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Title: Men's experiences of emotional, physical and sexual abuse, and abuse in health care:
a cross-sectional study of a Swedish random male population sample.

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ABSTRACT

Aims: This article addresses the under-researched area of men's experiences of abuse. The aims were to estimate prevalence of emotional, physical and sexual abuse and abuse in health care in a random sample of Swedish adult men, to compare these estimates with previously collected prevalence rates in a male clinical sample to see if prevalence rates were dependant on response rate and sampling method. We also wanted to contribute to a more general analysis of men's experiences of victimisation.

Methods: Cross sectional study design. The NorVold Abuse questionnaire that measures the prevalence of four kinds of abuse was sent to 6000 men selected at random from the population of Östergötland, Sweden.

Results: The response rate was 50% (N=2924). Lifetime experiences of emotional abuse were reported by 16.7%, physical abuse by 48.9%, sexual abuse by 4.5% and abuse in health care by 7.3%. The proportion of men who currently suffered from abusive experiences was highest for emotional abuse and abuse in health care. No difference in prevalence was seen between the random population sample and the clinical sample despite significant differences regarding response rate and background characteristics.

Conclusion: Abuse against men is prevalent and men are victimised as patients in health care. Response rate and sampling method did not influence prevalence rates of abuse. Men's victimisation from emotional abuse and abuse in health care was associated with low income and being born outside of the Nordic countries and hence needs to be analysed in the intersections of gender, class and ethnicity.

Key words: Male victimisation, abuse, masculinity, violence

BACKGROUND

Over recent decades much well deserved attention has been directed towards men's abuse of women, and the need for a gendered understanding of this has been emphasised. Serious and immediate, as well as long-term, implications for the health and well-being of victims of abuse have been well documented (1). Abuse against men, however, remains relatively under-researched and under-theorized and only limited knowledge exists on the prevalence of abusive experiences among men. Most research so far has focused on specific kinds of abuse, such as abuse in intimate partner relationships (2, 3) or on childhood experiences of abuse (4, 5). Population based studies on life-time experiences of different kinds of abuse; especially emotional abuse (EA) and abuse in health care (AHC) are scarce. The National Violence Against Women Survey from the US is one of the studies that has measured physical (PA) and sexual abuse (SA) among both men and women (6). In that study 44% of men reported life-time experiences of being pushed, grabbed or shoved; 16% had been beaten up, 16% had been threatened with a knife and 4% had experienced someone trying to choke or drown them. Of the surveyed men 3% reported being the victim of completed or attempted rape.

In Sweden, the best national estimate of the prevalence of PA and SA against adult men comes from the Swedish Crime Surveys conducted by the National Council for Crime Prevention. They found that during the year 2007 3.8% of Swedish men were the victims of some kind of PA (defined as having experienced physical violence that lead to bodily harm or pain) and 0.3% were the victims of SA (defined as having been forced, attacked or molested sexually) (7). No estimates of life-time experiences of abuse in the adult Swedish male population exist.

From a methodological point of view it has often been debated regarding violence against women how response rates and sampling methods affect prevalence rates of abuse; victims of abuse may be more motivated to participate in studies on the subject, or they may be more likely to avoid it (8). To design and produce good studies that it is possible to draw conclusion from, we need to increase our knowledge about these methodological issues.

In short; relatively little is known about the prevalence and consequence of abuse against men, both in Sweden and worldwide, but the little we know signals that abuse is prevalent and most likely plays a significant role in men's lives, for their health and well-being.

AIMS

The main objective of this study was to estimate the prevalence of EA, PA, SA and AHC by means of a validated questionnaire in a random sample of Swedish adult men. The second aim was to compare the prevalence of different kinds of abuse between this random population sample and a previously collected clinical sample (9), thus investigating whether different sampling methods and response rates influenced the reported levels of abusive experiences. Furthermore, we wish to contribute to the theoretical analysis of the impact that abuse has in men's lives. Thus, the data in this study needs to be considered within the broader range of scholarship on men's various relations to abuse, and critical studies on men and masculinities.

METHODS

Procedure

During spring 2007 the NorVold Abuse Questionnaire (m-NorAQ), covering experiences of EA, PA, SA and AHC, was sent together with an information letter to 6000 men living in Östergötland county in Sweden. The study population was men aged 18-64 selected at random from the National Population Register. The sample size was calculated by using the lowest prevalence of abuse estimated with the same instrument in a clinical male sample (9) and a margin of error of 1% (SA 3.5% (2.5-4.5%). Because of an invalid address or other practical obstacles to participation, such as not being able to read due to disability or language problems, 122 men were excluded (N=5878). Prepaid envelopes were used and three reminders were sent out.

