



Universiteit
Leiden

The Netherlands

Screening for safety: predicting violence concerns among detained individuals in the Netherlands using the Risk Screener Violence (RS-V)

Smeeckens, M.V.

Citation

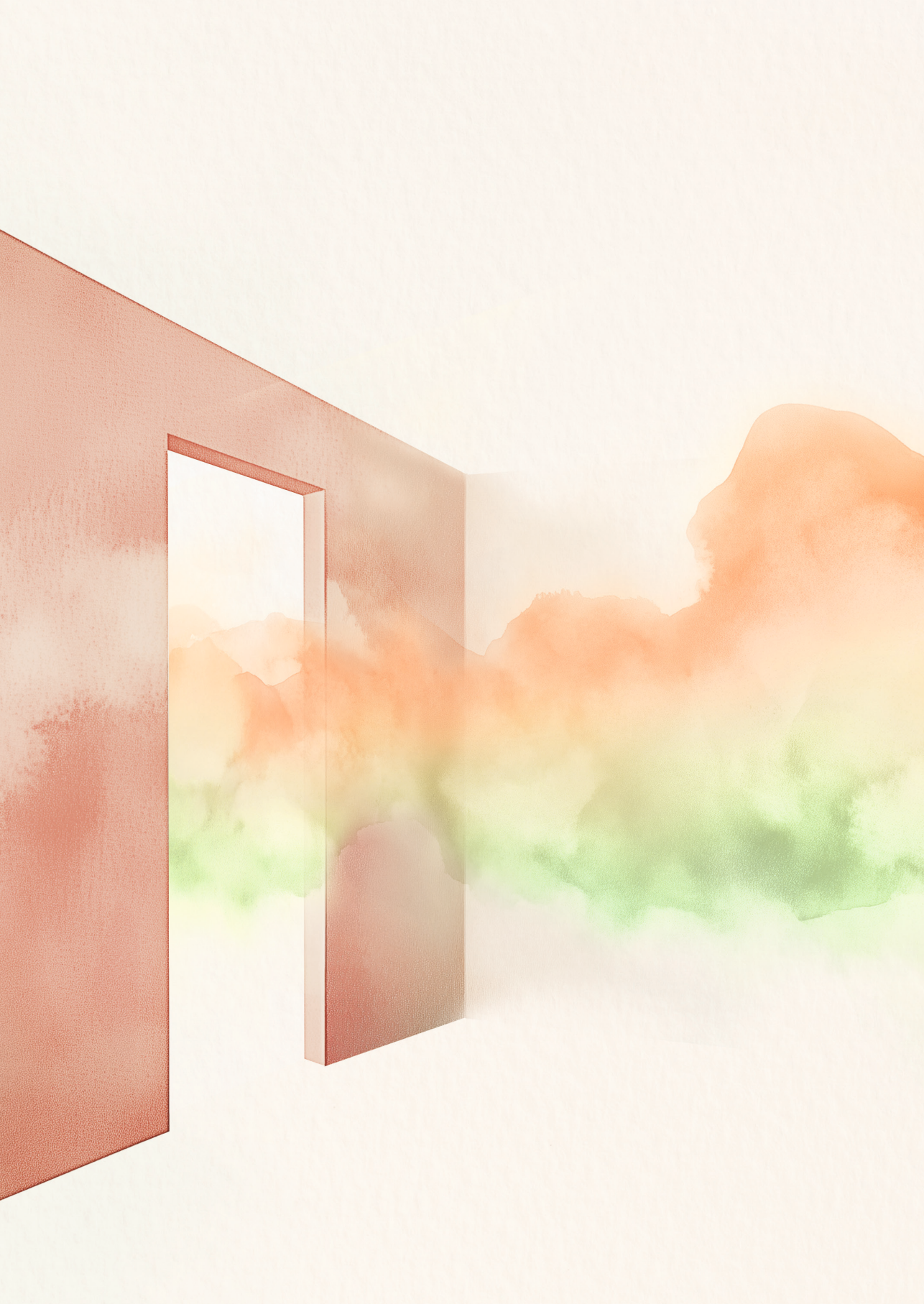
Smeeckens, M. V. (2025, June 11). *Screening for safety: predicting violence concerns among detained individuals in the Netherlands using the Risk Screener Violence (RS-V)*. Retrieved from <https://hdl.handle.net/1887/4239080>

Version: Publisher's Version

License: [Licence agreement concerning inclusion of doctoral thesis in the Institutional Repository of the University of Leiden](#)

Downloaded from: <https://hdl.handle.net/1887/4239080>

Note: To cite this publication please use the final published version (if applicable).





CHAPTER 7

General Discussion

Marjam Smeekens

This thesis investigated the practical application and psychometric quality of a newly developed risk screening instrument for the prison setting called the Risk Screener Violence (RS-V). The main objective was to discover the predictive validity of RS-V scores for violent incidents within the prison setting and for violent recidivism within the community after release. Studies were conducted using both retrospective data, including RS-Vs rated by researchers based on digital file information of detained individuals, and prospective data, including RS-Vs rated by prison employees in real-life prison practice. This final chapter includes a summary of the most important research findings, an interpretation of the results, limitations and strengths, implications for prison practice, recommendations for future research, and final remarks.

Summary of the research findings

The application of the RS-V in Dutch prison practice

After an extensive development and pilot phase in multiple prisons, the initial implementation of the RS-V in all Dutch prisons began in September 2021. Since then, the RS-V has been rated consistently for all individuals detained in one of the 25 prisons in the Netherlands. Therefore, a lot of data containing RS-Vs rated by prison employees in real-life prison practice became available for research. The comparative study described in **Chapter 2** analyzed a large sample of RS-Vs ($n = 8,960$) rated during two cohorts: the first 6 months after the initial implementation (September 2021 – February 2022), and another 6-months time period one year later (September 2022 – February 2023). There were no substantial differences regarding RS-V ratings between the two cohorts, which indicates that the RS-V is rated similarly over time. Specifically, the ratings on the final conclusions showed consistent patterns. Prison employees evidently expressed more concerns regarding violent behavior post-release in contrast to violent behavior within the prison setting or during leave, with violence during leave also raising more concerns than violence during imprisonment. In addition, Chapter 2 identified that males, young adults (age ≤ 25), and recurrent detainees showed more severe concerns based on the screening, compared to respectively females, adults, and first-time detainees. This result may inform prison employees to be more aware of certain risk-related behavioral patterns within subgroups of individuals during an early stage of detention, although the RS-V of each individual requires a personalized approach. Furthermore, this study analyzed RS-V user evaluations completed by prison employees ($n = 821$) across three years since the initial implementation, with surveys being conducted in 2021, 2022, and 2023. In general, these user experiences consistently revealed that prison workers are positive about the RS-V and find the tool to be useful and fairly easy to administer. However, prison staff also indicated that the practical application of the RS-V in prison practice is in need of improvement regarding: 1) the timing and quality of reports written by prison staff that provide input for the RS-V

assessments, 2) the discussion of the final conclusions during the multidisciplinary team meeting (MDO), and 3) the implementation of follow-up measures and risk management based on the results of the screening.

