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Symptom Exaggeration and the Risk of Violent Recidivism in Forensic Patients

Original Paper

Research regarding the potential correlates of symptom exaggeration is sparse and can be of great relevance for those working in the forensic field. This study aimed to investigate whether exaggeration of symptoms is related to the risk of violent recidivism in forensic patients. Also, we investigated the link between symptom exaggeration and type of crime, type of drugs that have been used, and reason for dismissal. Forensic in- and outpatients (N = 96) completed the Structured Inventory of Malingered Symptomatology (SIMS), the Feigning Differentiation Scale (FEDS), and The Dissociative Experience Scale (DES). Furthermore, Historical, Clinical and Risk Management (HCR-20) scores at admission and dismissal and data about type of crime, type of drugs that have been used and reason for dismissal were collected. We expected symptom exaggeration to be related to 1. risk of violent recidivism, 2. a history of more serious offenses, 3. withdrawal or dismissal from treatment, and 4. a history of alcohol or hard drug abuse. We did not find any significant results to support our predictions. The biggest limitation of our study was the population of choice. It is suggested that future research should use multiple Symptom Validity Tests (SVTs) to investigate symptom exaggeration and remain cautious when including the newest HCR-20 version in research studies.

Keywords: Symptom exaggeration, the SIMS, violent recidivism, HCR-20, crime

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INTRODUCTION

In the field of forensic psychiatry, clinicians are frequently faced with patients who (intentionally or unintentionally) engage in misleading behavior during clinical assessment (Van Impelen, 2012). One of these behaviors is known as symptom exaggeration, which can be described as the untruthful endorsement of symptoms on psychological tests and false reporting or displays of symptoms during interviews and behavioral observations (Dandachi-FitzGerald, Ponds, Peters, & Merckelbach, 2011). Two types of motives are typically associated with this kind of behavior. When symptom exaggeration is motivated by external incentives such as avoiding military duty, avoiding work, obtaining financial compensation, evading criminal prosecution, or obtaining stimulant medication, the behavior is known as malingering (American Psychological Association (APA), 2013, p.726). On the other hand, some people are internally motivated to over-report certain symptoms. For example, an individual may exaggerate symptoms for the benefits that being a patient may have, such as the attention and care of professionals. This condition is described by the DSM-5 as factitious disorder and contains "falsification of physical or psychological signs or symptoms, or induction of injury or disease, associated with identified deception" (APA, 2013, p. 324). The incentives for symptom exaggeration vary greatly, depending on the context. The prevalence of symptom exaggeration seems directly related to the strength of the incentive (McDermott, Dualan & Scott, 2013). McDermott et al. (2013) investigated two different samples: patients found incompetent to stand trial (IST), who were in a state hospital for treatment; and jail inmates seeking psychiatric services (JPS). Results indicated that the rate of malingering in the IST sample was consistent with rates published in comparable samples (17.5%), while the rate for the JPS sample was substantially higher (64.5%). Furthermore, the authors found that in the IST sample, the rate of malingering was associated with offense severity: patients found IST for murder and robbery evidenced malingering rates more than double the sample as a whole.

There is a paucity of research on symptom exaggeration in the Netherlands (Van Impelen, 2012). Furthermore, research regarding the potential correlates of symptom exaggeration is also sparse.

The aim of this study was to investigate whether patients who exaggerate symptoms (as indicated by The Structured Inventory of Malingered Symptomatology (SIMS; Smith & Burger, 1997) and the Feigning Differentiation Scale (FEDS), also obtain a high score on the Historical, Clinical, Risk Management-20 (HCR-20). The HCR-20 is a tool based on professional guidelines for violence risk assessment inspired by the Structured Professional Judgment (SPJ) model (HCR-20; Webster et al., 1997). In applying this model, clinicians use all the information available about a patient and then apply their clinical experience to formulate a risk judgment (low, moderate or high risk for violent recidivism). If a positive relationship between symptom exaggeration and violent recidivism risk can be found, this may have some great implications for the forensic clinical field. Clinicians could use this knowledge to assess an offender's violent recidivism risk and be more alert when a patient presents with symptom exaggeration. Also, a positive link between symptom exaggeration and risk for violent recidivism raises questions concerning the reliability of the HCR-20. When symptom exaggeration is indicated, information given by the patient in the past becomes less reliable, which can affect the reliability of the HCR-20 judgment.

