuse. Incidences of problematic substance use (e.g., polysubstance use) or other risky behaviour (e.g., selling drugs, withdrawal from methadone) warrants a score of 2, while maintenance of sobriety/avoidance of drugs is given a score of 0.

Anger/Hostility. This item captures the extent to which an offender displays anger (in the form of emotional volatility) and hostility (in the form of antagonism towards others). Hostile beliefs are thought to disinhibit and reduce self-regulation and problem-solving skills (Serin et al., 2012), predisposing an offender to a negative outcome. Anger and hostility is reflected in the VRS (Wong & Gordon, 2000) and both the ACUTE-2007 and STABLE-2007 (Hanson et al., 2007). Evidence to rate this item includes an offender exhibiting an unfriendly way of engaging the world, being sensitive to slights, being callous and rude, and easily irritated and frustrated. An offender would score a 2 on this item if they currently have a marked presence of anger or hostility.

Negative Mood. Negative mood (e.g., depression, anxiety, hopelessness) has been identified in a number of studies as a precursor to criminal behaviour (Hanson & Harris, 2000; Lindsay et al., 2004). Negative mood may be caused by heightened levels of stress, and in reaction to environmental triggers (e.g., loss of a job; Zamble & Quinsey, 1997). Negative emotionality is included as a stable risk factor in the STABLE- 2007 (Hanson et al., 2007). For this rating, both acute negative mood (e.g., anxiety as evidenced by hyper arousal or the offender appearing tense, jumpy or restless) and the continued presence of negative mood (e.g., ongoing depression) are scored as a 2.

External Acute Risk Factors

Interpersonal Relationships. This item captures whether an offender is in an unstable and unhealthy close or intimate relationship, which may be marked by violence and intimidation. This relationship can be with either a close family member (e.g., parent) or an intimate partner. Poor family and marital relationships are included as one of the “Central Eight” risk factors for criminal behaviour (Andrews & Bonta, 2010). Instability of interpersonal relationships is also included as a risk factor in the VRS (Wong & Gordon, 2000) and the LSI-R (Andrews & Bonta, 1995). A score of 2 is given if there is evidence an offender has an unstable or conflicted relationship, while a stable relationship would be scored as a 0. Included in this item is any evidence that the relationship is not effective in managing risk (e.g., an offender is controlling their partner or they are estranged from their support).

Living Situation. Lifestyle instability is a significant predictor of reoffending and other negative outcomes (Andrews & Bonta, 2010). Lack of stable accommodation and homelessness has been linked to negative re-entry outcomes (Baldry, McDonnell, Maplestone, & Pieters, 2006). Offenders with an unstable living situation or lack of accommodation would receive a score of 2. An offender who is in a stable and suitable living situation would be scored as a 0. Considerations when rating this item include whether the accommodation is close to victim(s), employment, support, and whether it is the same place they lived prior to their index offence.

Attachment With Others. This item considers the extent to which an offender is callous and indifferent towards others. Other aspects of this item include whether the offender finds it difficult to confide in others and displays shallow or flat emotions. These

characteristics form part of the construct of psychopathy, which is a strong predictor of future violent, sexual and general recidivism (Hemphill, Hare, & Wong, 1998). Parts of this item are also captured in the STABLE-2007 (i.e., a lack of concern for others; Hanson et al., 2007) and the VRS (i.e., callous and unemotional traits; Wong & Gordon, 2000). An offender who is indifferent to the feelings of others, who is unable to attend to the emotional consequences of their actions, or who identifies as a 'loner' would score a 2 on this item. An offender who scores highly on this item would also typically engage in brief, superficial interpersonal relationships.

Protective Factors

Responsive to Advice. This item considers the extent to which an offender is willing to listen to the advice and guidance of positive influences (e.g., prosocial peers, probation officers). Research suggests that offenders who are resistant towards advice may not be ready to change (Prochaska, DiClemente, & Norcross, 1992). For this item, offenders who conscientiously follow direction from positive influences are scored a 2, while offenders who are resistant to advice are scored a 0. It is important to base the rating on more than evidence of the offender listening to and acting in agreement with staff; responsiveness to advice needs to be shown behaviourally.

Prosocial Identity. Re-alignment with prosocial values and differentiating oneself from criminal others is related to desistance from crime (Maruna, 2001). It has been suggested that desisters undergo a series of cognitive transformation processes, whereby criminal behaviour becomes inconsistent with their new prosocial identity (Giordano, Cernkovich, & Rudolph, 2002). Prosocial involvement is a protective factor against violence for youth in the SAVRY (Borum, Bartel, & Forth, 2006). For this item, an offender who has legitimately shifted their identity to being prosocial would score a 2. Evidence of behaviour change might include the offender leaving a criminal gang or participating in family or community activities (e.g., volunteer work).