The prediction of prison violence

In **Chapter 3**, the predictive validity of RS-V ratings for violent and aggressive incidents within prison practice was investigated. The RS-Vs included within this study were rated retrospectively by researchers based on behavioral reports within the digital file of a detained individual. In addition, during a follow-up period of 4 months after rating final conclusion A (concerns regarding violence within prison) of the RS-V, violent and aggressive incidents were scored based on disciplinary infractions documented within a detainee's prison record. The primary outcome measure, violent incidents, had a prevalence rate of 10% and included either physical violence or violent threats. In addition, the broader outcome measure, any violent or aggressive incident, had a prevalence rate of 17% and also included aggression toward objects or verbal disruptive behavior, such as insulting or challenging other individuals. The results show that both the ratings on the RS-V total score (which is comprised of the ratings on the historical risk factors and the dynamic risk factors, minus the dynamic protective factors) and final conclusion A showed large predictive validity for violent incidents within prison. Furthermore, RS-V ratings were primarily predictive of violence toward staff compared to violence toward other detained individuals. However, the included sample ($n = 181$) and corresponding base rates of both violence toward a staff member or violence toward another detained individual were relatively low (respectively 6% and 5%), which makes drawing firm conclusions regarding the difference in predictive validity difficult. Finally, this study found a relatively large proportion of false positive predictions (i.e., individuals receiving moderate/serious concerns on final conclusion A while not committing a violent incident during follow-up) compared to false negative predictions.

The study described in **Chapter 4** included a larger sample of RS-Vs ($n = 958$), rated prospectively by prison employees in real-life prison practice. Using a similar study design as described in Chapter 3, this study found comparable base rates of disciplinary infractions regarding violent incidents (11%), violent and aggressive incidents (15%), violence toward staff (6%), and violence toward other detained individuals (6%) during the 4-month follow-up period in prison, making these results more robust. In line with Chapter 3, the ratings on the RS-V total score and final conclusion A revealed large predictive validity for violent incidents. In addition, the predictive value of the ratings on the RS-V total score within Chapter 4 was somewhat higher than within Chapter 3. This results from higher predictive values regarding the ratings by prison employees for both part one (the historical risk factors) and part two (the dynamic factors) of

the RS-V. The predictive validity of final conclusion A is similar across both studies. In addition and in contrast to Chapter 3, the study in Chapter 4 found no difference in the predictive validity of 1) RS-V ratings for violence toward staff versus violence toward other detained individuals, and 2) RS-V ratings for individuals with a longer detention duration versus individuals with a shorter detention duration (until the moment of screening). Although the latter group was more likely to act out aggressively during the follow-up period. Gender differences in predictive validity could not be analyzed due to the low violent incident base rate among females (2%) during follow-up. Based on Chapter 3 and Chapter 4, it can be concluded that the RS-V is a valuable tool in predicting in-prison violence.

The prediction of community violence

Whereas Chapter 3 and Chapter 4 focused on the prediction of violence during incarceration, Chapter 5 and Chapter 6 zoomed in on the prediction of community violence. More specifically, post-release violent (re)offending after discharge from prison based on formal convictions documented within an individual's criminal record. Examples of convictions regarding (actual or attempted) violence that were included: manslaughter, assault, sexual violent offenses, stalking, and verbal violent threats. The study described in **Chapter 5** included RS-Vs ($n = 571$) rated retrospectively by researchers based on digital prison records of detained individuals (like in Chapter 3), and found excellent interrater reliability. The prevalence rates of violent (re)offending discovered within this study were 7% for 6-months follow-up, 15% for 12-months follow-up, and 21% for 24-months follow-up. Concerning predictive validity, the ratings on the RS-V total score and final conclusion B (concerns regarding violence after release) showed the largest predictive validity for the 6-months follow-up period. However, the predictive ability of the included RS-V ratings was also sufficient for 12 months and 24 months follow-up. The RS-V ratings were especially predictive for females compared to males, although females had relatively low base rates for violent (re)offending after imprisonment (6 months after release: 3%, 12 months after release: 6%, and 24 months after release: 9%).

The study design of **Chapter 6** is comparable to the study design of Chapter 5, however this study included a larger sample of RS-Vs ($n = 956$) rated prospectively by prison staff within prison practice (like in Chapter 4). Chapter 6 found lower base rates of violent (re)offending compared to Chapter 5: 4% for the 6-months follow-up period and 6% for the 12-months follow-up period (see section 'Limitations and strengths'). For females, the violent (re)offending rates were even lower (1% during both follow-up periods). As a consequence, reliable analyses regarding gender differences in predictive validity could not be conducted. For the total group, Chapter 6 found large predictive validity of the ratings on final conclusion B for the 6-months follow-up and medium predictive validity

for the 12-months follow-up. For the ratings on the RS-V total score, this was reversed. In addition, this study shows that RS-V ratings are specifically predictive of violent compared to general (re)offending (with a prevalence rate of 15% for the 6-months follow-up, and 23% for 12-months follow-up). Similar to Chapter 3, this study found a large proportion of false positive predictions compared to false negative predictions regarding the occurrence of violent behavior, in this case after release, based on the concerns expressed in final conclusion B. Considering the findings of Chapter 5 and Chapter 6, it can be concluded that the RS-V is capable of sufficiently classifying which individuals are more prone to displaying violent behavior within the community after release.

Interpretation of the results

The findings of this thesis reveal that the implementation and practical application of the RS-V in Dutch prison practice has been successful thus far. In addition, the RS-V is able to sufficiently classify which individuals show more serious concerns regarding future violence, both within the prison environment and in the broader community. However, further reflection on these results is warranted.

