Targeting recidivism : an evaluation study into the functioning and effectiveness of a prison-based treatment program

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8 Summary and Discussion

8.1 Introduction

Over ten million people are currently held in penitentiary institutions throughout the world (Walmsley, 2016). Nevertheless, there appears to be a growing recognition that prisons fail to turn offenders away from further criminal behavior (see e.g. Cid, 2009; Gendreau, Cullen & Goggin, 1999; Nieuwbeerta, Nagin & Blokland, 2009; Smith, 2006; Spohn & Holleran, 2002; Wermink, Apel, Nieuwbeerta & Blokland, 2013). Recent studies have shown that post-release recidivism rates among ex-detainees are high (Fazel & Wolf, 2015; Hughes & Wilson, 2002; Langan & Levin, 2002; SEU, 2002; Wartna et al., 2010) and indicated that imprisonment may cause harmful effects to the lives of ex-detainees, their families and the bond with the communities they return to (see e.g. Bushway, 2006; Geller & Curtis, 2011; Hagan & Dinovitzer, 1999; Lynch & Sabol, 2001; Massoglia, 2008; Petersilia, 2000; Rose & Clear, 1998; Schnittker & John, 2007; Travis, Solomon & Waul, 2001; Western, 2002). Inspired by great advancements made in the field of correctional rehabilitation research, in which it was shown that, contradictory to the view of for example Martinson (1974) who questioned the value of offender rehabilitation efforts, rehabilitation programs can be an effective instrument to help decrease re-offending rates among offenders (see e.g. Andrews et al., 1990; Cullen & Gendreau, 2001; Gendreau, Cullen & Bonta, 1994; McGuire, 1995; McGuire & Priestley, 1995; Andrews, 1995), governments of many Western countries invested in implementing correctional rehabilitation programs designed to deter offenders from future criminal behavior. In The Netherlands, this lead to the nation-wide implementation of the Prevention of Recidivism Program: A prison-based rehabilitation program aimed to decrease recidivism rates of detainees with a prison sentence of at least 4 months that was implemented in 2007 (Dutch Prison Service & Dutch Probation Organizations, 2007) and ran up to March 2014.

Similar to medical interventions, correctional rehabilitation programs can and should be *evidence based* (Day & Howells, 2002; Latessa, 2004; Latessa et al., 2002; MacKenzie, 2000; 2001). In order to maximize the application of evidence based practices, evaluation studies are of vital importance. A broad evaluation approach consists of three elements; a *plan evaluation*, aimed to determine if programs were designed in accordance with current knowledge based on theory and empirical research; a *process evaluation*, usually conducted to determine if a program was delivered properly; and a *product evaluation*, which is carried out to assess if a program was successful

in reaching its aims. This way, an evaluation study does not merely focus on the outcomes of a program (Todd & Wolpin, 2008), but also pays attention to the processes by which results were accomplished (Burton, Goodlad & Croft, 2006; Lipsey, Petrie, Weisburd & Gottfredson, 2006).

The Dutch Prevention of Recidivism Program has never been subjected to such a comprehensive evaluation study. This is surprising, since between 2007 and 2014, on a large scale (the program was implemented nationwide) incarcerated offenders were exposed to a program, despite the fact that nothing is known about its influence on (former) participants and their post-release re-offending behavior. The current study therefore aimed to overcome this huge lack in knowledge by conducting a plan, process and product evaluation into the functioning and effectiveness of the Prevention of Recidivism Program. The overall research questions that were addressed by the current study were: (1) *To what extent is the Prevention of Recidivism Program effective, based on theoretical and empirical knowledge?* (2) *To what extent is the Prevention of Recidivism program functioning according to plan?* And (3) *To what extent is the Prevention of Recidivism Program effective in reducing post-release re-offending rates among program participants*? To examine the research questions proposed, this study used a group of offenders that were included in the Prison Project: A large scale, longitudinal research project, studying the effect of imprisonment on the life of detainees and their families in The Netherlands. Its population-based sample includes all male prisoners aged 18 to 65 years, who were born in The Netherlands, who entered one of the Dutch remand centers between October 2010 and April 2011, and were held in pre-trial detention. This amounts to a total sample of 3.981 detainees.

By studying a rehabilitation program carried out nationwide among a broad offender population, the entire field of prison-based rehabilitation efforts undertaken in Dutch prisons were examined. This has to date not been done, and provides a unique opportunity to compare different elements of treatment and different types of treatment, imposed on different groups of offenders, in various organizational contexts. In addition, this study is of great societal importance because it aimed to assess the performance and effectiveness of a rehabilitation program that has been implemented and running for over a decade, to which many detainees have been exposed, for which implantation was costly, and for which the impact on society was still unknown. This study made scientific progress by empirically evaluating a prison-based rehabilitation program in The Netherlands. This, to date, had not been done. And by not limiting research questions, alike much of the previous work conducted, to the *effectiveness* of prison-based treatment programs. Furthermore, methodological progress was made in using a unique, large-scaled, longitudinal dataset, in which various sources of data were combined, and advanced methodological techniques were applied. Lastly, the results of this study can provide vital information for policy makers, by assessing an approach (risk assessment and the application of criminogenic need-specific treatment modules in line with an offenders risk for re-offending and criminogenic needs), which correctional rehabilitation practices still rely on today. This provides valuable information for current affairs.