The participants in the clinical sample were male inpatients and outpatients recruited consecutively at six different somatic clinics at a university hospital in Sweden in 2005. The inclusion criteria were being more than 18 years of age and understanding Swedish language well enough to read the written information. The oldest participant was 91 years old. One or two weeks after their visit to the hospital, m-NorAQ and an information letter were sent out to them by mail. A detailed description of the procedure and sample have been published previously (9).

Measures

The NorVold Abuse Questionnaire (NorAQ) was originally developed to measure prevalence of EA, PA, SA, and AHC in a Nordic multi-centre study among gynaecological patients (10-12). A male version of NorAQ (m-NorAQ) was developed and tested in 2004, and as in the original female version, the abuse questions showed good test-retest reliability and good

concurrent validity using an interview as the gold standard. A detailed report on the development and validation of m-NorAQ has been published previously (9).

The m-NorAQ is divided into seven parts and comprises 67 questions in total. Experiences of abuse were defined as having answered “yes” to one or several of the three or four questions about each specified kind of abuse in the m-NorAQ (Table 1). It was also specified if the abuse occurred in childhood (< 18 years), in adulthood, or both. If a man reported several degrees of a specific kind of abuse, he was classified according to the most severe act of abuse reported. If the respondent had ever experienced the specified kind of abuse, he was also asked to estimate, separately for each kind of abuse, how much he currently suffered from his experience(s) on an 11-point scale (0 = no suffering, 10 = suffers terribly). Answers to the current suffering items were dichotomized in no/yes categories (no current suffering = 0 and current suffering = 1–10). Besides abuse, m-NorAQ addresses socio-demography, self-estimated health and medical history.

Statistical analyses

Analyses were computed using the statistical program SPSS, version 17. We used a chi square test to test if the distribution in our sample differed from the official statistics for the population in the region regarding age, education, income, occupation, and proportion of persons born outside Sweden. The significant level was set at $p < 0.05$ (Table 2-3). Differences in background characteristics between the two samples were analysed using Pearson’s chi-square test. The reported prevalence of lifetime experiences of EA, PA, SA and AHC, as well as the prevalence of experiencing the different kinds of abuse during the last 12 months, were compared between the two samples by means of age-stratified Pearson’s chi square tests (≤ 34 years, 35-49 years, and ≥ 50 years old). The significant level was set at $p <$

Table 1. Questions about abuse in the male version of the NorVold Abuse Questionnaire

	EMOTIONAL ABUSE
Mild	Have you experienced anybody systematically and for any longer period trying to repress, degrade or humiliate you?
Moderate	Have you experienced anybody systematically and by threat or force trying to limit your contacts with others or totally control what you may and may not do?
Severe	Have you experienced living in fear because somebody systematically and for a longer period has threatened you or somebody close to you?
	PHYSICAL ABUSE
Mild	Have you experienced anybody hitting you, smacking your face or holding you firmly against your will?
Moderate	Have you experienced anybody hitting you with his/her fist(s) or with a hard object, kicking you, pushing you violently, giving you a beating, thrashing you or doing anything similar to you?
Severe	Have you experienced anybody threatening your life by, for instance, trying to strangle you, showing a weapon or knife, or by any other similar act?
	SEXUAL ABUSE
Mild, no genital contact.	Has anybody <u>against your will</u> touched parts of your body other than the genitals in a "sexual way" or forced you to touch other parts of his or her body in a "sexual way"?
Mild emotional / sexual humiliation	Have you in any other way been sexually humiliated; e.g. by being forced to watch a pornographic movie or similar <u>against your will</u> , forced to participate in a pornographic movie or similar, forced to show your body naked or forced to watch when somebody else showed his/her body naked?

<p>Moderate, genital contact.</p> <p>Severe abuse, penetration</p>	<p>Has anybody <u>against your will</u> touched your genitals, used your body to satisfy him/herself sexually or forced you to touch anybody else's genitals</p> <p>Has anybody <u>against your will</u> put his penis into your mouth or rectum or tried any of this; put in or tried to put an object or other part of the body into your mouth or rectum?</p>
<p>ABUSE IN HEALTH CARE</p>	
<p>Mild</p> <p>Moderate</p> <p>Severe</p>	<p>Have you ever felt offended or grossly degraded while visiting health services, felt that someone exercised blackmail against you or did not show respect for your opinion—in such a way that you were later disturbed by or suffered from the experience?</p> <p>Have you ever experienced that a "normal" event, while visiting health services suddenly became a really terrible and insulting experience, without you fully knowing how this could happen?</p> <p>Have you experienced anybody in health service purposely - as you understood - hurting you physically or mentally, grossly violating you or using your body and your subordinated position to your disadvantage for his/her own purpose?</p>
<p>ANSWER ALTERNATIVES (THE SAME FOR ALL QUESTIONS):</p> <p>No</p> <p>Yes, as a child (<18 years)</p> <p>Yes, as an adult (≥18 years)</p> <p>Yes, as a child and as an adult</p>	

