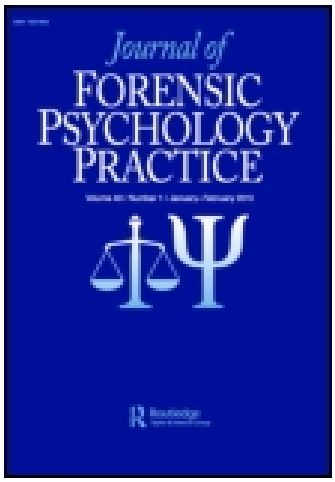

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The Attitudes toward Women Inventory (AWI) was developed in a group of Dutch violent forensic psychiatric inpatients to assess antisocial attitudes toward women. The internal consistency, inter-rater reliability, and test-retest reliability of the instrument with 12 items were good. Negative attitudes toward women appeared to be negatively related to agreeableness and positively related to hostility and verbal aggression. A comparison with a non-clinical reference group yielded no difference in AWI total score, but the patients scored significantly higher on two sexual aggression items. Further studies on its psychometric properties in larger offender and non-clinical populations are needed.

KEYWORDS forensic psychiatry, attitudes toward women, self-report measure

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INTRODUCTION

According to Eagly and Chaiken (2007), an attitude refers to an individual's propensity to evaluate a particular entity with some degree of favorability or unfavorability. Attitudes are assumed to be important determinants of behavior (Ajzen & Fishbein, 2005). A positive attitude toward violence against certain groups of people may prompt a person to become aggressive toward these people (Anderson & Bushman, 2002). In summarizing all meta-analytic studies on the prediction of criminal behavior, Andrews and Bonta (2010) formulated the "central eight" with antisocial attitudes as one of the eight best-validated risk/need factors of criminal behavior.

In studies about attitudes toward women, two measurement instruments are frequently used: the Hypermasculinity Inventory (HMI; Mosher & Sirkin, 1984) and the Attitudes toward Women Scale (AWS; Spence, Helmreich, & Step, 1973). The more general HMI was designed to assess the "macho personality constellation." Mosher and Sirkin (1984) viewed hypermasculinity as the extreme on the trait masculinity, which includes characteristics such as physical strength or power, risk-taking, emotional control, and sexual potency. The HMI comprises 30 items, which refer to (a) calloused sex attitudes toward women (e.g., "Any man who is a man needs to have sex regularly" versus "Any man who is a man can do without sex"); (b) violence as manly (e.g., "I win by not fighting" versus "I fight to win"); and (c) danger as exciting (e.g., "I like fast cars and fast women" versus "I like dependable cars and faithful women"). The more specific AWS contains "statements which described roles and behaviors in all major areas of activity in which normative expectations could be, in principle, the same for men and women" (p. 219). Originally, the questionnaire consisted of 55 items (Spence & Helmreich, 1972), but for pragmatic reasons a shorter version was developed with 25 items, which had superior psychometric properties. Approximately half of the items present an egalitarian point of view (e.g., "A woman should be as free as a man to propose marriage"), whereas the other items present a traditional point of view (e.g., "Sons in a family should be given more encouragement to go to college than daughters").

Several authors have demonstrated a relation between hypermasculinity and violence against women in both student and offender populations using the HMI (Mosher & Sirkin, 1984). For instance, Mosher and Anderson (1986) found significant relations between masculinity and a history of aggressive sexual behavior, as measured by the Aggressive Sexual Behavior Inventory (ASBI) in a group of 175 college students. In particular, the students with high scores on the HMI subscale "Calloused sex attitudes toward women" appeared to be engaged in more forceful and exploitative behaviors to gain sexual access. Similar results were found in a study by Parrott and Zeichner (2003), who divided 59 undergraduates into "high-hypermasculine" and "low-hypermasculine" groups based on their responses to the HMI.

Compared with the "low-hypermasculine" men, the "high-hypermasculine" men displayed higher levels of aggression as measured by means of a laboratory task and reported to have assaulted women more often. Finally, Johnson et al. (2006) investigated a group of 230 domestically violent men. Besides the HMI, measures were used for, among others, personality, anger, hostility toward women, attachment in childhood, and locus of control. Cluster analysis yielded four clusters: Low pathology, Borderline, Narcissistic, and Antisocial. The 108 members of the Antisocial cluster were the largest group. They had the highest scores on hypermasculinity, hostility toward women, acceptance of interpersonal violence, and sex role stereotyping.

