1 – General Introduction
Over the last several years there has been increased attention in Dutch society for violence committed by the mentally disordered. Several highly publicized incidents involving persons who were either on leave, had been recently discharged, had escaped or were known to suffer from a serious mental illness have increased the publics’ concern. For instance, on the 9th of April 2011, Tristan van der V. shot 6 people, injured 17 and then shot himself. During the investigation of what has become known as the Alphen Spree Shooting it was found that since his adolescence van der V. had been treated for mental illness several times. Despite this fact, and the protest of his parents, he was still able to obtain a weapons licence and to consequently acquire several weapons.

Another of the incidents that has left its mark on Dutch society was the assault on the Queen and her family during the Queensday-visit of 2009 to Apeldoorn. Karst T. drove his car through the public watching the procession, killing 7 people and injuring 10. Later that day he died from his wounds. Although a posthumous study of T. resulted in a somewhat vague picture of him, no indications for a personality disorder were found. He had had a somewhat troubling past, often changing jobs and one time being seriously in debt. However it seemed that he had got back on his feet and to the people around him there seemed to be nothing really out of the ordinary.

Although these two incidents have had a major impact and might be the most highly publicized ones of the last years there have been several others. Quite often the offenders involved were known to suffer from a psychiatric disorder and were also known to be violent. One such example is the rape and murder of a young girl in The Hague by a 25 year old man, Stanley A., who was known to suffer from a severe personality disorder and Asperger’s syndrome. Moreover, he had received compulsory forensic psychiatric treatment in his youth.

The increased public attention and outrage such incidents have triggered have resulted in consequent pressures being exerted on the govern-
ment. They intervened by immediately curtailing leaves and increasing release conditions for people receiving treatment in forensic psychiatric clinics. In addition they commissioned various reports about the current state of affairs in forensic psychiatry and its possible improvement (e.g., Council for Public Health and Care¹, 2012; van der Horst, Schönberger, & de Kogel, 2012). Reforms of both the judicial and health care systems are currently under way. Most notably two new laws are currently in development. These are the Forensic Care Act (FCA)² and the Mandatory Mental Healthcare Act (MMHA)³

These new laws mark a shift in thinking about forensic psychiatry. Currently, the mentally disordered who have committed a crime attributable (in part) to their psychiatric problems fall under the sole jurisdiction and financial responsibility of the Ministry of Security and Justice⁴ (short: Min of Justice). The MMHA and FCA shift these responsibilities, partly, to the Ministry of Health, Welfare and Sports⁵ (short: Min of Health). This shift reflects a more general change in thinking about the relationship between crime and psychiatric problems. Rather than interventions aimed at the offence and the risk of repeating it, treatment should be provided for the psychiatric disorder which increased the risk of offending in the first place. This may feel like a nuance, but it basically means treatment of the causes rather than the symptoms of offending.

As illustrated by the examples above, forensic psychiatry does not function in a vacuum, and as such is subject to more general changes in society. The financial crisis of the last several years has therefore influenced the system as well and will continue to do so for several more years. Pressures on the budget have resulted in a new covenant about forensic care which aims to cut spending severely. Particularly, in 2012 the budget for forensic psychiatry was 725 million euros which will be cut to 602 million by 2017 (Min of Justice, 2013). The majority of these cuts will be achieved by shifting care from expensive clinical settings to cheaper community care (van der Horst et al., 2012). Anticipating this shift, the MMHA actually explicitly opens up the possibility for mandatory community treatment and its enforcement.

¹ Raad voor de Volksgezondheid en Zorg, RVZ.
² Wet Forensische Zorg, Wfz.
³ Wet verplichte Geestelijke Gezondheidszorg, WvGGZ.
⁴ Ministerie van Veiligheid en Justitie, VenJ.
⁵ Ministerie van Volksgezondheid, Welzijn en Sport, VWS.
Implementation of the MMHA will constitute a return to the Lunacy Acts’6 “objection criterion” (bezwaarcriterium). So unless patients actively resist, they can be forced to undergo placement and treatment without an explicit legal order. Currently, with the Psychiatric Hospitals (Compulsory Admissions) Act7 (commonly known as Compulsory Admissions Act) effective, such a legal order, signed by either the mayor or a judge, is still required. This is known as the ‘bereidheidscriterium’ (willingness criterium; Scholten, 2012).

In summary, forensic psychiatric care will change fundamentally in several ways in the next years. Responsibility for mentally disordered offenders will be split between the Min of Justice and the Min of Health rather than only residing with the former. Interventions will be aimed at the psychiatric disorder underlying the risk of offending rather than at the offence itself. An increase in community treatment is expected at the cost of clinical capacity. The MMHA will make enforcement of community treatment an option. Together these changes will make treatment the first objective, enforced if necessary, and incarceration only a last resort. These changes are generally expressed by the axiom “mental health care, unless ….” (Council for Public Health and Care, 2012).

So how can we identify those who are likely to become violent in the future? The three examples given above, Tristan van der V., Karst T. and Stanley A., all have different forensic and psychiatric histories. Both A. and van der V. were known to be mentally ill, T. was not, even though he had had a somewhat troubled past. A. had been previously committed to a forensic psychiatric hospital, van der V. and T. were not8. Could one or several of these incidents have been predicted let alone prevented or are we, as a society, asking the impossible from professionals (Szmukler & Rose, 2013)? If we can predict violence, what is the best way to go about it and which factors should we consider? Are these incidents indeed incidents or are they part of a larger problem of violence committed by the mentally ill? If so, how big is this problem?