Table 2. Background characteristics in our random sample compared to the population it was drawn from (the county of Östergötland in the year 2007). P-values represent test results for differences between the study sample and the population.

	N	Study %	Exp %	p-value	Diff %	dN
Age						
18-29 years	594	20.5	25.7	< 0.01	-5.2	-150
30-39 years	562	19.4	20.5		-1.1	-32
40-49 years	648	22.4	21.4		1.0	30
50-59 years	705	24.4	20.0		4.4	128
60-64 years	384	13.3	12.5		0.8	24
Occupation ¹						
Employed	2309	79.6	76.6	< 0.01	3.0	87
Unemployed	93	3.2	4.5 ²		-1.3	-38
Foreign born persons						
18-24 years	25	7.6	10.3 ³	0.10	-2.7	-9
25-34 years	52	9.9	15.2	< 0.01	-5.3	-28
35-44 years	56	8.5	13.6	< 0.01	-5.1	-33
45-54 years	55	8.6	13.7	< 0.01	-5.1	-33
55-64 years	54	7.3	9.1	0.10	-1.8	-13

Note: Exp= expected value according to Statistics Sweden (SCB)/county average (%). Diff= difference between our sample and Exp (%). dN = estimated number of persons that Diff corresponds to.

¹ Only two categories were used for comparison; employed and unemployed (comparable statistics for other categories were not available).

² Approximated by the value for unemployed in age group 16-64 yrs, excluding full time students, as given by SCB

³ Approximated by the value for the age group 15-24 yrs, as given by SCB

0.05 for all analyses. This was done because the prevalence of abuse is known to correlate with age, and a considerable age difference exists between the two samples (Table 4).

To test for significant differences regarding age at the time of the abuse, i.e. if the abuse had happened in childhood, in adulthood, or both, a Pearson chi square test was used. A Z-test for proportions were used to compare the proportion of victims that reported current suffering

Table 3. Background characteristics in our random sample compared to the population it was drawn from (the county of Östergötland in the year 2007). P-values represent test results for differences between the study sample and the population.

	N	20-34 yrs %			35-49 yrs %			50-64 yrs %			dN		
		Study	Exp	p-value	Study	Exp	p-value	Study	Exp	p-value	20-34 yrs	35-49 yrs	50-64 yrs
Annual income¹													
(SEK)²													
≤ 70 000	213	21.2	25.2	< 0.05	2.8	5.7	< 0.05	1.9	4.3	< 0.05	-31	-27	-26
70 - 149 000	254	16.1	13.6		5.9	6.9		6.7	8.7		20	-10	-22
150 - 249 000	689	25.4	24.1		22.4	19.2		26.0	23.1		10	29	31
250 - 449 000	1308	34.7	33.7		53.8	52.2		49.4	48.1		8	15	13
450 - 649 000	256	2.0	2.9		12.3	11.3		11.6	10.4		-7	9	13
≥ 650 000	80	0.5	0.4		2.9	4.6		4.5	5.4		1	-16	-9
<i>n for age group</i>		787			935			1078					
Education													
(years)													
≤ 9	416	2.5	17.6	<0.05	11.4	13.3	<0.05	26.4	27.6	<0.05	-129	-18	-13
10 - 12	1243	44	50.9		47.6	55.6		38.1	45.6		-59	-76	-82
≥ 13	1232	53.5	31.5		41	31.1		35.5	26.7		188	94	96
<i>n for age group</i>		856			947			1088					

Note: Exp= expected value according to Statistics Sweden (SCB)/county average (%). Diff= difference between our sample and Exp (%). dN = estimated number of persons that Diff corresponds to.

¹ Comparable statistics were not available for these exact income classes, approximations for each category has been made.

² 100 SEK = Swedish currency = 10.82 EUR (as of Aug 22nd 2011).

Table 4. Background characteristics in the population sample and in the clinical sample. P-values represent test results for differences between the two samples.

