Finding the right focus. Improving the link between risk/needs assessment and case management in probation

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Abstract
In this article we report a study into the Dutch probation service about the question whether structured decision making about case management plans does or does not improve the quality of these plans, and subsequently improves the effectiveness of offender supervision. Two samples of nearly 300 case management plans each were compared. In the first sample a tool for risk/needs assessment was used to assess the risks and needs but decision making about the subsequent case management plan was not structured (RISc2-sample). In the second sample professionals used the same tool for risk and needs assessment but now it also contained a section for structured decision making about the case management plan (RISc3-sample). Results showed that in the RISc3-sample the quality of the plans was significantly better than in the RISc2-sample: a better match between criminogenic needs and goals, a better match between goals of the offender and goals in the plan,

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more focus on strengthening social bonds, and a better match between risk of recidivism and intensity of the plan. Some significant correlations between the quality of the plans and the effectiveness of offender supervision were found, indicating that improving case management plans by structured decision support indeed can contribute to probation practice.

**Keywords**

structured decision making, risk/needs assessment, case management, probation, task separation

**Risk/needs assessment as a basis for case management plans**

Correctional professionals such as probation officers support offenders to desist from crime and become prosocial members of society (McNeill, 2006). There is a growing body of empirical evidence that helps probation officers to perform that task. Research about what works in reducing recidivism has led to some stable and usable insights for correctional practice. Andrews and Bonta (2010a) transformed this knowledge into a working model for correctional practice that contains a number of principles for effective practice, the Risk – Need – Responsivity (RNR) model. According to the ‘needs principle’ treatment services should focus on dynamic risk factors (criminogenic needs) that are associated with recidivism (Andrews & Bonta, 2010a; Hanson, Bourgon, Helmus, & Hodgson, 2009). In several studies significant correlations have been found between the number of criminogenic needs targeted during case management and recidivism (Andrews & Bonta, 2010a; Latessa & Lowenkamp, 2006; Peterson-Badali, Skilling, & Haqanee, 2014; Vieira, Skilling, & Peterson-Badali, 2009). Most offenders have several criminogenic needs that should all be addressed to effectively reduce their propensity towards crime (Harper & Chitty, 2005; Vieira et al., 2009). The so-called ‘risk principle’ states that high risk offenders should receive intensive services and low risk offenders should receive low intensive or no services (Andrews & Bonta, 2010a). In a study using data from 97 correctional programs, Lowenkamp, Latessa and Holsinger (2006) found that both in residential and non-residential settings, programs that provide more service to high risk offenders compared to low risk offenders were more effective than programs that violated the risk principle (Lowenkamp, Latessa, & Holsinger, 2006). Results from a sample of 620 incarcerated male offenders showed that matching
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length of treatment to an offender’s risk supports treatment effectiveness in terms of recidivism (Bourgon, 2005). The risk principle turns out to be more effective when combined with the needs and responsivity principles (Andrews & Dowden, 2006). The ‘responsivity principle’ states that interventions should be based on cognitive behavioural and social learning strategies, and correctional interventions should be delivered in such a way that they match with the characteristics (such as strengths, personality, gender, preferences, motivations) and circumstances of offenders (Andrews & Bonta, 2010a). One way to support responsivity is to include offenders’ goals in the case management plan, and by doing so improve motivation for change (Miller & Rollnick, 2002). This is a central theme in the Good Lives Model that has recently become popular in rehabilitation, especially with sex offenders (Ward, 2010; Ward, Mann, & Gannon, 2007).

Sociologically oriented theories about desistance from crime emphasize the importance of supportive social bonds. In their study about pathways in and out of crime, Laub and Sampson (2003) found that changes in life circumstances such as a good marriage or a stable job are related to desistance. The positive relation between social bonds and desistance has been found in several studies. Prisoners who maintain connections with their social network while being in prison turn out to have lower rates of reoffending (Cochran, 2014). Based on data from a large scale employment program in the U.S. Uggen (2000) found that having a job reduced recidivism, but only for offenders aged 27 or older. Studying criminal and working careers of a cohort of offenders from a Dutch youth prison, Van der Geest (2011) found a positive association between work and decline in delinquency, especially when jobs were stable. In a Dutch study about supervision failure, Lamet and colleagues (2013) found that probationers with weak social bonds failed their probation supervision more often than probationers with strong social bonds. And in studies about protective factors it was found that positive bonds can mitigate or eliminate risks (De Vries-Robbé, 2014). In the RNR model social bonds are included as criminogenic needs: antisocial associates, family/marital circumstances, and work are included in the central eight risk/need factors (Andrews & Bonta, 2010a).

Often, a probation officers’ first step in working with an offender is to develop a case management plan that describes the desired change and the actions to realize that change, formulated in goals and interventions such as behavioural treatment or practical support. The last decennia it has become generally accepted that instruments for risk and needs assessment should be used for decision making about these plans (Andrews & Bonta, 2010a; Kemshall, 2010). Such
Instruments contain a checklist of risk factors (and in some instruments protective factors) for criminal behaviour, meant to help correctional practitioners assess the risk of recidivism and the criminogenic needs (Bonta, 2002). In some instruments, additionally other relevant issues are assessed concerning risk of harm or responsivity (Andrews, Bonta, & Wormith, 2004; Home Office, 2002). A main reason to use risk and needs assessment is that it would improve evidence-based practice in case management (Andrews & Bonta, 2010b; Andrews, Bonta & Hoge, 1990; Bonta, 2002).

The availability of evidence-based knowledge about how to support the reduction of recidivism and the use of instruments for risk/needs assessment does not guarantee a good match between the assessment and case management. Using data about 1679 young offenders that were in residential care or under probation in Ohio between 1998 and 1999, Floris, Travis and Latessa (2003) found that correctional professionals used the risk and needs assessment to guide the level of supervision, but often did not use it to identify treatment targets and to make decisions about the case management plan. When family problems, lack of education or employment, problematic peer relations or drug abuse were assessed as a criminogenic need, these needs were addressed in less than 6% of the cases. Bonta and colleagues (2008) drew similar conclusions for 154 (mainly adult) offenders in Manitoba, Canada. When assessed as a criminogenic need for adult offenders, problems with substance abuse and emotional well-being were addressed in a majority of the cases (80% and 71% respectively). For other criminogenic needs that were assessed, often no intervention was found in the case management plan: employment problems were addressed in only 10% of the plans, family/marital problems in 29%, and accommodation problems in 17% of the plans. In a Dutch study including 300 case management plans for probationers, the match between the criminogenic needs assessed and the goals and interventions in the plan was found to be relatively low (Bosker, Witteman, & Hermanns, 2013). The case management plans tended to focus on cognitive skills and addiction problems, and insufficiently addressed needs in the domains education/work, finance, accommodation and friends. Based on observations and interviews Viglione, Rudes and Taxman (2014) found that probation officers in a Middle Atlantic state in the U.S. rarely linked the outcomes of risk/needs assessment to decisions about case management and supervision.