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6 Krankzinnigenwet.
7 Wet Bijzondere opnemingen in psychiatrische ziekenhuizen, Bopz.
8 Both van der V. and T. were posthumously examined by the Netherlands Institute of Forensic Psychiatry and Psychology (NIFP). Although a short report on van der V. was made public findings on T. were not (NIFP, 2011).
Mentally Disordered Offenders

Known mentally disordered offenders can be found in three settings: jail, specialised forensic psychiatric care and regular mental health care. However, direct comparisons are difficult to make since studies vary in their focus and the way they report results (Neijmeijer, Place, Rijkaart, & Kroon, 2012). Nonetheless, an attempt will be made below to provide the reader with an idea of the nature and extent of the problem of violent behaviour involving mentally disordered offenders. However, due to the diversity in reporting the most recent years for which data are available for all groups and for comparable follow-up periods are cohorts from 2008/2009. Thus, the information below is not necessarily the newest information available for a specific group.

The first group of mentally disordered offenders can be found in jail (n=11,682 for 2009\(^{10}\)). They are mostly men (93%) in their 20s and 30s (66%). Four per cent is convicted for a sex offence and 43% for a violent (property) offence. Although psychiatric disorders are common (estimates vary from 65% to 80%), they are presumed to be unrelated to the offences committed. Therefore, punishment rather than treatment is indicated. The prevailing diagnoses are personality disorders (50%; mostly cluster B) and substance use disorders (40%). Psychotic disorders are rare (6%) in this setting (Council for Public Health and Care, 2012; Zwemstra, 2009).

Although these prisoners are eligible for treatment it is not mandatory. Moreover, options will be limited compared to mental health care settings. For severe cases diversion to either a specialised unit in the prison, a penitentiary psychiatric centre (PPC), or to a forensic psychiatric clinic can be sought. In 2009, when the PPCs were first opened, their estimated yearly capacity was 4% (520 places) of the total estimated yearly prison capacity (13,702 places). Recidivism, i.e., renewed offending, of those placed in a PPC is quite high. Of the cohort (n=132) leaving prison to go to a PPC in 2009\(^{11}\) 42% recidivated within 2 years to such an extent that this resulted in reconviction (Min of Justice & Custodial Institutions Agency, 2012b).

\(^{9}\) Reports even vary in the way they compose various age groups.
\(^{10}\) Size of population at the time of the benchmark date of 30th of September 2009.
\(^{11}\) The PPCs were opened in the second half of 2009. Therefore the occupancy rate is markedly lower than the estimated capacity for that year. By comparison, in 2010 there were 536 prisoners placed in a PPC and in 2011 that rose to 586 (Min of Justice & Custodial Institutions Agency, 2012b).
Agency\textsuperscript{12}, 2012b). In comparison, of the detainees leaving prison in 2008\textsuperscript{13} (n=32,105), 49\% were reconvicted within 2 years for at least one new crime, and 40\% for a severe crime (i.e., eligible for a prison sentence of at least 4 years; Research and Documentation Centre\textsuperscript{14}, 2013a).

A second group of mentally disordered offenders can be found in specialised forensic psychiatric settings. Treatment for this group can be enforced in either a clinical or a community setting. Although in the latter setting clients also commonly receive treatment on a voluntary basis (55\%; Troquete et al., 2013). However, reports usually focus on those placed in a clinical setting under the judicial measure terbeschikkingstelling (tbs) which translates as ‘treatment at disposal of the state’. In contrast to the prisoners, the court has ruled that these clients suffered from a psychiatric illness when committing the crime(s) and therefore have diminished responsibility for them. A causal relationship is not required, but in general the risk of recidivism is thought to be increased if the disorder goes untreated. To protect society, enforced treatment is therefore indicated. In 2009 there were 115 new detainees with a tbs-order. Every year in September (benchmark date) the total number of detainees are counted. In 2009 there were 2,008 detainees in total. Most of them are men (94\%) in their 30s and 40s (68\%) with a primary diagnosis of a psychotic (37\%, mostly schizophrenia) or a personality disorder (61\%; Min of Justice & Custodial Institutions Agency, 2012a). The latter is commonly a Cluster B or Personality Disorder Not Otherwise Specified (van Nieuwenhuizen et al., 2011). Substance abuse disorders are also common, although reported rates range from 43\% to 70\% (Council for Public Health and Care, 2012; van Nieuwenhuizen et al., 2011). In general, the offences committed by these detainees were violent in nature (96\%), although sexual components to the crimes were also common (30\%; Min of Justice & Custodial Institutions Agency, 2012a). Due to the low numbers of clients involved reports on these detainees use 5-year cohorts for their outcome analyses. For the clients discharged from a forensic psychiatric clinic between 2004 and 2008 (n=411), the 2 year rate for any recidivism was 21\% and for severe recidivism 17\%. Only a small group (4\%) com-

