

# Understanding violent extremism: Risk and protective factors in a jihadi male detainee population in the Netherlands

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## Abstract

In recent years, the number of detainees confined for terrorism-related offenses has increased worldwide and across Europe. To understand the factors related to terrorism and its underlying motives, this study provides insights into violent extremism by assessing risk- and protective factors based on the Violent Extremism Risk Assessment-2R (VERA-2R) in 121 male jihadist residents in Dutch terrorism wings. Retrospective analyses of primary source data showed that one-third of the target group is strongly connected to ideologies justifying violence. The social

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context of the study sample was also related to violent extremism, whereas support from family members emerged as the most often observed protective factor. The current findings suggest that including meaningful risk and protective factors of detained male jihadists may benefit risk management strategies in prevention, intervention, and policy practices related to violent extremism.

### **Keywords**

Violent extremism, terrorism wings, VERA-2R, risk and protective factors

## **Introduction**

In recent years, the number of violent extremists imprisoned for terrorism-related offenses worldwide and in Europe, including the Netherlands, has increased (Europol, 2018; Van der Heide and Geenen, 2015). In the Netherlands, the general intelligence and security service has been reporting threats from jihadi movements (consisting of several hundred followers) for years (AIVD, 2020). Since ISIS proclaimed the caliphate in 2014, there has been a constant threat from people who left the Netherlands for Syria or Iraq and then returned, and who, because of the events there, increasingly turned away from Dutch society (AIVD, 2014). However, the “heroic image” of ISIS quickly dissipated and a migrant flow of people fleeing the war in Syria and Iraq began. Jihadist groups also used these migrant routes to enter Europe (AIVD, 2015). In 2017, the territory of ISIS was almost completely recaptured by the local government of Syria and Iraq (AIVD, 2017). Because there was no longer a caliphate, the jihadists focused more on spreading their ideology and strengthening their network (AIVD, 2018). The jihadist movement continues to pose a threat because it still sees itself as being at war with the West (AIVD, 2019, 2020). The present study investigates which specific risk and protective factors are associated with violent male jihadist detainees who stayed in the specialized terrorist wings during the period of the study. Among them were detainees who attempted to travel to/returned from Syria or Iraq, foreign fighters, detainees who prepared or committed an attack in the Netherlands, recruiters and financiers. Insights into these risk and protective factors can contribute to better risk management to reduce future recidivism, which is a development that is also taking place in other countries (Borum, 2015).

### *Risk factors in violent extremist populations*

There is no clear profile of “the violent extremist” (Bakker, 2006; Horgan, 2014; Meleagrou-Hitchens et al., 2020; Sageman, 2008; Thijssen et al., 2021), as they vary in historical, cultural, social, and psychopathological characteristics (Bakker, 2006; Corner et al., 2018; Corner and Gill, 2015; Monahan, 2012; Pressman and Flockton, 2012; Thijssen et al., 2021; Weenink 2015). Some sociodemographic factors appear to be associated with violent extremism but concern only one factor complicating generalizability (Wolfowicz et al., 2019). Gender and educational level have shown only weak effects with radicalization (Emmelkamp et al., 2020). In contrast, “activism” and “perceived in-group superiority” in radicalized juveniles were strongly associated with

radicalization, demonstrating the presence of other risk factors (Emmelkamp et al., 2020). Furthermore, religious factors, a lack of integration in society, identity problems, belongingness, meaning making and group processes seem to be related to violent extremism (McGilloway et al., 2015; Nickolson et al., 2021; Wolfowicz et al., 2019). Grievances can lead predisposed individuals to the next step in the radicalization process (McGilloway et al., 2015). Factors facilitating the capacity to commit terrorist acts, such as previous participation in training camps, were also identified as relevant (Nickolson et al., 2021).

Research on risk factors also compared lone-actor terrorists to the general population. Mental disorders, low self-control, sensation-seeking behavior, and a violence-supportive morality were more common in lone-actor terrorists than in the general population (Clemmow et al., 2020). Interestingly, the general population was more likely to experience a range of distal stressors (such as bullying victimization or chronic stress). However, protective factors against criminal involvement (such as having a job and having children) were also more common in the general population than in lone-actor terrorists.

In summary, violent extremists constitute a heterogeneous group (e.g., Bakker, 2006; Horgan, 2014; Sageman, 2008) with several specific risk factors that mark this group, pertaining to activism, perceived in-group superiority, belongingness, grievances, need for sensation, and meaning making (Emmelkamp et al., 2020; Nickolson et al., 2021). In addition, compared to the general population it appears that violent extremists are not more likely to experience stressors, but that they have fewer protective factors against criminal involvement (Clemmow et al., 2020). Therefore, violent extremism can be better understood by focusing on several push and pull factors, rather than singling out one risk factor (Clemmow et al., 2020; McGilloway et al., 2015).

### *Characteristics of violent extremists in the Dutch context*

Studies in the Netherlands have identified some similarities between violent extremist offenders. A study of 279 police files of suspects of terrorism-related offenses found that the majority were males with an average age of 30 years, had a low level of education and had criminal antecedents (Thijs et al., 2018). There were also (symptoms of) mental disorders, with a prevalence ranging from 26.9% to 81.3% (Alberda et al., 2018; Van der Heide and Kearney, 2020; Van Leyenhorst and Andreas, 2017; Weenink 2015, 2019). A recent study of 82 violent extremists residing in Dutch terrorism wings showed that about 60% had been previously convicted and about a third had a mental disorder according to the DSM-5 criteria (Thijssen et al., 2021). Violent extremism did not differ from the general Dutch population and the DSM-5 reference population on most psychiatric disorders, including personality disorders and mild intellectual disability. Interviews with violent extremist ex-detainees showed that they had often experienced setbacks in their lives (Versteegt et al., 2018). Finally, relatives of terrorist suspects were more likely to have low socioeconomic status, more often came from broken families, and more often had a criminal history than the general population (Rodermond et al., 2020).

After release from prison, around 5% of the ex-detainees previously convicted of terrorism had reoffended with a terrorist act (Bakker, 2006; Bergen et al., 2011; Thijssen

et al., 2021; Van der Heide and Schuurman, 2018). This low recidivism rate can partly be attributed to long-term probation supervision (Van der Heide and Schuurman, 2018) and monitoring by intelligence services. Returning to an old extremist network was more likely when there was a lack of social support or when there were difficulties in daily life (Rodermond et al., 2021).