Based on the findings of McDermott et al., (2013), we expected the rate of symptom exaggeration in our sample to be approximately 18%. Also, we expected symptom exaggeration (as measured by the SIMS) to be associated with offense severity (McDermott et al., 2013; Gacono et al., 1995). Thus, we anticipated on the basis of earlier research that patients who had a track record of severe criminal offenses such as (attempted) homicide, sexual assault, bodily assault, and (armed) robbery would exhibit higher rates of symptom exaggeration compared with patients with moderate and minor offenses such as theft, shop lifting, parole violation, and weapon charges. Severity of offense is a recurrent item in the HCR-20 (e.g., H1: earlier

violence, H2: young age at first violent incident) and is also related to other items such as problems with work, relationships, etcetera. We therefore expected that patients who exaggerate symptoms would exhibit more risk factors on the HCR-20.

We also looked at the relationship between symptom exaggeration and reason for dismissal (whether or not a patient benefited from treatment). This topic has little scientific background so far and no research has investigated this relationship. We expected that exaggerating patients to have fewer regular dismissals (which means successful completion of treatment), and more often withdrawal from treatment or dismissal by the clinic (for example, because of misbehavior on the ward). Moreover, based on the findings of Sierles (1984), we expected that patients with a history of alcohol and/or other hard drug abuse would be more likely to exaggerate symptoms than patients who have a history of soft drug abuse or no history of drug abuse.

As a final point, previous studies have found that forensic samples have raised levels of dissociative symptoms (e.g., Spitzer et al., 2003). Dissociative symptoms form a heterogeneous group of subjective phenomena such as a feeling of detachment or estrangement from one's self (depersonalization), or an alteration in the perception of one's surroundings so that a sense of reality of the external world is lost (derealization) (Holmes et al., 2005). These raised dissociativity levels have been found to be related to aggression and psychopathy. Several studies with psychiatric samples have found a positive relation between scores on the Dissociative Experience Scale (DES; Waller, Putnam & Carlson, 1996) and indices of aggressive behavior. We therefore included the DES in our study and expected a link between dissociative symptoms and the exaggeration of symptoms.

METHODS

Participants

Participants were recruited at the Centre for Forensic Psychiatric Care Mondriaan (Radix), located in Heerlen, the Netherlands. Ninety-six patients participated in our study; 94 men and 2 women (Mean age = 37; SD = 8,70; range: 22-57 years). Of these 96 patients, 30 were tested at Radix. Data of the other 66 patients were extracted from an existing database (Houba, 2014; Jager, 2014; Touw, 2014). Participants did not receive a financial compensation or other reward for their participation. Patients suffering from acute psychosis were excluded from the study.

Materials

Structured Inventory of Malingered Symptomatology (SIMS)

The Structured Inventory of Malingered Symptomatology (SIMS; Smith & Burger, 1997) was used to measure symptom exaggeration. Patients who exaggerate symptoms are often not aware of the details of the disorder they are faking (Merckelbach & Smith, 2003). The SIMS is a self-report measure designed to detect the malingering of psychiatric symptoms (e.g., depression and psychosis) and/or cognitive impairments (e.g., low intelligence and memory complaints) (Merckelbach & Smith, 2003). It comprises 75 true-false items clustered into 5 subscales. Each subscale contains 15 items that tap into the following domains: low intelligence (LI), affective disorder (AF), neurological impairment (N), psychosis (P), and amnesic disorder (AM). The SIMS items allude to bizarre experiences (e.g, "I noticed my shadow moving even though I keep still"), highly atypical symptoms (e.g, "I have no trouble falling asleep but at night I wake up a lot"), and Ganser-like items (e.g, "If you have US\$1.50 and I take fifty cents away, you will have 75 cents left"). A cut-off score of 16 is used to detect malingering

(some studies suggest a cut-off score of 14) because this increases the specificity (Merckelbach & Smith, 2003). Studies indicate that the SIMS has a high sensitivity, specificity, hit rate, positive predictive power, and negative predicting power (Van Impelen, Merckelbach, Jelicic, & Merten, 2014).