		Population N = 2924		Clinical N = 1767		p-value
		N	%	N	%	
Age (years)	≤ 34	856	29.6	180	10.2	< 0.01
	35–49	948	32.8	252	14.3	
	≥ 50	1090	37.7	1329	75.5	
Education (years)	≤ 9	417	14.4	728	41.4	< 0.01
	10–12	1251	43.1	471	26.8	
	≥ 13	1237	42.6	558	31.8	
Occupation	Employed	2309	79.6	825	46.8	< 0.01
	Unemployed	93	3.2	33	1.9	< 0.01
	Student	283	9.8	57	3.2	< 0.01
	Parental leave	7	0.2	4	0.2	1.0
	Sick lv., soc. w., retir.	196	6.8	840	47.6	< 0.01
	Other	14	0.5	4	0.2	0.23
Civil status	Single	839	29.2	357	20.3	< 0.01
	Partner	2035	70.8	1401	79.7	
Country of birth	Sweden	2651	91.4	1690	96.4	< 0.01
	Other Nordic country	41	1.4	18	1.0	
	Other country	209	7.2	45	2.6	
Annual income (SEK*)	≤ 69 000	271	9.4	66	3.8	< 0.01
	70-149 000	258	9.0	306	17.7	
	150-249 000	695	24.2	674	39.0	
	250-449 000	1313	45.7	547	31.7	
	450-649 000	259	9.0	98	5.7	
	≥ 650 000	80	2.8	36	2.1	
Parents' education (years)						
	Mother					
	≤ 9	1818	63.8	1438	83.5	< 0.01
	10–12	663	23.3	190	11.0	
	≥ 13	369	12.9	94	5.5	
Father	≤ 9	1786	62.8	1386	80.3	< 0.01
	10–12	623	21.9	200	11.6	
	≥ 13	435	15.3	139	8.1	

Note: sick lv. = on sick leave over a long period; soc. w. = recipient of social welfare; retir. = retired (including temporary disability pension, disability pension).

The expected frequency was below five in one of the cells in the cross tabulation with occupation (parental leave) and a Pearson's chi square test could therefore not be used. Instead dummy variables were created and Fischer's exact test was used to test for differences in each possible occupation.

* 100 SEK = Swedish currency = 10.82 EUR (as of Aug 22nd 2011).

The results for the clinical sample has been published previously (9).

Table 5. Reported experiences of emotional, physical and sexual abuse, and abuse in health care, in a male Swedish population sample, according to severity, age of the victim when the abuse occurred, lifetime experiences of abuse, any abuse within the past 12 months, and current suffering from the abusive experience (% of all men, n = 2924).

	Emotional abuse		Physical abuse		Sexual abuse		Abuse in health care	
	n	%	n	%	n	%	n	%
Severity and age								
Mild								
< 18 yrs	128	4.4	346	11.9	17	0.6	18	0.6
≥18 yrs	55	1.9	42	1.4	17	0.6	49	1.7
both	17	0.6	18	0.6	3	0.1	7	0.2
Moderate								
<18 yrs	26	0.9	477	16.4	33	1.1	25	0.9
≥18 yrs	41	1.4	172	5.9	20	0.7	56	1.9
both	11	0.4	73	2.5	4	0.1	9	0.3
Severe								
<18 yrs	124	4.3	94	3.2	26	0.9	9	0.3
≥18 yrs	55	1.9	166	5.7	7	0.2	30	1.0
both	28	1.0	30	1.0	2	0.1	7	0.2
All severity								
< 18 yrs	278	9.6	917	31.6	76	2.6	52	1.8
≥ 18 yrs	151	5.2	380	13.1	44	1.5	135	4.7
both	56	1.9	121	4.2	9	0.3	23	0.8
Any lifetime abuse								
	485	16.7	1418	48.9	129	4.5	210	7.3
Abuse past 12 months								
	99	3.4	88	3.0	16	0.5	42	1.4
Current suffering								
	320	10.9	356	12.2	60	2.1	123	4.2

Note: Internal drop-out n = 20-54 (0.7-1.8%)

from abuse, i.e. to see if current suffering was reported more often by victims of a specific kind of abuse.

A binary logistic regression was used to analyse factors associated with lifetime EA, PA, SA, and AHC. Three models for each kind of abuse were constructed: one for each sample, and one with the two samples merged. Reporting lifetime experience of EA/PA/SA/AHC was used as the dependant variable. The model with the two samples merged was constructed to test if sampling method (i.e. the clinical sample or the population sample) had a significant influence on the risk of reporting the different kinds of abuse. A variable containing the sample information was used in the model as an independent variable, as were all the background variables measured. To test if there were statistically significant differences between the clinical sample and the population sample regarding how background characteristics were associated with the prevalence of abuse, the model was also tested for interaction effects between the sample variable and all the variables covering background characteristics (Table 6).