### *Assessing risk and protective factors in violent extremist individuals*

Risk assessment aims to estimate the individual risk of recidivism based on specific indicators for recidivism. In the past decades, various risk assessment tools have been developed to provide reliable estimates of violent (including sexual) recidivism. These tools using Structured Professional Judgment (SPJ) procedures are important to support clinical and legal decision-making (Bogaerts et al., 2018; Douglas and Miller, 2003). However, research shows that risk factors found in offenders of non-extremist violence are usually not present in offenders of violent extremism (Borum, 2011a, 2011b; Monahan, 2012; Pressman and Flockton, 2012). Therefore, specific approaches to risk assessment for violent extremism with relevant risk and protective factors should be used.

In recent years, improvements have been made to identify risk factors for violent extremism in individuals (Clemmow et al., 2020). However, risk assessment of violent extremist offenders remains difficult because information on base rates is often lacking (Clemmow et al., 2020) and the low prevalence of violent extremism recidivism rates makes it difficult to develop and validate risk assessment tools for this specific target group (Bakker, 2006; Bergen et al., 2011; Thijssen et al., 2021; Van der Heide et al., 2019; Van der Heide and Schuurman, 2018). Therefore, SPJ approaches to violent extremism are mainly used for structuring information and identifying relevant risk factors (Van der Heide et al., 2019), which is considered a good method for assessing the risk of violent extremism (Beardsley and Beech, 2013; Pressman, 2009). Based on the SPJ approach, various instruments have been developed to identify risk factors of violent extremists, such as: Violent Extremist Risk Assessment—2 Revised (VERA-2R), Extremist Risk Guidelines 22+ (ERG 22+), Islamic Radicalization model 46 (IR 46), Radicalization Risk Assessment Prison (RRAP), and Vulnerability Assessment Framework (VAF). In this study, we used the VERA-2R. The VERA-2R is suitable for prison contexts and targets violent extremist offenders and radicalized individuals to obtain information about the likelihood of future violent extremist actions. Based on the results, risk management strategies can be determined (Van der Heide et al., 2019). The VERA-2R consists of 34 indicators divided into five categories (“beliefs and attitudes,” “context and intent,” “history and capability,” “commitment and motivation,” and “protective or risk-mitigating indicators”) to structure information. Personal and situational characteristics commonly found in violent extremists, such as a feeling of being a victim of injustice, feeling alienated from society, or having a strong devotion to their cause, are included in the VERA-2R. The VERA-2R is discussed further in the materials and methods section.

### *Current study*

This study investigates risk and protective factors from the VERA-2R in a population of violent male extremists residing in Dutch terrorism wings. This is the first study in which

the VERA-2R has been used to analyze data from multiple sources (including primary) on risk and protective factors in a relatively large group of violent extremists. This information can provide input for risk assessment and risk management, as it provides information on which (a combination of) factors should be tackled in the context of appropriate personalized interventions. An important goal is to be able to detect factors related to terrorist crimes. The first research question related to this goal is: “What risk and protective factors are present in a group of male jihadi violent extremists residing in terrorism wings of a Dutch prison?” It is also important to determine whether various subgroups within the research population differ in terms of risk profile. After all, if this is the case, this may necessitate a differentiated intervention policy aimed at the prevention of (recidivist) terrorist crimes. To this end, we formulated the second question: “Do these risk and protective factors differ between various groups of detainees (i.e., detainees convicted of terrorism, detainees whose terrorism suspicion has been lifted or who have been released from prosecution, violent offenders, offenders who prepared a terrorist attack, returned foreign fighters, offenders who attempted to travel to Syria or Iraq, and young offenders)?” Finally, we aim to study: “To what extent do the scores on the VERA-2R subscales relate to the conviction for terrorism?” This study is descriptive and exploratory because little empirical evidence is available regarding risk and protective factors in this target group. Therefore, no hypotheses are formulated.

## Materials and methods

### *Procedure*

In the Netherlands, there are two penal facilities with specialized terrorism wings, with a capacity of seven (Rotterdam prison) and 41 cells (Vught prison). Selection for Rotterdam or Vught prison depends on several factors: gender, availability of empty cells or as a rotation option, for example, for security reasons. Since 2016, a general policy has been established that all detainees are initially placed in Vught prison and possibly transferred to Rotterdam at a later stage. In general, detainees were not selected for the facilities in Vught or Rotterdam on the basis of the characteristics investigated in this study. The Rotterdam data were not accessible to the researchers and were incomplete, so it was decided to include only the sample from Vught in this study. In the period from 2014 to 2020, 121 male detainees were placed in the penal facility of Vught and 10 in Rotterdam. The latter 10 detainees were not included in the sample of this study. However, we assume that not including these 10 detainees will not affect the results of the study.

This retrospective study includes data from male detainees residing in the terrorism wings in Vught prison between 2014 and 2020. Due to specific gender aspects in female violent extremists, it was decided not to include women in this study (Banks, 2019; Brugh et al., 2019; González et al., 2014). For example, women are more likely to be engaged in supportive roles and actions that indirectly facilitated targets of terrorist organizations, whereas men are more likely to be active members (Brugh et al., 2019).

Violent extremists have a special status in the Dutch detention system because they can pose a threat to public safety and thus have a major societal impact. Therefore, all detainees in the terrorism wings are extensively assessed as part of standard procedure.

This assessment is used to map the intra- and interpersonal dynamics of the detainees to determine which interventions are needed to prevent intramural safety risks and to reduce risk factors for recidivism. The following data sources are available: criminal and police records, probation reports, mental health status and behavioral status (including psychological and psychiatric assessment, observational data from staff, file information), information from relatives, and individual and group analyses from an expert in the cultural background of detainees, Arabic, and extremist Islamic ideologies.

Data were not primarily collected for research purposes, but as part of regular detention and care processes and thus were part of the prison data that the researchers had access to. This study was approved by the Ethics Review Board of Tilburg University. Because data were highly confidential, the data protection office of Tilburg University has checked the data protection and data management. All data were processed anonymously and cannot be traced back to individual detainees. Information about data selection and the data protection process and checks can be obtained from the first author.