\textsuperscript{12} Dienst Justitiële Inrichtingen, DJI.
\textsuperscript{13} Numbers for the 2009 cohort are still unavailable.
\textsuperscript{14} Wetenschappelijk Onderzoek- en Documentatiecentrum, WODC.
mitted a new violent or sex offence within 2 years after discharge which would have resulted in a new mandatory treatment order (Research and Documentation Centre, 2013a; 2013b). Although this information is available for those leaving the forensic psychiatric clinics, less is known about those receiving forensic psychiatric care in the community. What is known about clients receiving forensic psychiatric community care comes mostly from a study by (Bouman, de Ruiter, and Schene, 2010). They collected self-reports of delinquent behaviour from 55 forensic psychiatric out-patients. Of these 31 (56%) reported at least one new offence during a 6 month follow-up period. No official reconviction or re-arrest data were collected as a part of this study, nor were collaterals or treatment staff approached to corroborate clients self-reports. To address this concern, the authors completed a test-retest reliability study of the types of delinquent behaviour which was found to be adequate.

Limited as this information is, even less is known about violence committed by the third group of mentally disordered offenders, those receiving treatment in regular mental health care. In 2009, 2% (n=16,500) of the clients receiving regular mental health care did so as part of the circuit forensic care. From these numbers are excluded those who receive treatment enforced under criminal law (GGZ Nederland, 2013). Instead these clients receive treatment enforced under the Compulsory Admissions Act, or on a voluntary basis (Bruinsma, 2009). Although a notably larger group of women is treated in the forensic care circuit in regular mental health care than in the previous two groups, most clients are men (83%). They are aged between 18 and 64 (75.5%), with the largest group (35%) being between 24 and 41 years old. The overwhelming majority (e.g., 96% in 2009) received their care in a community setting (GGZ Nederland, 2013), typically for an Axis I disorder (91%) which most of the time is a psychotic disorder (49%; Neijmeijer, Rijkaart, & Kroon, 2012). Data on violence and recidivism in this setting are lacking since they are not a regular part of reports in the sector. Therefore, direct comparisons on these points with the other two groups cannot be made (Neijmeijer, Rijkaart, et al., 2012). However, an indication might be gleaned from a survey by van Harte (2012) completed in 2011. She asked case managers working in clinical psychiatry (n=1,534) whether they had been the victim of violence committed by a patient during the previous 5 years. A vast majority (67%) indicated that this had been the case. For out-patient settings even such
limited information as this is unavailable.

This lack of information about violence committed by the mentally ill is a general problem. The little that is known tends to be fragmented and not readily comparable (Neijmeijer, Rijkaart, et al., 2012). Some similarities exist between various groups receiving treatment for offending related to mental disorders, irrespective of the setting in which treatment is provided. For instance personality, substance abuse and psychotic disorders are common. However, there are also some marked differences, for instance, those in forensic psychiatric settings have more often committed a sex offence than those sentenced to jail. Nevertheless, it has been suggested that it is fairly arbitrary where mentally disordered offenders end up Neijmeijer, Place, et al. (2012). Additionally, 60% of those with a tbs-order have been previously imprisoned (van Nieuwenhuizen et al., 2011), making one wonder if earlier identification and treatment might have prevented escalation.

Given the numbers involved and the impact on society of individual incidents, violence committed by the mentally ill constitutes a large societal problem which, moreover has received increased attention lately. Although both Axis I and Axis II disorders are linked to offending there does not seem to be a clear or easily understood relationship. Nonetheless various theories have tried to account for this relationship. However, before going into them, the reader might benefit from a short overview of the organisation of the Dutch forensic psychiatric services and how they compare to those of other countries.

**Organisation of Forensic Psychiatric Services**

Countries have formulated different strategies, and consequently laws, to deal with the challenges posed by mentally ill offenders. Although most countries that were a part of the European Union in 2002 had specific regulations for dealing with mentally ill offenders, interpretations and limits of their laws differ. This has resulted in somewhat different populations receiving compulsory treatment in these various countries (Salize & Dressing, 2004). For instance, in the Netherlands compulsory treatment is not limited to specific diagnostic groups such as psychotic disorders as is the case in Denmark, some of the Federal States in Germany and the
United Kingdom (Salize, Dressing, & Peitz, 2002). In this respect the most marked difference can be found in forensic psychiatric populations undergoing enforced treatment. Dutch detainees more often than not have a personality disorder (65% of those convicted in 2011) with the remainder (35%) receiving treatment for psychosis (Min of Justice & Custodial Institutions Agency, 2012a). In contrast, clients treated in forensic psychiatric clinics in, for instance, Canada, Australia and Norway, suffer from psychosis in at least 85% of cases and from a personality disorder in only 15-20% (Chu, Thomas, Ogloff, & Daffern, 2011b; Nicholls, Brink, Desmarais, Webster, & Martin, 2006; Nonstad et al., 2010). National legislation and jurisprudence seem to be the main causes of these differences although economic, social and medical factors have exerted their influences as well (Salize & Dressing, 2004, 2005; Salize et al., 2002).

Other noteworthy differences between countries are in the way in which the need for enforced treatment is established. In Austria, Belgium, France, Germany, Luxembourg and the Netherlands involuntary placement can only occur if a person has both a mental disorder and poses a threat. However, this dangerousness criterion is interpreted differently in the various countries, ranging from being a danger to oneself to being a possible danger to others. In contrast in Italy, Spain and Sweden the dangerousness criterion is not used but rather a mental disorder has to be present and there should be an obvious need for treatment. Again, countries differ in how many experts need to be involved in the necessary psychiatric assessments (mostly two) and on who makes the final decision about placement (a psychiatrist or a judge or mayor). At the time Salize et al. (2002) wrote their comprehensive report on compulsory treatment in the European Union, only four countries (Belgium, Luxembourg, Sweden and Portugal) had laws making out-patient treatment compulsory. As mentioned above, enforced out-patient treatment will become an option in the Netherlands shortly.