Although masculinity especially manifests itself primarily in the relation with other men (Whitehead, 2005), most research has focused on the tendency of hypermasculine men to exhibit physically and sexually aggressive behavior in their relations with women. Scott and Tetreault (1978) studied the relations between scores on the original AWS (Spence & Helmreich, 1972) and sexually aggressive behavior in 20 rapists, 20 non-sexually violent offenders, and 20 non-clinical subjects. Rapists turned out to show more traditional attitudes toward women, especially in areas relating to sexual behavior. On the other hand, Epps, Haworth, and Swaffer (1993) found that a group of 31 sexually violent adolescents did not differ from a group of 27 non-sexually violent adolescents in their attitudes toward women as measured by the AWS. This result was supported by a study of Forbes and Adams-Curtis (2001) in a group of 313 university students (140 males and 173 females). These researchers concluded that attitude measures such as the AWS were not related to sexual aggression in male students. Moreover, Saunders (1992) identified a generally violent type in 182 domestically violent offenders, among others, through the AWS, who had the most rigid attitudes about women's roles and were the most severely violent.

In summary, studies using the HMI or the AWS yielded mixed results about the association between negative attitudes toward women and violence against women. These mixed results were supported in studies with other measures of attitudes. For instance, the results of Markowitz (2001), using a self-report questionnaire with six statements in 141 former offenders and 245 non-clinical men, indicated that relatively positive attitudes toward violence against spouses and children were indeed positively associated with a heightened frequency of overt violent behavior against these family members. However, in a study on the attitudes to the acceptability of domestic violence, no significant differences were found between 23 Australian domestically violent men, 30 football players, and 30 community service volunteers. All three groups of men generally opposed the use of violence toward female partners (Kane, Staiger, & Ricciardelli, 2000). Flood and Pease (2009) explained these mixed results by noticing that attitudes toward women are shaped by a multitude of factors, such as culture and gender. Similarly, Holtzworth-Munroe, Bates, Smutzler, and Sandin (1997)

emphasized that, in addition to antisocial attitudes, various other risk factors (e.g., hostility, alcohol abuse, or marital satisfaction) may contribute to domestic violence.

The Attitudes toward Women Inventory (AWI) was developed in the first place for the evaluation of a treatment program for violent forensic psychiatric inpatients. Therefore, the items of the inventory had to concur with the subjects of the Attitudes toward Women module of an extended Aggression Replacement Training (see the Appendix). In addition, the inventory had to be a production measure to optimize its validity. Several authors have advocated applying "production instruments" instead of "recognition instruments" with detainees (e.g., Gavaghan, Arnold, & Gibbs, 1983; Stams et al., 2006), because written reactions are supposed to offer more direct information regarding the attitudes of respondents than the score on a Likert scale. It was hypothesized that the AWI would correlate positively with the personality domain of neuroticism and negatively with the domains of agreeableness and conscientiousness. Furthermore, it was expected that the AWI would correlate positively with emotions and behaviors such as hostility, anger, and aggression. Because of the relation between psychopathy and violence (e.g., Grann, Långström, Tengström, & Kullgren, 1999), we also supposed a relation between psychopathy and the AWI. To gain more insight into the specific attitudes toward women of the inpatients, this group was compared with a non-clinical reference group consisting of amateur soccer players.

METHOD

Participants

In the Netherlands, offenders who have committed a serious violent crime that is punishable with a maximum imprisonment of more than four years (e.g., murder, manslaughter, aggravated assault, or rape) can be detained under hospital order ("TBS order"). This concerns offenders who, based on an extensive psychiatric and/or psychological evaluation at a special assessment center of the Ministry of Security and Justice, are judged to have diminished responsibility for the offense they committed (Van Marle, 2002). TBS involves involuntary admission to a specialized maximum-security forensic psychiatric hospital with obligatory treatment programs that should result in a decrease of recidivism risk to an "acceptable level for society." The Dutch Ministry of Security and Justice makes a distinction between patients with a "personality disorder" (about 75% of the population) and patients with a "chronically psychotic disorder" (De Beurs & Barendregt, 2008).