### Study sample

The study population contained 121 male jihadi detainees between 19 and 50 years old ( $M=30.72$ ,  $SD=7.84$ ) when entering the terrorism wings. Table 1 provides a detailed overview of the diversity of terrorist offenses the detainees were suspected of or convicted for. For a comparison of demographic information of violent extremists and the general Dutch prison population, see Table 2. A large proportion of the violent extremist detainees were first- (30.6%) or second-generation (29.8%) migrants. Prior to their detention, detainees lived independently (31.4%), with their parents (21.5%), with a partner (16.5%) and 4.1% had no permanent residence. About a third had a partner (34.7%) and one-third had one or more children (37.2%). About one-third had income from work (31.4%). Others received benefits (37.2%) or student finance (5.8%). About a third (27.3%) had divorced

**Table 1.** Type of terrorist crime.

Type of terrorist crime	Frequency (N)	Percentage (%)
Joining a terrorist organization in Syria or Iraq (returnees)	15	12.4
Attempt to travel to Syria or Iraq	14	11.6
Recruitment	4	3.3
Logistical support	1	0.8
Preparation for terror attack	35	28.9
Terror attack	4	3.3
Arms trade or possession of weapon	8	6.6
Incitement or propaganda	6	5.0
Financing terrorist activities	5	4.1
Terrorism threat	11	9.1
Foreigners joining a terrorist organization in their home county	9	7.4
Other <sup>a</sup>	9	7.4

<sup>a</sup>Such as training for an attack or acquiring knowledge and intelligence.

**Table 2.** Comparison of generic demographic information of violent extremists versus general Dutch detainees.

Variable	Violent extremists	General Dutch detainees
Average age	30.7 years	35.0 years <sup>a</sup>
Born in		
Netherlands	38.8%	48.9% <sup>a</sup>
Morocco	15.7%	14.4% <sup>a</sup>
Syria	13.2%	Unknown <sup>a</sup>
Dutch Antilles	1.7%	8.6% <sup>a</sup>
Suriname	1.7%	10.2% <sup>a</sup>
Turkey	2.5%	8.8% <sup>a</sup>
Level of education		
Primary or secondary education	53.8%	60.0% <sup>a</sup>
Secondary vocational education	15.7%	32.0% <sup>a</sup>
Higher professional education / university	7.5%	4.0% <sup>a</sup>
Criminal past		
No	46.3%	35.0% <sup>b</sup>
Yes	53.7%	65.0% <sup>b</sup>
Property crimes	36.4%	29.0% <sup>b</sup>
Violent crimes	30.6%	Unknown <sup>b</sup>
DSM-5 diagnosis		
No	69.4%	40.0% <sup>c</sup>
Yes	30.6%	60.0% <sup>c</sup>
Mental disorder	22.3%	60.0% <sup>c</sup>
Mild intellectual disability	7.4%	45.0% <sup>c</sup>
Substance dependency disorder	8.3%	50.0% <sup>c</sup>
Personality disorder	4.1%	Unknown <sup>c</sup>
Mental and personality disorder	3.3%	Unknown <sup>c</sup>

<sup>a</sup>CBS (2021).

<sup>b</sup>WODC (2019) Recidive onder justitiabelen in Nederland—recidivism among offenders in the Netherlands.

<sup>c</sup>DJI (2021) Feiten en cijfers—facts and figures.

parents. After the dismissal of the terrorism wings, 15 (12.4%) of the ex-detainees committed a new offense and one of them reoffended twice. Recidivism consisted mainly of property crimes (40.0%) and terrorism (26.7%). The other re-offenses (33.3%) were violation of the Opium Act, threats, violation of the Weapons and Ammunition Act, and assault. However, it should be noted that we cannot make a conclusive statement about recidivism figures because the first detainees resigned in January 2015 and had therefore been released for five years, while other detainees left prison for only a few weeks.

## Measures

*Risk- and protective factors.* The 34 indicators of the VERA-2R were scored for all detainees residing in the terrorism wings to identify the presence of risk and protective factors for violent extremism. The risk and protective factors are rated as low (score is 0), moderate

(score is 1) or high (score is 2). To score the indicators of the VERA-2R, the probation service made an overview of all relevant information from the criminal file. This procedure was chosen because the probation service had access to detainees' criminal files, which the penal facility did not have. In addition, information was further supplemented with data collected in the penal facility by the first author, such as observed behavior of the detainee during detention (in contact with fellow detainees, staff and during visits), conversations with detainees about their life course, beliefs and motivations, information from family members, the police and behavioral experts.

After the information was collected, the VERA-2R was used as a scoring tool by the first author to score all the information. The VERA-2R was not scored by a second rater because the data were not collected primarily for research purposes. Therefore, we did not investigate the interrater-rater reliability but optimized reliability and validity by discussing scores per VERA-2R indicator in a multidisciplinary meeting (including the chief of the terrorism wings, guards, social workers, case managers, nurses, and spiritual caretakers). In those meetings, scores for each detainee were discussed and in case of disagreements, indicators were scored by consensus. Some indicators could easily be assessed via the criminal file, such as whether detainees had produced violent extremist material. In contrast, motivational and ideological indicators were more difficult to assess because they were related to underlying motives and intentions to engage in certain behaviors. Scores on such indicators were determined by what was stated in police files or verdicts about detainees' behavior, what he had said about this himself in conversations with support services in detention and what their relatives disclosed. Furthermore, the behavior of detainees during detention was relevant for accurately scoring these items.

In the primary (care) process, individual indicators of the VERA-2R were not weighted, but combined with the personal characteristics of a detainee, the unmet needs, and information about the protective or high-risk network, to achieve an integrative description of a detainee from which interventions can be indicated. Therefore, individual VERA-2R indicators in this study are not weighted in the statistical analyses.

In this study, the internal consistency of the subscales of the VERA-2R were: "beliefs and attitudes" (7 indicators,  $\alpha = .88$ ), "context and intent" (7 indicators,  $\alpha = .82$ ), "history and capability" (6 indicators,  $\alpha = .42$ ), "protective indicators" (6 indicators,  $\alpha = .88$ ), and "motivational indicators" (8 indicators,  $\alpha = .61$ ).