Given the similarities discussed above between mentally disordered offenders in jail, forensic psychiatric services and regular mental health care, the Dutch system of completely parallel health care services (forensic v. non-forensic) seems unnecessarily complicated. Even more so since funding comes from both the Min of Justice and the Min of Health and each department has their own procedures, rules and regulations. In part this situation is due to the enforced nature of treatment considered
necessary for mentally disordered offenders. This is in contradiction with the strong voluntary character of mental health care in general in the Netherlands (Bouman, Riphagen, Jongebreur, & Veeke, 2012). Additionally, local legislation (especially the Compulsory Admissions Act) and the European Court of Human Rights have influenced the development of the field. As a result, patients have strong rights when it comes to enforced treatment and almost all medical decisions, including declarations of incompetence, can be disputed (Salize et al., 2002). Although, as mentioned earlier, the new laws MMHA and FCA will to some extent curtail individual autonomy in lieu of increased security for the community. Additionally, implementation of these new laws is likely to result in an increase in out-patient capacity at the cost of clinical settings (Scholten, 2012). Until then, mandatory out-patient treatment is legally not possible. Those currently receiving enforced treatment at an out-patient facility do so as an extension or continuation of the legal order (tbs) with which they were committed to a forensic psychiatric clinic (Salize et al., 2002).

Irrespective of the out- or in-patient nature of the setting, enforced treatment for mentally disordered offenders always encompasses specialist care. Although the main aim of such specialist care always is risk reduction, resocialisation is aimed for as well, if possible (GGZ Drenthe, 2004). Various aspects of treatment reflect this specialist nature. Firstly, the formulation of an offence scenario describing everything that happened leading up to the offence. The client’s thoughts, feelings and experiences prior to and during the offence are also included. This information is then used to compose a recidivism prevention, or signalation, plan (a second example of the specialist care provided). This helps the client to identify crucial moments and thoughts which contributed to the occurrence of the offence. After these pivotal elements have been identified, treatment focusses on how they can be influenced by the client. The aim is that the client recognizes how his decisions and thoughts resulted in the offence and how changing these will prevent repetition of the violent behaviour (GGZ Drenthe, 2004). Again this is where specialist treatment is required. A last characteristic of forensic care is the use of risk assessment instruments and implementation of risk management strategies. Risk assessment instruments have gone through various stages of development which will be discussed more extensively in a subsequent section. However, regardless of the various forms risk assessment has taken over
the years, its aim has always been to assess the likelihood that a given person will become violent (Singh & Petrila, 2013).

Risk management strategies can be defined as any action taken to reduce the risk of recidivism (Heilbrun, 1997). This can include addressing known risk factors such as ensuring the client’s compliance with a medication regimen, treating psychiatric disorders or limiting access to drugs, alcohol, or risk enhancing situations, e.g., playgrounds and schools in the case of a paedophile (Andrews & Bonta, 2010). Aside from such restrictive measures, it has also been argued that the improvement of client functioning and quality of life can be a successful way to manage risk (Ward & Stewart, 2003). These two approaches to risk management, reducing risk factors and increasing protective factors, reflect the two theories which have been most influential in the field: the Risk-Needs-Responsivity (RNR) model (Andrews & Bonta, 1998, 2010; Andrews, Bonta, & Hoge, 1990) and the Good Lives Model (GLM; Ward, Gannon, & Birgden, 2007; Ward, Mann, & Gannon, 2007; Ward & Marshall, 2004; Ward & Stewart, 2003).

**Theories about offending by the mentally disordered**

With the establishment of forensic psychiatry as a field in its own right, theories about offending have started to emerge as well. The two leading rehabilitation theories are the Risk-Needs-Responsivity (RNR) model and the Good Lives Model (GLM). Evidence for each has been found (see e.g., Fortune, Ward, & Willis, 2012; van der Horst et al., 2012; Polaschek, 2012; Pomp, 2009). However, proponents of both theories are still involved in a (oftentimes heated) debate and the jury is still out on which theory better predicts and explains offending by the mentally disordered (see e.g., Andrews, 2011; Andrews & Dowden, 2007; Andrews & Dowden, 2009; Birgden, 2009; Polaschek, 2012).

**The Risk-Needs-Responsivity Model**

Andrews and Bonta developed their Risk-Needs-Responsivity (RNR) model at a time when punishment rather than treatment was the norm within correctional settings. By empirically showing that assessment and intervention could reduce recidivism they opened up the way for a rehabilitation approach in offender management. RNR is grounded in social
learning theory, differential association theory and operant conditioning and has guided and formed forensic psychiatric practice for several decades (Ogloff & Davis, 2004). One of the consequences of the models introduction was a focus on risk management and recidivism prevention (Ward & Stewart, 2003).