It can be concluded that decision making about case management plans calls for improvement, especially because a positive correlation between risk/needs assessment and case management can support outcome. Harris, Gingerich and Whittaker (2004) found that probation officers' compliance
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with quality standards for differential supervision was fairly low, while integrity of differential supervision was weakly but significantly related to case outcome in terms of revocation and rearrest during supervision. Several studies with young offenders in Canada showed that a good needs-intervention match was associated with reductions of recidivism (Luong & Wormith, 2011; Peterson-Badali, Skillling, & Haqanee, 2014; Vieira, Skillling, & Peterson-Badali, 2009). Psychological research provides valuable insights about ways to improve decision making in general, such as a better provision and use of feedback, training in theories of cognitive reasoning and biases, considering the opposite, seeking others’ opinions and the use of checklists (Fenneman & Witteman, 2014; Tracey, Wampold, Lichtenberg, & Goodyear, 2014; for a more comprehensive overview of strategies for debiasing see Croskerry, Singhal, & Mamede, 2013a, 2013b). It has been convincingly demonstrated that structuring the decision-making process, for example by including decision support tools, improves the reliability and validity of diagnostic decision making (Dawes, Faust, & Meehl, 1989; Garb, 2005; Grove, Zald, Lebow, Snitz, & Nelson, 2000; Meehl, 1954). In correctional practice, the use of instruments for risk and needs assessment has proven its worth. It is well known by now that the use of these instruments improves the prediction of the risk of recidivism in comparison to clinical predictions (Andrews & Bonta, 2010a; Hanson, Helmus, & Bourgon, 2007; Hanson & Morton-Bourgon, 2009).

Andrews and Bonta (2010a) described the development of risk assessment and identified four generations. The first generation of unstructured professional judgments, was followed by a second generation risk assessment instruments that were a-theoretical and mainly consisted of static risk factors. The third-generation risk/needs assessment tools were based on theories about delinquent behaviour. These instruments contained both static and dynamic risk factors and could be used to measure both the risk of recidivism and offender needs. Because the use of such instruments often did not result in a good match between the assessed risks/needs and case management practices, fourth-generation risk and needs assessment instruments were introduced. Fourth-generation instruments do not only support practitioners in assessing the risk, needs and responsivity of offenders, but also in their decision making about case management plans. A well-known example is the Level of Service/Case Management Inventory (LS/CMI; Andrews et al., 2004). In the LS/CMI the development of a case management plan is integrated in the assessment, and professionals must formulate targets and interventions based on the criminogenic needs assessed. Structuring decision
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making about the case management plan should improve the match between the risk/needs assessment and the goals and interventions in plan and, provided that the plan is implemented, should improve the effectiveness of offender supervision (Andrews & Bonta, 2010b; Hanson et al., 2009; Harper & Chitty, 2005; Latessa & Lowenkamp, 2006). The Dutch probation service uses an instrument for structured risk and needs assessment called the Recidive Inschattings Schalen (recidivism assessment scales, RISc), that has been developed from a third generation into a fourth generation risk/needs assessment.

Risk and needs assessment

RISc is based on the English and Welsh Offender Assessment System (OASys, Home Office, 2002). RISc contains the following 12 criminogenic needs: (1) offending history, (2) current offence, (3) accommodation, (4) education and employment, (5) income and financial management, (6) relationships with partner, family and relatives, (7) relationships with friends and acquaintances, (8) drug abuse, (9) alcohol abuse, (10) emotional well-being, (11) thinking and behaviour, and (12) attitudes. Each criminogenic need is assessed on a scale that contains a number of risk items which are scored as 0 (no problems), 1 (some problems), or 2 (significant problems). The total score of the items in a RISc scale represents the severity of that criminogenic need. For every scale, cut-off scores are used to indicate whether the specific criminogenic need is considered to be present in an individual case or not. The risk of recidivism is represented by the sum of the weighted scale scores and is grouped into the following four categories: low risk, moderate-low risk, moderate-high risk and high risk (Bosker et al., 2013; Hildebrand, 2010a). After having scored the individual items, the digital RISc-tool gives a risk and needs profile with an overview of the criminogenic needs and risk category.

The internal consistency of the scales was found to be moderate to good (α between .61 and .88, Van der Knaap, Leenarts, & Nijssen, 2007). The inter-rater agreement of the risk scales and total score was found to be moderate to substantial (Tinsley and Weiss' value T between .43 and .78, Van der Knaap, Leenarts, Born, & Oosterveld, 2012). The predictive validity for general recidivism of RISc is sufficient for both men (AUC = .70) and women (AUC = .68, Van der Knaap & Alberda, 2009). The items in RISc are scored by the probation officer based on available case files (e.g. police report, overview of former offences, probation file, psychiatric report) and one or more interviews with the
Finding the right focus. Improving the link between risk/needs assessment and case management in probation offender. In addition, the offender provides his or her opinion of the actual problems and priorities in a self-assessment. RISc was implemented in 2004 and slightly improved in the following years. Since 2006, version 2 of RISc has been in use, and this may be considered a third-generation risk and needs assessment instrument. In 2010 RISc3 was implemented, containing a section that structures and supports the decision making about the case management plans, this may be considered a fourth-generation risk and needs assessment instrument. The section for risk and needs assessment is the same in RISc2 and RISc3.

**Structured decision support for case management: from third- to fourth-generation**

After the completion of the risk and needs assessment, probation officers formulate case management plans that are the basis for a pre-sentence report or offender supervision. In Dutch practice such a plan contains information on several domains: the criminogenic needs that should be influenced, goals that describe the targets for change, interventions that should support the offender to realize the change, if relevant an advice to the court about the sanction and specific conditions, control measures and a decision about the intensity of the supervision. RISc2 contained a section where probation officers could describe their decisions about the various domains, without being supported by the instrument. In RISc3 the decision about the case management plan has been divided into several process steps that probation officers must pass successively using a computer-based decision support tool (see figure 1). In the first step, the risk and needs profile is shown on screen. Probation officers then describe and prioritize the criminogenic needs that should change. When probation officers decide not to take action on a criminogenic need that was assessed to be present, they are asked to explain their decision. Next, for each criminogenic need that was given a high, medium, or low priority, the instrument makes a digital page where the goals that should be achieved and the interventions planned to realize these goals are described. The instrument gives suggestions for interventions when offenders meet the inclusion criteria. Suggestions that are overruled should be explained. Because in some cases several suggestions are given by the tool, overruling some of the suggestions may be necessary. Third, the sanction and special conditions are described, and if thought necessary it can be decided to put in specific control measures such as electronic monitoring. In the fourth step, the instrument gives a suggestion about the intensity of the supervision, based on the assessed risks of recidivism and harm, the risk of noncompliance, and the necessity for extra
Finding the right focus. Improving the link between risk/needs assessment and case management in probation guidance by the supervising officer. Again, the probation officer decides about the level of intensity. Finally, an overview of the case management plan is presented (Hildebrand, 2010b).