The prediction of prison violence versus community violence

It seems that RS-V ratings are slightly better able to predict violent behavior displayed within the prison setting (see Chapter 3 and 4) than violent behavior displayed within the community (see Chapter 5 and 6). There is a plausible explanation for this result. The RS-V is scored based on (reports of) behavior that an individual displays inside prison walls with its corresponding rules and restrictions, while behavior displayed outside the prison context may be fundamentally different. For instance, upon re-entering into the community, individuals regain freedom and autonomy, but they may also face reintegration challenges such as finding employment and housing, and re-connecting with friends and family members (Visser & Travis, 2003). These issues can significantly influence an individual's behavior, which may not align with their behavior observed in the controlled prison setting. Moreover, prison employees often lack insight into the circumstances of an individual after discharge, such as the specific living conditions or employment situation, and potentially corresponding behavior. This may have led to a lesser predictive ability of RS-V ratings for community violence in comparison to prison violence in this thesis. Although the predictive validity is somewhat lower for violence within the community compared to violence within prison, prison employees clearly express more concerns regarding violence within the community (see section 'Implications for Dutch prison practice'). However, the possibilities and responsibilities of professionals working within the prison system are limited after a detainee's release. The prison system is just one organization involved in the overall justice process of guiding offenders toward a safe and successful reintegration, having its own tasks

and functions. This makes constructive communication about violence concerns and the collaboration with other organizations and aftercare facilities operating within the judicial system, such as local municipalities, probation services, and (forensic) mental health organizations, all the more important.

The final conclusions of the RS-V

All detained individuals receive a rating on the historical risk factors, which are rated within one or two days after admission. However, only individuals that are imprisoned for at least six or nine week receive a full RS-V rating, including a rating on the final conclusions (see Chapter 1 'General Introduction'). Chapter 4, 5, and 6 of this thesis reveal that the predictive validity of the historical risk factors and the final conclusions are roughly comparable. This applies to both in-prison violence and community violence. One could speculate whether the final conclusions, based on Structured Professional Judgement (SPJ) principles, would hold additional value if the historical risk factors alone are equally predictive of future violence. The relatively large predictive validity of the historical risk factors provides evidence that these factors are valuable for supporting early in-prison risk management regarding individuals that did not (yet) receive a full rating on the RS-V. For instance, based on the ratings on the historical factors, prison employees could decide to place an individual in a single cell or could consider adjusting their approach toward certain individuals. These are relatively straightforward follow-up measures that can rapidly be instated once an individual is admitted to prison. This way, the historical risk factors provide a baseline evaluation to guide immediate decisions, with a more comprehensive evaluation following for those who remain in detention longer. The ratings on the dynamic factors and final conclusions offer deeper insight into current behavior and potential future behavior, thus providing more guidelines for tailored risk management strategies. Additionally, discussing the final conclusions in a multidisciplinary manner is one of the advantages of the RS-V, as it facilitates a more personalized approach, it encourages collaboration among prison staff, and it offers direct guidance regarding risk management strategies. For instance, during the final conclusions discussion in the MDO, prison employees can directly contemplate on follow-up measures based on the screening results.

The results of this thesis raise questions about the relatively large group of individuals receiving serious concerns on the final conclusions while not committing a violent incident or violent offense during follow-up (i.e., false positive predictions). Not necessarily in line with the predictive validity results, it could be that some individuals with serious concerns received follow-up measures that were successful in preventing the occurrence of violence. Another explanation for the relatively large proportion of false positive predictions could be the underreporting of violent behavior (see

section 'Limitations'). However, it is also likely that several of these individuals were not actually of higher concern for committing violence (assessment tools inevitably contain classification errors). Even though a ratio of relatively more false positives in contrast to false negatives is preferred within forensic settings (Kang & Wu, 2022), there is a possibility of risk management unnecessarily being too restrictive for this group of individuals (see section 'Implications for Dutch prison practice').

Prison practice studies

The prospective prison practice studies in Chapter 4 and Chapter 6 revealed that RS-Vs rated by general prison workers are able to sufficiently predict future violence. Moreover, the RS-V total score rated by prison staff in real-life prison practice (Chapter 4) showed slightly higher predictive ability for prison violence than the RS-V total score rated by researchers based on file information alone (Chapter 3). A possible explanation for this result is that prison employees are more familiar with the prison setting, including its residents, than researchers working remotely. First-hand observations enable prison employees to (more) accurately rate part two of the RS-V, resulting in larger predictive values compared to RS-Vs rated by researchers. Chapter 2 additionally indicates that the majority of prison employees find the RS-V not difficult to rate. Based on these results it can be concluded that trained general prison employees without specific behavioral expertise, such as case managers and back office employees, are able to rate the RS-V successfully. This is likely the case because the RS-V is relatively compact, simple, and relies on straightforward risk and protective factors for which the necessary information is usually accessible within the Dutch prison context. On the other hand, rating extensive risk assessment instruments such as the HCR-20^{V3} and the SAPROF, is generally more complex and requires advanced behavioral expertise by psychologists or psychiatrist (see Chapter 1 'General Introduction'). There was no difference between the file study in Chapter 3 and the prison practice study in Chapter 4 regarding the predictive validity of final conclusion A. In line with the user experiences in Chapter 2, this result indicates that the discussion of the final conclusions within prison practice during MDOs requires some additional monitoring and improvement, in order to increase the predictive validity of final conclusion A and better align it with the RS-V total score. Thus, continually monitoring and improving the application of the RS-V in prison practice is important. For instance, by investigating the arguments provided for the final conclusions and each RS-V factor (see section 'Recommendations for future research').

Finding large predictive values of RS-V ratings based on prospective real-life prison data in Chapter 4 and Chapter 6 is actually somewhat concerning. By administering the RS-V, prison employees identified which individuals showed moderate or serious concerns

regarding future violence. To be more specific, they knew who was more likely to act out violently in the coming months (either during incarceration or within the community). Nonetheless, violent incidents occurred. Which means that interventions based upon the results of the screening were not instated sufficiently or these interventions were not successful in preventing the actual occurrence of violence, resulting in the relatively large predictive validity of the RS-Vs included within Chapter 4 and Chapter 6. Ideally, if individual risk management is tailored well with the results from the screening, the predicted future violence will be prevented, and the predictive validity of the tool will be low. The RS-Vs included within both prospective studies were rated within the first six months after implementation of the RS-V in prison practice, when risk management may not yet have been aligned too well with the RS-V findings for each individual. It is hypothesized that the predictive validity diminishes if future research analyzes RS-Vs administered further from the initial implementation date. This is expected because, over time, prison staff become more experienced with RS-V related work processes, such as directly instating follow-up measures based on the screening results, through which violent incidents are more likely to be prevented. However, this process of subsequent risk management based upon the results of risk evaluation tools remains challenging (see section 'Implications for Dutch prison practice').