*Socio-demographic characteristics.* Age, sex, country of origin, marital status, parental marital status, number of siblings, level of education, housing situation, and financial situation were retrieved from the file information.

*Judicial characteristics.* Judicial titles, offenses central to the terrorism conviction, and previous convictions of (violent) offenses were obtained from the criminal record.

*Psychopathology.* The mental state of all detainees in the terrorism wings was examined from a care perspective and to detect risk and protective factors. As part of the regular (care) processes, information about detainees has been requested from previous healthcare providers and probation service, when available. Mental health diagnoses were determined using the Diagnostic and Statistical Manual for Mental disorders, fifth edition (DSM-5; American Psychiatric Association, 2013). Detainees were assessed by general physicians, nurses, a social worker, psychologists, and, if applicable, a psychiatrist. Regular monitoring and therapeutic sessions took place with a social worker or



psychologist every two weeks, detainees were discussed with the team of (health)care professionals, diagnostic conclusions were drawn, and intervention policies were determined.

*Suspicion of terrorism.* Information about the status of the suspicion was obtained from the criminal record of detainees, such as *convicted of terrorism*, *dismissed from prosecution* or *suspicion of terrorism has been lifted*.

### Statistical analyses

First, descriptive statistics were computed for socio-demographic, psychopathological, and judicial characteristics of the study sample, as well as for the risk and protective factors of the VERA-2R. Second, Mann–Whitney U tests were conducted to investigate whether the means on the VERA-2R subscales differed between various groups of detainees (i.e., detainees convicted of terrorism, violent offenders, offenders who prepared a terrorist attack, returned foreign fighters, offenders who attempted to travel to Syria or Iraq, and young offenders). In addition, Mann–Whitney U tests with a Holm–Bonferroni correction (Holm, 1979) were conducted to investigate whether the item-level scores of the VERA-2R differed between the aforementioned groups. To investigate the extent to which the scores on the VERA-2R subscales relate to the conviction for terrorism, a logistic regression analysis was performed. All analyses were conducted in IBM SPSS, version 24.0.

## Results

### *Risk and protective factors in the study sample*

Table 3 provides an overview of all scores on the VERA-2R indicators. The main findings will be described subsequently. We highlighted the indicators that were mostly observed in the study population because they are apparently the most characteristic and therefore potentially relevant for profiling and risk management. Approximately one-third of the study sample (29.8%) were strongly attached to an ideology that justifies violence, 25.6% were motivated by this ideology for violent extremism, and 23.1% had a strong perception of injustice and grievances. It is notable that 47.1% had personal contact with violent extremists and that 34.7% were embedded in a network of family or friends involved in violent acts. Furthermore, about a quarter (25.6%) were preparing a violent extremist act and 29.8% had the necessary resources to conduct attacks. Regarding protecting factors, 24.0% received support from family members or significant others for nonviolence.

### *Subgroup analyses*

It was also investigated whether risk and protective factors differentiate between subgroups. This study included detainees who were not convicted of terrorism but were suspected of a terrorist act. We examined whether these subgroups showed different risk and protective factors. At the time of data analysis, the criminal cases of 92 detainees (76.0%) had been assessed by a judge. In 14 cases (11.6%), the suspicion of terrorism was lifted and detainees were not convicted for terrorism. In another 14 cases (11.6%), the criminal

**Table 3.** Risk and protective factors VERA-2R ( $n = 121$ ).

	Low		Moderate		High		Missing	
	n	%	n	%	n	%	n	%
<b>Beliefs and attitude indicators</b>								
Attachment to ideology justifying violence	44	36.4	28	23.1	36	29.8	13	10.7
Perception of injustice and grievances	48	39.7	31	25.6	28	23.1	14	11.6
Dehumanization of identified target	96	79.3	3	2.5	9	7.4	13	10.7
Alienation from society and rejection of values	79	65.3	11	9.1	17	14.0	14	11.6
Expressing feelings about perceived injustice	60	49.6	32	26.4	15	12.4	14	11.6
Hostility to national identity	86	71.1	6	5.0	14	11.6	15	12.4
Lack of empathy of those outside own group	81	66.9	15	12.4	13	10.7	12	9.9
<b>Context and intent indicators</b>								
Seeker, user, or developer of violent extremist information	55	45.5	26	21.5	25	20.7	15	12.4
Target for attack established (person, group, location)	80	66.1	12	9.9	14	11.6	15	12.4
Personal contact with violent extremists	32	26.4	15	12.4	57	47.1	17	14.0
Expressed intention to commit a violent extremist act	72	59.5	6	5.0	25	20.7	18	14.9
Expressed willingness to die for the purpose	87	71.9	3	2.5	17	14.0	14	11.6
Planning and preparing for violent extremist acts	54	44.6	19	15.7	31	25.6	17	14.0
Sensitivity to influence, direction or indoctrination	68	56.2	24	19.8	20	16.5	9	7.4
<b>History and capability indicators</b>								
Early exposure to violent-promoting militant ideology	100	82.6	0	0.0	2	1.7	19	15.7
Network of family and friends involved in violent acts	50	41.3	13	10.7	42	34.7	16	13.2
Violent judicial history	75	62.0	23	19.0	17	14.0	6	5.0
Strategic, paramilitary and/or explosives training	78	64.5	10	8.3	16	13.2	17	14.0
Training in extremist ideology	84	69.4	9	7.4	6	5.0	22	18.2
Access to finance, resources, organizational skills	54	44.6	17	14.0	36	29.8	14	11.6
<b>Protective indicators</b>								
Reinterpretation of ideology	57	47.1	7	5.8	13	10.7	44	36.4 <sup>a</sup>
Rejection of violence to achieve goals	57	47.1	7	5.8	18	14.9	39	32.2 <sup>b</sup>
Change definition of enemy	59	48.8	3	2.5	9	7.4	50	41.3 <sup>c</sup>
Participant in programs against violent extremism	38	31.4	31	25.6	23	19.0	29	24.0 <sup>d</sup>
Community support for nonviolence	67	55.4	4	3.3	11	9.1	39	32.2
Support from family members/significant others for nonviolence	37	30.6	15	12.4	29	24.0	40	33.1