**Figure 1: RISc3 Case Management Planning Section**

Current study

Our study examined whether structured decision support indeed improves the quality of case management plans and subsequently the effectiveness of offender supervision. Offender supervision is referred to as a period of imposed support and control by probation that can include treatment or behavioural programs. We describe the results of a study in the Dutch probation practice. In this study case management plans based on third generation risk/needs assessment (RISc2-sample), were compared to case management plans based on fourth generation risk/needs assessment (RISc3-sample). In the RISc2-sample the risk/needs assessment but not the decision making about the case management plan was structured, while in the RISc3-sample structured risk/needs assessment was supplemented with structured decision support for the case management plan. We examined the quality of the case management plans and the extent to which better quality plans improved the effectiveness of offender supervision.
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In Dutch probation practice the risk and needs assessment is often made in the pre-sentence phase. Based on the assessment, the probation officer describes a case management plan that forms the basis for the pre-sentence report. Then, if it is decided to impose a suspended sentence, the case management plan forms the basis for supervision (Programma Redesign Toezicht, 2009). Since 2006 there is a separation between probation officers who assess and write pre-sentence reports and probation officers who supervise offenders, in order to guarantee objective advice about the necessary interventions, to prevent a focus on interventions of one’s own organization, and to improve the quality of the pre-sentence reports (Vos, Reijmers, & Ahaus, 2007). As a result, the probation officer formulating the case management plan is not the officer executing it. At the start of supervision, the case management plan described in the assessment is transformed into a supervision plan by the probation officer who supervises the offender. In this study, we also looked at the extent to which the case management plans were implemented in supervision.

The research questions in this study were:
1. Are case management plans in the RISc3 sample of higher quality than case management plans in the RISc2 sample?
2. Are case management plans in the RISc3-sample better implemented in supervision than case management plans in the RISc2-sample?
3. Is offender supervision in the RISc3-sample more effective than in the RISc2-sample?

Method

Samples

In order to compare the quality of case management plans based on RISc2 and RISc3, two random samples of 300 cases each were composed. These samples consisted of files of offenders who were under supervision of the probation service (at least one face-to-face contact with a probation officer), and had a case management plan based on a risk and needs assessment. The samples were taken from two cohorts of supervisions in the context of a suspended prison sentence in the Netherlands. The cases had to have an actual and complete risk assessment including a case management plan that was made between 180 days before and 90 days after the start of the supervision, and therefore could be considered an assessment that represents the offenders’ situation.
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at the start of the supervision. The RISc2-sample was taken from a cohort of supervisions that started
between January and March 2010 (N = 1865). Nearly half of these cases had a risk and needs
assessment that met the requirements (N = 736). The RISc3-sample was taken from a cohort of
supervisions that started between January and March 2011 (N = 1525), whereof 700 had a risk and
needs assessment that met the requirements. From both cohorts, a sample of 300 cases was selected
at random. We thus had two independent samples of 300 cases each. It was checked that there were
no cases that were present in both samples. There were probation officers who were involved in more
than one case or in both samples. Finally, sex offenders were removed from the samples because
RiSc has not been found suitable to predict sexual recidivism (Van der Knaap & Alberda, 2009). The
final RISc2-sample consisted of 292 cases, and the final RISc3-sample of 287 cases,

Because differences between the RISc2-sample and RISc3-sample could influence the results
of the study, main characteristics of the offenders in the samples were compared. In both samples, a
majority of the offenders was male (90% in the RISc2-sample, 92% in the RISc3-sample; \( \chi^2(1) = 1.21 \),
n.s.). The age of the offenders varied from 18 to 79 years with an average of 32 (SD = 11) in the
RISc2-sample and 33 (SD = 11) in the RISc3-sample (t(577) = -0.94, n.s.). The sum-score of the risk
assessment can vary from 0 to 168 (Hildebrand, 2010a). The mean risk score in the RISc2-sample
was 60 (SD = 28) and in the RISc3-sample 62 (SD = 30; t(577) = -0.77, n.s.). In both samples, a
majority of the offenders committed an aggressive offence (63% in RISc2-sample, 65% in RISc3-
sample), or property offence (24% in RISc2-sample, 21% in RISc3-sample).

Procedure

To answer the research questions we needed data concerning the risk and needs assessment,
the case management plan, the supervision plan, and the effectiveness of supervision. Data about
supervision concerned the two years after the start, because most supervision trajectories end within
two years,. Data regarding the risk and needs assessment were provided by the probation service in a
database. Data regarding the case management plan and offender supervision were coded from the
probation files.

Seven research assistants (four in the RISc2-study and three in the RISc3-study) assisted in
selecting and coding the relevant information from the files using a coding manual. First the goals and interventions that were described in the case management plans were copied into a spreadsheet and coded into detailed categories. After a training the research assistants and the coordinating researcher
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(the first author) all coded the first 20 cases in the study. The level of agreement was determined by comparing the goals and interventions that were copied into the spreadsheet and the codes. Most discrepancies concerned the coding of the goals and interventions. These discrepancies were discussed and additional instructions were given. The research assistants then gathered the information from the files and coded the file information individually. Afterwards, all codes were checked by the researcher who decided upon the final coding. Second, the detailed goals categories were clustered into nine categories, equivalent to the dynamic criminogenic needs. Three experienced professionals who work at the probation service and the first author clustered the goals independently. Then differences were discussed and the final clustering was made based on consensus. General goals that did not match with a specific criminogenic need, such as ‘reduce recidivism’ or ‘participate in an intervention’ (14% of the goals), were not included in the analyses.

Finally, dropout and goal attainment were coded from all files by the researcher. The researcher and her assistants guaranteed confidentiality and file information was processed anonymously.

**Variable construction**

The following variables for analyses were constructed:

**Criminogenic needs present**: RISc contains 10 dynamic criminogenic needs (see section on risk and needs assessment). The RISc cut-off scores were used to determine whether a dynamic criminogenic need was present (scored as 1) or absent (scored as 0) in an individual case. Because some scales contain historic/static risk items (for example an item about drug abuse in the past in the scale about drug abuse), criminogenic needs can score above the cut-off point based only on problems in the past, while there are no actual problems. In such a case, no intervention is expected.

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2 To check if the goals and interventions were coded reliably and blind to condition (RISc2 / RISc3), another research assistant coded the goals and interventions of 20 cases from the RISc2-sample and 20 cases of the RISc3-sample independently. These codes were compared to the codes of the researcher. For both samples interrater agreement, measured by Cohens' Kappa, was found to be good both for the detailed goal categories (Kappa = .70 in the RISc2-sample and .73 in the RISc3-sample) and for the clustered interventions categories (Kappa = .77 in the RISc2-sample and .86 in the RISc3-sample). Interrater agreement for the interventions categories differed between the samples (Kappa = .67 in the RISc2-sample and .95 in the RISc3-sample), indicating that the interventions in the RISc3-sample could be coded more reliably than in the RISc2-sample.
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Therefore, in this study a dynamic criminogenic need is considered present if it scores above the cut-off score and if at least one of the risk items represents a current problem.