The predictive validity of RS-V ratings for different outcome measures and subgroups

The predictive validity of the RS-V ratings included within this thesis shows more or less consistent results regarding the type of victim and the timing of the screening. To be more specific, the RS-V may be used for the prediction of violence toward staff or other detained individuals, and the RS-V may be rated at different time points during incarceration, while still providing equally reliable and predictive results. In contrast, the predictive validity of RS-V ratings do seem to differ when it comes to gender. Namely, the results of Chapter 5 indicate that RS-V ratings seem especially predictive of future community violence among females in comparison to males. A possible explanation for this result relates to the low prevalence rates of violence among females found within this thesis. The RS-V may perform better in populations where violent (re)offending is less common, such as among females. The lower prevalence of violent offending allows the RS-V to distinguish serious-concerned individuals more clearly. As a result, the predictive accuracy of RS-V ratings may be enhanced. Another explanation for the relatively high predictive validity among females in contrast to males could be that prison employees in female-only prisons adopt gender-responsive practices, which they may effectively integrate into the RS-V rating process. Violence displayed by women often occurs within a relational context, such as conflicts with close relatives, in comparison to men where violence is more frequently associated with instrumental motives (De Vogel & De Vries Robbé, 2013). It could be that prison staff in female prisons pay more attention to these

interpersonal dynamics, and gather more information regarding the social network of a female detainee, which could subsequently increase the predictive validity results. This is reflected in the number of missing values found within Chapter 4 regarding factor P3 (positive influences from social network), which was lower among females (16%) compared to males (25%). It was only within the file-based study in Chapter 5 that the base rate of violence among women was sufficiently high to analyze the predictive validity of the RS-V for this group of detained individuals. Therefore, further investigating the RS-V work processes in female prisons and the relatively high predictive validity of the RS-V among females seems worthwhile (see 'Recommendations for future research'). Especially since research regarding the validation of risk assessment for female detainees shows mixed results (Gower et al., 2024).

The studies described in Chapter 5 and Chapter 6 found that the predictive validity of the ratings on final conclusion B (concerns regarding violence after release) seem to differ between follow-up periods. That is to say, the prediction of community violence is somewhat better for shorter follow-up periods (i.e., 6 months) in comparison to longer follow-up periods (i.e., 12 months or 24 months). This corresponds with the aim and depth of analysis of a risk screening instrument such as the RS-V. As stated within Chapter 1 ('General Introduction'), risk assessment instruments offer a more in-depth analysis of risk and protective factors and are in general able to provide a sound prediction of violence on the long term, whereas relatively simple risk screening instruments are more focused on the prediction of violence on the short term. The RS-V has been developed to provide a prediction of violence concerns for a time period of 6 months after rating the final conclusions. Both Chapter 5 and Chapter 6 underscore that final conclusion B, being the primary outcome measure of the RS-V regarding violence after release, indeed has the largest prediction regarding this timeframe. However, longer follow-up periods also provide sufficient predictive validities, at least regarding community violence. Future research could investigate whether RS-V scores are also able to predict in-prison violence during a longer follow-up period.

The RS-V versus risk assessment instruments

The predictive validity results of the RS-V ratings within this thesis are comparable to the predictive validity results of extensive risk assessment instruments¹⁶ such as the HCR-20^{V3} and the SAPROF (Brookstein et al., 2021; De Vries Robbé et al., 2020; Neil et al., 2020; Persson et al., 2017a). In addition, like risk assessment tools, RS-V ratings are also sufficiently predictive of community violence during longer follow-up periods.

¹⁶ For an elaborate explanation about the difference between risk assessment and risk screening see Chapter 1 ('General Introduction').

There is a plausible explanation as for why a relatively simple and compact risk screening instrument such as the RS-V performs as well as more in-depth risk evaluation tools. It is possible that the diverse risk profiles present in the prison setting make it easier to predict who will be violent in the future based on a screening tool. While in settings where more severe risk profiles are common, such as in forensic psychiatric care, tools that are more comprehensive may be needed. An additional explanation relates to the possibility that a relatively small number of key risk or protective factors explains the largest amount of variation in predicting future violence. By focusing on these core factors, risk screening may provide a fairly accurate evaluation without the need for complex evaluations. If this is the case, adding more factors may not necessarily improve the predictive accuracy of an instrument. However, incorporating additional factors likely enhances the overall understanding of an individual's risk and protective factors, thereby improving the opportunity to effectively target personalized interventions and overall risk management. The use of risk assessment instruments is therefore particularly relevant in specialized forensic psychiatric settings, such as 'terbeschikkingstelling' (TBS), given the generally longer treatment duration and the variety of individualized treatment options. Comprehensive risk assessment instruments are more detailed and nuanced, and likely more supportive in managing violence risk among relatively complex patient groups. Future research could compare the predictive validity of RS-V scores with extensive risk evaluation tools, such as the HCR-20^{v3} and the SAPROF, within various forensic contexts and populations. Another possibility is to study the effectiveness of interventions that are implemented based on the results of these tools to provide further evidence of their utility in real-world settings.

Limitations and strengths

Limitations

Although the studies described in this thesis have been conducted carefully, a critical review of the methodology and the collected data is of importance. A first limitation relates to the included outcome measures within Chapter 3 and Chapter 4: violent and aggressive incidents within prison practice. The prevalence rates of in-prison violence found within these studies were relatively low compared to prevalence research within other Western countries, although there is a lot of heterogeneity between studies (Caravaca-Sánchez et al., 2023). In this thesis, the prevalence of violent and aggressive incidents within the Dutch prison setting was scored based on reports of disciplinary infractions documented within the digital prison record of a detained individual. Therefore, the accuracy of these outcome measures depended on whether prison staff consistently reported on the incidents that occurred during the incarceration of a specific individual. More importantly, this also depended on whether prison workers had sufficient insight into all incidents that actually took place. Behavioral insight might

be especially limited for incidents that happened between incarcerated persons. These conflicts among prisoners may occur in less supervised or secure areas/moments within the prison setting, such as during nighttime hours or inside cells. This could explain why Chapter 3 and Chapter 4 found comparable prevalence rates of violence among detained individuals in comparison to violence toward staff members, while other studies found higher rates for the former (Celinska & Sung, 2014; Lahm, 2008, 2009). In addition, another study has found that inmate-on-inmate victimization rates were substantially lower if data collection was based on official records in contrast to self-report measures, highlighting a substantial dark number (Braga et al., 2019). Other researchers stated that the actual rates of violent incidents within prisons are likely even higher than found within scientific research (Byrne & Hummer, 2007).