(Continued)

**Table 3.** (Continued)

	Low		Moderate		High		Missing	
	n	%	n	%	n	%	n	%
<b>Motivational indicators</b>								
Noble cause (religious obligation, glorification)	60	49.6	16	13.2	31	25.6	14	11.6
Criminal opportunism	91	75.2	8	6.6	12	9.9	10	8.3
Need for camaraderie	72	59.5	26	21.5	14	11.6	9	7.4
Moral duty	73	60.3	18	14.9	16	13.2	14	11.6
Interest, need for excitement and adventure	92	76.0	12	9.9	2	1.7	15	12.4
Forced participation	111	91.7	0	0.0	2	0.8	15	7.4
Gaining status	82	67.8	15	12.4	10	8.3	14	11.6
Search for meaning	84	69.4	18	14.9	7	5.8	12	9.9

<sup>a</sup>This indicator was scored missing when there was no attachment to ideology justifying violence (23.1% of 36.4%).

<sup>b</sup>This indicator was scored missing when there was no justification to use violence to achieve goals (16.5% of 32.2%).

<sup>c</sup>This indicator was scored missing when there was no definition of enemy (23.1% of 41.3%).

<sup>d</sup>This indicator was scored missing when there was no need for a program against violent extremism because of the absence of risk factors related to violent extremism (14% of 24.0%).

case was closed (e.g., due to insufficient evidence) and three detainees (2.5%) were found guilty but no longer prosecuted due to a severe psychiatric disorder. Sixty-one detainees (50.4%) were convicted of terrorism. In 29 cases (24.0%), detainees were still awaiting trial. Mann–Whitney U tests showed that detainees convicted of terrorism scored significantly higher on average on the subscales “beliefs and attitude” ( $U = 328.00$ ,  $p < .001$ ), “context and intent” ( $U = 283.00$ ,  $p < .001$ ), and “history and capability” ( $U = 325.00$ ,  $p < .001$ ) than those who had been not convicted or prosecuted for terrorism. The average score on the subscale “protective indicators” did not differ significantly between the two groups ( $U = 243.50$ ,  $p = .614$ ). Furthermore, we tested the differences between the scores of these two groups at the item level (see Table 4 for specifications). The most relevant differences that distinguish convicts and non-convicts are summarized below. Detainees convicted of terrorism scored significantly higher on a large number of risk indicators (e.g., “attachment to ideology justifying violence”, “perception of injustice and grievances”, “personal contact with violent extremists”, “expressed willingness to die for the purpose”, “preparing violent extremist acts”, “access to resources”, “motivated by a noble cause” and “need for camaraderie”) and lower on the protective indicator “community support for nonviolence” compared to detainees who were not convicted.

Second, in order to investigate whether various subgroups within the research population differ in terms of risk and protective factors we tested the differences between the scores of these specific subgroups (i.e., violent offenders, offenders who prepared a terrorist act, returned foreign fighters, offenders who attempted to travel to Syria or Iraq, young offenders) and the other violent extremists (see Table 4 for specifications). Violent extremists with a violence-related index crime were significantly more willing and trained to commit

a violent extremist act. Compared to other violent extremists they scored significantly higher on specific risk factors (e.g., were more likely to have identified a target for their terrorist act, were more willing to act violently or die for a higher purpose, and more likely to have participated in strategic, paramilitary, or explosive and extremist ideological training). Violent extremists who planned a terrorist attack were less likely to be motivated by a moral duty than other violent extremists. Detainees who attempted to travel to Syria or Iraq were significantly more likely to adhere to an ideology that justified violence than other violent extremists. Returned foreign fighters significantly more often attended strategic, paramilitary, explosive and extremist ideologically training but also had more protective factors (e.g., to reinterpret ideology, and have support from relatives or significant others for nonviolence) compared to other violent extremists. Compared to older violent extremists (>25 years at the start of detention), younger violent extremists (<25 years at the start of detention) scored significantly higher on specific risk factors (e.g., willingness to die for a higher purpose, sensitivity to influence or indoctrination, training in extremist ideology, need for companionship, and wanting status).

### *Contribution of the VERA-2R subscales in the explanation of terrorism conviction*

Finally, we investigated the extent to which the scores on the VERA-2R subscales were related significantly to the conviction for terrorism. For this, a logistic regression analysis was performed and the four VERA-2R subscales were simultaneously entered as independent variables in the regression model. None of the four subscales was significantly associated with a conviction for terrorism (see Table 5).

## **Discussion**

This study investigated the risk and protective factors of violent extremism in a group of convicted and non-convicted violent male jihadist detainees. Previous studies have investigated sociodemographic characteristics, psychopathology, and criminal antecedents in violent extremists (Bakker, 2006; Sageman, 2008; Thijssen et al., 2021; Van Leyenhorst and Andreas, 2017) but have not examined risk and protective factors based on the VERA-2R, which is essential for interventions and risk management. This study addressed three research questions, namely: What risk and protective factors are present in a group of male jihadi violent extremists residing in terrorism wings of a Dutch prison? Do these risk and protective factors differ between various groups of detainees (i.e., detainees convicted of terrorism, detainees whose terrorism suspicion has been lifted or who have been released from prosecution, violent offenders, offenders who prepared a terrorist attack, returned foreign fighters, offenders who attempted to travel to Syria or Iraq, and young offenders)? To what extent do the scores on the VERA-2R subscales relate to the conviction for terrorism?

Related to the first research question regarding risk and protective factors in male jihadi violent extremists, it appears that less than one-third of the sample had strong attachments to ideologies that justify violence. Furthermore, less than a quarter had strong perceptions of injustice and grievance and almost half had personal contact with

Table 4. Comparison between subgroups.