This final chapter first of all summarizes the results found in each of the preceding chapters, and aims to answer the overall research question proposed. First, an overall conclusion is drawn, after which the results found in each preceding chapter are summarized. After laying down the main findings, a reflection will be made with regards to theoretical considerations, after which the progress made by the current study is discussed, and limitations and directions for future research will be given. This chapter will conclude with some policy implications.

8.2 Summary of findings

Main conclusions

The Prevention of Recidivism Program, which aimed to reduce the re-offending rates of program participants, was a program implemented to contribute to the overall reduction of recidivism in society by ten percent, and the reduction of crime in society by twenty to twenty-five percent. First, the current study made clear that although the goals of the Prevention of Recidivism Program were rather ambitious, the program could be considered promising, since it applied methods that were potentially effective based on theoretical and empirical considerations. Second, this study showed that program-execution was severely hampered by a number of problems; the program included a fairly limited group of offenders as a result of strict inclusion criteria set; faced considerable attrition rates (both non-participation and non-completion), which were in most cases caused by organizational constraints; allocated offenders to treatment modules which were in many cases not in line with risk and need assessment outcomes; and consequently, was only able to reach a fairly limited group of offenders, of whom most only completed a standard program, with no specific treatment program aimed to target their individual criminogenic needs. Third, it was concluded that the program was only effective in reducing the two-year post-release re-offending rates among offenders that completed a standard treatment program. Criminogenic need-specific treatment modules, considered the core element of the Prevention of Recidivism Program (Van der Linden, 2004), were not shown effective in reducing recidivism among program participants. All taken into consideration, this study indicated that the Prevention of Recidivism Program did not lead to a reduction in re-offending rates among offenders that completed a program which included criminogenic need-specific treatment modules, and led to a fairly moderate decrease in post-release re-offending rates among offenders that completed a standard program. Considering the fact that criminogenic need-specific treatment modules are viewed as the central element of the program, and taking into consideration the rather ambitious program goals, the results found in this study lead us to question the overall effectiveness of the Prevention of Recidivism Program.

A more detailed overview of the main findings is provided below.

The Prevention of Recidivism Program: Plan evaluation (chapter 2)
In chapter 2, a plan-evaluation was presented, which aimed to determine the extent to which the Prevention of Recidivism Program, based on theoretical and empirical knowledge, could be considered an effective rehabilitation program. This was done by gathering all explicit and implicit assumptions and theories underpinning the Prevention of Recidivism (often referred to as the reconstruction of program logic, see Hoogerwerf, 1998; Hoogerwerf & Herweijer, 2003; Leeuw, 2003; 2005; Van Noije & Wittebrood, 2008), and testing the set of assumptions (or program logic) to theoretical knowledge and knowledge based on previous studies conducted.

An analysis of the program logic reconstructed showed that the Prevention of Recidivism Program relied on a method in which the program aims were supposed to be attained by (a) applying effective treatment in line with an offenders risk for recidivism and criminogenic needs; (b) preparing offenders for release by offering assistance on four (practical) target areas; (c) gradually releasing detainees into society by means of a phased re-entry and early release, and (d) providing an inmate with a case-manager that closely cooperates with both the prison- and probation service. Combined, this approach was believed to reduce re-offending rates among program participants. This in turn was supposed to contribute to the overall reduction of recidivism in society by ten percent, and the reduction of crime in society by twenty to twenty-five percent. It was concluded that the supposed mechanisms were generally considered plausible based on theoretical considerations and previous studies conducted. In other words: it was considered plausible that the treatment methods combined can cause a reduction in recidivism among program participants. Although the methods were considered sound, it was questioned to what extent the program could contribute large macro-level goals (reduction of recidivism and crime in society), since the number of incarcerated offenders that adhered to programs inclusion criteria was shown to be marginal (around five percent of the total inmate population), and expected drops in recidivism rates among program participant were expected (based on previous studies conducted) to be fairly small.

In brief, Chapter 2 made clear that the Prevention of Recidivism Program could in theory be effective; since it uses methods that were shown effective, and was based on theories about what we know has worked in the past. Expectation's concerning program effectiveness should however be limited to expected reductions in recidivism rates among the (rather small) group of offenders that took part in the program.

The Prevention of Recidivism Program: Process evaluation (chapter 3 up to chapter 6)
The second step of program evaluation is to determine to what extent the program was properly executed. Therefore, in chapter 3 up to 6, each phase of the Prevention of Recidivism Program cycle was extensively (empirically) studied, an overview of which is provided in Figure 1.

The Prevention of Recidivism Program was developed for a broad offender population. However, the program only included offenders (a) with a prison sentence (remaining at the moment a prison sentence was imposed) of at least four months, who (b) were not excluded based on additional exclusion grounds. In Chapter 3, program candidacy was examined. It aimed to assess: how many offenders qualified for participation in the Prevention of Recidivism Program; what their characteristics were; and aimed to determine if the correct target population qualified for participation in the Prevention of Recidivism Program. By doing so, it could be determined if the Prevention of Recidivism Program included a target population of high-risk offenders, who were in greatest need of treatment and for whom treatment potentially had the greatest potential in terms of a decrease in post-release re-offending.