The AWI was performed and studied in a group of 78 patients of FPC de Kijvelanden at Poortugaal (Netherlands) with a mean age of 35.31 years ($SD = 8.93$, range: 20–63 years). The primary diagnosis of 51 patients was an antisocial personality disorder on Axis II, whereas 27 patients were

classified as having a chronically psychotic disorder on Axis I in combination with an antisocial personality disorder on Axis II (DSM-IV; American Psychiatric Association, 1994). The chronic psychiatric condition of the psychotic patients had been stabilized to the extent that their antisocial personality disorder was most prominent. Both the personality disordered patients and the chronic psychotic patients stayed on a treatment unit, on average six years and one month from the date of admission. All participants in the study were male and had a sufficient command of the Dutch language in speech and in writing.

Measures

The pilot version of the AWI comprised 28 items. Nine items (e.g., "Get a woman drunk, high, or hot and she'll let you do whatever you want") were extracted from the "Calloused sex attitudes toward women" subscale of the HMI (Mosher & Sirkin, 1984) and 12 items (e.g., "Telling dirty jokes should be mostly a masculine prerogative") from the AWS (Spence et al., 1973). These 21 items were chosen, because they concurred with the subjects of the Attitudes toward Women module of the inpatient Aggression Replacement Training (see the Appendix). Another seven items were added based on our clinical practice with forensic psychiatric inpatients (e.g., "Women are just good enough for sex"). Items were formulated as propositions, and respondents had to indicate their opinion on a 5-point Likert scale, running from 1 = Completely disagree to 5 = Completely agree. Respondents then had to clarify their opinion by completing a sentence, which starts with "I think this because . . ." Starting from the score on the disagree/agree scale, the patients' clarification in terms of masculine attitudes is scored using a 7-point Likert scale with the following scoring possibilities: 1 = Not at all, 2 = Minimal, 3 = Somewhat, 4 = Moderate, 5 = Strong, 6 = Very strong, and 7 = Extreme. In scoring the items, the assistants had a number of examples for each possibility at their disposal. These examples were statements from patients who did not participate in this study, and which were rated by the first two authors. The answers to questions regarding the (dis)agreement of a proposition were not further examined. These questions had to stimulate respondents to think about their opinion before writing it down.

For the validity of the AWI, a standard set of measures was used for several aspects of antisocial behavior and aggression. Unfortunately, a complete dataset could not be obtained for all patients. The set comprises:

The *Psychopathy Checklist-Revised* (PCL-R; Hare, 1991) was employed for measuring psychopathy. The checklist consists of 20 items, which have to be rated on a three-point scale with 0 = "does not apply," 1 = "applies to some extent," and 2 = "applies." Vertommen, Verheul, De Ruiter, and Hildebrand (2002) found support for the reliability of the Dutch version of the PCL-R in a group of 1.192 inmates. Cronbach's α was .87 and the average

inter-item correlation was .25. Tentative evidence for the convergent validity was found in a subgroup of 98 forensic psychiatric inpatients, as there were modest, but meaningful correlations with self-report questionnaires such as the MMPI-2. (Dutch version: Sloore, Derksen, Hellenbosch, & De Mey, 1993). In the present study we used the total score as well as the four-factor structure as proposed by Hare and Neumann (2006), which implies the following facets: Interpersonal (e.g., "Grandiose self-worth"), Affective (e.g., "Callous and lack of empathy"), Lifestyle (e.g., "Impulsivity"), and Antisocial (e.g., "Juvenile delinquency"). This four-factor structure could be supported in a group of Dutch forensic psychiatric inpatients (Zwets, Hornsveld, Neumann, Muris, & Van Marle, 2013). In 75 patients, internal consistency (Cronbach's α) for PCL-R Total was .83, and for the four facets .69, .82, .74, and .66, successively.