	Convicted vs not convicted or prosecuted for terrorism			Violence-related index crime vs nonviolent index crime			Planned a terrorist attack vs other VE			Returned foreign fighters vs other VE			Attempted travel to Syria/Iraq vs other VE			Younger VE vs older VE		
	U	Z	p	U	Z	p	U	Z	p	U	Z	p	U	Z	p	U	Z	p
<b>Beliefs and attitude indicators</b>																		
Attachment to ideology justifying violence	294.00	-4.811	.000 <sup>ns</sup>	1528.00	.472	.637	1274.00	.761	.446	666.00	.078	.938	776.00	2.087	.037 <sup>ns</sup>	1346.00	1.288	.198
Perception of injustice and grievances	445.00	-3.125	.002 <sup>ns</sup>	1455.50	.232	.817	1147.50	-.056	.955	652.00	-.366	.714	501.00	.723	.470	1064.50	-.500	.616
Dehumanization of identified target	686.00	-2.188	.029	1559.50	1.15	.250	1112.50	-.096	.923	663.00	-.562	.574	615.00	.699	.484	1243.00	1.240	.215
Alienation from society and rejection of values	581.00	-2.353	.019	1459.00	.251	.802	1113.00	.064	.949	674.00	-.187	.852	641.00	1.506	.132	1290.00	1.448	.148
Expressing feelings about perceived injustice	423.50	-3.687	.000 <sup>ns</sup>	1373.50	-.333	.739	1304.00	.971	.332	521.50	-1.697	.090	552.50	1.404	.160	1116.50	.084	.933
Hostility to national identity	603.50	-2.397	.017	1488.50	.856	.392	1344.00	2.102	.036	588.50	-1.251	.211	528.00	.762	.446	1254.50	1.436	.151
Lack of empathy of those outside own group	664.50	-1.997	.046	1392.00	-.714	.475	1219.00	.301	.763	591.00	-1.311	.190	667.00	1.683	.092	1335.00	1.330	.183
<b>Context and intent indicators</b>																		
Seeker, user, or developer violent extremist information	397.00	-3.972	.000 <sup>ns</sup>	1333.50	-.478	.633	1267.50	.980	.327	634.50	-.477	.633	602.00	.903	.367	1350.50	1.818	.069
Target for attack established (person, group, location)	558.50	-2.670	.008	1699.50	2.477	.013 <sup>ns</sup>	1450.00	4.000	<.001	487.50	-2.349	.019	559.00	-.066	.947	1159.50	.405	.686
Personal contact with violent extremists	342.00	-4.211	.000 <sup>ns</sup>	1515.50	1.248	.212	1171.50	.492	.622	852.50	1.910	.056	550.00	.984	.325	1209.00	1.402	-.161
Expressed intention to commit a violent extremist act	526.50	-2.674	.007	1594.50	2.207	.027 <sup>ns</sup>	1285.00	2.420	.016	569.50	-.642	.521	640.50	1.210	.226	1270.00	1.800	.072
Expressed willingness to die for the purpose	547.00	-3.251	.001 <sup>ns</sup>	1695.00	2.439	.015 <sup>ns</sup>	1281.00	1.553	.121	776.00	1.705	.088	563.00	.530	.596	1436.00	3.157	.002 <sup>ns</sup>

(Continued)

Table 4. (Continued)

	Convicted vs not convicted or prosecuted for terrorism			Violence-related index crime vs nonviolent index crime			Planned a terrorist attack vs other VE			Returned foreign fighters vs other VE			Attempted travel to Syria/Iraq vs other VE			Younger VE vs older VE		
	U	Z	p	U	Z	p	U	Z	p	U	Z	p	U	Z	p	U	Z	p
Planning, and preparing for violent extremist acts	354.00	-4.208	.000 <sup>ns</sup>	1744.50	2.809	.005	1210.00	1.861	.063	707.50	.407	.684	767.00	2.405	.016	1248.50	1.703	.088
Sensitivity to influence, direction, or indoctrination	797.50	-.593	.553	1451.50	-.748	.454	1192.00	-.650	.516	742.00	.565	.572	723.50	.833	.405	1754.00	3.947	<.001 <sup>ns</sup>
<b>History and capability indicators</b>																		
Early exposure to the violent-promoting militant ideology	742.00	-1.015	.310	1299.00	-.028	.978	1059.00	.718	.473	637.50	-.590	.555	528.00	-.519	.604	988.50	.842	.400
Network of family and friends involved in violent acts	366.00	-4.033	.000 <sup>ns</sup>	1534.50	1.126	.260	1256.50	1.218	.223	728.00	.944	.345	641.00	.920	.358	1232.50	1.232	.218
Violent judicial history	849.00	-.367	.714	1420.00	-1.508	.132	1401.00	.352	.725	666.00	-.827	.408	717.00	.565	.572	1127.00	-1.118	.264
Strategic, paramilitary and/or explosives training	628.50	-2.179	.029	1824.00	4.072	<.001 <sup>ns</sup>	1049.00	-.578	.563	966.50	4.866	<.001 <sup>ns</sup>	412.50	-1.382	.167	1238.00	1.213	.225
Training in extremist ideology	662.50	-1.955	.051	1499.50	3.083	.002 <sup>ns</sup>	937.00	-.962	.336	656.50	3.083	.002 <sup>ns</sup>	494.50	.188	.851	1178.50	2.301	.021 <sup>ns</sup>
Access to finance, resources, organizational skills	463.00	-3.357	.001 <sup>ns</sup>	1479.00	.335	.737	1033.50	-.925	.355	682.50	-.074	.941	493.50	-.389	.698	1073.00	-.257	.797
<b>Protective indicators</b>																		
Reinterpretation of ideology	215.00	-.027	.978	782.00	.558	.577	504.00	-1.252	.211	544.00	2.818	.005 <sup>ns</sup>	267.00	-1.343	.179	613.00	-1.116	.908
Rejection of violence to achieve goals	263.00	-.671	.502	867.00	.327	.743	482.00	-1.584	.113	597.50	2.341	.019	279.50	-1.412	.158	638.00	-.713	.464
Change definition of enemy	164.00	-.563	.574	660.00	.548	.584	400.00	-1.563	.118	449.00	2.904	.004 <sup>ns</sup>	282.00	-.584	.559	518.00	-.401	.688
Participant in programs against violent extremism	290.00	-1.330	.183	1256.00	1.818	.069	931.50	1.097	.272	748.50	1.931	.053	236.00	-2.332	.020	897.00	.179	.858
	246.50	-3.174	.002 <sup>ns</sup>	931.00	1.277	.201	766.50	1.069	.285	296.50	-.706	.480	236.00	-1.395	.163	566.00	-1.463	.143