Ethical consideration

Abuse is a sensitive topic and answering the questions in m-NorAQ might be uncomfortable for some respondents. All men receiving the questionnaire were therefore invited to contact either the research team or an independent therapist, if they had any questions, or if answering m-NorAQ triggered a need for help. Very few men used this possibility. The study was approved by the regional ethical review board (D.nr: 3707).

Table 6. Associations between reported lifetime experiences of SA, AHC, EA and PA and background characteristics presented as odds ratios (OR) adjusted for all variables shown in the table. Analyses made separately for the clinical and population sample as well as together as one big sample. Significant OR are written in bold.

		Sexual abuse						Abuse in health care					
Sample:		Clinic n=1616		Population n = 2723		Both n = 4339		Clinic n = 1637		Population n = 2738		Both n =4375	
		OR	CI	OR	CI	OR	CI	OR	CI	OR	CI	OR	CI
Sample	Population	-		-		1		-		-		1	
	Clinic	-		-		1.1	0.8-1.6	-		-		1.1	0.8-1.4
Age (years)	≤ 34	1.4	0.6-3.4	1.6	0.9-2.8	1.5	0.96-2.4	1.0	0.5-2.1	1.0	0.7-1.6	1.1	0.7-1.6
	35-49	0.9	0.4-1.9	1.4	0.8-2.2	1.3	0.8-1.9	1.3	0.8-2.2	1.3	0.9-1.9	1.4	1.1-2.0
	≥ 50	1		1		1		1		1		1	
Education (years)	≤ 12	1		1		1		1		1		1	
	≥ 13	1.3	0.7-2.3	1.3	0.9-2.0	1.3	0.96-1.9	1.5	0.96-2.2	1.3	0.97-1.8	1.4	1.1-1.8
Occupation	Employed	1		1		1		1		1		1	
	Unemployed	2.1	0.6-7.5	1.1	0.4-3.0	1.4	0.6-3.1	0.3	0.0-2.1	1.4	0.7-3.0	1.1	0.5-2.1
	Student	1.1	0.3-4.6	0.5	0.2-1.2	0.6	0.3-1.2	1.1	0.4-3.2	0.9	0.5-1.6	0.9	0.5-1.6
	Parental leave	0		0		0		4.0	0.4-41.8	0		1.1	0.1-9.0
	Sick lv., soc. w., retir.	0.7	0.4-1.3	1.8	0.9-3.7	1.0	0.6-1.6	1.1	0.7-1.6	3.5	2.1-5.7	1.6	1.2-2.3
	Other	0		0		0		0		0		0	
Civil status	Single	1.4	0.7-2.5	1.4	0.9-2.2	1.4	1.02-2.0	1.3	0.8-2.0	1.3	0.9-1.8	1.4	1.07-1.8
	Partner	1				1		1		1		1	
Country of birth	Sweden	1		1		1		1		1		1	
	Other Nordic country	1.3	0.2-10.0	0		0.5	0.7-3.5	4.4	1.5-13.3	0.6	0.1-2.6	1.9	0.8-4.3
	Other country	1.2	0.3-5.1	0.9	0.4-2.0	1.0	0.5-2.0	2.9	1.3-6.4	1.8	1.1-2.9	2.2	1.5-3.3
Annual income (SEK)	≤ 149,000	0.7	0.2-2.2	1.7	0.7-4.2	1.3	0.6-2.6	1.9	0.7-5.2	3.4	1.5-7.6	2.8	1.5-5.3
	150-449 000	0.9	0.4-2.3	1.4	0.7-2.8	1.2	0.7-2.1	2.2	0.9-5.2	2.3	1.2-4.6	2.3	1.4-4.0
	≥ 450,000	1		1		1		1		1		1	
Parents' education (years)	Mother												
	≤ 12	1		1		1		1		1		1	
	≥ 13	1.4	0.5-4.1	1.2	0.6-2.2	1.2	0.7-2.1	1.3	0.6-3.0	0.7	0.4-1.2	0.9	0.5-1.3
	Father												
	≤ 12	1		1		1		1		1		1	
	≥ 13	1.1	0.4-2.9	1.3	0.7-2.4	1.3	0.8-2.1	1.3	0.7-2.7	1.2	0.8-2.0	1.3	0.9-1.9