The second limitation relates to the outcome measure used within Chapter 5 and Chapter 6: violent recidivism within the community. The prevalence rates of violent recidivism found within both studies were relatively low compared to other studies conducted in Western countries (Yukhnenko et al., 2020). The COVID-19 pandemic likely contributed to the lower prevalence of violent (re)offending observed in Chapter 6 in contrast to Chapter 5. Violent (re)offending was defined as formal convictions for a violent offense based on the penal code within the official criminal record of an individual. Formal convictions likely only constitute a fraction of actual offending, highlighting the probable underestimation of the occurrence of community violence (Elliott et al., 1986; Minkler et al., 2022). Including supplementary data regarding new charges, rearrests, and reincarcerations could provide additional insight into the occurrence of post-release violence. Still, there is a margin of error in the likelihood of crime detection by the police. Besides lack of evidence and prioritization, another explanation for this margin of error is that some crimes are not reported to the police (e.g., domestic violence or sexual harassment) or cannot be linked to a specific individual.

The limited scope of the included violence outcome measures could explain why this thesis found relatively low base rates of violent behavior, both inside and outside prison, compared to other studies. On the contrary, the prison climate within the Netherlands is perceived as being relatively safe, which could also partly explain the relatively low prevalence of in-prison violence found within this thesis (Van Ginneken, 2024). The potential dark figure of violence within this thesis could have possibly been reduced by including more data sources besides official prison records and criminal records, such as self-report measures of prison and community violence, additional staff observations, police reports, and community surveys. Self-report data has been identified as a reliable method for measuring crime prevalence rates as it captures instances of criminal behavior not visible in formal reports (Thornberry & Krohn, 2000).

In addition, including self-report measures enhances the involvement of the detained individuals themselves in the research process.

This lack of involvement of detained individuals is another limitation of this thesis. The views of incarcerated individuals themselves were not included into the studies that were carried out, while their opinion regarding their own risk and protective factors could have been of added value to further understand the presence and details of the RS-V factors and the overall intervention and reintegration process. It would also have been informative to find out whether the results of the screening were properly shared with an individual during a trajectory meeting, or whether the viewpoint of the individual regarding the ratings on the factors was incorporated into the Detention & Reintegration (D&R) plan. It is important to not only study the behavior of detained individuals, but to also engage and involve them during an early stage of research to effectively capture their perspective and motivation for change (see section 'Recommendations for future research'). In addition, as mentioned earlier, involving detained individuals regarding self-report measures of violent behavior would have enhanced the quality and depth of the outcome data.

An additional limitation concerns the relatively long detention period of the included detained individuals within this thesis. As mentioned in Chapter 1 ('General introduction'), 24% of all individuals in Dutch prisons are released within two weeks after incarceration, and 72% within three months (Dutch Custodial Institutions Agency, 2024b). This thesis only included fully completed RS-Vs. Meaning that the RS-Vs contained ratings within part one (the historical risk factors), part two (the dynamic factors), and part three (the final conclusions), with a maximum of two factors recorded as missing. Part three of the RS-V is rated after six or nine weeks of detention. This means that the (partly completed) RS-Vs of individuals with a detention period of less than six weeks were automatically excluded. In addition, the studies investigating the predictive validity for violence within prison required an additional follow-up time of at least 4 months of incarceration to collect the outcome data, thereby excluding an additional number of short-stay participants. As a result, the population of detained individuals that was investigated in this thesis is not necessarily an accurate reflection of the prison population within the Netherlands. For instance, individuals with a longer average detention period likely committed more severe (violent) crimes. Therefore, on average, the studied population probably had more serious concerns regarding future violence than the general prison population. However, including fully rated RS-Vs within this thesis was necessary to properly investigate the practical application and psychometric quality of the RS-V. It would be of interest to find out more about differences between individuals who only received ratings on part one of the RS-V

(relatively short-stay individuals) compared to individuals for whom all parts of the RS-V were rated (relatively long-stay individuals).

As mentioned above, the RS-Vs included within this thesis had no more than two factors recorded as missing. When examined in more detail, the average number of missing values of the RS-V was higher within the retrospective studies than within the prospective studies. For example, the retrospective study described in Chapter 2 reported an average of 1.4 missing factors per RS-V, whereas the prospective study of Chapter 4 reported an average of 0.6 missing factors. This indicates once more that prison employees working with detained individuals on a daily basis have more insight into their risk and protective factors than researchers working remotely with digital file information do. Across all studies within this thesis, the majority of missing values was recorded within factors P3 (positive influences from social network) and P4 (motivation for crime free future). For instance, Chapter 4 found that these factors contained 24% and 22% missing values respectively, while the other factors of the RS-V had minimal missing data. Missing data poses challenges to the reliability of the predictive validity results, as it may lead to an underrepresentation of certain factors. However, including a relatively large sample of RS-Vs (which is one of the strengths of this thesis, as discussed below), and using the method of prorating to account for missing values helps mitigate this issue (Perley-Robertson et al., 2024). The relatively high rate of missing values within factor P3 and P4 is likely caused by the difficulty prison employees experience in gathering sufficient information about the social network and motivation for a crime free future of a detained individual. Collecting such information often requires time, whereas employees may have limited opportunities to gather these insights with the relatively large number of short-stay individuals in Dutch prison. Strategies to address or account for the missing data on the two protective factors are important for making more accurate decisions based upon the results of the screening. There has been a recent initiative called 'samen starten', where probation services collaborate more intensively with prison facilities from the beginning of an individual's prison sentence (Drost et al., 2023). This stronger collaboration with probation services could provide more insight into an individual's behavior and life domains prior to admission and, for instance, may help to map out the social network and its possible positive influence.

Strengths

Besides the mentioned limitations, the studies included within this thesis are the first to examine the practical application and predictive validity of the RS-V since its implementation within the Dutch prison system. Several strengths are therefore worth mentioning. First, including relatively large samples of detained individuals that received an RS-V rating strengthens the reliability of the results and allows for conclusions that are

more generalizable across similar populations. Within the included samples, comparisons were made between specific groups of detained individuals (e.g., males versus females, shorter versus longer detention periods, young adults versus adults). By examining group differences, this thesis aimed to uncover patterns that might otherwise remain hidden in the combined data, providing a more detailed analysis that may inform targeted interventions and policy decisions regarding specific subgroups in the prison population.

The reliability of the findings is further strengthened by including both retrospective and prospective data, and outcome measures related to both violence inside prison as well as violence within the community. This approach allows for a more comprehensive view regarding the psychometric quality of the RS-V, providing a thorough evaluation of its predictive accuracy across different timeframes and contexts. The analyses of prospective data from prison employees in Chapter 4 and Chapter 6 not only improves the validity of the findings within this thesis but also allows for more accurate conclusions about the RS-Vs predictive abilities in real-life prison practice. Furthermore, because the data used within this thesis originates from the Dutch prison system, it provides insights that are directly applicable to current practices in Dutch prisons. This practical focus is essential for informing policymakers and prison management regarding safety enhancement.