High Expectations. This item captures the extent to which offenders themselves and their support network encourage and have high expectations regarding parole/re-entry success. This item also picks up on whether the support network provides the offender with hope. Having unrealistic expectations for life after release has shown to predict parole failure (Bucklen & Zajac, 2009); therefore, it is important that the expectations be reasonable and that there is a plan in place for achieving goals. A similar item called life goals is included as a protective factors in the SAPROF (de Vogel, de Ruiter, Bouman, & de Vries Robbé, 2007), in which the offender has goals that provide meaning and that will lead to positive life fulfilment. If an offender has a high level of encouragement, engagement, and commitment by a support network and has high expectations of their own success, a score of 2 is given.

Costs/Benefits. This item considers whether an offender recognises that the costs of engaging in criminal behaviour outweigh the benefits. Evidence for this item would be an offender ceasing contact with antisocial peers because he does not want to risk losing his new job or relationship. An offender who recognises that prosocial behaviour is more important and rewarding than criminal before would score a 2 on this item.

Social Support. Research has shown that having stable and prosocial support provides protection against engaging in criminal behaviour, including violence (Ullrich & Coid, 2011). Social support can come in the form of a partner, family, employment, and leisure activities (e.g., sports team). Social support is included in a number of measures of

protective factors, including the SAPROF (de Vogel et al., 2007), the START (Webster, Martin, Brink, Nicholls, & Middleton, 2004), and the SAVRY (Borum et al., 2006). This item considers the availability of a support network and the overall quality of it.

Offenders who have meaningful and accessible prosocial supports would score a 2 on this item. It is important to keep in mind that the size of the support network is less important than its quality.

Social Control. Social control considers the extent to which an offender is appropriately influenced by prosocial models and is attached to his support. An increase in informal social controls and structured routine activities has been linked to desistance from crime (Sampson & Laub, 1993). Strong attachment and bonds is included as a protective factor against violence for adolescents in the SAVRY (Borum et al., 2006). In scoring this item, if an offender has strong internalised bonds with prosocial models and accepts the advice of his support network, a score of 2 is given

Appendix B

Release Plan Quality coding protocol

Offenders are assigned one score for each of the following domains. Sometimes an offender may fit the criteria for more than scoring category; in this instance, you should assign a score that best reflects the offender's plans for life after release from prison *in that domain*.

ACCOMMODATION	
1 =	Homeless; banned from shelters/ supported livings; has no plans in place; has no options
2 =	Living in unstructured, supported accommodation (e.g. shelter, hostel); has plans that are unconfirmed or plans have been vetoed by Corrections
3 =	Living in structured supported accommodation (e.g. Salvation Army Bridge Programme) or rehabilitation programme; living with family/ individuals who are not identified as prosocial supports; accommodation is stable but temporary (e.g. offender plans to move on soon)
4 =	Living with family/ individuals identified as prosocial supports; accommodation is likely stable and/ or long-term

EMPLOYMENT	
1 =	Not working/ unemployed upon release (regardless of reason, e.g. parole commitments)
2 =	Employment is unconfirmed, or has confirmed plans to study upon release (may be more than one option, but <i>must</i> be immediately following release)
3 =	Has confirmed employment but is not going to enjoy the job, is unmotivated, or believes the job will not provide sufficient income
4 =	Confirmed employment upon release; job will displace offender's time, provide sufficient income, and offender is motivated to undertake the work

PROSOCIAL SUPPORT	
1	Has no prosocial support people (may have some estranged family)
2	Prosocial support is available, but is limited in range <i>and</i> influence; support is available but not necessarily anti-criminal (e.g. spouse or family member with criminal history)
3	Prosocial support is available, but is limited in range <i>or</i> influence (i.e. unable to list at 3 support people, <i>or</i> offender does not take notice of their support people)
4	Has a number of sources of prosocial support from those with a good relationship with offender, and evidence of ability to influence offender

ANTISOCIAL ASSOCIATES	
1	Active gang involvement; no plans to leave gang; no plans to manage contact with antisocial/ gang-affiliated associates
2	Has ceased gang involvement but will likely still have contact (e.g. with friends/ family still in gang); minimal plans to manage contact with antisocial associates; vague on subject but is likely to maintain some contact with former antisocial associates
3	Explicit intention to not socialise with former gang affiliates or co-offenders, but likely to still socialise with antisocial individuals in general; minimal or weak plans to manage contact with associates
4	Explicit intention to not socialise with antisocial associates; can generalise 'antisocial associates' beyond current peer group; has plans to avoid antisocial individuals in general and/ or to seek new prosocial peer group

IDIOSYNCRATIC RISK MANAGEMENT	
1	Has no plans to manage particular criminogenic risks/ needs. Nothing in offender's current situation has changed; no evidence of release plan/ relapse prevention strategies in place
2	Has some idea of plans/ strategies to manage criminogenic risks/ needs; plans are mostly weak and/ or superficial
3	Has some strong plans to manage some criminogenic risks/ needs, but weak or non-existent in other areas; can demonstrate some awareness of his triggers or high-risk situations
4	Has rehabilitation/ maintenance programmes in place, or already completed; demonstrates acknowledgment/ insight regarding his triggers or high-risk situations and has connected these with viable plans for community re-entry