The *NEO Five Factor Inventory* (NEO-FFI; Costa & McCrae, 1992; Dutch version: Hoekstra, Ormel, & De Fruyt, 1996) has 60 items and measures the Big Five personality domains of Neuroticism, Extraversion, Openness, Agreeableness, and Conscientiousness. Participants score items of the NEO-FFI on a 5-point Likert scale ranged from "entirely disagree" to "entirely agree." In a Dutch sample of 356 non-clinical adults, Cronbach's alphas ranged between .69 and .82 for various subscales (Hoekstra et al.). In a subgroup of 135 adults, the test-retest reliability after 6 months was .82, .87, .81, .75, and .80, respectively (Hoekstra et al.). In the present study, the scores on the neuroticism, agreeableness, and conscientiousness domain were only used, because these domains are related to antisocial behavior and aggression (Jones, Miller, & Lynam, 2011). In 72 patients, internal consistency (Cronbach's α) was for the neuroticism domain .88, for the agreeableness domain .54, and for conscientiousness domain 78.

The *Trait Anger Subscale* of Spielberger's (1980) *State-Trait Anger Scale* (STAS; Van der Ploeg, Defares, & Spielberger, 1982) was used to measure the general disposition to anger. Participants rate each item (e.g., "I am quick tempered") how they generally feel using a 4-point Likert scale: 1 = "almost never," 2 = "sometimes," 3 = "often," and 4 = "almost always." In a group of 150 Dutch male university students, Van der Ploeg et al. (1982) found that internal consistency (alpha coefficient) of the trait anger scale was .78, and a test-retest reliability of .78 was documented in a subgroup of 70 students. The convergent validity of the trait anger scale also proved to be satisfactory (Van der Ploeg et al., 1982). In 72 patients, internal consistency (Cronbach's α) was for trait anger was .95.

The *Adapted Version* of Rosenzweig's (1978) *Picture-Frustration Study* (PFS-AV; Hornsveld, Nijman, Hollin, & Kraaimaat, 2007) was employed for measuring hostility. The test asks participants to write down their reactions to 12 cartoon-like pictures. Subjects are instructed to examine the situations as shown in the pictures (e.g., to a shopkeeper: "This is the third time that this watch has stopped") and to write the first appropriate reply in the blank text

box that enters their mind. Answers are scored by an experienced and independent research assistant (psychologist) on a 7-point scale, ranging from 1 = "not at all hostile" to 7 = "extremely hostile." In a sample of 231 Dutch violent forensic psychiatric patients, the internal consistency (α = .76), test-retest reliability (r = .67), and inter-rater reliability (r = .77) of the PFS-AV were moderate to good. Furthermore, evidence was found for the convergent validity of the test as scores correlated with indexes of agreeableness and aggressive behavior (Hornsveld et al., 2007). In 72 patients, internal consistency (Cronbach's α) was for hostility was .87.

The *Aggression Questionnaire-Short Form* (AQ-SF; Bryant & Smith, 2001; Dutch version: Hornsveld, Muris, Kraaimaat, & Meesters, 2009) is a shortened version of the Aggression Questionnaire of Buss and Perry (1992) with 12 items that can be allocated to four subscales, that is, Physical Aggression (e.g., "Once in a while I can't control the urge to strike another person"), Verbal Aggression (e.g., "My friends say that I'm somewhat argumentative"), Anger (e.g., "I have trouble controlling my temper"), and Hostility (e.g., "Other people always seem to get the breaks"). Respondents score the items using a five-point scale ranging from 1 = "entirely disagree" to 5 = "entirely agree". In a sample of Dutch forensic psychiatric patients (males) and a sample of secondary vocational students (females and males), Hornsveld et al. (2009) found that the four-factor structure of the AQ-SF produced an acceptable fit. In a group of 208 violent forensic psychiatric outpatients the internal consistency (alpha coefficient) for the AQ-SF total score and for the subscales was .88, .65, .74, .61, and .74, respectively. The test-retest reliability of the AQ-SF total score in a subsample of 90 outpatients was modest but significant (r = .38). The convergent validity of the AQ-SF could be demonstrated by meaningful correlations with alternative measures of aggression and personality (Hornsveld et al., 2009). In 67 patients, internal consistency (Cronbach's α) for AQ-SF Total was .85, and for the four subscales .64, .72, .72, and .70, successively.