Because in some cases the goals or interventions focus on addiction in general, the criminogenic needs for drug abuse and alcohol abuse were combined into one criminogenic need drug/alcohol abuse. This resulted in nine (not ten) dynamic criminogenic needs in this study. The average number of dynamic criminogenic needs per offender in both samples was 5 (SD = 2; t(577) = -0.87, n.s.). Table 1 gives an overview of the percentage of criminogenic needs present in the two samples. The samples seem to represent comparable groups of offenders. We only found a small significant difference between the samples regarding the number of offenders that had financial problems.

**Table 1. Dynamic criminogenic needs present in RISc2-sample (N = 292) and RISc3-sample (N = 287)**

<table>
<thead>
<tr>
<th>Dynamic Criminogenic Need</th>
<th>RISc2-sample</th>
<th>RISc3-sample</th>
<th>( \chi^2(1) )</th>
</tr>
</thead>
<tbody>
<tr>
<td>Accommodation</td>
<td>38%</td>
<td>44%</td>
<td>2.33</td>
</tr>
<tr>
<td>Education / employment</td>
<td>63%</td>
<td>66%</td>
<td>0.51</td>
</tr>
<tr>
<td>Finance</td>
<td>44%</td>
<td>55%</td>
<td>6.58**</td>
</tr>
<tr>
<td>Partner / Family</td>
<td>61%</td>
<td>58%</td>
<td>0.59</td>
</tr>
<tr>
<td>Friends</td>
<td>42%</td>
<td>48%</td>
<td>2.59</td>
</tr>
<tr>
<td>Drugs / alcohol</td>
<td>63%</td>
<td>62%</td>
<td>0.03</td>
</tr>
<tr>
<td>Emotional well-being</td>
<td>64%</td>
<td>66%</td>
<td>0.30</td>
</tr>
<tr>
<td>Thinking and behaviour</td>
<td>95%</td>
<td>91%</td>
<td>2.76</td>
</tr>
<tr>
<td>Attitude</td>
<td>48%</td>
<td>43%</td>
<td>1.72</td>
</tr>
</tbody>
</table>

**p < .01

Quality criteria for case management plans. In order to assess the quality of case management plans, we formulated five quality criteria that are based on empirical evidence for effective probation practice, as described in the introduction of this article. The quality criteria were:

1. The dynamic criminogenic needs are addressed by the goals in the case management plan (needs principle)
2. The dynamic criminogenic needs are addressed by the interventions in the plan (needs principle)
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3. The intensity of the case management plan matches the risk of recidivism (risk principle)
4. The case management plan contains goals that are important for the offender (responsivity principle, Good Lives Model)
5. The case management plan focuses on strengthening social bonds (desistance research)

The quality criteria were assessed as follows:

1. *The dynamic criminogenic needs are addressed by the goals in the case management plan:* When a criminogenic need was assessed as present and there was a goal in the case management plan that matched this need, a score of 1 was given; if there was no goal, a score of 0 was given. Then an overall score for the case management plan was constructed as follows: sum of scores for the match between each criminogenic need present and the goals, divided by the total number of dynamic criminogenic needs present in the case. The result is a score between 0 and 1 for every case.

2. *The dynamic criminogenic needs are addressed by the interventions in the plan:* Assessing this criterion was difficult because from the files it was not always obvious to what extent a need was addressed by an intervention. For example, clinical psychological treatment is obviously related to emotional well-being and thinking and behaviour, but during treatment, a problematic relation with a partner may also be addressed. Therefore we decided to assign the match between each criminogenic need present and the interventions in the case management plan in three possible scores: the case management plan contains an intervention that addresses the need (score 2), the plan contains an intervention that potentially addresses the need (score 1), the plan does not contain an intervention that addresses the need (score 0). Then the overall score for the case management plan was constructed as follows: sum of scores for the match between each criminogenic need present and the interventions, divided by the total number of dynamic criminogenic needs present in the case multiplied by 2. The result is a score between 0 and 1 for every case.

3. *The intensity of the case management plan matches the risk of recidivism:* The intensity of the case management plan was scored on a scale from 1 (low intensity, for example only supervision) to 5 (high intensity, for example residential treatment or a combination of three behavioural interventions in the community). Then the intensity of the plan was related to the four risk categories of the assessment: low risk, moderate-low risk, moderate-high risk, high risk (see section on risk and needs assessment). Combining a four categories scale with a five categories scale was not self-
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evident. We decided to start from the risk categories, and scored low risk as matching well with a case management intensity of 1 or 2, medium-low risk as matching well with a case management intensity of 2 and 3, and so on. The other combinations of risk and intensity were valued as fairly good, moderate and bad respectively. The result is a score of 0, .33, .66, or 1 per combination.

4. *The case management plan contains goals that are important for the offender:* The self-assessment filled in by the offender as part of the assessment, was used as an indicator of the goals of the offender. The issues that are a problem or a priority for the offender were considered to be goals. These issues were clustered in the same nine categories as the goals in the case management plan. Then for each cluster of goals the match between the goals of the offender and the goals in the plan was valued: score 1 if an offender goal matched with a goal in the plan and score 0 if no goal was found in the case management plan that matched the offender goal. An overall score was constructed as follows: number of offender goals that match with a goal in the case management plan divided by the total number of offender goals. The result is a score between 0 and 1 for every case.

5. *The case management plan focuses on strengthening social bonds:* The extent to which the case management plans are focused on strengthening social bonds is operationalized as a dichotomous variable: the plan contains one or more goals that focus on having employment or a meaningful daytime activity, a positive relationship with partner or family, or a positive relationship with friends or acquaintances (score 0 if no and 1 if yes).

**Effectiveness.** In this study two measures were used for the effectiveness of offender supervision:

*Dropout:* Early dropout from interventions or supervision is related to recidivism, and many risk factors for recidivism are also risk factors for non-compliance (Hildebrand, Hol, & Bosker, 2013; Olver, Stockdale, & Wormith, 2011; Ugwudike, 2010). A case management plan that is aimed at the reduction of risk factors for recidivism could also have a positive effect on dropout. Moreover, dropout may be considered as a sign of failure of the plan. In this study dropout was defined as a premature ending of supervision because of violation of conditions or recidivism, and coded as 0 (dropout) or 1 (no dropout).

*Goal attainment:* Execution of the case management plan should result in the realization of the goals described in the plan, and bring a positive change in the criminogenic needs. In the long term, this should result in reduced recidivism (Flores et al., 2003; Luong & Wormith, 2011). The extent to
which the goals were attained was measured by scoring the level of goal attainment for every goal in the supervision plan on a scale from 1 to 3 (1 = not attained, 2 = partly attained, 3 = fully attained).