		Emotional abuse						Physical abuse					
	Sample:	Clinic n=1645		Population n = 2753		All n = 4398		Clinic n = 1630		Population n = 2750		All n =4380	
		OR	CI	OR	CI	OR	CI	OR	CI	OR	CI	OR	CI
Sample	Population	-		-		1						1	
	Clinic	-		-		0.9	0.7-1.1					1.1	0.9-1.3
Age (years)	≤34	1.5	0.8-2.6	1.7	1.3-2.4	1.7	1.3-2.2	1.4	0.9-2.1	1.3	1.02-1.6	1.3	1.1-1.6
	35-49	1.7	1.1-2.7	1.5	1.2-2.0	1.6	1.3-2.0	1.4	1.01-1.9	1.2	0.98-1.4	1.2	1.1-1.4
	≥ 50	1		1		1		1		1		1	
Education (years)	≤ 12	1		1		1		1		1		1	
	≥ 13	1.3	0.9-1.8	1.5	1.2-1.8	1.4	1.2-1.7	1.6	1.3-2.1	1.4	1.2-1.6	1.5	1.3-1.7
Occupation	Employed	1		1		1		1		1		1	
	Unemployed	1.6	0.7-4.0	1.7	0.99-2.8	1.7	1.1-2.7	1.6	0.8-3.4	1.2	0.8-1.9	1.3	0.9-2.0
	Student	1.5	0.6-3.5	0.7	0.5-1.1	0.8	0.6-1.2	1.3	0.6-2.6	1.0	0.7-1.5	1.1	0.8-1.5
	Parental leave	0		0		0		2.6	0.3-26.1	1.4	0.3-6.2	1.7	0.5-5.8
	Sick lv., soc. w., retir.	1.2	0.8-1.8	1.9	1.2-2.8	1.4	1.1-1.8	0.9	0.7-1.2	1.1	0.8-1.6	0.9	0.8-1.1
	Other	0		0.7	0.1-3.5	0.6	0.1-2.8	0.4	0.0-4.4	0.6	0.2-2.2	0.6	0.2-1.7
Civil status	Single	1.6	1.2-2.8	1.4	1.1-1.8	1.5	1.3-1.8	0.9	0.7-1.2	1.1	0.9-1.3	1.0	0.9-1.2
	Partner	1		1		1		1		1		1	
Country of birth	Sweden	1		1		1		1		1		1	
	Other Nordic country	2.4	0.8-7.0	1.3	0.5-3.2	1.7	0.9-3.4	1.0	0.4-2.7	1.1	0.6-2.2	1.1	0.6-2.0
	Other country	2.1	0.99-4.2	1.4	0.9-2.0	1.6	1.1-2.2	2.0	1.05-4.0	1.0	0.7-1.4	1.2	0.9-1.5
Annual income (SEK)	≤149,000	0.9	0.5-2.0	2.3	1.4-3.9	1.7	1.1-2.6	1.0	0.6-1.6	1.1	0.8-1.6	1.0	0.8-1.4
	150-449 000	1.2	0.6-2.1	1.6	1.1-2.4	1.5	1.1-2.1	1.2	0.8-1.7	1.1	0.9-1.4	1.1	0.9-1.4
	≥450,000	1		1		1		1		1		1	
Parents' education (years)													
Mother	≤ 12	1		1		1		1		1		1	
	≥ 13	0.8	0.4-1.7	1.0	0.7-1.4	0.9	0.7-1.3	1.0	0.6-1.8	1.2	0.9-1.6	1.2	0.9-1.5
Father	≤ 12	1		1		1		1		1		1	
	≥ 13	1.4	0.8-2.6	1.3	0.9-1.8	1.3	0.96-1.7	1.2	0.7-1.9	1.0	0.7-1.3	1.0	0.8-1.3

Note: The results for the clinical sample has been published previously (9).
SA: Missing cases =151 (clinic) and 201 (Population). Cox & Snell R square = 0.01 (clinic) 0.01 (population) and 0.01 (both)
AHC: Missing cases =130 (clinic) and 186 (population) Cox & Snell R square = 0.02 (clinic) 0.03 (population) and 0.02 (both)
EA: Missing cases =122 (clinic) and 171 (Population). Cox & Snell R square = 0.03 (clinic) 0.04 (population) and 0.03(both)
PA: Missing cases =137 (clinic) and 174 (population) Cox & Snell R square = 0.04 (clinic) 0.02 (population) and 0.02 (both)

RESULTS

The response rate in the population sample was 50% (2924/5878). Our sample has a mean of 43 years, and compared to the official statistics for the region, our sample has a shortfall of 6% for men younger than 39 years. Men with more than 12 years' education were overrepresented, as were men with midrange income, compared to official statistics. Men born outside Sweden were underrepresented to an extent of 5% in the middle age groups compared with Statistics Sweden demographics (Table 2-3). More information about the exact differences between our sample and the population are reported in table 2 and 3 (13).