The three core principles of the RNR model were first published in 1990 (Andrews, 2011; Andrews et al., 1990; Andrews, Bonta, & Wormith, 2011). The Risk Principle states that the intensity of the treatment needs to correspond to the severity of the risk: low levels of treatment and supervision for those posing a low risk and intensive for high-risk offenders. According to the Needs Principle treatment should target criminogenic needs which are directly related to the criminal behaviour. Lastly the Responsivity Principle stipulates that the type of treatment should be matched to the offender’s abilities so as to achieve maximum result. Although generally known for these three, core, principles, Andrews and Bonta identified a fourth which usually remains unmentioned: the Principle of Professional Discretion. This states that in the end clinical judgment can, and should, override the other three principles. Shortly, RNR says that reduction of recidivism is achieved through addressing risk factors in a way suited to the client’s abilities and level of risk.

Several meta-analyses have shown that such risk focussed treatment can result in reduced recidivism (Andrews & Dowden, 2005; Hanson, Bourgon, Helmus, & Hodgson, 2009; Lösel & Schmucker, 2005). However, these studies also found that treatment effects are influenced by the extent to which programs adhere to the RNR principles, i.e., better adherence results in lower recidivism (Andrews, 2011; Andrews & Dowden, 2005; Dowden & Andrews, 2000; Lipsey & Cullen, 2007). For instance, Hanson et al. (2009) examined the effectiveness of treatment for sexual offenders by completing a meta-analysis of 23 studies. Proportions of offenders who committed a new offence were significantly lower for those with treatment compared to those without (32% v. 48% for general recidivism; 11% v. 19% for sexual recidivism, both p<.01). However, treatment programs were more effective if they adhered to more of the RNR principles with the largest reduction in recidivism related to adherence to all three (none: OR=1.17; one: OR=.64; two: OR=.63; three: OR=.21). It seems then that

15 Odds Ratio: measure of the association between two variables, commonly a predictor (e.g., adherence to RNR) and an outcome (e.g., recidivism). An OR of 1 indicates that there is no relationship. OR < 1: higher levels of the predictor are associated with lower levels of the outcome. OR > 1: higher levels of the predictor
the effectiveness of RNR is linked to compliance and other non-programmatic factors (Andrews, 2011).

However client (and case manager) compliance with and motivation for a solely risk focused treatment tends to be low, since it can create a negative emphasis. Such low client motivation has been linked to increased recidivism (Hanson & Bussière, 1998; Lösel & Schmucker, 2005). As critics have pointed out, offender responsivity should not be expected from interventions solely aimed at the reduction of risk (Ward & Brown, 2004; Ward, Gannon, et al., 2007; Ward & Marshall, 2004; Ward & Stewart, 2003). Additionally, the model ignores the importance of non-criminogenic needs, such as low self-esteem, which can severely hinder in the establishment of a therapeutic relationship. The third criticism is that RNR overlooks the role of context when determining appropriate treatment for mentally disordered offenders (Ward & Marshall, 2004). For instance, cultural differences will determine what is considered appropriate behaviour. To address these concerns, Ward and colleagues formulated the Good Lives Model.

**The Good Lives Model**

The RNR model was developed at a time when the idea of rehabilitating offenders was still largely unaccepted. In contrast, the Good Lives Model (GLM) was conceived at a time when offender rehabilitation (owing largely to work related to RNR) had been established as a successful strategy for reducing recidivism. GLMs focus on promotion of client well-being parallel to risk reduction, therefore, is a logical step forwards in thinking about offender rehabilitation (Ogloff & Davis, 2004).

Ward and colleagues main point is that RNRs’ focus on criminogenic needs is necessary but insufficient for effective treatment (Ward & Gannon, 2006; Ward, Melser, & Yates, 2007; Ward & Stewart, 2003). As such, they view GLM as an addition to, not a replacement of RNR (Willis, Yates, Gannon, & Ward, 2013; Wilson & Yates, 2009). At the core of GLM is the conviction that people want to lead “Good Lives”, which they try to get by obtaining important primary goods. Examples of such primary goods are friendship, happiness and excellence in work and play. People offend because they lack the capacity or knowledge to use socially acceptable

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**are associated with higher levels of the outcome.**
ways of obtaining these goods and thus fulfilling their need for them. So, in addition to addressing criminogenic needs, it is necessary to teach offenders strategies for obtaining a Good Life. Since the appropriate strategy will depend on social and cultural contexts, these need to be taken into account as well.

However, as proponents of RNR have pointed out, there is little evidence for a direct effect of the GLM approach on recidivism itself (Andrews, 2011; Andrews et al., 2011; Pomp, 2009). It has even been suggested that adherence to GLM will increase, rather than reduce, recidivism, because it will result in aiming scarce resources at non-criminogenic needs (e.g., having adequate housing) rather than at factors known to be directly linked to offending (e.g., antisocial attitudes; Andrews, 2011; Ogloff & Davis, 2004). All the same, the current lack of evidence for GLM is not that surprising. Conducting appropriate research takes time and effort. RNR was first proposed in the 1990s while the first publications on GLM stem from 2002. As such research on RNR has a head-start of over a decade on GLM.

