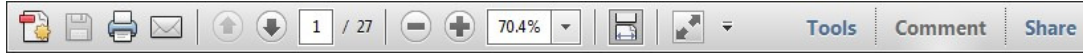
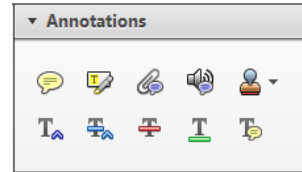


Once you have Acrobat Reader open on your computer, click on the [Comment](#) tab at the right of the toolbar:



This will open up a panel down the right side of the document. The majority of tools you will use for annotating your proof will be in the [Annotations](#) section, pictured opposite. We've picked out some of these tools below:



### 1. [Replace \(Ins\)](#) Tool – for replacing text.

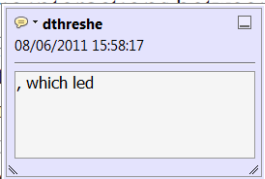


Strikes a line through text and opens up a text box where replacement text can be entered.

#### How to use it

- Highlight a word or sentence.
- Click on the [Replace \(Ins\)](#) icon in the Annotations section.
- Type the replacement text into the blue box that appears.

standard framework for the analysis of microeconomic activity. Nevertheless, it also led to the development of a number of strategic approaches. The number of competitors in an industry is that the structure of the industry is a main component. At the industry level, are externalities important? (Mankiw henceforth) we open the 'black b



### 2. [Strikethrough \(Del\)](#) Tool – for deleting text.



Strikes a red line through text that is to be deleted.

#### How to use it

- Highlight a word or sentence.
- Click on the [Strikethrough \(Del\)](#) icon in the Annotations section.

there is no room for extra profits as mark-ups are zero and the number of firms (net) values are not determined by market structure. Blanchard ~~and Kiyotaki~~ (1987), perfect competition in general equilibrium. The effects of aggregate demand and supply shocks in a classical framework assuming monopolistic competition and an exogenous number of firms

### 3. [Add note to text](#) Tool – for highlighting a section to be changed to bold or italic.



Highlights text in yellow and opens up a text box where comments can be entered.

#### How to use it

- Highlight the relevant section of text.
- Click on the [Add note to text](#) icon in the Annotations section.
- Type instruction on what should be changed regarding the text into the yellow box that appears.

dynamic responses of mark-ups consistent with the VAR evidence

satisfactory. Many studies have found that the number of competitors and the impact of demand



### 4. [Add sticky note](#) Tool – for making notes at specific points in the text.



Marks a point in the proof where a comment needs to be highlighted.

#### How to use it

- Click on the [Add sticky note](#) icon in the Annotations section.
- Click at the point in the proof where the comment should be inserted.
- Type the comment into the yellow box that appears.

and supply shocks. Most of the literature on the effects of demand and supply shocks in a classical framework assuming monopolistic competition and an exogenous number of firms is that the structure of the sector



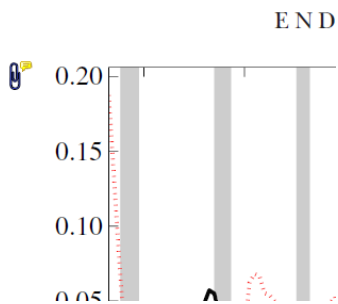
5. **Attach File** Tool – for inserting large amounts of text or replacement figures.



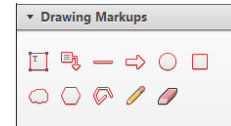
Inserts an icon linking to the attached file in the appropriate place in the text.

How to use it

- Click on the **Attach File** icon in the Annotations section.
- Click on the proof to where you'd like the attached file to be linked.
- Select the file to be attached from your computer or network.
- Select the colour and type of icon that will appear in the proof. Click OK.

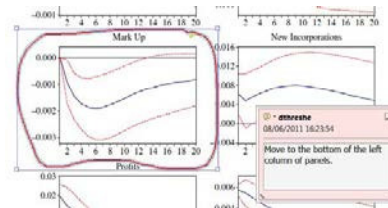


6. **Drawing Markups** Tools – for drawing shapes, lines and freeform annotations on proofs and commenting on these marks. Allows shapes, lines and freeform annotations to be drawn on proofs and for comment to be made on these marks.



How to use it

- Click on one of the shapes in the Drawing Markups section.
- Click on the proof at the relevant point and draw the selected shape with the cursor.
- To add a comment to the drawn shape, move the cursor over the shape until an arrowhead appears.
- Double click on the shape and type any text in the red box that appears.



# Prevalence of experienced abuse in healthcare and associated obstetric characteristics in six European countries

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### Key words

Abuse, violence against women, healthcare, antenatal care, fear of childbirth, cesarean section

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### Conflict of interest

The authors have stated explicitly that there are no conflicts of interest in connection with this article.