Results showed that 886 offenders (22.3% of our research sample of 3.981 detainees) qualified for program entry (as shown in Figure 1). When comparing offenders who qualified to those who did not, it was found that program candidates were generally incarcerated for a more severe (often violent) offence, for which they had received longer prison sentences. Both groups did not however differ regarding risk to re-offend, and no coherent pattern of differences was found regarding a broad range of risk factors. Lastly, it was concluded that the program registration database had not always been correct in classifying offenders as candidates and non-candidates; around thirty percent of offenders that qualified for program entry were in fact not eligible, while a much smaller group of offenders (just over two percent) was eligible, but was not selected for program entry.

Three conclusions were drawn. First, program candidates could in general be considered a high-risk group of offenders, who were in need of treatment and for whom treatment success might be expected based on previous studies conducted. Second, the group of program non-candidates represents an equally high-risk group who was also in need of treatment, but was excluded based on (in most cases) sentence length. Third, some offenders were unrightfully included in treatment, while some were wrongfully excluded.

Treatment programs cannot be effective in reducing recidivism among program participants if those who are eligible for participation do not take part. Program non-participation leads to high-risk offenders returning to communities untreated, and leaves valuable treatment places unoccupied. Chapter 4 therefore studied non-participation among program candidates. It aimed to examine how many offenders participated in the Prevention of Recidivism Program, aimed to assess what their characteristics were and aimed to determine which factors had determined program participation. Based on theoretical and empirical considerations, it was hypothesized that treatment readiness and risk factors were related to participation in the Prevention of Recidivism Program. This assumption was tested among a group of 886 offenders that were eligible for participation in the Prevention of Recidivism Program.

Results showed that a little over sixty percent (n = 541, see Figure 1) of those offenders eligible for participation had decided to take part in the program. Offenders who did not take part in treatment were in most cases excluded from participation based on organizational circumstances (which was the case for over thirty percent of those eligible). Less than ten percent of offenders eligible for participation did not take part because they refused. Further analysis showed that treatment readiness was related to program participation. Risk and need scores were however, with two minor exceptions, not shown associated with program participation. The outcomes first of all showed that a large proportion of program candidates were excluded from treatment, based on organizational factors. Second, this study made clear that treatment readiness is an important factor determining program participation. It was therefore argued that treatment readiness among offenders eligible for correctional treatment programs should perhaps be measured prior to treatment entry, and if necessary; enhanced.

Previous work has indicated that correctional treatment programs are only effective if offenders are allocated to treatment based on risk and need assessment outcomes (Latessa et al., 2002), but has also shown that risk assessment instruments are rarely used to allocate offenders to treatment (Latessa, Cullen & Gendreau, 2002; Taxman & Bouffard, 2000; Taxman & Marlowe, 2006). Chapter 5 therefore assessed: how many offenders were allocated to what types of treatment; if the correct target population allocated to the right type of treatment; and studied which factors had influenced these treatment-allocation decision-making processes. Inspired by a theoretical framework that has been frequently used to frame decision-making processes in other junctures of the criminal justice chain, a model was proposed in which indicators of risk and need factors and organizational circumstances were believed to influence prison-based treatment referral decisions. Treatment referral decision-making processes were studied by examining treatment module allocation among our group of Prevention of Recidivism Program participants (N = 541).

The results indicated that over half of our research group was allocated to a standard program (as shown in Figure 1). Furthermore, treatment allocation was not in line with risk and need assessment outcomes. In fact, over half of our research group was incorrectly classified, which in most cases resulted in offenders being referred to a standard program (with no specific treatment module), while based on their risk and need assessment scores, they should have been referred to a program that did include specialized treatment. This led us to wonder about the determinants of treatment referral decision-making processes. These did however show that risk and need factors had mainly influenced treatment referrals. However, model statistics also showed that a large proportion of the variance in treatment referrals among our studied groups remained unexplained. These outcomes cause some concern about the expected outcomes of treatment: since studies have shown that adherence to risk and need factors is a major indicator of treatment success in terms of reducing re-offending.

Similar to the issue of program non-entry discussed in Chapter 4, program non-completion is often observed in correctional rehabilitation practices (Olver, Stockdale & Wormith, 2011). Program non-completion is problematic because it leaves high-risk offenders in need of care untreated, and even more, because previous work has suggested that program drop-outs generally represent a more high-risk group (Polaschek, 2010; Wormith & Olver, 2002), with higher post-release reoffending rates (McMurran & Theodosi, 2007). If such selective non-engagement is not adequately taken into account, effectiveness of treatment programs may be overestimated in effect studies. The study discussed in Chapter 6 therefore focused on treatment completion. It aimed to determine how many offenders completed the Prevention of Recidivism Program, aimed to assess what their characteristics were, and studied which factors determined program completion. Because previous work had indicated that treatment readiness and risk factors were associated with treatment completion, this study tested the extent to which risk factors and treatment readiness were related to completion of the Prevention of Recidivism Program. The research question was addressed by studying program completion among Prevention of Recidivism Program participants, who were no longer imprisoned and had therefore either completed treatment, or dropped out of treatment (N = 508).