Thus, unsurprisingly, evidence for GLM is still in the preliminary stages with published literature quite often including references to conference presentations (Pomp, 2009; Willis et al., 2013; Wilson & Yates, 2009) and individual case studies (Lindsay, Ward, Morgan, & Wilson, 2007; Whitehead, Ward, & Collie, 2007). For instance, Simons, McCullar, and Tyler (2008) reported significantly higher rates of treatment engagement and completion, significantly lower rates of attrition, higher levels of motivation, and greater within-treatment change in areas such as coping skills for a treatment focused by GLM rather than relapse prevention (as in: Wilson & Yates, 2009). On the other hand, better documented evidence exists for some of the basic aspects of GLM such as the assumption that people want to lead ‘good lives’ (Barnett & Wood, 2008; Diener & Suh, 1997) and that the fulfilment of needs (i.e., primary goods in terms of GLM) can improve client well-being (Priebe et al., 2007; Slade et al., 2004; Wiersma et al., 2009). In turn improved client well-being has been linked to reduced recidivism (Bouman, Schene, & de Ruiter, 2009).

The jury may still be out on the effectiveness of GLM in general, but both GLM and RNR have undeniably influenced the field of forensic psychiatry (Ogloff & Davis, 2004). Not in the least in their contribution to the develop-
Risk assessment instruments

Particularly RNR has heavily influenced the field of forensic psychiatry by stimulating the development and usage of risk assessment instruments. These have had an independent effect on the development of the field of forensic psychiatry. Risk assessment instruments are used to determine which offenders pose the highest risk, and therefore should receive the most intensive treatment (Risk Principle). Additionally, they are helpful in identifying criminogenic needs which can consequently be addressed through treatment (Need Principle).

Risk assessment has gone through various major changes since its initial conception. It started out as pure clinical judgment of dangerousness. However, research done in the 1960’s and 1970’s showed that clinical judgment was actually fairly unsuccessful in predicting violent behaviour (Singh & Petrila, 2013). Probably most well-known is Monahan’s (1981) literature review. In it he concluded that clinicians using unstructured approaches were only correct a third of the time when predicting violent behaviour. Combined with concerns about the human and legal rights of those with mental illnesses, this spelled the end of so-called ‘first generation’ risk assessment.

Alternatives were sought and led to the development of a second generation, the actuarial risk assessment instruments. Relying on the research available at the time, actuarial instruments comprised of lists of factors known to be associated, i.e., correlated, with recidivism. One of the best known actuarial risk assessment instruments is the Violence Risk Appraisal Guide (VRAG; Harris, Rice, & Quinsey, 1993). It consists of 12 variables correlated with reoffending covering a range of themes from psychiatric disorders to offense characteristics (see Table 1.1). Individual items are rated in various ways, e.g., ‘age at index offense’ is a continuous variable while ‘never been married’ is dichotomous. A recent meta-analysis by Singh, Grann, and Fazel (2011) showed that the VRAG is able to predict violent and criminal behaviour at an acceptable level.
However, there is a downside to actuarial risk assessment. Case-specific risk and protective factors remain unaddressed and clinicians’ expert judgment and knowledge of the patient cannot be accommodated. When Mossman’s (1994) reanalyses of earlier data moreover showed that clinical judgment was better than chance in predicting recidivism, the road was clear for the development of a third generation of risk assessment instruments: those combining actuarial assessment with clinical judgment.

Table 1.1: Commonly used risk assessment instruments and the factors they consist of.

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<th>Actuarial Risk Assessment</th>
<th>Structured Professional Judgment</th>
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<td>Psychopathy</td>
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<td>Schizophrenia</td>
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<td>Personality disorder</td>
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<td>Elementary school maladjustment</td>
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<td>Age at index offense</td>
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<td>History of alcohol abuse</td>
<td>Substance Use Problems</td>
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<td>Never married</td>
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<td>Prior Supervision Failure</td>
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<td>Failure on prior conditional release</td>
<td>Employment Problems</td>
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<td>Victim injury</td>
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<td>Female victim</td>
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<td><strong>Dynamic factors</strong></td>
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<td>Lack of Insight</td>
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<td>Negative Attitudes</td>
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<td>Active Symptoms of Major Mental Illness</td>
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<td>Unresponsive to Treatment</td>
<td>Treatability</td>
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<td>Plans Lack Feasibility</td>
<td>Medication adherence</td>
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<td>Exposure to Destabilizers</td>
<td>Plans</td>
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<tr>
<td>Lack of Personal Support</td>
<td>External triggers</td>
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<td>Noncompliance with Remediation Attempts</td>
<td>Social support</td>
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<td>Stress</td>
<td>Rule adherence</td>
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<td>Substance use</td>
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<td>Self-care</td>
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<td>Emotional state</td>
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<td>Coping</td>
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a Harris, Rice, and Quinsey (1993); b Webster, Douglas, Eaves, and Hart (1997); c Webster, Martin, Brink, Nicholls, and Desmarais (2009)
One of the earliest, and still most widely used, examples of this Structured Professional Judgment (SPJ) approach is the Historical Clinical Risk Management-20 (HCR-20; Webster, Douglas, Eaves, & Hart, 1997). The HCR-20 consists of three subscales addressing historical (e.g., previous violence) and clinical (impulsivity) risk factors as well as risk management (e.g., noncompliance) items (see Table 1.1). All items are scored as either absent (0), possibly present (1) or definitely present (2). The instrument has been widely studied in various samples (men, women, correctional, forensic) and in a variety of settings (community, clinic, civil psychiatric, correctional). Predictive accuracy has consistently been found to be similar to that achieved with actuarial instruments, that is acceptable (Douglas, Blanchard, Guy, Reeves, & Weir, 2010; Singh et al., 2011).