In the clinical sample the response rate was 78% (n=1767), as reported elsewhere (9). The measured background characteristics differed significantly ($p < 0.01$) between the population sample and the clinical sample (Table 4). Notably the respondents in the clinical sample were considerably older, less well educated, had less well educated parents, and were more often retired, on sick leave, or on social welfare.

The prevalence of reported experiences of the four kinds of abuse in the population sample is presented in 5. Child PA was the most frequently reported kind of abuse (31.6% only child PA, and an additional 4.2% both child and adult PA). Experiences of AHC were significantly more often reported in adulthood than in childhood ($p < 0.01$) or in both. This stands in contrast to the other kinds of abuse which were significantly more often reported in childhood ($p < 0.01$). Among men who reported EA, 66% (320/485) were currently suffering from this abuse. The corresponding number for AHC was 59% (123/210), for SA 47% (60/129), and for PA 25% (356/1418). The differences in proportions were significant ($p < 0.05$), except for the difference between EA and AHC ($p = 0.07$) (Table 5).

No significant difference ($p < 0.05$) was found in the age stratified comparisons of prevalence rates of any lifetime abuse between the two samples. Neither were there any significant differences regarding the prevalence of abusive experiences over the last 12 months for any of the four different kinds of abuse. Data is not shown since no significant difference was found.

With the exception of a weak association to civil status, the lifetime prevalence of men's experiences of SA was independent of background characteristics (Table 6). Lifetime PA was associated with high educational level and younger age, as well as, in the clinical sample, with being born outside of the Nordic countries (Table 6). Lifetime prevalence of EA was associated with most of the socio-demographic factors surveyed. The strongest associations were found for AHC and two of the background variables: low annual income (merged sample, OR 2.8 [1.5-5.3]), and being born outside the Nordic countries (merged sample, OR 2.2 [1.5-3.3]) (Table 6). In the model containing the merged sample the variable distinguishing between the population sample and the clinical sample was not significantly associated with the prevalence of any kind of abuse. The only significant interaction effect found between background characteristics and this distinguishing sample variable was for occupation in the model covering AHC ($p=0.01$). Being on social welfare was associated with reporting AHC in the population sample, but not in the clinical sample (Table 6). The differences seen between the samples regarding country of birth and AHC were borderline significant ($p=0.07$), as were the differences between income and EA ($p= 0.08$) (Table 6).

DISCUSSION

A large proportion of men in our study had been subjected to some kind of abuse. As in other studies, we found the highest prevalence for PA and the lowest for SA. The greatest proportion of victims who reported current suffering from abuse was victims of EA and AHC. These results indicate that physical abuse, though the most widespread form of abuse, may not necessarily have the strongest impact on men's lives. Among women, the same scale of "current suffering" has been used and then shown to correlate with symptoms of post-traumatic stress disorder (PTSD) (14). Hence this result may indicate adverse health effects for male victims of abuse, especially EA and AHC, that need to be further clarified

From a methodological point of view the absence of differences in prevalence between the population and clinical sample is interesting. Even though the response rate in our two samples varied greatly (population 50% and clinic 75%), no difference in prevalence was seen between the two samples. This implies that in our two studies neither the variation in response rate, nor the sampling method, had any major influence on the prevalence rates found. However, due to the significant level off non-responders there is still a possibility of sampling bias.

Considering the differences in background characteristics between the two samples (Table 4), and the differences in sampling methods, there is a possibility that the response rate and sampling method interacted and concealed actual differences in prevalence rates due to response rate and/or sampling method. However, NorAQ has previously been used in different female samples, both clinical and population based. When comparing prevalence rates from those studies, the same result as in this study was found; prevalence rates were associated with background characteristics but not with sampling method or response rate

(15). Hence, although prevalence rates must continue to be related to response rate and sampling method, it seems that these factors are of less importance when measuring prevalence of abuse. Instead, the relative lack of research about male victimisation and in particular the use of varying definitions of abuse in different studies remain the major obstacles for gaining a reliable estimation of the magnitude of abusive experiences among men as well as for making relevant comparisons of prevalence of abuse across countries, cultures and sex.