Subsequently, the level of goal attainment of the cases was measured as: sum of goal attainment of every goal in the plan, divided by the total number of goals in the plan multiplied by 3. The result is a score between .33 and 1 for every case.

**Analysis**

As a first step in the analyses descriptive statistics were calculated, using frequencies, means and standard deviations. Then the differences in the mean scores on the quality variables in the RISc2-sample and RISc3-sample were measured. Quality variables 1 to 4 (needs - goals match, needs – interventions match, risk - intensity match, goals offender - goals plan match) are measured at an interval level. Because these variables were not normally distributed, a Mann-Whitney test was used. Subsequently, using the statistics of the Mann-Whitney test, effect sizes were calculated expressed in correlation coefficient *r* (Field, 2009). The 5th quality variable (strengthening social bonds) is dichotomous. The difference between the two samples on this criterion was calculated using a chi-square test, and subsequently the effect size was measured in terms of Cramers *V*. The extent to which the case management plans are implemented in supervision was analysed with descriptive statistics. Then differences in mean scores on the effect variables were measured using a chi-square test for dropout (dichotomous variable) and a Mann-Whitney test for goal attainment (interval variable that is not normally distributed). Finally Spearman correlations were measured between the quality variables of the supervision plan and the effectiveness variables.

**Results**

**Quality case management plan**

The number of goals in the case management plans varied considerably between the cases, and had doubled in the RISc3-sample. In the RISc2-sample the mean number of goals probation officers formulated was 3.8 (range 0 to 13) and in the RISc3-sample 7.0 (range 1 to 19). In both samples most goals concerned cognitive skills and addiction. The number of interventions did not differ much in the samples and increased from a mean of 2.2 (range 0 – 7) in the RISc2-sample to 2.8 (range 0 – 8) in the RISc3-sample. Table 2 gives an overview of the mean scores on the quality
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criteria in both samples. Criteria 1 to 4 can have a score between 0 and 1. Criterion 5 is dichotomous, therefore the percentage of cases that focus on strengthening social bonds is given there. In the last column the effect size of the changes between RISc2 and RISc3 is shown. A significant improvement was found for four of the five quality criteria in the RISc3-sample. As Table 2 shows, in comparison to plans based on RISc2, the case management plans based on RISc3 had a better match between the criminogenic needs and goals, and between the goals of the offender and the goals in the plan. The goals in the RISc3 plans a stronger focus on the improvement of social bonds, and the intensity of the case management plans based on RISc3 matched better with the risk of recidivism than the plans based on RISc2. No significant improvement was found for the match between the criminogenic needs and interventions.

**Table 2: Quality of case management plans in RISc2-sample (N = 292) and RISc3-sample (N = 287)**

<table>
<thead>
<tr>
<th>Criteria</th>
<th>Mean RISc2</th>
<th>Mean RISc3</th>
<th>U</th>
<th>z</th>
<th>Effect size</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Match criminogenic needs and goals</td>
<td>.45</td>
<td>.75</td>
<td>64.51</td>
<td>11.59</td>
<td>.48**</td>
</tr>
<tr>
<td>2. Match criminogenic needs and interventions</td>
<td>.71</td>
<td>.72</td>
<td>42.65</td>
<td>0.59</td>
<td>.02</td>
</tr>
<tr>
<td>3. Match risk recidivism and intensity plan</td>
<td>.77</td>
<td>.83</td>
<td>47.19</td>
<td>2.96</td>
<td>.12**</td>
</tr>
<tr>
<td>4. Match goals offender and goals plan</td>
<td>.41</td>
<td>.60</td>
<td>27.14</td>
<td>6.09</td>
<td>.30**</td>
</tr>
<tr>
<td>5. Focus on strengthening social bonds</td>
<td>43</td>
<td>71</td>
<td>47.27</td>
<td></td>
<td>.29**</td>
</tr>
</tbody>
</table>

Note. $U =$ Mann-Whitney's $U$ statistic; $z =$ standardized test statistic; **$p < .01$. Using descriptive analyses, we looked at the improvements for the specific needs categories (see Table 3). Looking at the match between the goals and the different criminogenic needs in the RISc2-sample, it was found that this was fairly low: for most criminogenic needs present, goals were
formulated in less than half of the cases. The needs-goals match only exceeded 50% for drugs/alcohol problems (64% match) and cognitive skills (58% match). Table 3 shows that the needs-goals match had improved substantially in the RISc3-sample. Taking accommodation as an example: in the RISc2-sample in 42% of the cases where accommodation was assessed as a criminogenic need the case management plan contained a goal concerning accommodation, whereas in the RISc3-sample this percentage was 78%. The match between the criminogenic needs and goals improved for all categories, and especially for the categories accommodation (from 42% to 78%), finance (from 46% to 84%), friends (from 34% to 73%), and attitude (from 15% to 68%).

Table 3: Match between goals in case management plan and dynamic criminogenic needs

<table>
<thead>
<tr>
<th>Category</th>
<th>Match dynamic criminogenic needs and goals in case management plan</th>
<th>Match goals offender and goals in case management plan</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>RISc2 (N = 292)</td>
<td>RISc3 (N = 287)</td>
</tr>
<tr>
<td>Accommodation</td>
<td>42%</td>
<td>78%</td>
</tr>
<tr>
<td>Education / work</td>
<td>48%</td>
<td>76%</td>
</tr>
<tr>
<td>Finance</td>
<td>46%</td>
<td>84%</td>
</tr>
<tr>
<td>Partner / Family</td>
<td>24%</td>
<td>52%</td>
</tr>
<tr>
<td>Friends</td>
<td>34%</td>
<td>73%</td>
</tr>
<tr>
<td>Drugs / Alcohol</td>
<td>64%</td>
<td>92%</td>
</tr>
<tr>
<td>Emotional well-being</td>
<td>42%</td>
<td>60%</td>
</tr>
<tr>
<td>Cognitive skills</td>
<td>58%</td>
<td>84%</td>
</tr>
<tr>
<td>Attitude</td>
<td>15%</td>
<td>68%</td>
</tr>
</tbody>
</table>

The plans based on RISc3 also showed a better match with the goals of the offender. In the RISc2-sample the match between the offenders’ goals and the goals in the plan was lower than 50% for most categories except drugs/alcohol (73%) and cognitive skills (59%). Using RISc3 the match between the offenders’ goals and case management plan had improved for all categories. For example, for all offenders who mentioned accommodation as a problem or priority, in the RISc2-sample only 35% of offenders had a case management plan that contained a goal about

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3 The self-assessment was only available for 222 cases in the RISc2-sample and 216 cases in the RISc3-sample.
Finding the right focus. Improving the link between risk/needs assessment and case management in probation accommodation, while this percentage increased to 79% in the RISc3-sample. Again the largest improvement was found for accommodation (from 35% to 79%), finance (from 46% to 74%), friends (from 31% to 67%), and attitude (from 5% to 63%).