Study outcomes had shown that although offender-instigated non-completion rates were limited, non-completion due to various organizational circumstances was substantial (18.9%, as shown in Figure 1). With respect to determinants of treatment completion results have indicated that treatment readiness did not, contrary what was hypothesized, prove to be related to program completion. Additionally, it was shown that only one risk domain significantly correlated with treatment completion. It was therefore concluded that there was no relation between both treatment readiness and risk factors, and program completion. Treatment type was however shown related to treatment completion: offenders allocated to a program that contained criminogenic need-specific treatment modules were more often among those that did not complete treatment. Although this relation is perhaps obvious and could possibly even have been expected, (in an empty program, there is nothing to drop-out from) it is still striking that the correctional system has such a hard time getting offenders in need of treatment to complete the programs they were referred to. Even more so, because the mere fact that offenders are referred to such programs, indicate their need for treatment.

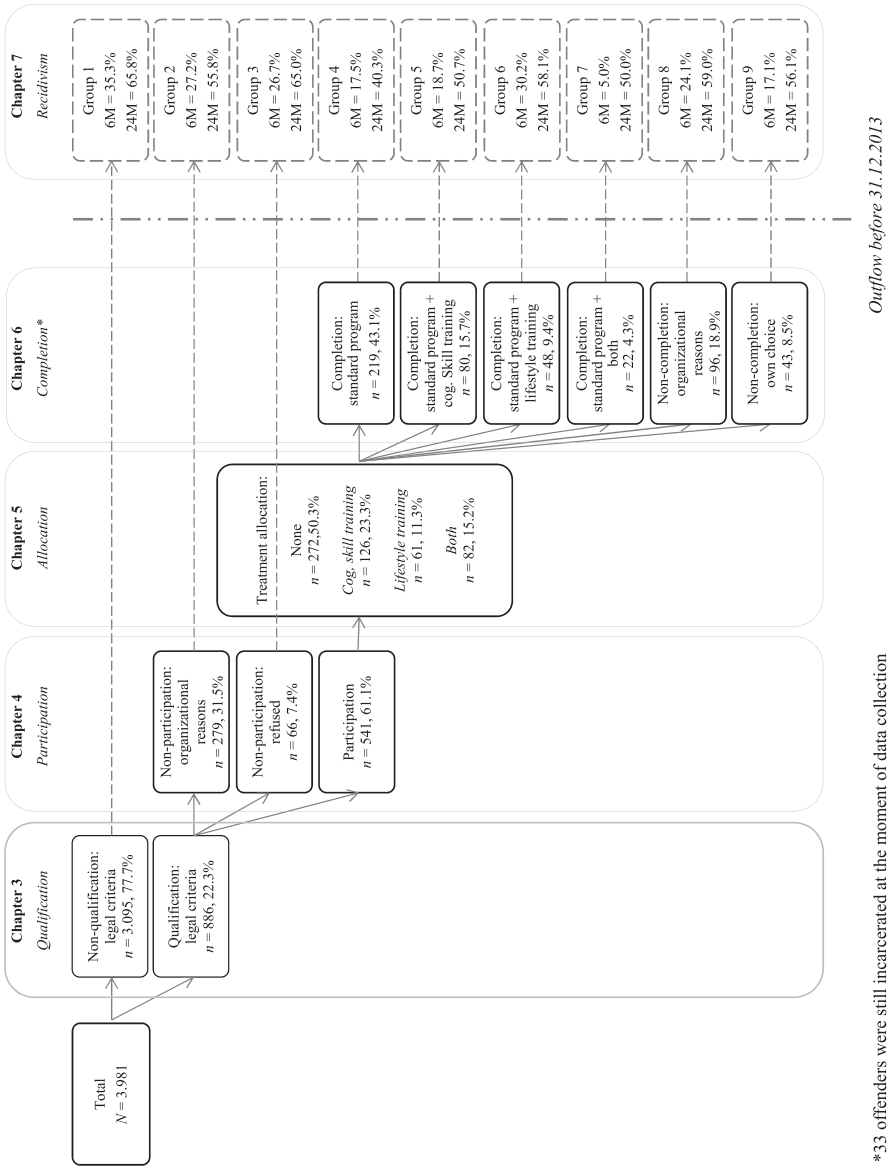

Figure 1. Overview of 24-month recidivism rates per research group

The Prevention of Recidivism Program: Product evaluation (chapter 7)

The closing part of evaluation research is a product evaluation. Hence, the purpose of the study presented in Chapter 7 was to determine to what extent the Prevention of Recidivism Program was effective in reducing 6, and 24-month post-release re-offending rates among program participants. Based on theoretical expectations and previous studies it was expected that offenders who participated in the Prevention of Recidivism Program would

re-offend less in the 6- and 24-month period after being released from prison, compared to offenders who did not participate. To study program effectiveness, two analytical approaches were applied. First, group differences between each research group defined in the preceding empirical chapters (program non-candidates; program non-participants: organizational reasons; program non-participants: refused; program completers: standard treatment program; program completers: standard program plus cognitive skill training; program completers: standard program plus lifestyle training; program completers: standard program plus cognitive skill and lifestyle training; non-completers: organizational reasons; and non-completers: own choice) were analyzed, after which post release re-offending was studied by use of logistic regression analyses (in which the entire research sample of 3.835 offenders was included). Second, propensity score methodology (proportional weighting within strata) was applied; in which three appropriate research- and control groups were created.