Another strength relates to the involvement of prison employees. By analyzing user experiences of prison staff regarding the practical usability of the RS-V in Chapter 2, valuable feedback is provided regarding possible improvements in the tool's application. Moreover, because the studies included within this thesis analyzed RS-Vs rated by both researchers and prison employees, the importance of firsthand observations in enhancing the accuracy of risk evaluation is highlighted. Finally, this thesis provides evidence for the advantage of conducting risk screening instruments within prison practice. These findings may be informative for other custodial settings where an early detection of risk and protective factors is equally essential for promoting safety and effective risk management.

Implications for Dutch prison practice

The benefit of risk screening

Prior to the implementation of the RS-V within the Dutch prison setting, risk evaluation was only conducted for a small group of individuals (see Chapter 1 'General Introduction'). The administration of the RS-V for all detained individuals in the Netherlands has several potential benefits. First, the RS-V creates insight into the most important risk and protective factors of an individual. (For a more in-depth insight into all possible risk and protective factors, along with more tailored risk management

strategies, an evaluation with extensive risk assessment tools is advised, see section 'The RS-V versus risk assessment instruments'). Improving the understanding of (the behavior of) detained individuals is a first step in being able to assist these individuals toward a safe and comfortable detention period and a successful reintegration into society. Thereby, the RS-V offers an improved utilization of the 'window of intervention opportunity' that occurs when individuals spend time in prison. More importantly, structurally documenting observed behavior by means of (repeated) RS-V ratings in a detainee's digital file, makes it easier to report on subsequent reintegration goals within the D&R plan. Particularly prior to leave, since the RS-V offers essential input for decision making regarding the approval of such leave.

A second potential benefit of the RS-V is the actual reduction of violence. To be more specific, by knowing which individuals are more prone to displaying violent behavior in an early stage of detention, violent incidents are more likely to be prevented (assuming that effective preventive measures are implemented, see below). As a result, the overall safety of the prison environment may be improved, benefiting not only the detained individuals themselves and their fellow inmates, but also the prison employees who interact with them on a daily basis. For instance, a safer work environment may foster positive work relationships between staff and detained individuals, reducing tension and conflict, which benefits the overall reintegration process of an individual. Employees may experience higher job satisfaction and less stress because they can focus on supportive services for detainees instead of managing crisis situations. This may also result in lower rates of sick leave. In turn, the Dutch prison system may become a more attractive employer for potential new employees who are interested in working within the prison setting. Additionally, administering the RS-V can lead to greater efficiency and differentiation in the management of incarcerated persons. It allows for more focused support for serious-concerned individuals, while offering policies that are more flexible for those who require less intensive supervision.

Third, structurally gathering information about multiple relevant risk and protective factors and violence concerns for a large group of individuals during an early stage of detention (in contrast to risk assessment instruments, which are usually conducted for a small group of individuals during a later stage of detention), may provide relevant prison management information. For instance, the early administration of the RS-V within all 25 Dutch prisons allows for the comparison of risk profiles between prisons and specific groups of detainees, and may inform the placement of detained individuals on a regional and national scale. Individuals with serious concerns or specific needs can be assigned to prison facilities that are better equipped to manage them and staff ratios may be more aligned with risk profiles in different settings. This subsequently ensures

safer detention outcomes for both the detained individual as well as staff members. Moreover, RS-V data could be utilized in digital applications, such as a dashboard, which could support local and national prison management in the allocation of detained individuals and prison staff.

A fourth potential benefit of risk screening in prison is structured violence risk communication. The RS-V results in a relatively straightforward and easy-to-understand classification: low concerns, moderate concerns, or serious concerns regarding future violent behavior. Therefore, the results of the RS-V can be communicated efficiently and clearly across different prison wards, regimes, and facilities. For example, in the case of a transfer between two prisons, the receiving facility has immediate insight into the violence concerns without the need of an additional risk evaluation. Moreover, communicating violence concerns by means of the RS-V toward collaborating organizations or after-care facilities in the case of release is valuable to support the continuity of guidance and care.

Follow-up measures

The majority of the mentioned potential benefits of the RS-V will only be realized if follow-up measures are properly implemented based upon the results of the screening. In an ideal situation, all individuals that receive moderate or serious concerns should obtain some form of personalized follow-up intervention. This subsequent risk management may vary from placing an individual within a single cell, to the administration of comprehensive risk assessment by means of the HCR-20^{V3} and the SAPROF, to offering aggression management training, and/or to communicating the violence concerns to collaborating probation services. However, it is commonly recognized that constructive risk management based upon the results of risk evaluation is challenging. This problem is not unique for the prison system, but occurs within the broader custodial and forensic context. For instance, previous research within forensic clinical practice indicates that clinicians often experience difficulties in translating risk assessment outcomes into a risk management plan (Bouman et al., 2020; Singh et al., 2014). Bouman et al. (2020) conclude that the forensic psychiatric field is in need of a guideline to properly structure and facilitate the Risk Assessment and Management Pathway (RAMP) process. In addition, a systematic review by Viljoen et al. (2018) discovered that risk evaluation tools seem to be more valuable for subsequent risk management if the tools are carefully implemented and if staff is provided with appropriate training and guidelines. Although this thesis did not specifically investigate the translation of the results of the RS-V into subsequent risk management, it is clear that similar challenges are present within the Dutch prison context. Namely, the findings in Chapter 2 revealed that prison employees indicate that the implementation of follow-up measures and risk management based

on the results of the screening requires improvement. Therefore, future research could explore what is needed to effectively guide the RAMP processes within the Dutch prison context, and how this can be aligned with the current work processes (e.g., the RS-V, the D&R process, and the periodical MDO meetings). It can be concluded that risk evaluation, and specifically risk screening, serves as a valuable supportive tool and an important starting point in overall risk management. However, it cannot independently address the issue of the occurrence of violence.