**Implementation case management plan in supervision**

In the RISc2-sample, the case management plans contained on average 3.8 goals. Thereof, on average only 49% were adopted in the supervision plans. Probation officers especially removed goals about cognitive skills: in the RISc2-sample 58% of the case management plans contained a goal about improving cognitive skills while 47% of the supervision plans contained such a goal. Besides, the supervising probation officers added on average 1.9 new goals in their plans. They especially added goals about education/work (from 35% of the case management plans to 48% of the supervision plans) and finance (from 26% in the case management plans to 43% in the supervision plans). In the RISc3-sample on the other hand, the case management plans contained on average 7.0 goals of which 61% were adopted by the supervising officer, who added on average 0.8 goals. In the supervision plans probation officers especially removed goals about cognitive skills (83% of the case management plans and 57% of the supervision plans contained a goal about cognitive skills), friends (44% of the case management plans and 25% of the supervision plans contained a goal about friends), and attitude (43% of the case management plans and 29% of the supervision plans contained a goal about attitude).

The number of adaptations regarding the interventions in the case management plan was small in both samples. In the RISc2-sample, the case management plans contained on average 2.2 interventions whereof 87% were adopted in the supervision plan. In the RISc3-sample, the case management plans contained on average 2.8 interventions whereof 82% were adopted in the supervision plan. The number of interventions added to the supervision plan decreased slightly from 0.5 in the RISc2-sample to 0.3 in the RISc3-sample. We also looked at the number of goals and interventions that were added to the supervision plan during the supervision process. Changes in the situation or needs of the offenders during supervision may be a reason to adapt the plan. However, few goals or interventions were added during supervision. Most changes to the plan were made at the start of the supervision process.
Because the descriptive analyses showed that in a fairly large proportion of the cases the case management plans were changed in supervision, we studied whether the improved quality of the case management plans based on RISc3 could also be found in the supervision plans. Table 4 is similar to Table 2, but shows the differences in quality of the supervision plans in the two samples. The quality of the supervision plans in the RISc3 sample in comparison to the RISc2-sample only improved significantly for two of the quality criteria. The supervision plans in the RISc3-sample had a better match between the needs assessed and the goals in the plan, and a stronger focus on strengthening social bonds. However, the effect sizes were smaller than those found for the case management plans (see Table 2). The effect size for the needs-goals match in the supervision plans was .22, while it was .48 when the case management plans were compared, and the effect size for the focus on strengthening social bonds in the supervision plan was .19, while it was .29 when the case management plans of the two samples were compared. Moreover, no significant improvements were found for two criteria that improved significantly in the case management plans: the risk-intensity match and the extent in which offenders’ goals match with the goals in the plan.

Table 4: Quality of supervision plans in RISc2-sample (N = 292) and RISc3-sample (N = 287)

<table>
<thead>
<tr>
<th>Criteria</th>
<th>Mean RISc2</th>
<th>Mean RISc3</th>
<th>U</th>
<th>z</th>
<th>Effect size r</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Match criminogenic needs and goals</td>
<td>.45</td>
<td>.59</td>
<td>52.40</td>
<td>5.42</td>
<td>.22**</td>
</tr>
<tr>
<td>2. Match criminogenic needs and interventions</td>
<td>.74</td>
<td>.74</td>
<td>42.09</td>
<td>0.09</td>
<td>.00</td>
</tr>
<tr>
<td>3. Match risk recidivism and intensity plan</td>
<td>.79</td>
<td>.81</td>
<td>43.00</td>
<td>0.61</td>
<td>.03</td>
</tr>
<tr>
<td>4. Match goals offender and goals plan</td>
<td>.44</td>
<td>.47</td>
<td>21.55</td>
<td>0.90</td>
<td>.04</td>
</tr>
<tr>
<td>5. Focus on strengthening social bonds</td>
<td>55</td>
<td>73</td>
<td>20.35</td>
<td></td>
<td>.19**</td>
</tr>
</tbody>
</table>

Note. $U = Mann$-Wilney’s $U$ statistic; $z = standardized test statistic; ** p < .01.
Finding the right focus. Improving the link between risk/needs assessment and case management in probation

Table 5: Spearman correlation between quality of supervision plan and effectivity of supervision (N = 579)

<table>
<thead>
<tr>
<th>Quality of supervision plan</th>
<th>Dropout</th>
<th>Goal attainment</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Match criminogenic needs and goals</td>
<td>.09</td>
<td>.22**</td>
</tr>
<tr>
<td>2. Match criminogenic needs and interventions</td>
<td>.10*</td>
<td>.09*</td>
</tr>
<tr>
<td>3. Match risk recidivism and intensity plan</td>
<td>.06</td>
<td>-.04</td>
</tr>
<tr>
<td>4. Match goals offender and goals plan</td>
<td>.07</td>
<td>.14**</td>
</tr>
<tr>
<td>5. Focus on strengthening social bonds</td>
<td>.01</td>
<td>.10*</td>
</tr>
</tbody>
</table>

** p < .01; * p < .05

Effectiveness of offender supervision

In this study, the effectiveness of supervision was measured by dropout and goal attainment. The number of offenders that prematurely dropped out of supervision did not differ between the RISc2-sample and RISc3-sample (29% dropout in the RISc2-sample; 31% dropout in the RISc3-sample; \( \chi(1) = 0.28 \), n.s.). The degree of goal attainment in the RISc2-sample (mean = .42; SD = .38) also did not differ from the degree of goal attainment in the RISc3-sample (mean = .44; SD = .35), \( U = 44.26, z = 1.19 \), n.s. Because the initial case management plans were not fully implemented as designed, we could not measure if the quality improvement of the case management plans in RISc3 was related to the effectiveness of offender supervision. We did however measure the correlations between the quality of the supervision plans (instead of the case management plans) and effectiveness of supervision. Some significant correlations were found, but correlations were very low, so effect sizes were small (see Table 5). Dropout was only significantly correlated to the needs-intervention match (the better the needs-intervention match, the less dropout). Goal attainment significantly correlated

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4 Some of the supervisions had not finished yet when the effectiveness of supervision was measured: 13% (n = 39) in the RISc2 sample and 15% (n = 42) in the RISc3-sample. The mean level of goal attainment for the group of offenders that had not finished supervision was lower than for the group that did finish supervision (.42 versus .59 on a scale from 0 to 1). When we repeated our analysis of the correlations between the quality variables and goal attainment, leaving out the group of offenders that did not finish supervision yet, correlations were similar to the ones in table 5. So the presence of a group of offenders that did not finish supervision yet did not influence our results substantially. Therefore we kept them in the analysis.
Finding the right focus. Improving the link between risk/needs assessment and case management in probation with four quality criteria: the needs-goal match, the needs-intervention match, the extent to which the offenders’ goals were met in the plan, and the focus on strengthening social bonds.