Given these similar levels of predictive accuracy achieved by actuarial and SPJ instruments, the debate is still on-going (Hanson & Morton-Bourgon, 2009; Harris & Rice, 2007). However, SPJ has become enormously popular in clinical practice over recent years. In part this is due to the introduction and development of GLM, its positive approach to offender rehabilitation and its focus on the individual and his circumstances. This has contributed to the development of risk assessment instruments that include not only static (i.e., unchangeable) risk factors, such as previous mental illness, but also dynamic (i.e., changeable) risk factors, such as mental well-being. GLM has additionally lead to the inclusion of protective factors in risk assessment instruments. Increasing dynamic protective factors, such as having good social skills, can then help in fulfilling a client’s needs and thus aid in reducing recidivism (Falzer, 2013).

**STATIC AND DYNAMIC RISK AND PROTECTIVE FACTORS**

The appeal of including dynamic risk and protective factors lies in their potential to reflect changes in risk and in guiding treatment and risk management strategies. Earlier actuarial and SPJ risk assessment instruments lacked these features since they consisted (at least in part) of static risk factors. Examples of such static risk factors are having a history of violence or mental disorder or previous supervision failure. There is a dearth of research showing the correlation between these static factors and offending (see for instance: Campbell, French, & Gendreau, 2009; Coid et
al., 2011; Craig, Browne, Stringer, & Beech, 2005; Harris, Rice, & Cormier, 2002). As such the contribution of static factors to violence prediction is well established. However, there is a problem with the use of these static factors. Since they are concerned with the persons’ history they are not amenable to change, or, more specifically and frustratingly, to improvement. Therefore they are mostly suited to long-term predictions of (baseline) recidivism rates of the individual (de Ruiter & Nicholls, 2011).

A risk estimate more amenable to change can be obtained by assessment of dynamic risk factors. Examples include emotional well-being, medication and drug use and social skills, which can be influenced through treatment (Philipse, Koeter, van der Staak, & van den Brink, 2005; Webster, Nicholls, Martin, Desmarais, & Brink, 2006). Moreover, direct treatment suggestions such as increasing social skills or improving medication adherence are evident. Addressing such dynamic factors has been shown to be predictive of and associated with reduced recidivism (for an overview see for instance: Douglas et al., 2010; de Ruiter & Nicholls, 2011). Elbogen, Mustillo, van Dorn, Swanson, and Swartz (2007) showed that having lower needs for treatment was associated with higher levels of recidivism in a psychiatric community sample. Similarly, it has been argued that what is important in the prediction of short term risk is the active symptomatology associated with a major mental disorder like schizophrenia or mania, rather than having been diagnosed at one time or another (McNiel, Gregory, Lam, Binder, & Sullivan, 2003). Lastly, there is evidence that dynamic protective factors are associated with recidivism even after variance attributable to risk factors has been accounted for (Gagliardi, Lovell, Peterson, & Jemelka, 2004).

A well-known example of a risk assessment instrument incorporating both dynamic risk and protective factors is the Short Term Assessment of Risk and Treatability (START; Nicholls et al., 2006; Webster, Martin, Brink, Nicholls, & Middleton, 2009; Webster, Martin, Brink, Nicholls, & Desmarais, 2004; see Appendix A and D for Dutch and English versions). As Table 1.1 shows the START consists of 20 dynamic items ranging from ‘mental health’ to ‘coping’ and ‘social skills’. All 20 factors are scored both as a vulnerability (i.e., risk) and protective factor on a 3 point scale (absent, possibly present, present). Scoring of vulnerabilities and protective factors occurs separately. So a client can show his strength with respect to ‘substance abuse’ by recognizing how, e.g, the use of alcohol, contributes to
his offending behaviour. At the same time, however, ‘substance abuse’ can also be a vulnerability because he does not abstain from using alcohol (de Ruiter & Nicholls, 2011). After initial scoring of the factors those which are known to be of particular importance to the clients engagement or abstinence of offending are marked as key items. Then reflecting on this fairly actuarial assessment of factors, the case manager provides a final risk estimate (low, moderate, high) for various outcomes such as ‘risk of violence against others’ and ‘risk of self-harm’. Case managers are encouraged to use their clinical judgment and knowledge of the client when giving this final risk estimate, thus making the START an example of a SPJ instrument (Webster, Martin, Brink, Nicholls, & Desmarais, 2009).

The START is in line with GLM thinking about offending since it explicitly attends to protective factors. As GLM has pointed out, this can improve treatment results (Ward & Stewart, 2003). Inclusion of protective factors in risk assessment instruments then makes sense and is finding its way into risk assessment instruments. Some clinical advantages have been linked to the inclusion of protective factors in risk assessment. For instance, creating and maintaining a therapeutic relationship with the client, enhancing client insight and increasing motivation for treatment (de Ruiter & Nicholls, 2011). The latter is a problem recognized by both GLM and RNR.