Feigning Differentiation Scale (FEDS)

The Feigning Differentiation Scale (FEDS) was used for the measurement of symptom exaggeration, but only for the 30 patients tested at Radix. The FEDS is a relatively new instrument. It was developed to differentiate between the external and internal motives for symptom exaggeration. The FEDS is a structured interview containing 42 items and is based on the Miller Forensic Assessment of Symptoms test (M-FAST; Miller, 2001), another tool used to investigate symptom exaggeration. The FEDS contains 4 subscales: improbable symptoms (IP, 15 items), somatic complaints (SC, 11 items), sick role (SR, 13 items), and normal complaints (NC, 11 items). Eight questions are part of multiple scales. Questions are scored either 2, 1, or 0 points. The score distribution has to be interpreted as follows: the combination of high IP and high SR scales may suggest over-reporting due to internal incentives (i.e., factitious symptom presentation), the combination of high IP and low SR may suggest over-reporting due to external incentives (i.e., malingering), and low IP and high SC may suggest a somatic disorder (Jager, 2014). Unfortunately, empirical data gathered with the FEDS is lacking and results have to be interpreted with caution.

HCR-20

For predicting violent recidivism risk, the HCR-20 (Webster et al., 1997) was administered. The HCR-20 is a structured professional judgment (SPJ) instrument for assessing violence risk that consists of 20 empirically supported risk factors distributed across three domains: Historical

(H), comprising 10 risk factors related to past problems; Clinical (C), comprising five risk factors related to current functioning; and Risk Management (R), comprising five risk factors related to the patient's plans for the future (Wilson, Desmarais, Nicholls, Hart, & Brink, 2013). Risk factors are evaluated on a 3-point scale. Additionally, case specific factors can be indicated as present. Eventually, a global judgment of risk is made (low, moderate or high risk for the future violence). Research in various psychiatric and forensic settings in different countries has demonstrated good inter-rater reliability and predictive validity for the HCR-20 (e.g., Belfrage, Fransson, & Strand, 2000). Type of crime and type of drugs that have been used can both be found in the HCR-20 scoring, and are related to two historical items: H1 "Violent behavior in the past" and H5 "Problems with substance abuse".

The Dissociative Experience Scale (DES)

The Dissociative Experience Scale (DES) is a questionnaire consisting of 28 items to screen for dissociative symptoms in the daily life of a patient (Waller et al., 1996). The items pertain to various dissociative including absorption, amnesia, derealization, and depersonalization (Giesbrecht, de Ruiter & Jelicic, 2008). Respondents use 100-mm visual analog scales to indicate how often (in percentage of time) they experience these particular dissociative symptoms in daily life. Item scores are averaged to obtain a total DES score that ranges between 0-100%, with higher values implying an increased frequency and severity of dissociative symptoms. Values above 20 (e.g., Spitzer et al., 2003) or 30 (Putnam, Carlson, Ross, & Anderson, 1996) are considered to be indicative of clinically relevant dissociation. However, a score of 20 or higher only suggests a dissociative disorder and a diagnosis can only be established with the help of a structured diagnostic interview (e.g., Structured clinical interview for DSM disorders (SCID). Previous research with the DES indicates that the scale possesses good reliability and validity in a variety of research settings (e.g., Frischholz et al., 1992).

Electronic patient files

The electronic patient file was used to determine the patient's reason for leaving the clinic. This could only be determined for 64 of the patients because the other patients ($n = 32$) are currently still staying at Radix. Reason for dismissal was categorized in the following three different types: regular dismissal, withdrawn/escaped or discharge on initiative of the clinic.

Procedure and analysis

Participants were told that the study was about personality and behavior and would take approximately 40 minutes of their time. If patients agreed to participate, a session was planned. Patients first read and signed the informed consent. They were then asked to complete the SIMS. Next, the FEDS was administered followed by the DES. The HCR-20 was scored on the basis of all available information of the individual (e.g., case files, clinical observation reports, psychological assessments).

To analyze our data, we calculated Pearson product-moment correlations between the SIMS, HCR-20 and DES. Because some of the FEDS scales did not display a normal distribution, Spearman rank correlations were used to evaluate the link between the FEDS and HCR-20. A one-way ANOVA was used to investigate the relationships between the SIMS, reason for dismissal and type of drugs that have been used. Last, independent samples t-tests were carried out to examine the link between the SIMS, DSM-IV diagnoses and type of crimes.

RESULTS

Symptom exaggeration and risk of violent recidivism

To calculate the final score for the HCR-20 at admission and dismissal, we divided the score the patient obtained on the HCR-20 by the maximum score possible for that individual. The maximum score on the HCR-20 is normally 40, but can differ for every individual when items are omitted because of insufficient information. The missing values of the HCR-20 (17 at admission, 41 at dismissal) can be explained because the patient did not commit any violent offense and the HCR-20 was not scored. Another reason was that some of the patient's files were incomplete, and the HCR-20 data was lacking. The large number of missing values with the HCR-20 at dismissal can be explained by the fact that many participants ($n = 32$) still remained at the clinic when the study took place. In total, data about 66 patients were extracted from the database (Houba, 2014; Jager, 2014; Touw, 2014) of which 64 had already been discharged. Mean SIMS, FEDS, HCR-20 and DES scores are presented in Table 1.