False positive predictions and ethical challenges

This thesis found a relatively high ratio of false positive predictions in comparison to false negative predictions for both in-prison violence as well as community violence. As stated above, this may lead to unnecessary restrictive risk management for some individuals. Excessive restrictive follow-up measures may have negative effects on an individual's rehabilitation process (Kang & Wu, 2022). For instance, it may increase the resistance of an individual to cooperate and it may have negative social and psychological impact, such as feelings of mistrust, loneliness, stress and hopelessness (Tomlin et al., 2018). An example of unnecessary restrictive risk management in Dutch prison practice is fully denying (reintegration) leave for individuals for whom risk screening reveals moderate or serious concerns. Instead, it is important to make careful considerations regarding the terms and conditions (e.g., supervision, location, and duration) that allow these individuals to go on leave while accounting for the possible concerns of violence. Specifically, since practicing with going outside of the prison environment is believed to offer therapeutic benefit and support reintegration (Barlow & Dickens, 2018; Dickens & Barlow, 2018). Rehabilitation should not only focus on punishment or control, but instead should help individuals grow, learn and develop positive behaviors and attitudes. Thus, a balance is required between necessary risk management and supportive rehabilitation. The focus on both risks and strengths in the RS-V supports this holistic view of recovery.

Besides ethical challenges regarding overly restrictive risk management that prioritize safety over the well-being of detained persons, another ethical challenge relates to the detailed documentation of a detainee's behavior. Mapping out the behavior of individuals in prison may provide valuable insights into their risk profile, but it also raises concerns about the implications of such surveillance. For instance, comprehensive documentation about a detainee's behavior inherently increases the responsibility of staff to act upon that information, which may not always be straightforward (as stated above). This can create ethical dilemmas about implicit bias, and stigmatization (Douglas et al., 2017), and the potential misuse of the acquired data and undermining the autonomy of incarcerated individuals. It is therefore important to critically evaluate

the ethical implications of risk screening and risk assessment, and to involve detained individuals in this process.

Alternative ways of sentencing

This thesis discovered that prison workers are consistently more concerned regarding future violent behavior after discharge compared to violent behavior during incarceration. The steady relatively high level of concerns regarding community violence might indicate that prison staff is not able to completely manage the community risk level of individuals during incarceration. If the prison environment fails to effectively reduce concerns about future violence after release, it raises the question about the possible adverse effect that prison sentencing may have on violent recidivism. This effect, referred to as detention damage, suggests that imprisonment can lead to additional (psychological) problems, subsequently challenging a successful re-integration within society (Van Oploo & Dalhuisen, 2024). In addition, individuals may be victimized during prison stay or influenced in a negative way by fellow inmates (Daquin et al., 2016). Moreover, prison stay may lead to hopelessness and stigmatization. As a result, this may increase the likelihood of reoffending. Detention damage may apply to both short and long detention periods, but is especially concerning for short sentences (almost three-quarters of the Dutch individuals are released within three months) during which the opportunities for behavioral change and effective re-integration strategies are limited. Alternative or additional ways of punishment and retaliation may be conceivable for short-sentenced individuals if both the well-being of the individual and the safety of the community as a whole is diminished by imposing prison sentences (Van Oploo & Dalhuisen, 2024). Examples of alternative ways of sentencing are community services, conditional sentences, fines, halfway houses, and home detention, possibly accompanied by Electronic Monitoring (EM).

Within the Netherlands, individuals who serve a prison sentence of more than one year and who are in the final stage of their detention may qualify for a conditional release to serve the remaining part of their sentence at home (Dutch Custodial Institutions Agency, 2024a). Some of these individuals receive EM by means of an ankle bracelet, supervised by probation services. Recent capacity shortages within the overall Dutch prison system have led to the exploration and implementation of alternative sanctioning methods to address these challenges. One example is the temporary introduction of 'capacity leave' in 2024 (Dutch Custodial Institutions Agency, 2024a). This measure allows individuals to serve a part of their sentence at home, including EM. Eligible individuals should have a prison sentence of at least four weeks but not longer than one year. Another condition to go on capacity leave is that an individual should not have received serious concerns on final conclusion C of the RS-V (concerns regarding violence during leave). Given the

results of this thesis and the possibility of detention damage as mentioned earlier, it appears advisable to implement this method of capacity leave more permanently and on a larger scale in the future. In that case, low concerned individuals can remain close to their community, which increases the likelihood of maintaining their jobs, housing and stable relationships with family and friends. These are important protective factors that contribute to successful reintegration into society and enhance desistance from crime (Maruna, 2001). Individuals with low concerns for future violence and the prospect of a short prison sentence might benefit more from less intensive interventions, such as a community order or EM, rather than an overly restrictive prison sentence. More research is needed regarding the effectivity of EM compared to prison sentences to reduce recidivism. So far, research that has been conducted in this regard seems promising (Belur et al., 2020; Williams & Weatherburn, 2022).

Recommendations for future research

Since the implementation of the RS-V within the Dutch prison system in 2021, a steady flow of data has been emerging regarding RS-Vs rated within prison practice. This offers significant opportunities for further research; several recommendations will be presented.

First, given that the RS-V is administered at both the beginning of detention and when an individual qualifies for leave, future research could assess the predictive validity of final conclusion C (concerns regarding violence during leave). The current thesis only focused on the predictive validity of final conclusions A and B (concerns regarding violence within prison and violence after release). Investigating the predictive validity of final conclusion C would provide further information regarding the psychometric quality of the RS-V, specifically when it comes to predicting violent incidents during leave. It is expected that the predictive validity of final conclusion C will be lower than the predictive validity of final conclusions A and B. To clarify, the leave committee uses the information from final conclusion C, in combination with other relevant information, in deciding whether to grant leave. This leave committee decides whether an individual about whom moderate or serious concerns have been expressed is allowed to go on leave, and if so, under which terms and conditions. In this regard, risk management directly depends on the results of the screening. In contrast, the decision-making process for follow-up measures related the results of final conclusions A and B is less direct. For instance, even if prison employees have serious concerns that a given individual may act out violently after discharge, the employees cannot decide that this individual should remain imprisoned; this individual will simply be released once they have served their prison sentence. Given that the current procedures support proper risk management in relation to leave (i.e., each application is assessed by a

leave committee and the RS-V is administered before leave is granted), it is expected that the predictive validity of final conclusion C will be diminished. In short, incidents during leave is more likely to be prevented due to tailored risk management based on the results of the screening. Future studies could test this hypothesis.

Another possible avenue for future research would be to further explore the predictive validity of RS-V ratings in relation to female detainees. As stated above, the present thesis was not able to extensively investigate gender differences regarding the predictive validity due to the relatively low base rate of physical violence and violent threats displayed by females. In line with previous research, this thesis found the occurrence of violence displayed among females to be less prevalent than among males (Heimer, 2000; Rennison, 2009). Nonetheless, it would be valuable to conduct additional research specifically regarding female detainees, especially since Chapter 5 did show promising results regarding the relatively high predictive validity of RS-V ratings for females compared to males regarding violent offending after release. Future research could investigate longer follow-up periods and at the same time include an even larger sample of RS-Vs rated for female detainees. In addition, investigating gender-responsive practices in female prisons could improve the practical application of the RS-V and subsequent risk management for females. Moreover, studying females in prison may require a broader definition of what constitutes violence and/or aggression. For instance, manipulation, ostracism, rumors, and other forms of (direct or indirect) aggression are more common among females (Trammell, 2009). Future studies could investigate whether RS-V scores are also able to predict these alternative types of aggression.