The prevalence of PA (3.0%) and SA (0.5%) during the last 12 months found in this study are in line with corresponding numbers found in the Swedish Crime Survey (PA 3.8% and SA 0.3%)(7). Comparisons should however be made cautiously considering differences in questionnaires used.

The prevalence of severe SA in our study (1.2%) was lower than the prevalence found in population-based studies in the US, where 2.1 % of men have reported completed rape (6, 16) and an additional 0.9 % reported attempted rape (16) (defined as completed/attempted forced penetrative sex, including anal or oral penetration). In our study SA among men was more prevalent in childhood than as an adult, which was also seen in the two US studies (6, 16). It is unclear if our lower prevalence rate reflects an actual difference in prevalence between the countries; it might also be due to methodological differences between the studies or reflect regional differences in awareness and acknowledgment of SA against men.

The prevalence of EA increased with lesser resources, for example, being young, having low income, or being born outside the Nordic countries. At a general level this is rather unsurprising, although it is unclear if such experiences of EA occur mainly in intimate

interpersonal situations in men's personal lives or through institutional processes, as in workplaces and other organisations.

In the population based sample more than 7% reported AHC which is remarkable not only because the study was conducted in a healthy population sample collected at random, but also from the perspective that AHC generated high scores on the current suffering scale. In an earlier study (17) based on qualitative interviews we have shown that the male experiences of AHC goes beyond earlier research limited to for instance patient satisfaction (18), disagreements (19) and misunderstandings in health care (20), and hospital errors (21). The interviews showed that AHC had a profound impact at a deep personal level, leaving the male patients emotionally stuck and unable to achieve their vital goals. Experiencing AHC was a serious attack on their autonomy and their value as human beings. Some of the strongest associations in the study were found for AHC and three of the background variables likely to indicate low class status: being on social welfare support, low income, and being born outside of Sweden. These associations may indicate that a more general societal discrimination may contribute to what is here called AHC.

An accessible population register including all men in the base population contributes to the generalisability of the present study. The overall response rate was reasonable for this kind of survey. However, by comparing our sample with official statistics from the county which the random sample was drawn from, we conclude that our sample over-represents the middle and higher classes and under-represents the working classes. Interestingly, in our study the prevalence of SA was not strongly associated to any socio-demographic factors and PA was only slightly related to being young and having a higher education. EA and AHC, on the other hand, showed associations to characteristics under-represented in our sample: being

young, having low income, or being born outside Sweden (Table 6). This reasoning leads us to assume that the prevalence of PA and SA is representative, and that prevalence of EA and AHC might be under-estimated in this study. EA and AHC are to be understood in relation to not only gender, but also intersections with, and indeed discriminations by, age, class and ethnicity.

It could be questionable to merge two samples from different populations as has been done for this study. However, by analysing the interaction effects we could show that the associations between the measured background characteristics and the experiences of abuse were the same for the two samples with only one statistically significant exception. Being on sick leave, retired or on social welfare was a risk factor for reporting AHC in the population, but not in the clinical sample. Also, by merging the samples we increased the included number of cases in the analyses considerably, and by doing so the CI for many analyses became slimmer and the estimates more robust.

The high prevalence of abusive experiences among men emphasise the need for a better understanding of men's experiences as victims of abuse. The relative lack of such knowledge is probably linked with dominant constructions of masculinity and femininity which tend to view abuse against women as self-evident but misrecognize men as victims within somewhat similar processes (22). It is also likely to be tied to debates that position men chiefly as perpetrators of abuse, thus tending to ignore the important associations between masculinity, abuse and vulnerability (23).

Since male victimisation is so prevalent, and men are the main perpetrators of abuse, it is inevitable so that some victims are also perpetrators of abuse, either against other men or

against women or children. It is hence important not to portray men's victimisation simply as equivalent to women's victimisation, particularly as the main aggressors towards men are other men, but rather to locate men's abusive experiences within the context of gendered violence, predominantly abuse by men, whether to women, children or other men. This is especially important as some media reports have misleadingly represented abuse of women and abuse of men as "symmetrical" (for a critical meta-review, see Kimmel (24)). A better understanding of links between male victimisation, male perpetration and constructs of masculinity is an important in understanding how abuse influences men's lives, and thus intensifying efforts towards primary prevention. Abuse, both perpetration and victimisation, is not an inevitable part of human life.

CONCLUSION

Abuse against men is prevalent and men are victimised as patients in health care. The response rate and sampling method do not seem to influence prevalence rates of abuse. Men's victimisation from emotional abuse and abuse in health care are related to low income and being born outside of Sweden and hence need to be analysed in the intersections of gender, class and ethnicity.

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