Results had shown that the 6- and 24-months post-release re-offending rates differed greatly between our treatment groups (as is also shown in Figure 1). Further analyses indicated a significant decrease in 24-month post release re-offending rates among offenders that completed a standard program, evidenced by a regression analysis, and shown by a comparison of weighted treatment effects between a group of standard-program completers and an appropriate control group. Although a significant effect was found; the reductions in criminal re-offending found in this study were relatively small, in any case smaller than those found in large-scale meta-analytic studies (Andrews et al., 1990; Lipsey & Cullen, 2007). Furthermore, both analytical approaches applied in this chapter showed that there was no significant treatment effect of engagement in cognitive skill training and lifestyle training. This seems to suggest that risk and need-oriented programs were unsuccessful, which is not in line with premises made based on theoretical (Andrews, Bonta & Hoge, 1990) and empirical considerations (Andrews et al., 1990; Lipsey & Cullen, 2007).

8.3 Theoretical implications

The effectiveness of correctional treatment (*what works in correctional programming*) has received an enormous amount of scholarly attention (Andrews & Dowden, 2005). Correctional treatment programs that were found effective in prior empirical studies often relied on insights that originate from two popular theoretical approaches; the Risk-Need-Responsivity model for the assessment and treatment of offenders (Andrews, Bonta & Hoge, 1990), and Good Lives Model of offender rehabilitation (Ward & Brown, 2004). Although different in nature, the RNR-model is a risk-based approach, while the Good Lives Model is more strength-based in nature, both of these models describe how offending behavior can be altered by correctional treatment programs The RNR-model suggests that offending

behavior is believed to be caused by a broad range of risk factors, that can influence an offenders considerations to engage in, or not engage in criminal behavior (Andrews, Bonta & Wormith, 2011). Effective treatment should consequently be directed at removing these risk factors. In contrast, the Good Lives Model believes that criminal behavior can develop when people fail to attain certain life goals, which can be hampered by risk factors (Ward & Stewart, 2003). Accordingly, effective correctional treatment should, based on the Good Lives Model, focus on helping offenders with the skills necessary to attain their personal life goals.

Both the RNR-model (Andrews, Bonta & Hoge, 1990) and Good Lives Model (Ward & Brown, 2004) were applied in this study to guide assumptions about the association between risk factors and treatment engagement (i.e. participation and completion). It was however concluded that, in case of the Prevention of Recidivism Program, these models cited did not provide an explanation that could contribute to explaining program participation, and program completion. Additionally, treatment engagement was explained by marshalling the *Multifactor Offender Readiness Model* [MORM] (Ward, Day, Howells & Birgden, 2004). This model suggests that engaging in correctional programs can be explained by treatment readiness; the willingness and suitability to engage in treatment (Howells & Day, 2003). In case of treatment participation, meaning entry in The Prevention of Recidivism Program, hypothesis derived from this model were shown applicable. Treatment readiness was however not shown to be an important predictor of program completion. Perhaps not initially expected, it was shown by the current study that non-engagement (non-participation and non-completion) was often caused by organizational circumstances, which may indicate that treatment engagement could perhaps better be explained by contextual measures.

Second, the current study focused on exploring and explaining prison-based treatment allocation (i.e. referrals to criminogenic need-specific treatment modules). Official guidelines, incorporated in several program manuals were implemented to guide treatment allocation, in practice however; such guidelines are not always carried out as they were prescribed. To explain this phenomenon, *Street Level Bureaucracy theory* (Lipsky, 1971; 1980) was cited. The premises made based on this theory, suggesting that public service employees do not always apply policies as prescribed, were supported in this study. As a result, Dutch prisoners who qualified for (and were in need for) treatment, did not have access to services. In addition, it was concluded that detainees with a lower risk and/or less severe criminogenic needs, *easier* clients, were more often correctly allocated to services, which in the Street Level Bureaucracy tradition is called *creaming*; giving priority to decisions that involve easier and manageable clients and cases (Lipsky, 1980; 2010). Although our study certainly demonstrated the value of street level bureaucracy theory, our model developed was unable to completely explain the decision-making process that had led to discrepancies in treatment allocation, meaning this issue certainly deserves more attention in future research.