A third recommendation for future research relates to the involvement of detained individuals. As mentioned in the 'Limitations and strengths' section, this thesis did not include the perspective of the detained individuals who received an RS-V rating. However, involving detainees in the risk screening process could provide additional insight into specific domains evaluated in the RS-V and offer input for change trajectories. Future research could focus on developing of a self-report version of the RS-V to actively involve individuals in the evaluation of their own risks and strengths. A self-assessment version could be beneficial for an individual's reintegration because it could provide them with additional insight into their own risk and protective factors. Such insights could provide a valuable starting point for discussing future goals, and might consequently increase motivation for change. A self-assessment version of a similar risk screening instrument has been shown to have added value in juvenile forensic evaluation. This instrument is called the Risk Screener Youth (RS-Y) (De Vries Robbé & Kleeven, 2023). Simultaneously with the evaluation of the RS-V for the adult prison setting, the applicability of the RS-Y was investigated in the context of juvenile

justice. The RS-Y includes an additional simplified self-appraisal scoring form, which can be rated by the juveniles themselves. Moreover, a social network version of this scoring form is also available, which can be rated by parents/caregivers or other close relations. Within several juvenile treatment and supervision settings, the RS-Y self-report version is used in an interview format, allowing the juvenile to tell their own story regarding each risk and protective factor. This facilitates the active involvement of the youngster in the risk evaluation process and inspires collaborative goalsetting. It is expected that a similar self-report version of the RS-V will be of added value within the adult prison setting as well. However, further exploration by means of a pilot study in a small number of Dutch prisons is necessary.

An additional direction for future research might involve exploring ways to enhance the quality of the application of the RS-V in prison practice. A relevant result that follows from this thesis is that continually monitoring and improving the application of the RS-V in prison practice is important. Within Chapter 2, prison employees mention several changes that they consider are necessary in order to improve the usefulness of the RS-V in daily practice. These recommendations are mainly related to improving the discussion of the final conclusions during the MDO, and the implementation of better follow-up measures based upon the results of the screening. Future research could use a qualitative approach in order to investigate the way the final conclusions and subsequent follow-up measures are discussed and executed by prison employees. One possibility is conducting observational research, by attending several MDOs and closely monitoring and evaluating the discussion of the final conclusions. This may provide insight into the bottlenecks or issues that arise when discussing the risk and protective factors of a detained individual and subsequent tailored interventions. By additionally conducting semi-structured interviews with prison staff that frequently attend these MDOs, suggestions can be gathered on how to improve these discussions and procedures. Future qualitative research could also focus on the argumentation provided by RS-V raters for each factor and for each final conclusion. Moreover, other historical and dynamic information added by the assessor could be analyzed. A more detailed understanding of the strengths and issues when it comes to rating the RS-V, can lead to instating follow-up measures more effectively. This will likely benefit the overall risk management process within Dutch prison practice.

Besides focusing on the Dutch prison system, future research could also adopt a more broad approach. For instance, it is imaginable that prison systems within other countries face similar issues when it comes to the feasibility of conducting comprehensive risk assessment for all detained individuals, while at the same time it is recognized that gaining better insight into detainees' risk and protective factors is crucial. It is not

without reason that several international initiatives emerged regarding the development of risk screening instruments that can be used in prison settings, with each instrument offering distinct features (Andrews & Bonta, 2001; Ogloff et al., 2018; Ogloff & Daffern, 2006; Wong & Gordon, 2007). Future research could focus on investigating the potential interest of prisons in other countries in implementing the RS-V. The RS-V, with its specific focus on the prediction of violence, its integration of protective factors, its application across disciplines, and its foundation in SPJ principles, may serve as a valuable addition to existing risk assessment practices in prisons worldwide. If other countries indeed express interest in the application of the RS-V, a translation of the RS-V into English or other languages would be a logical next step.

Apart from exploring international interest, it would be worthwhile to examine if the RS-V could be of added value outside of custodial and forensic settings. The prevalence of violence and aggression is not limited to these contexts, but also occurs within general mental health services, social services, or shelter and community care services (De Nederlandse ggz, 2021; Kerman et al., 2024; Shier et al., 2021). For instance, research shows that 67% of Dutch healthcare professionals employed in clinical psychiatry experienced at least one physically violent incident in the past five years (Van Leeuwen & Harte, 2017). However, the use of risk assessment or risk screening instruments to evaluate the risk of violent behavior of patients or clients is not yet part of everyday practice in the majority of these care settings in the Netherlands. It is conceivable that risk evaluation tools might be able to assist mental health professionals in the prevention of violence, especially in mental health care settings where the incidence of violence may be elevated. For instance, employees working in inpatient psychiatric units or emergency psychiatric services often deal with patients who are not always fully compliant with treatment and who often have complex, co-occurring mental health issues. Future studies could begin by analyzing the needs of Dutch professionals in general mental health care or social services regarding the use of a risk screening tool such as the RS-V to rapidly identify which individuals may show more concerns regarding violence, with the aim to improve the safety of both staff and patients/clients alike. Exploring international initiatives regarding the use of violence risk screening in such settings is advised (Daniel et al., 2015; Davies & Dedel, 2006; Langan, 2010; Rosenfeld et al., 2017). Additionally, since individuals often transition between different (forensic) care settings, future research could investigate whether the RS-V might be a useful tool to track changes in risk profiles across settings. This also offers an opportunity to examine how individuals could be more actively involved in the screening process. For instance, a mobile app could allow individuals to easily share and update their own risks and strengths with care providers, promoting self-advocacy and ensuring continuity of care.

Conclusions

This thesis demonstrates that the RS-V offers a novel and evidence-based approach, making quick and easy evaluations of violence concerns feasible for all detained individuals. More specifically, the results show that the RS-V is a valuable tool in distinguishing which individuals are more likely to display violent behavior, either inside or outside prison. By identifying violence concerns early in detention, the RS-V serves as possible triage for more extensive risk assessment and subsequent follow-up measures that aim to improve tailored risk management. As a result, this may enhance internal and external safety. Screening detained individuals for violence concerns has the potential to be of significant value within the prison environment, benefiting both detained individuals and staff, as well as society at large.