Procedure

To determine the inter-rater reliability of the AWI, two experienced research assistants (psychologists) rated independently the clarifications of the answers on the disagree/agree scale. One of these two assistants also scored a second measurement of the AWI, four days after the first one, for the assessment of the test-retest reliability. Patients participated in the study based on voluntariness and received €7 for completing the self-report questionnaires. If they participated in the test-retest study, they received €10. The AWI was administered in groups of six to eight patients. All patients were informed by the researchers about the purpose of the study and that participation was voluntarily. The members of the amateur soccer club had been informed in advance about the study in the club magazine, and folders with information

were distributed during a game day. They received €10 after completing the measures individually.

Statistics

The interrater reliability and internal consistency (Cronbach's α) were investigated in a subgroup of 33 patients that had a mean age of 38.66 years (SD = 11.01, range: 20–63 years). The test-retest reliability could only be determined in a subgroup of 52 patients with a mean age of 33.15 years (SD = 7.15, range: 20–63 years), because no more patients were prepared to complete the set of questionnaires for a second time. For the study on the test-retest reliability and the validity of the AWI, a four-day lasting internal soccer competition was organized to improve the compliance of the patients. The competition turned out to be a way to have a reasonable number of patients completing the questionnaires. The AWI was completed twice by 52 patients, for the first time on day one and for the second time on day four of the competition. For the validity of the AWI, the group of 78 patients was compared with a reference group of 36 amateur soccer players with a mean age of 32.92 years (SD = 11.67, range: 19–58 years). Although it was assumed that the amateur soccer players would have roughly the same educational level as the patients, these educational levels were not assessed individually. Both patients and amateur soccer players were only asked to notice their age on the set of questionnaires. A t-test for the comparison on age yielded no significant difference between both groups.

RESULTS

Reliability

The internal consistency (Cronbach's α) of the original AWI with 28 items was .76 and the inter-rater reliability (Pearson's r) was .89 in the subgroup of 33 patients. Items with an interrater reliability lower than .65 and items with an item-total correlation lower than .30 were subsequently removed. In this way, a relatively short questionnaire with 12 items was obtained with an internal consistency of .82, a mean item-total correlation of .49, a mean inter-item correlation of .30, and an interrater reliability of .94. In a larger subgroup of 52 patients the test-retest reliability (Pearson's r) of the 12-items AWI appeared to be good (r = .85).

Validity

To explore the factor structure of the AWI, the data of the 78 patients were analyzed according to the principal axis method with Varimax rotation. This

resulted in three factors that were provisionally interpreted as follows: factor 1 = "Sexist behavior of men" (e.g., "If a woman is drunk, you are allowed to do everything with her"); factor 2 = "Inappropriate behavior of women" (e.g., "It is inappropriate when a woman proposes to a man"); and factor 3 = "Duties of women" (e.g., "Women should be busy with raising their kids instead of trying to make a career"). These interpretations were based on the items with the highest loadings for each factor (Table 1).

For the concurrent validity, the scores of the patients on the AWI were correlated with scores on the measures for psychopathy, personality domains, anger, hostility, and aggression (Table 2). A significantly positive correlation was found between the total AWI score on the one hand, and hostility (PFS-AV) and anger (AQ-SF) on the other hand (Table 2). The total AWI score correlated significantly negatively with age, agreeableness

TABLE 1 Means, Standard Deviations, and Factor Loadings of the AWI in 78 Patients and 30 Soccer Players

				Factor loadings		
Item	Description	*M*	*SD*	1	2	3
1	It is the duty of a woman to satisfy the sexual needs of her husband.	2.23	1.56	**.85**	.17	.03
8	The only thing that lesbians need is a good bang.*	2.14	1.43	**.72**	.21	.33
7	Some women need a good bang before they know that a man is the boss.*	2.13	1.61	**.65**	.35	.38
10	A woman who has sex with many men is a slut.	3.09	1.98	**.63**	−.05	.10
6	If a woman is drunk, you are allowed to do everything with her.*	2.04	1.28	**.59**	.50	.17
2	Telling dirty jokes is something for men.**	2.37	1.30	**.55**	.50	−.35
9	Ironing the laundry is something for women.	2.26	1.34	**.53**	.11	.45
12	It is inappropriate when a woman proposes to a man.**	2.15	1.09	−.01	**.75**	.18
3	It is worse when a woman is drunk than when a man is.**	2.12	1.23	.29	**.57**	.12
11	Women do not belong in the army.	2.36	1.30	.12	.12	**.69**
4	Women should worry less about their rights and more about how to be a good mother and wife.**	2.23	1.40	.44	.07	**.60**
5	Women should be busy with raising their kids instead of trying to make a career.**	2.10	1.09	−.00	.49	**.56**

*Derived from an item of the HMI subscale Calloused sex attitudes toward women (Mosher & Sirkin, 1984).