(Continued)

Table 4. (Continued)

	Convicted vs not convicted or prosecuted for terrorism		Violence-related index crime vs nonviolent index crime		Planned a terrorist attack vs other VE		Returned foreign fighters vs other VE		Attempted travel to Syria/Iraq vs other VE		Younger VE vs older VE						
	U	Z	U	Z	U	Z	U	Z	U	Z	U	Z					
Community support for nonviolence																	
Support from family members/significant others for nonviolence	297.50	-.737	.461	1.928	.054	727.00	.681	.496	592.00	2.090	.037 <sup>nsd</sup>	296.00	-.456	.649	604.00	-.896	.370
<b>Motivational indicators</b>																	
Noble cause (religious obligation, glorification)	325.00	-4.922	.000 <sup>ns</sup>	1.465	.143	1363.00	1.424	.154	750.00	.603	.546	551.50	1.390	.165	1216.50	.672	.502
Criminal opportunism	745.50	-1.121	.262	1.558.50	.216	1449.50	1.805	.071	648.00	-.412	.681	499.50	-.745	.456	1236.00	.472	.637
Need for camaraderie	507.50	-3.316	.001 <sup>ns</sup>	1.621.50	.398	1274.50	.146	.884	977.50	2.517	.012	723.00	1.364	.173	1672.00	3.423	<.001 <sup>ns</sup>
Moral duty	510.50	-3.021	.003	1.547.50	.931	.352	878.00	-2.339	.019 <sup>sf</sup>	1.288	.198	656.00	2.229	.026	1144.00	.111	.912
Interest, need for excitement and adventure	777.00	-.118	.906	1.531.50	1.457	.145	1249.00	1.302	.193	709.00	1.033	.302	425.50	-.212	.832	1232.50	1.400
Forced participation	841.00	.000	1.000	1.586.00	.931	.352	1264.00	-.632	.527	720.00	-.393	.694	550.00	-.330	.741	1245.00	1.692
Gaining status	660.00	-1.465	.143	1.563.50	1.170	.242	1218.00	.591	.554	709.00	.231	.818	518.50	.478	.633	1339.50	1.977
Search for meaning	646.50	-1.913	.056	1.556.50	.642	.521	1243.00	.537	.591	887.00	2.183	.029	472.00	-.329	.742	1331.50	1.868

<sup>a</sup>Significant after Holm-Bonferroni correction.

<sup>b</sup>Detainees convicted for terrorism scored significantly higher than detainees who were no longer prosecuted or acquitted.

<sup>c</sup>Detainees who have been acquitted or are not subject to further prosecution scored significantly higher than the convicted violent extremists.

<sup>d</sup>Detainees with a violence-related index crime (i.e., terrorist attack (prepared), returned foreign fighter, foreign fighters from Syria) scored significantly higher than the detainees with nonviolent index crime (e.g., attempted travel to Syria, recruitment).

<sup>e</sup>Returned foreign fighters scored significantly higher than other violent extremists.

<sup>f</sup>Detainees who attempted to travel to Syria scored significantly higher than other violent extremists.

<sup>g</sup>Detainees who planned a terrorist attack scored significantly lower than other violent extremists.

<sup>h</sup>Younger violent extremists (<25 years at the start of detention) scored significantly higher than older (>25 years at the start of detention).

**Table 5.** Analysis of to what extent VERA-2R subscales contribute to the explanation of conviction for terrorism.

Subscales VERA-2R	B	S.E.	Wald	p	Exp(B)
Beliefs and attitude	-.001	.002	.080	.777	.999
Context and intent	.001	.002	.118	.732	1.001
History and capability	-.001	.002	1.099	.294	.998
Protective indicators	.003	.001	16.256	.000	1.003

violent extremists. Contact with pro-terrorist networks and high levels of personal contact with other violent extremists was often mentioned in the research. For example, in a study of 55 lone-actor terrorists, 62% appeared to have had contact with terrorist individuals (Schuurman et al., 2018). Furthermore, it was found that violent extremists are often exposed to external (online) propaganda material related to a broader extremist movement (Gill et al., 2014; Schuurman et al., 2018). A plausible explanation for the finding that many violent extremists interacted with other violent extremists could be derived from social learning theory and social identity literature (Akers and Silverman, 2004). Indeed, acceptance and encouragement of violence by social environments can devalue and fade moral and psychological values related to violence (Borum, 2004). This phenomenon is enhanced when influential role models are present (Schuurman et al., 2018). Identification with such violent role models, the expression of violent intentions, and the use or adoration of associated symbols (such as clothing) are seen as important potential warning signs of impending violence (Meloy et al., 2015). Our findings underline that violent extremists may draw inspiration and emulation from broader radical environments that support extremist acts. Moreover, social environments that support violent extremism may play an important role in triggering extremist acts.

Regarding protective factors, family members can have an (indirect) protective influence against violent extremism (Asal et al., 2008). There is no consensus from the literature about the underlying mechanisms of intra- and intergenerational continuity of criminal behavior (Rodermond et al., 2020), but two explanations are described in the literature. First, children learn pro-criminal behavior from their parents because parents can transmit certain pro-criminal attitudes and conflict-solving styles to their children, which can increase future criminal behavior (Farrington, 2010). Second, there is a transmission of common risk factors for criminal behavior. In particular, risk factors related to deprivation, such as low socio-economic status and poverty, can be passed on to children (Farrington, 2010). Research on the role of family members in radicalization or violent extremism paints a twofold picture. Family members can be a risk or a protective factor. Several studies show that the involvement of family members was a motivating factor for many younger Muslims to participate in the armed conflict (Asal and Rethemeyer, 2008; Harris-Hogan, 2014; King and Taylor, 2011). Within the Western context, this negative influence appears to originate mainly from peers within the family of the radicalizing person and not from parents or other adult relatives (Lützing, 2012; Rodermond et al., 2020; Sloopman and Tillie, 2006). Individuals who had traveled to Syria tried—and sometimes succeeded—to convince



their siblings and even parents to participate in the armed conflict in Syria (Weggemans et al., 2018).