	<i>N</i>	<i>M (SD)</i>	95% Confidence Interval	Cronbach's α
SIMS	96	7.78 (5.93)	6.58 - 8.98	.77
FEDS IP	30	3.23 (3.64)	1.88 - 4.59	.83
FEDS SC	30	6.60 (2.70)	5.59 - 7.61	.49
FEDS SR	30	8.30 (4.88)	6.48 - 10.12	.72
FEDS NC	30	4.03 (2.08)	3.26 - 4.81	.55
HCR-20 at admission	79	.65 (.13)	.63 - .68	
HCR-20 at dismissal	55	.60 (.16)	.56 - .64	
DES	30	8.77(5.70)	18.61 - 30.53	.77

Table 1. Mean Structured Inventory of Malingered Symptomatology (SIMS), Feigning Differentiation Scale (FEDS), HCR-20 and Dissociative Experience Scale (DES) Scores

The percentage of patients who exaggerated symptoms on the SIMS (using the cut-off score of 16) was 8.3%. Since we expected the rate of symptom exaggeration in our sample to be approximately 18%, this prevalence is rather low.

As is shown by Table 2, we did not find any significant correlation between the SIMS and the HCR-20 at admission ($r = .08, p = .23$) or dismissal ($r = .03, p = .40$). We found no correlation between the FEDS subscales; IP ($r = -.01, p = .49$), SC ($r = -.02, p = .46$), SR ($r = -.12, p = .29$) NC ($r = .18, p = .20$) and HCR-20 at admission. The FEDS was only administered to our subsample from the clinic ($n = 30$) which explains why there were no data for the FEDS and HCR-20 at dismissal.

A significant correlation was found between the SIMS and the DES ($r = .63, p = < 0.01$). Furthermore, the DES showed significant correlations with the different scales of the FEDS ($r = .52, p = < 0.01; r = .39, p = .35; r = .55, p = < 0.01; r = .39, p = .03$).

	1.	2.	3.	4.	5.	6.	7.	8.
1. SIMS ($n = 96$)	-	.65**	.47**	.72**	.54**	.08	.03	.63**
2. FEDS IP ($n= 30$)	.65**	-				-.01		.52**
3. FEDS SC ($n= 30$)	.47**		-			-.02		.39*
4. FEDS SR ($n=30$)	.72**			-		-.12		.55**
5. FEDS NC ($n=30$)	.63**				-	.18		.39*
6. HCR-20 at admission ($n=79$)	.08	-.01	-.02	-.12	.18	-		
7. HCR-20 at dismissal ($n=55$)	.03						-	
8. DES ($n=30$)	.63**	.52**	.39*	.55**	.39*			-

Table 2. Pearson-Product Moment Correlations and Spearman Rank Correlations for the Structured Inventory of Malingered Symptomatology (SIMS), Feigning Differentiation Scale (FEDS), HCR-20 and Dissociative Experience Scale (DES). * $p < 0.05$; ** $p < 0.01$

Symptom exaggeration and type of crime

To investigate the association between symptom exaggeration and different types of crime, we divided crimes into two large categories: severe crimes and mild crimes. Severe crimes contained violent offenses and sexual offenses. Mild crimes contained drug offenses, theft, vandalism, burglary, traffic offenses, fraud, weapon and ammunition offenses, and minor offenses. The severe crime category contains crimes committed against a person (personal

offenses) while the mild crime category contains crimes committed against property (property offenses). This way of categorizing crimes has been commonly used in previous research (e.g., Longshore, 1998; Hope & Norris, 2012). The full sample ($N = 96$) was categorized according to this list. Of our sample, 27% was divided in the mild crime category ($n = 26$) while 72.9% ($n = 70$) committed severe crimes. An independent samples t-test for the SIMS and the different crime categories did not show any significant results ($t(94) = -1.61, p = .11$). Furthermore, no significant results were found between the FEDS scales ($t(94) = -1.71, p = .73$; $t(94) = -.35, p = .13$; $t(94) = -1.64, p = .44$; $t(94) = -.87, p = .16$) and type of crime.