**Discussion**

Research into human decision making has shown that structuring the decision process can be an effective strategy to diminish biases and improve the quality of decisions. In this study we examined if the use of structured decision support improves probation officers’ decisions about case management plans. We compared two samples of case management plans that were followed by a supervision trajectory: a sample in which structured risk and needs assessment was used but decision making about the case management plan was not supported (RISc2-sample), and a sample in which in addition to the structured assessment, decision making about the case management plan was supported (RISc3-sample).

In order to assess if case management plans in the RISc3 sample were of higher quality than case management plans in the RISc2 sample, five quality criteria were formulated based on research about effective practice and desistance from crime. We found that the quality of the case management plans was better when probation officers used RISc3. The quality of the plans improved significantly for four of the five quality criteria used in this study: the match between the criminogenic needs and the goals, the match between the goals of the offender and the goals in the plan, the focus on strengthening social bonds, and the match between the risk of recidivism and the intensity of the plan. No significant improvement was found for the match between the criminogenic needs and interventions in the plan. In the RISc2-sample case management plans had a strong focus on tackling needs regarding cognitive skills and addiction. When friends, education/work, finance, and accommodation were assessed as a criminogenic need, often no goals or interventions were formulated in the plans to meet these needs. The case management plans based on RISc3 were more balanced and targeted both needs regarding individual capital (skills, attitude, addiction), social capital (relationships, work) and basic needs (accommodation, finance).

Looking at the implementation of the case management plans in supervision, we found that RISc3-plans were better implemented in supervision than RISc2-plans, although in both the RISc2- and the RISc3-sample the case management plans were not fully implemented. In the RISc2-sample,
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about 50% of the goals were removed from the case management plan and replaced by other goals. In the RISc3-sample supervising probation officers especially removed goals from the plan (about 40% of the goals were removed), but often did not add new goals. As a result of these changes it was found that the differences in the quality of the supervision plans between the RISc2- and RISc3-samples were smaller than the quality differences of the case management plans.

No difference between the two samples was found with regard to effectiveness of offender supervision, measured as dropout and goal attainment. A possible explanation for this finding is that the quality differences between the RISc2-plans and RISc3-plans that were actually implemented was relatively small. Therefore, little effect could be expected in this study of the quality improvement of the case management plans on offender supervision. Another explanation may be the fact that no quality improvement was found for the needs-interventions match in the plans. Earlier studies especially showed positive outcomes in terms of reduced reoffending if the interventions that were delivered had a better match with the assessed needs (Bonta et al., 2011; Luong & Wormith, 2011; Peterson-Badali et al., 2014; Vieira et al., 2009). We did however find low but significant correlations between some quality criteria and the variables used to measure effectiveness of supervision. A good needs-intervention match was correlated to less dropout, and a good needs-goal match, a good needs-intervention match, a good match with the offenders’ goals and more focus on strengthening social bonds was correlated to better goal attainment. These findings indicate that a better quality of the case management plans - as measured in this study – may attribute to the effectiveness of offender supervision.

Policy implications

The findings of this study are relevant for probation practice and policy. First, the findings support the use of fourth-generation risk and needs assessment tools. Such tools include a section for decision making about case management plans in order to improve the match between the assessed risks, criminogenic needs and responsivity, and the goals and interventions in the plan. Several studies showed that in probation practice this link often is unsatisfactory (Bonta et al., 2008; Flores et al., 2003), while a good link between risk/needs assessment and case management can contribute to the reduction of recidivism (Luong & Wormith, 2011; Peterson-Badali et al., 2014). Based on the results in this study, we think that especially formulating the targets for change per criminogenic need,
Finding the right focus. Improving the link between risk/needs assessment and case management in probation

as is done in RISC3, improved the quality of the case management plans and resulted in plans that are
more complete and have a better match to the assessed needs. We assume that without decision
support, probation officers are inclined to focus on the criminogenic needs they think are most
important in a specific case (Peterson-Badali et al., 2014). Using RISC3, probation officers had to
make a conscious decision about every criminogenic needs present. Such a decision step stimulates
them to include goals that focus on criminogenic needs that otherwise would have been neglected,
often regarding social bonds and basic needs such as accommodation, work and finance. Considering
the research about desistance from crime, such positive changes are significant for effective reduction
of delinquent behaviour. Putting more emphasis in the case management plans on these needs is
therefore a relevant improvement.

To argue in favour of structuring decision making about case management plans may not be
received with much enthusiasm in probation practice. In the actual discussions in the Dutch probation
practice, most probation officers and policy makers are oriented towards fewer rules and regulations
(Von Grumbkow & Van Vliet, 2011). Bosker (2015) asked probation officers how they value the
usability of the case management planning section in RISC3. That study showed that some officers
valued this section as useful because it helps them not to overlook suggestions, prevents them from
falling prey to tunnel vision, and supports them in formulating a complete and concrete case
management plan that matches the assessment. More critical officers did value one or two steps but
overall thought the tool is too detailed and time consuming without adding very much to their opinion
about what is necessary in a specific case. They use the tool as is asked of them but prefer the former
or a simpler version. These findings are consistent with studies about practitioners’ views about
risk/needs assessment in several countries (Haas & DeTardo-Bora, 2009; Mair, Burke, & Taylor, 2006;
Miller & Maloney, 2013; Munro, 2012). For proper use of assessment tools it is important to optimize
its usability and invest in a thorough implementation (Viglione et al., 2014).

Second, the findings of this study underline the relevance of including the offender in the
decision making about case management plans. Including offenders’ goals in the plan was found to be
positively correlated to goal attainment. Offender involvement is an important issue in the actual
thinking about offender supervision (McNeill, 2009; Ward & Maruna, 2007). Including offender goals in
the case management plan is supposed to motivate offenders to cooperate, and can therefore be
considered as a means to enhance responsivity (Bonta & Andrews, 2003). Also, mutual agreement
Finding the right focus. Improving the link between risk/needs assessment and case management in probation about goals is an important characteristic of an effective working alliance between a probation officer and offender (Menger & Donker, 2013). That does not mean that the offenders’ goals are decisive. Probation officers supervise offenders in an involuntary setting, with a focus on reducing recidivism. Therefore it may be necessary to include goals in the case management plan that link with specific risk factors but not with the offenders’ wishes. For example, an offender may be willing to find a job and improve his financial situation, but not to stop using drugs. If in such a case drug abuse is an important risk factor for criminal recidivism, the probation officer should incorporate a goal about drug abuse in the case management plan and try to motivate the offender to endorse that goal.