Since treatment has been shown most effective if it adhered to the central principles of corrective treatment; the Risk-Need-Responsivity model for the assessment and treatment of offenders (Andrews, Bonta & Hoge, 1990), the RNR-based Prevention of Recidivism was considered promising. However, since a risk- and need oriented approach was not found effective in this study, this study cannot be seen as a validation of the results found in the immense body of research conducted that showed the importance of adhering to the RNR-principles (see Andrews et al., 1990; Cullen & Gendreau, 2001; Gendreau, 1996; Gendreau, Little & Goggin, 1996; Lipsey & Cullen, 2007; Lowenkamp, Latessa & Holsinger, 2006; Lowenkamp, Latessa & Smith, 2006). Scholars suggested that a lack in program effectiveness may be caused by ill program-execution (Andrews & Dowden, 2005), often referred to as (a lack in) *treatment integrity*, or *treatment fidelity* (Andrews & Dowden, 2005; Hollin, 1995; Leschied, Bernfeld & Farrington, 2001; Moncher & Prinze, 1991). Although the results of this study indicate that several issues relating to program integrity hampered the Prevention of Recidivism Program, it was not shown that this explained (a lack in) program effectiveness. In Chapter 7, a few possible explanations were given for the fact that the current study's results differed greatly from what is known based on theoretical and empirical knowledge. It could for example be the case that the effectiveness of prison-based treatment found in other geographic regions do not translate to the specific situation (and criminogenic needs and risk for re-offending of offenders incarcerated) in The Netherlands. Although more research is definitely necessary to further examine these issues, this study makes clear that we should perhaps be careful with the development of programs based on theoretical insights that were not first confirmed in the appropriate (national) context.

8.4 Strengths, limitations and directions for future research

By evaluating the design, functioning, and effectiveness of the Prevention of Recidivism Program, the current study made a huge step in the field of (evidence-based) correctional practices in The Netherlands. With respect to the unique qualities of this study, we want to make three remarks.

First and foremost, this study had applied a broad evaluation approach to a program that has been implemented for years, but had not been studied for effectiveness. In most cases, evaluation studies merely focus on the outcomes of a program (product evaluation). This study has been able to advance on this *black box* approach (see e.g. Simpson, Joe, Rowan-Szal & Greener, 1997; Taxman & Bouffard, 2000), by assessing if the program plans were considered potentially effective based on theoretical and empirical considerations (plan evaluation), and by extensively studying the way in which the program was carried out in practice (process evaluation). Such a thorough evaluation study is not often done (Todd & Wolpin, 2008), and gives a unique insight in program outcomes, as well as possible design- and

implementation strengths and weaknesses that may have confounded with the outcomes attained.

Second, the current study applied original theoretical insights, stemming from different scholarly traditions. Most prominent of which perhaps is the Risk-Need-Responsivity model for the assessment and treatment of offenders (Andrews, Bonta & Hoge, 1990), which can be considered the leading model for explaining the effectiveness of correctional treatment (Ward & Eccleston). The research field of correctional practices had however further developed, which led to the development of new theories and insights, such as the Good Lives Model of offender rehabilitation (Ward & Brown, 2004), and Multifactor Offender Readiness Model (Ward et al, 2004), also applied in this study. In some cases, rehabilitation-theories were however not sufficient to guide our hypotheses, in which case inspiration was drawn from theories developed and used in other research fields, such as the widely applied Street Level Bureaucracy theory (Lipsky, 1971). This makes the current study innovative and interdisciplinary.

Third, this study was able to use a rich, population-based dataset, consisting of almost four thousand offenders (the entire six month inflow in pre-trial detention, of detainees between the ages of 18 and 65, who were born in The Netherlands). On this research sample, several registration databases were available, including a national risk assessment database, and recidivism data that made it possible to study re-offending rates two years post release from prison. The fact that such a large offender population was studied means this study was able to distinguish between a broad range of groups, depending on the status of program eligibility, participation, content and completion, make assumptions about the performance and effectiveness of the Prevention of Recidivism Program for each of the research groups distinguished, and translate these outcomes to the broader field of prison-based treatment in The Netherlands. Additionally, since such a large amount of data was available, we were able to analyze and control for a broad range of factors.

Limitations and directions for future research

Although the current study made great advancements, the results of which are important for prison-based rehabilitation practices in The Netherlands, as well as abroad, there are a number of limitations that are worthy of mentioning, and some issues that need to be dealt with in future studies. We also want to make some suggestions regarding the questions that may have remained unanswered, or were brought up as a result of this study, that deserve attention in future research endeavors.

First, although this study has been particularly extensive and thorough in its (methodological) approach, we cannot go around the fact that the effectiveness of the Prevention of Recidivism Program had not been studied by use of a randomized controlled trial; often referred to as the golden standard in (correctional rehabilitation) research (Debidin & Lovbakke, 2005; Harper & Chitty, 2005; Hollin, 2008). Instead, the evaluation of effectiveness

in this study was based on a quasi-experimental design. Randomized experiments however, while undoubtedly having the highest internal validity, are uncommon in criminology due to implementation problems (Farrington, Gottfredson, Sherman & Welsh, 2002), and do not necessarily reflect the "real world" of correctional practices (Gondolf, 2001). It is therefore increasingly questioned if a randomized experiment is the *holy grail* of evaluation research (see e.g. Hollin, 2008). The study central to this dissertation has many merits: It included a large offender population, on which a considerable amount of data was available, which was analyzed by use of two advanced analytical approaches. Also, the current study compared a treatment group to an appropriate control condition consisting of eligible offenders that could not take part in treatment based on factors outside of the individual offender, instead of a control group created by selecting offenders who decided not to participate (see e.g. McGrath, Cumming, Livingston & Hoke, 2003; Worling & Curwen, 2000), or who dropped-out during treatment (see e.g. Wexler et al., 1999). Consequently, this study could be considered a *high-quality* quasi-experimental study (Hollin, 2008), which means that both the internal and external validity can be considered adequate.