Symptom exaggeration and drug history

The majority of the patients has (or had) a problem with alcohol, soft and hard drugs abuse (21.9%; $n = 21$), followed by hard drug abuse only (19.8%; $n = 19$), softdrugs and hard drugs (18.8%; $n = 18$), alcohol and hard drugs (10.4%; $n = 10$), softdrugs abuse (10.4%; $n = 10$), alcohol and soft drugs (8.3%; $n = 8$), and alcohol abuse (9.4%; $n = 9$). Only one patient (1%; $n = 1$) had no history of substance abuse problems. A one-way ANOVA revealed a significant relationship between the SIMS and type of drug ($F(6,88) = 2.76, p = .02$). Due to small sample sizes, one-way ANOVA's were not conducted for the FEDS and DES. Post-hoc tests revealed that alcohol abuse differs the most from the other categories; all differences are considered significant ($t(94) = 2.32, p = .02$), except for the difference between alcohol and alcohol and hard drugs.

Symptom exaggeration and reason for dismissal

Of our sample ($N = 96$), 64 patients (66%) had already been discharged. We investigated their reason for dismissal and divided them in three categories: regular dismissal, withdrawal or escape, and treatment terminated by clinic (for example, because of drug use on the ward). In total, 33.3% of our sample had not been discharged yet, 33.3% had a regular dismissal, 20.8% of

the patients had withdrawn or escaped: in 12.5% of the cases, the treatment was ended by the clinic. No significant relationship was found between symptom exaggeration and reason for dismissal ($F(3, 93) = 1.41, p = .25$). Due to missing values (FEDS and DES were only administered to our sample from the clinic), we did not conduct one-way ANOVA's for the FEDS and DES.

DISCUSSION

In the present study, we investigated the association between symptom exaggeration and risk of violent recidivism. Also, several potential correlates of symptom exaggeration were investigated. We did not find any relationship between symptom exaggeration (measured by the SIMS and FEDS) and risk for violent recidivism in forensic patients (as indicated by the HCR-20). One apparent reason for the lack of any relation is the very low number of patients that exaggerated symptoms on the SIMS (8.3%). This low percentage can probably be attributed to our sample, which is also the biggest limitation of our study. In the Netherlands, people who have committed a severe crime often end up in Forensic Psychiatric Centers (FPC) to receive treatment. Milder forms of forensic care are, for example, admission to a forensic psychiatric clinic (FPK), or forensic psychiatric departments (FPA) of mental health care institutes. For practical reasons, we used the latter for our study. At FPA's, the treatment duration is 9-12 months, in contrast to treatment in FPKs, where the average treatment procedure is nine years (de Ruiter & Hildebrand, 2003). Because of this, most of the external incentives for symptom exaggeration (e.g., obtaining financial compensation, evading criminal prosecution) are (no longer) issues for patients staying at an FPA such as Radix. This would explain the low malingering rate on the SIMS, compared to other studies, such as the study of McDermott et al. (2013) who found a malinger rate of 17.5% in patients incompetent to stand

trial. This reasoning is also in line with the low mean score of the improbable symptoms (IP) scale of the FEDS ($M = 3.23$), although the somatic complaints scale (SC) and the sick role (SR) scale indicated higher mean scores (SC: $M = 6.60$, SR: $M = 8.30$). However, since specific cut-off scores for the different FEDS scales still need to be determined, no conclusions can be drawn from these findings. Also, no significant relationship was found between the FEDS and HCR-20. Because the rate of symptom exaggeration on the SIMS was only 8.3%, and the FEDS was also designed to measure symptom exaggeration, this result was not surprising.

A significant correlation was found between the SIMS and the DES. Because both scales contain a range of bizarre symptoms, this result was expected. However, the DES was not designed to measure symptom exaggeration, but for the measurement of dissociative experiences. Because our findings suggest that higher scores on the DES are related to higher scores on the SIMS, (and thus, exaggeration of symptoms) this result is rather relevant for people working in the forensic field. More specifically, this result raises the question whether the expression of dissociative experiences among forensic patients are genuine or feigned. Because unusual and severe psychological symptoms are common among patients with dissociative experiences, this finding could also indicate a rather lenient standard of the SIMS for endorsing unusual experiences. To examine whether dissociative experiences among forensic patients are feigned (or elevation on the SIMS is the result of a lenient standard for unusual experiences), more extensive research is needed. It should be clear that clinicians, psychologists, lawyers, and other people working in the forensic area should remain cautionary when faced with a patient expressing dissociative experiences.