**Derived from an item of the 25-item version of the AWS (Spence, Helmreich, & Stapp, 1973).

Factor 1 = "Sexist behavior of men"; Factor 2 = "Inappropriate behavior of women"; and Factor 3 = "Duties of women."

TABLE 2 Correlations Between AWI and Other Measures in 78 Forensic Psychiatric Inpatient

			Patients	
Measure	Content of the scale	*N*	*M (SD)*	*r*
Age		78	35.31 (8.93)	−.27**
PCL-R	Psychopathy	75	21.83 (7.79)	.02
	Interpersonal	75	3.23 (2.60)	−.13
	Affective	75	6.12 (1.78)	.13
	Lifestyle	75	5.72 (2.84)	.00
	Antisocial	75	5.23 (2.63)	.17
NEO-FFI	Neuroticism	72	33.08 (7.67)	.02
	Agreeableness	72	41.26 (4.72)	−.32**
	Conscientiousness	72	44.78 (4.98)	−.24**
STAS	Trait anger	72	17.42 (5.02)	.07
PFS-AV	Hostility	67	24.55 (6.97)	.40**
AQ-SF	Total	67	31.69 (9.36)	.13
	Physical aggression	67	9.27 (3.69)	.07
	Verbal aggression	67	6.49 (2.38)	.34**
	Anger	67	8.30 (3.34)	−.13
	Hostility	67	7.63 (3.04)	.19

AWI = Attitudes toward Women Inventory; PCL- R = Psychopathy Checklist-Revised; NEO-FFI = Five Factor Inventory; STAS = State-Trait Anger Scale; PFS-AV = Adapted Version of the Picture-Frustration Study; AQ-SF = Aggression Questionnaire-Short Form.
*$p < .05$. **$p < .01$ (one-tailed).

(NEO-FFI), and conscientiousness (NEO-FFI). Correlations between the AWI total, the PCL-R total, and PCL-R facet scores did not yield any significant results.

The 78 patients comprised 21 sexually violent and 57 non-sexually violent patients. The sexually violent patients were found not to differ significantly from the non-sexually violent patients in AWI total score and in each of the twelve item scores separately.

When comparing the patients with the amateur soccer players, no significant differences were found between the two groups in AWI total and factor scores, but the standard deviation of the total score and of the score on factor 1 were much larger in the patient group than in the soccer player group. Patients scored significantly higher than the soccer players did on items 7, 8, and 12. It should be noted that the items 7 and 8 refer to sexual violence. Item 12 reads as "It is inappropriate when a woman proposes to a man." When correlating the AWI with the same measures as in the patient group, a significantly positive relation could be demonstrated between the AWI total score and anger, as measured with the STAS ($r = .28$) and AQ-SF ($r = .34$). A significantly negative relation was found between the total score on the AWI and the NEO-FFI domain Agreeableness ($r = .33$, all ps $< .05$).

DISCUSSION

For the assessment of attitudes toward women, the AWI was developed in a group of Dutch violent forensic psychiatric inpatients and in a group of Dutch amateur soccer players. The reliability of the new instrument with the remaining 12 items was good, and factor analysis yielded three provisional factors: (1) "Sexist behavior of men," (2) "Inappropriate behavior of women," and (3) "Duties of women." As expected, the validity of the AWI could be supported in the patient group by negative correlations with the personality domains of agreeableness and conscientiousness and by positive correlations with hostility and verbal aggression. No significant relationships, however, were found between the AWI and psychopathy, the personality domain neuroticism, anger, and physical aggression. That the subgroup of sexually violent patients did not score higher on the sexual aggression items of the AWI may confirm the results, for instance, of Epps et al. (1993), who found no significant differences in scores on the AWS between a group of 31 sexually violent adolescents and a group of 27 non-sexually violent adolescents.