Second, although this study was able to include a rather large, population-based sample, only male offenders, between the ages of 18 and 65, who were born in The Netherlands and entered prison in pre-trial detention were included. We do not anticipate that the first three aspects (gender, age and type of detainee) had major implications, since the vast majority of offenders imprisoned in The Netherlands are male and are between the age of 18 and 65 (Linckens & de Looff, 2015), and offenders that entered prison on other grounds than pre-trial detention, such as arrestees, are generally only briefly imprisoned, meaning they generally will not qualify for entry in the Prevention of Recidivism Program. The latter however, country of birth, has probably influenced the current study's results. By only selecting offenders born in The Netherlands, we excluded about 45 percent (Linckens & de Looff, 2015) of the Dutch offender population. Although a proportion of these offenders would not have been eligible for entry in the Prevention of Recidivism Program because they are not Dutch citizens, and/or do not have sufficient Dutch language skills (unfortunately there is no data available on how many of the offenders born abroad are actually foreign, and/or do not speak Dutch), it cannot be ruled out that a proportion of them, specifically first generation immigrants, will have been eligible for program entry and entered and completed the program. Since little is known about the specific criminogenic needs of first generation immigrants in light of treatment requirements, as well as the effects of prison-based treatment programs on this group of detainees, we do not know if our results also hold true for first generation immigrants.

Third, this study is limited by the fact that no individual process- and effect evaluations of each separate treatment module were conducted. It could therefore not be determined to what extent the treatment modules were carried out according to plan, and what the effectiveness of these treat-

ment modules was on specific treatment goals, such as the enhancement of cognitive skills (in case of cognitive skill training). Although this study (systematically) identified and discussed the studies that have evaluated these individual programs – which for the record indicated that program integrity was hindered by quite a few execution problems -, these studies were not repeated among our current research sample. Unfortunately, a certain amount of detail was lost as a result of this decision. This has (at least) two consequences. First, it means that we cannot be certain about the influence of the specific way in which each treatment module (in each prison) was executed, which could for example in much more detail explain the lack in program effectiveness found among offenders that completed a program that included a criminogenic-need specific treatment module. And second, it means that we do not know whether treatment modules were effective in enhancing some treatment-specific goals. We do however know that the programs on average had no effect on post-release recidivism rates.

Fourth, even though the current study had access to a considerable number of registration databases, some information could not be retrieved and would perhaps have been beneficial. For example, there was limited information available with respect to the individual treatment programs carried out: for example, it was unknown how many meetings an offender attended, and what took place during these meetings. Information on the organizational context was also limited; we had no data on prison staff members (for example, their characteristics and beliefs about treatment), and limited data on the organizations (prisons) in which treatment took place. Regarding risk and need factors and treatment readiness, we had to rely on a database that contained scores of the Dutch-language Recidivism Assessment Scales (RISc). And although the RISc is a validated instrument (see Van der Knaap, Leenarts, Born & Oosterveld, 2012), perhaps a validation of measures, and broadening of factors incorporated, could have been provided by use of panel-data. Additionally, since previous work has indicated that treatment readiness as measured by a validated instrument may have been a better predictor of treatment readiness as clinically assessed by a trained probation worker (Bosma, Kunst, Dirkzwager & Nieuwbeerta, 2015), it would have perhaps been better to have administered a treatment readiness questionnaire, such as the Corrections Victoria Treatment Readiness Questionnaire (CVTRQ; Casey, Day, Howells & Ward, 2007). However, the mere fact that the current study had relied on registration data means that our entire research group (consisting of almost 4.000 offenders) could be studied. Considering the small groups of offenders that (successfully) took part in the Prevention of Recidivism Program, this represents a huge advantage.

On a final note, this study had mainly focused on the Prevention of Recidivism *process* (from program qualification trough program completion), as well as the effectiveness of the program-element that was considered most important (Van der Linden, 2004): criminogenic need-specific treatment modules. The Prevention of Recidivism program did however

rely on a broader approach, which also involved elements such as phased re-entry and assistance with aftercare needs. Unfortunately, we did not include these factors in our study. This means that some information is missing, which could have potentially influenced result.

The study elaborated on in this dissertation raised some questions that may deserve attention in future research. First, this study has been unable to fully explain the mechanisms that influence treatment program participation and program completion. Considering the importance of treatment retention, more research is necessary to fully comprehend this problem. Second, it was indicated that referral processes deviated from prescribed standards. However, the model proposed in this study was not able to provide enough insight into the decision-making processes that have influenced treatment allocation. Third, since the main focus of this study was on risk and need focused treatment, some other program-elements had remained understudied. For example, future studies could perhaps focus in the influence of phased re-entry, and assistance with post-release ID, income, housing, and health care. Optimally, we would also like to know if the program would be effective, if some of the issues raised in this dissertation were resolved. However, since the program is no longer applied in the current manner, shortcomings cannot be addressed. Instead, it is perhaps best to draw some lessons from current practices, more on which will be disclosed in the following paragraph.