Of our sample ($N = 96$), 95 patients had a history of substance abuse problems, of which 21.9% had experienced problems with alcohol, softdrugs, and harddrugs. As expected, a positive relationship was found between symptom exaggeration and drug abuse. Of all drug categories, alcohol differed most from the other categories in terms of symptom exaggeration. However, we were not able to confirm our hypothesis that patients with a history of alcohol

and hard drug abuse exaggerated more symptoms than patients with a history of soft drug abuse or no history of drug abuse. Only 1% of our sample did not have a history of drug abuse and the majority of patients who used softdrugs also had a history of alcohol or hard drug abuse. According to Rogers & Kelly (1997), denial of substance abuse appears to be much more common than exaggeration of substance abuse. Fabrication of drug use appears to be relatively rare in non-clinical adolescent populations (Petzel, Johnson & McKillip, 1973), and low percentages have been found (5.1% and 6.3%) with adolescents in treatment (Winters et al., 1990). Further research investigating this relationship should therefore use instruments that also tap into the denial of substance abuse. For example, the Substance Abuse Subtle Screening Inventory-3 (SASSI-3; Miller & Lazowski, 1999), was especially designed to detect persons who are in denial or being deceptive about their substance abuse.

Furthermore, we investigated the relationship between symptom exaggeration and crime type. We expected patients with more severe crimes (e.g., violent and sexual crimes) to exaggerate more symptoms on the SIMS than patients with less severe crimes (e.g., theft; see also McDermott et al., 2013). We did not find a significant result for crime type and symptom exaggeration. Of the forensic patients in our sample ($N = 96$), 70 patients had a history of severe offending while only 26 patients had a history of mild offending. In combination with the low rate of patients who exaggerated symptoms on the SIMS, this might explain why these findings were contrary to our expectations.

Finally, 64 of the 96 forensic patients in our sample were already discharged at the time our study took place. No significant relationship was found between symptom exaggeration and reason for dismissal. Given the low rate of symptom exaggeration on the SIMS, this result was also not surprising, although contrary to our expectations.

Limitations and future directions

As already mentioned, the biggest limitation of our study is our population of choice. For future research regarding symptom exaggeration in the Netherlands, it is advisable to use a forensic sample in which the stakes are higher and where patients have more reason to exaggerate symptoms. Populations of better choice would be prison inmates (especially those waiting for their trials) or patients from TBS clinics. These populations have more reason to exaggerate symptoms because they have more to lose (their freedom). Furthermore, although the SIMS is proficient in differentiating between honest responders and people who exaggerate symptoms, it also has several shortcomings (for a systematic review and meta-analysis, view van Impelen et al., 2014). One limitation of the SIMS is that it only tests exaggeration of symptoms (over-reporting) and not intentional underperformance, which is a second response style in the area of feigning. It is therefore advisable to combine the SIMS with other symptom validity tests (SVTs) and especially other performance validity tests (PVTs), which measure underperformance in cognitive domains (Van Impelen et al., 2014).

A second limitation of our study was that the outcomes of the FEDS had to be interpreted with caution given the lack of empirical data. Also, factor analyses should be conducted to investigate the reliability of the different FEDS scales and future research should focus on validating the FEDS as a reliable instrument for the detection of symptom exaggeration.

Another limitation was that the information of the files used in our data study was often incomplete or contradictory. This made it difficult to select information for our research in a reliable manner.

Because the HCR-20 contains clinical and risk management items related to treatment adherence (e.g., C5: Treatment and supervision response, R1 professional service and plans), it would be interesting to investigate the relationship between the risk of violent recidivism and

reason for dismissal. However, at the time our study took place, the newest version of the HCR-20, version 3 (V3; Douglas, Hart, Webster & Belfrage, 2013) was incorporated in the clinic. For future research, this can be problematic for several reasons. One of the biggest changes is that contrary to the old HCR version (where there was a final score, maximum of 40), clinicians can now solely rely on their own clinical experience for these final judgment categories. Since this way of making a decision on the risk of violent recidivism seems rather subjective, this raises questions regarding the reliability for the HCR-20 V3 in (correlational) scientific research.

Concluding remarks

There is still a lot of research that can be done in the area of symptom exaggeration and risk of violent recidivism. Although we did not find any significant correlation between the SIMS and HCR-20, we expect these results to be different with a population who has more motivation to exaggerate symptoms. Furthermore, future research should use multiple SVTs to investigate symptom exaggeration and remain cautious when including the newest HCR-20 version in research studies.

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