**Shared Decision Making**

Regular health care has dealt with the issue of patient motivation for treatment by introducing Shared Decision Making (SDM) to the treatment process (Hamann, Leucht, & Kissling, 2003). SDM is characterised by the following aspects: 1) there are at least two participants, usually the clinician and the patient; 2) they share information; 3) they try to reach a consensus about the preferred way to move forward, and 4) the agreed upon treatment is implemented (Charles, Gafni, & Whelan, 1997, 1999). Improvements in quality of life and well-being, treatment adherence and satisfaction with care have been attributed to the use of SDM in both regular and mental health care (Drake, Cimpean, & Torrey, 2009; Hamann et al., 2003; Joosten et al., 2008; Joosten, de Jong, de Weert-van Oene, Sensky, & van der Staak, 2009). Additionally, establishing and maintaining a therapeutic relationship, with often unwilling clients, could be aided by
the use of SDM. Importantly, GLM and RNR link both client motivation and the establishment of a therapeutic alliance to reoffending, and some evidence for such a connection has been found (for an overview see: van der Horst et al., 2012). Moreover, none of the existing risk assessment instruments asks clients to self-assess their risk for future violent behaviour on either risk or protective factors. Possibly the introduction of SDM to forensic psychiatric care and risk assessment will have effects similar to those found in regular and mental health care. If so, it would provide a solution to some of the core challenges to treatment in forensic psychiatric care, i.e., establishing and maintaining a therapeutic working alliance and client motivation for treatment (Drieschner & Boomsma, 2008; Drieschner & Verschuur, 2010; van der Horst et al., 2012). Particularly in out-patient forensic psychiatry the challenges of low client motivation and establishing a therapeutic working alliance come into play since about half of these clients are treated on a voluntary basis (Troquete et al., 2013).

**Special needs of out-patient forensic psychiatry**

In the Netherlands out-patient forensic psychiatry specifically targets those clients who have psychiatric problems and are in contact with the judicial system, or are at threat of being so (Wubs & Wijnen, 2005). It is important that care takes place in the community because that is the situation in which clients will be most of the time. However, out-patient settings have their own unique challenges. In contrast to clinical settings, clients tend to have more liberties, are exposed to more triggers and have less contact with treatment staff. Additionally clients have a greater diversity of psychiatric problems than in clinical settings (Mohan & Fahy, 2006). These specific characteristics of out-patient forensic psychiatry result in a special need for short term dynamic risk assessment and management strategies. Quickly establishing a good therapeutic relationship also gains in importance because clients tend to have a continued need for treatment after their treatment order has ended even though their motivation for that treatment may be severely lacking (Drieschner & Boomsma, 2008; Drieschner & Verschuur, 2010). Strengthening protective factors and increasing client quality of life and wellbeing then become a necessity rather than a luxury. Moreover, there is a relationship between client functioning and recidivism (Bouman et al., 2009). Additionally, theories about
offending hypothesize about the direct effects of addressing protective factors on risk of recidivism (Andrews & Bonta, 2010; Ward & Marshall, 2004). However, studies so far have been limited to evidence of associations and correlations. No study to date has examined the preventive effect of the use of risk assessment instruments on recidivism (de Ruiter & Nicholls, 2011).

**This dissertation**

This dissertation addresses this issue of a possible preventive effect of an intervention consisting of risk assessment and care evaluation based on shared decision making principles in out-patient forensic psychiatry. Chapter 2 gives a more extensive description of a typical client in out-patient forensic psychiatry as well as a description of the intervention itself and an example of the START as used in the study.

The START was developed as a tool for guiding clinical practice. However, studies so far have had limited generalizability to clinical practice due to their retrospective, researcher completed risk assessments. Additionally, statistical approaches used make it difficult to examine the incremental contribution of START elements such as protective and key factors as well as the SPJ. To address these issues Chapter 3 reports on the prediction of recidivism with the START as completed in daily practice by case managers. In Chapter 4 the issue of prediction of violent behaviour is examined further by including client self-assessments on the START in the prediction models.

As mentioned above, short term changing risk and client motivation are particular problems faced by out-patient forensic psychiatry (Drieschner & Boomsma, 2008; Mohan & Fahy, 2006). The use of short term dynamic risk and protective factors as well as a shared decision making approach to treatment might be beneficial since both have been linked to reductions in recidivism and improved treatment outcome. However, what is mainly lacking in the research so far is the preventive effect these methods can have on the occurrence of recidivism (de Ruiter & Nicholls, 2011). Therefore, Chapter 5 examines whether an intervention consisting of risk assessment combined with shared decision making is associated with a reduction in recidivism.
As may be evident from previous sections, further promoting client motivation and treatment engagement in out-patient forensic psychiatry through shared decision making seems expedient as well. Although studies have shown the usefulness of this approach in general mental health care (Fenton, 2003; Joosten et al., 2008; Legare et al., 2012; Priebe et al., 2007), none have studied it in the setting of compulsory forensic psychiatry. Nor have studies so far addressed any preventive effect the use of SDM could have on the risk of recidivism either directly or indirectly through influencing client quality of life and functioning, even though theoretical models such as GLM propose a connection. This issue is addressed in chapter 6.

A summary of these findings and general conclusions are given in Chapter 7. The fact that we were unable to establish a preventive effect of the use of risk assessment instruments on violent behaviour has led some authors to argue that the practice of risk assessment should be abandoned completely (Tyrer, 2013; Wand & Large, 2013). In the final chapter the arguments against such a radical approach at this time are provided in light of the findings reported in this dissertation. Instead, several general conclusions are formulated and suggestions made for future research.