8.5 Policy implications

This study focused on a rehabilitation program that today no longer exists: Rehabilitation pooled under the Prevention of Recidivism Program was abolished in 2014. It was replaced by a policy measure in which offenders have to earn the right to engage in out-of-cell activities (such as education, visits, and rehabilitation), by expressing their willingness to change their criminal ways, and by showing pro-social behavior for a minimum of 6-weeks straight. Offenders that have been *promoted* to a regime that includes such activities (a so-called plus-regime), can receive activities that were formerly employed under the umbrella of the Prevention of Recidivism Program such as assistance with aftercare (on the target area's work and income, healthcare, housing, debt and identification papers), and criminogenic needs-specific rehabilitation programs (such as cognitive skill training, and lifestyle training), and in some cases, phased re-entry (though in a somewhat altered form). The plus-regime is only available in prisons, and not in remand-centers, meaning that an offender has to have received his or her sentence, to be able to participate.

In this dissertation, a few concerns were raised that can be considered valuable for correctional practices carried out today. First, findings stress the importance of the proper referral of offenders to treatment. As studies have indicated that targeting the appropriate population of (high-risk) offend-

ers is of vital importance (Andrews et al., 1990), the fact that the program appeared to fail to do so in several ways (with respect to selection for entry, and selection for treatment in line with criminogenic needs), may hinder program effectiveness and needs to be resolved. This could perhaps be done by refining (mostly automated) program-qualification selection processes, and by training staff to better adhere to risk and need assessment outcomes. It can also be helpful to implement treatment allocation simulation tools (see initiatives taken by Taxman and colleagues (Taxman & Pattavina, 2013)), that can help guide prison staff-members to make risk, need and responsivity based treatment referrals.

Second, this study indicated that non-participation rates and non-completion rates due to organizational circumstances were relatively large. Needless to say, this type of program-attrition is perhaps the most unwanted type of drop-out, since it is not instigated by the offender, and means prisoners are deprived from their right (as granted to them by section 2 of the Penitentiary Principles Act) to engage in re-socialization activities. The correctional system should therefore focus on improving its infrastructures, so that each offender that needs to engage in treatment, and wants to engage in treatment, can successfully do so.

Third, the study discussed in this dissertation made clear that criminogenic need-specific treatment modules were not often applied. In fact, most offenders engaged in a standard program. Since this study and other studies conducted (see e.g. Fischer, Captein & Zwirs, 2013) have shown that the need for individualized, need-specific treatment is present in almost every incarcerated offender in The Netherlands, one could argue that it would be beneficial to get more offenders involved in programs, such as cognitive skill training, and lifestyle training. However, since the current study made clear that criminogenic need-specific treatment modules were not effective in reducing post-release recidivism, it can almost be considered fortunate that so little offenders were referred to treatment. Nevertheless, since such a large number of previous studies have shown that treatment programs can indeed be an effective instrument to help decrease re-offending rates, and considering the need for treatment among incarcerated offenders, effort should perhaps be put into exploring why programs do not reach their goals, and invested in changing the ineffective elements of programs so that positive treatment results can be achieved in the future. If (and only *if*) we are able to offer offenders programs which we know work, perhaps the amount of offenders referred to treatment should be increased.

And fourth and final, the Prevention of Recidivism Program was shown to be well designed and was considered promising. Strong statements about program effectiveness could however not be made, since outcomes showed no effectiveness of programs that involved treatment, and standard programs only showed a minor treatment effect. This, in all probability, resulted in a negligible number of offenders to have left prison having successfully engaged in (appropriate) treatment, which had no (in case of offenders engaged in a program that included criminogenic need-specific treatment

modules), or a only minor effect (in case of offenders who completed a standard program) on post-release recidivism. In order for current rehabilitation practices to have any effect, attention must be paid to program-design and program-integrity. It should be examined why criminogenic need-specific treatment had not been effective, and alterations should be made to make programs effective. Otherwise, any effort that has been put in the design, implementation and execution of programs, are a waste of time and resources.

On a final note, the new rehabilitation policy-measure implemented in 2014 involves the same methods employed in light of the Prevention of Recidivism Program, but targets a more narrow population consisting of offenders who had shown "*good behavior for six week straight*". This may be problematic, since offenders are no longer permitted to engage in treatment solely based on their remaining time in prison, but instead have to show their motivation and good behavior in order to qualify. It can be questioned if high-risk offenders, who are the most in need for treatment, and for whom treatment was shown the most effective in previous studies (Andrews et al., 1990), are among those that can behave pro-socially and are motivated to change their criminal ways. Perhaps politicians and policy makers should re-think the decision to only include motivated and well-behaved offenders, and instead should focus on trying to include every high-risk offender that is in need for treatment.