A third implication for probation policy comes from our finding that in both samples the supervising probation officers made adaptations to the initial case management plan at the start of the supervision, especially concerning the goals. In most cases of this study the case management plans were developed by probation officers who write pre-sentence reports in order to advise the court about the sentence and necessity of support and treatment of the offender. The differences that were found between the case management plans that are based on RISc and the supervision plans implemented during offender supervision may be caused by the transfer of case management from one probation officer to another. Instead of using the risk/needs assessment of their colleague, probation officers who supervise offenders may use their own professional judgment about the risks, needs and responsivity of the offender as a basis for the supervision plan. Also, the characteristics of their role may enhance differences in case management planning. In order to make a pre-sentence report, the risks, needs, responsivity, and goals of a suspect must be assessed in a short period. Because they have not been found guilty yet, some suspects can be non-cooperative or selective in the information they want to give. In that context probation officers who write pre-sentence plans must base a case management plan on the information and impressions they have. During supervision, probation officers work with offenders who have already been sentenced and who may be more open to give information and discuss their goals. Moreover, because probation officers who supervise work with offenders during a long trajectory, they have more time to get insight in the risks, needs and responsivity.

Although differences in case management between probation officers who advise the court and probation officers who supervise offenders may be understandable, it is undesirable. In the different phases of the trajectory (pre-sentence and post-sentence) different probation officers discuss the case
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management plan with the offender. When the probation officer who supervises the offender takes over, the offender can be confronted with considerable changes in the goals of the plan and thereby in the focus of the trajectory. That can have a negative effect on the effectiveness of supervision, because continuity in activity and contact is an important characteristic of effective case work in probation (Krechtig & Menger, 2013; Partridge, 2004; Turner & Trotter, 2010). Therefore, one probation officer should be responsible for the case over time, including assessment, supervision, and interventions, and thus develop an effective working alliance with the offender and see to continuity and consistency in the goals and activities of the trajectory (Holt, 2000; Krechtig & Menger, 2013; McNeill & Whyte, 2007; Partridge, 2004; Turner, 2010).

**Strengths and limitations**

In contrast with the extensive number of studies about risk/needs assessment, the link between risk assessment and case management has hardly been studied yet. And although fourth-generation risk/needs assessment instruments have been introduced at least ten years ago (Andrews et al., 2004), hardly any study can be found that evaluates the added value of such a tool in relation to third-generation tools. This study tried to fill that gap. Staying close to everyday practice of the probation service, as was done in this study, gives valuable insights about that practice, but also brings limitations.

In the selection of the quality criteria we were limited by the information available. For example, a relevant criterion might have been the extent to which the programs in the case management plans are evidence-based and are proven to be effective in reducing reoffending of Dutch offenders. It was impossible to use such a criterion because hardly any research about the effectiveness of the interventions used in Dutch practice is currently available. Furthermore, in the operationalization of the quality criteria we had to make several choices of which some can be disputed.

Because actual case files of the probation service were used, the study was limited by the quality of some of these data. Especially the quality of the evaluations of supervision varied greatly. In some of the files systematic evaluations were available about all goals in the supervision plan. In other files evaluations were lacking or contained limited information, and information about goal attainment had to be searched for in conversation reports. Furthermore the information about the interventions that were delivered during supervision was limited. Especially for the interventions that are not delivered by the probation service, often no detailed information was available about all the needs that
Finding the right focus. Improving the link between risk/needs assessment and case management in probation were addressed in that specific intervention. This may have obscured the operationalization of the needs-intervention match and possibly explains why no significant effects were found in this study for that variable.

In this study two versions of RISc were compared in a quasi-experimental real world setting. The data about RISc2 were gathered in the period before the implementation of RISc3, while data about RISc3 were gathered some months after the implementation. The timespan of one year between the measurements of the two conditions can have influenced the findings in this study. We tried to limit such influences by keeping the time between the RISc2 and RISc3 measurement as short as possible. Of course probation officers may have had trainings or may be influenced by developments in their districts, but as far as we know no substantial changes in policy or practice occurred in that period.

Taking the goals of the offender into account is important for effective probation practice (Ward & Maruna, 2007). We used the self-assessment that offenders fill in during the assessment procedure to measure these goals. This had some limitations. The self-assessments appeared to be available in only two thirds of the cases. Moreover, the self-assessment did not directly address the goals of the offender, but what the offender considered to be his problems and priorities. Also, different self-assessments were used in the RISc2-sample and RISc3-sample, which may have influenced the results of this study. For some criminogenic needs the self-assessment in RISc3 contained more specific items, which could result into more positive answers of the offenders.

**Further research**

In our study we found that the number of goals in the case management plans based on RISc3 was doubled compared to the RISc2-sample. Although as a result the needs are better addressed in the plan, in some cases the number of goals is very high, up to 20. This raises the question whether this is manageable for an offender, and whether some plans ask too much of the offender, with the risk of dropout. The fact that supervising officers mainly remove goals from the case management plans based on RISc3, suggests that they think the plans are too extensive. Probation officers must, in cooperation with the offender, find a good balance between addressing the needs on the one hand, and taking the possibilities and wishes of the offender into account on the other hand. Offenders who have most criminogenic needs often are the ones who can bear the least and have little social support. In such a case, it is necessary to prioritize. There is hardly any evidence to show which
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criminogenic needs should be given priority in which case. More research on this question is needed and can help probation officers improve decision making on this matter.

Besides, more insight in the role of case management plans in actual supervision practice is necessary. In some of the files hardly any information could be found about how the case management plans were executed, discussed and evaluated with the offender. This may be caused by poor administration, but it can also be the case that during supervision probation officers do not really follow the plan. Medium and high risk offenders often have unstructured lives. Possibly the probation officers who supervise them are mainly engaged in helping the offender handle day-to-day problems, without being able to work on goals concerning structural changes in the longer term (Bosker, 2015). Although supporting offenders in facing their actual problems may be necessary, it is important to keep a focus on structural changes in order to support desistance from crime.

Finally, more research about the contribution of the quality of the case management plans to the effectiveness of offender supervision is relevant for probation practice, and may help correctional practitioners in their decision making about case management plans. The data in this study were not suitable to go into that question sufficiently. Additional research about this topic should incorporate several measures of effectiveness, such as goal attainment and recidivism, and differences in characteristics of the offender and of the probation officer should be taken into account. Recently, a few studies have been published about this issue presenting promising results about the relation between good quality case management plans and effectiveness of probation (Luong & Wormith, 2011; Peterson-Badali et al., 2014).

Concluding remarks

Decision making about a case management plan is an important step in offender supervision. Adaptations can of course be made during supervision, but the framework and main scope of the supervision trajectory are determined at the start, and sometimes even established in special conditions with a conditional sentence or conditional release from prison. Using an instrument for risk and needs assessment as the basis for case management is state of the art. Interestingly, a lot of research is available about the quality and use of risk and needs assessment, while studies about case management plans are scarce. One may assume that a good risk and needs assessment would
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result in a case management plan that follows logically. Often it is not so, and more effort may be
necessary for the optimal use of evidence based knowledge about reduction of recidivism. The use of
an instrument that structures decision making is one of the strategies that can optimize decision
processes. The results of this study show that such a strategy can also be effective for decision
making about case management plans in forensic settings. The quality of case management plans can
improve with a fourth-generation risk/needs assessment. That conclusion should stimulate probation
officers to use such tools.
References


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