Although the patients did not differ significantly from the amateur soccer players in AWI total score, they scored significantly higher on two sexual aggression items. Among the amateur soccer players, negative attitudes toward women turned out to be negatively related to agreeableness and positively to anger. Further study on this matter might reveal whether negative attitudes toward women have a pathological meaning in non-clinical men who practice aggressive sports (e.g., Forbes, Adams-Curtis, Pakalka, & White, 2006).

Forbes and Adams-Curtis (2001) concluded that sexist attitudes toward women are only partly related to sexual aggression. In their opinion, "primary factors responsible for sexual aggression may not lie within the individual, but within the culture and the family of origin" (p. 885). The sociologists Hofstede, Hofstede, and Minkov (2010) differentiated between cultures based on, among others, the femininity-masculinity dimension. When comparing an offender group with a non-clinical reference group, one should keep in mind that countries differ in the Masculinity Index (MAS; Hofstede, 1980). In the Netherlands, hypermasculine men (Mosher & Sirkin, 1984) are probably judged as less masculine than in some other countries. What may be regarded as having very negative attitudes toward women in one country might be seen as less negative in another country.

Our study had a number of limitations. First, the patients participated voluntarily in the study and samples were relatively small. It is therefore not clear whether the result is representative for all forensic psychiatric inpatients or for all amateur soccer players. Second, the factor structure as found in this study has to be replicated in larger patient groups and in the general population, among others, because several items did not load exclusively on

one factor. Third, to gain insight into the specific attitudes toward women in the patients we compared them with an equally low-educated non-clinical group. However, we did not measure individually any other demographical variable than age. Finally, the score of the patients might be lower because of the attenuating effect of a controlled and structured environment in a forensic psychiatric institution (e.g., Hornsveld, Muris, & Kraaimaat, 2011) in combination with the tendency of the patients to complete the questionnaire in a social desirable way (e.g., Gannon, Ward, & Collie, 2007).

For the time being, the AWI appears to measure attitudes toward women in a reliable and valid way. It may be used to gain more insight in the specific aspects of attitudes toward women in offenders by comparing them with those of a reference group and for the evaluation of an intervention, which focuses on a change in these attitudes. However, further studies on its psychometric properties in larger offender, forensic (out)patient, and non-clinical populations are required.

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APPENDIX

Aggression Replacement Training for Violent Forensic Psychiatric Inpatients

Sessions	Goals and method
01–05	*Anger control*. Participants learn to recognize and manage feelings of irritation and anger more adequately. For that purpose, five aspects of problem situations are analyzed, namely, (1) event, (2) thoughts, (3) feelings, (4) behavior, and (5) consequences.
06–10	*Social Skills Training*. The focus is on the improvement of prosocial skills. Five skills are selected by the patients from a list of twelve skills. For each exercise, the patients receive a hand-out with possible targets ("What do you want to achieve?") and criteria ("Where do you pay attention to?").
11–15	*Moral Reasoning Training*. Patients take note of the prevailing norms and values and learn how to solve moral problematic situations.
16–20	*Prosocial thinking*. Knowing how to convert cognitions that may lead to antisocial behavior into cognitions that may lead to prosocial behavior. Five distorted cognitions are discussed, namely, putting you in another's place, self-centeredness, minimizing, assuming the worst, and blaming others.
21–25	*Character formation*. Learning to focus on the short-term and long-term consequences of prosocial and antisocial behaviors. Five themes are discussed and practiced, namely, accountability, subservience, respect, cooperation, and honesty.
26–30	*Prosocial network*. Learning how to engage in prosocial contacts and how to hold off or to end antisocial contacts. The following five problem situations are practiced: making acquaintances, making an appointment, intensifying a contact, informing others about your offense, and responding to a rejection.
31–35	*Attitude towards women*. Male patients learn how to behave toward women. Participants practice five problem situations, namely, showing your need for intimacy, responding to a rejection, responding to approaches, intensifying the relation, and dealing with relational problems.
36–38	*Evaluation and report*.