In contrast, several studies showed that parents can be a protective factor against violent extremism (Rodermond et al., 2020; Van San 2015, 2018; Weggemans et al., 2018). Parents of Dutch and Belgian individuals who have traveled to Syria oppose the radicalization of their children and participation in the armed conflict (Van San 2015, 2018) by trying to block their travel to Syria (Weggemans et al., 2018). Parents can thus play a role in future attempts to prevent or disrupt violent extremist plots (Gill et al., 2014). Furthermore, research in the Netherlands, the United Kingdom, and Denmark found that parents are rarely the direct cause of radicalization (Sieckelink and De Winter, 2015; Sikkens et al., 2017). A study of the family members of individuals who left the Netherlands or Belgium to travel to Syria showed no indications that these individuals were brought up with norms and values that justified the armed conflict (Van San 2015, 2018). Our study endorses that support from family members can be an important protective factor against (further) radicalization.

The second research question regarding differences in risk and protective factors between different subgroups revealed that on average, convicted detainees scored significantly higher on the subscales “beliefs and attitude,” “context and intent,” and “history and capability” than the group of non-convicted detainees. Differences between both groups are unsurprising, because those with higher risk scores are more likely to be convicted because of this.

Furthermore, we found that violent extremists who used violence (or who were very willing to do so) were well prepared (e.g., had an identified target, willingness to act violently, dying for a greater cause and ideological training). The finding that violent extremists differ in motivations and capabilities is in line with previous research (Schuurman et al., 2018). Returned foreign fighters had more often undergone strategic, paramilitary, or ideological training than other violent extremists. A plausible explanation is that these violent extremists learned various skills that were needed in the armed conflict in Syria or Iraq (AIVD, 2014). Foreign fighters more often reinterpreted their ideology and changed the image of the enemy compared to other violent extremists. This is in line with the findings of the Dutch intelligence and security service, which state that some returnees will be disappointed with what they experienced in Syria (AIVD, 2014).

In addition, violent extremists who attempted to travel to Syria or Iraq were found to have a stronger commitment to an ideology that justifies violence compared to other violent extremists. The worship of the heroic image of a terrorist group was strongly present in this group. A possible explanation for this could be that the “bubble of infatuation with a terrorist group” is still intact. After all, unlike the returned terrorist fighters, they are not yet disappointed. Another possible explanation could be that this group was stopped in their goal (to participate in the armed conflict) making them even more fanatical to reach their goal and commit a terrorist act. More research is needed to test this hypothesis. Looking more closely at the younger violent extremists, we found that this group compared to the older individuals were more impressionable, needed more companionship, and were more willing to die for a higher goal, which also resulted in gaining status. Wanting to belong and interweaving status could be appropriate for

the developmental stage of the life of young men (Dishion and Tipsord, 2011; Sijtsema et al., 2020).

Regarding the last research question regarding the extent to which the scores on the VERA-2 subscales relate to the conviction for terrorism, we found that none of the VERA-2R subscales related significantly to conviction for terrorism. Therefore, we concluded that it is difficult to distinguish between convicts and non-convicts based on the VERA-2R indicators. One reason for this could be that detainees who are placed on a terrorism wing share several similar characteristics (e.g., having the same social network, being in a radicalization process, having the same interests) with individuals who are convicted of a terrorist act.

### *Limitations*

The results only relate to male jihadi detainees who resided in Dutch terrorism wings from 2014 to 2020. As a result, the findings of this research cannot be generalized to other target groups of violent extremists (such as, e.g., women, violent extremists who act because of a different ideology, or individuals who are not suspected or convicted of a terrorist offence). More research will be needed to investigate to what extent the current findings also apply to other specific target groups of (violent) extremists. In addition, little information was available about some detainees because they only resided in the terrorism wings for a short time. Another limitation is that the data used in the current research was highly confidential and comprised rather sensitive information. Hence, only the first author had access to the data, which makes it difficult to replicate this study because other researchers cannot access the data. Furthermore, the VERA-2R indicators were scored by only one researcher, which increases the chance of potential differences in coding outcomes if other researchers were to code the same data. This limitation was overcome by discussing the assessment of the VERA-2R indicators in a multidisciplinary way striving for consensus. Furthermore, the internal consistency of the subscale “history and capability” is insufficient, in particular “violent judicial history” and “training in extremist ideology” have limited association with the subscale. A low Cronbach’s alpha indicates low correlations between the indicators in a scale, which could indicate that the items assess a broad construct that is difficult to capture with just a few items. However, there are advantages to sticking to the current constellation and classification of the scales. It remains close to the intended instrument and increases the comparability with other studies that have used the VERA-2R.

### *Research implications*

There are several recommendations for future research. Future research can focus on the association of risk and protective factors with future recidivism and/or violent extremism. It is also important to investigate, in a larger sample, which indicators do or do not contribute significantly to the prediction of violent extremism, so that early intervention is possible. Based on the descriptive analyses of the current study, clear differences are found between the two groups, with the group convicted of terrorism scoring significantly higher on many risk factors of the VERA-2R. In the context of risk management, in addition to risk and protective factors, motivation can also play an important role (Schuurman

et al., 2018). Thus, it would be valuable to further explore the role of intrinsic and extrinsic motivation in the explanation and prediction of violent extremism. Furthermore, future research can also focus on risk and protective factors in other subgroups of violent extremists, such as female jihadists and right-wing extremists, so that a more fine-grained approach can be developed for each subgroup. Finally, training in modern communicative technology is not included as a separate risk factor in the VERA-2R. It is currently scored under the item “information about violent extremist seekers, users or developers” or “access to finances, resources, organizational skills.” However, it would be valuable to score this as a separate factor because modern communicative technology is increasingly used in radicalization processes and because offenders with such specific skills may be a different type of violent extremist.

## Conclusion

The current findings have implications for interventions and policy. Based on the new knowledge about the risk and protective factors of a detained male jihadi, policies and intervention programs should be aware of the relative prevalence of these factors to develop an effective intervention in reducing the risk of recidivism and the protection of society. The role of ideology should not be overestimated. This study represents an important first step toward future studies to better understand (subgroups of) violent extremists, which is needed for effective prevention and risk management strategies.

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