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### Abstract

**Objectives.** To assess the prevalence and current suffering of experienced abuse in healthcare, to present the socio-demographic background for women with a history of abuse in healthcare and to assess the association between abuse in healthcare and selected obstetric characteristics. **Design.** Cross-sectional study. **Setting.** Routine antenatal care in six European countries. **Population.** In total 6923 pregnant women. **Methods.** Cross-tabulation and Pearson's chi-square was used to study prevalence and characteristics for women reporting abuse in healthcare. Associations with selected obstetric factors were estimated using multiple logistic regression analysis. **Main outcome measures.** Abuse in healthcare, fear of childbirth and preference for birth by cesarean section. **Results.** One in five pregnant women attending routine antenatal care reported some lifetime abuse in healthcare. Prevalence varied significantly between the countries. Characteristics for women reporting abuse in healthcare included a significantly higher prevalence of other forms of abuse, economic hardship and negative life events as well as a lack of social support, symptoms of post-traumatic stress and depression. Among nulliparous women, abuse in healthcare was associated with fear of childbirth, adjusted odds ratio 2.25 (95% CI 1.23–4.12) for severe abuse in healthcare. For multiparous women only severe current suffering from abuse in healthcare was significantly associated with fear of childbirth, adjusted odds ratio 4.04 (95% CI 2.08–7.83). Current severe suffering from abuse in healthcare was significantly associated with the wish for cesarean section, and counselling for fear of childbirth for both nulli- and multiparous women. **Conclusion.** Abuse in healthcare among women attending routine antenatal care is common and for women with severe current suffering from abuse in healthcare, this is associated with fear of childbirth and a wish for cesarean section.

**Abbreviations:** AHC, abuse in healthcare; aOR, adjusted odds ratio; CI, confidence interval; CS, cesarean section; FOC, fear of childbirth; W-DEQ, Wijma Delivery Expectancy/Experience Questionnaire.

## Introduction

Abuse in healthcare (AHC) is an emerging concept without an agreed common definition. Studies suggest that the concept entails neglect, emotional (verbal), physical and even sexual abuse (1,2). A recent concept analysis of AHC in Nordic countries defines AHC as “patients’ subjective experiences of encounters with the healthcare system, characterized by events that lack care, where patients suffer and feel they lose their value as a human being” (3). Women have described AHC as the experience of being powerless, ignored, treated with carelessness and non-empathy (4). In Nordic studies, AHC is most often described as unintended (3,5), in contrast to studies from Asia, Africa, South-America, which report that AHC is frequently deliberate (1). Healthcare services may even facilitate the occurrence of AHC through lack of resources, time and proximity (5,6).

Among women attending gynecological clinics in Northern European countries 13–18% reported some lifetime AHC, based on the same three validated descriptive questions as used in the present study (7). Of these, 8–20% reported current suffering (7). AHC has been associated with symptoms of post-traumatic stress, sleeping problems, and poor self-rated health (7). A history of childhood abuse, young age and low educational level appear to be characteristics that may contribute to the risk of being abused in healthcare (8).

The perception of AHC is subjective and influenced by a person’s expectations of their care. Childbearing women may be more vulnerable to experiencing AHC, partly due to high expectations (9). A lifetime history of AHC may affect how a woman relates to healthcare offered in her current pregnancy. Avoidance of the healthcare system has been reported (1,10). In particular in low and middle income countries, AHC contributes to underutilization of skilled maternity care, and this is associated with maternal morbidity and mortality in childbirth (1,11,12). Research on AHC is limited and the majority of studies have been qualitative (1,3,4,10,12).

The objective of our study was first to assess the prevalence and current suffering of AHC among pregnant women attending routine antenatal care in six European countries and to explore differences between the countries. Secondly, our aim was to present the socio-demographic background for women with a history of AHC. Thirdly, we wanted to examine the association between a history of AHC and selected obstetric characteristics.

## Material and methods

The Bidens study, a six-country (Belgium, Iceland, Denmark, Estonia, Norway, and Sweden) cohort study recruited pregnant women attending routine antenatal

care from March 2008 to August 2010. A description of the study sites and the particulars of recruitment at each of these, has been published previously (13). Briefly, 7200 pregnant women who consented, subsequently completed a questionnaire and allowed extraction of specified data on delivery from their medical notes. The population size was determined by the primary aim of the Bidens cohort study, which was to assess the association between a history of abuse and mode of delivery (14). The estimated response rate varied from 50% in Norway to 90% in Estonia. For the purpose of this study we excluded women who failed to answer all three questions on AHC (149 women) and women for whom we lacked information on parity (128).

The questionnaire included questions on socio-economic background, general, and mental health and obstetric history. The questions on abuse were taken from the Norvold Abuse Questionnaire (NorAQ), which was developed in a Nordic multi-center study among gynecological patients (15). This validated instrument includes descriptive questions measuring emotional, physical, sexual abuse and AHC (16). AHC was assessed using three descriptive questions (Figure 1). The responses were classified according to the most severe level reported (mild, moderate or severe). The question measuring mild physical abuse as a child showed low specificity in the validation study and was therefore excluded (16). Women were defined as having experienced any other abuse if they answered yes to at least one of the questions of sexual, emotional and physical abuse (15). In addition, women were asked whether they had experienced the abuse during the past 12 months and how much, on a Visual Analogue Scale from 0 to 10, they currently suffered from the abuse. Current suffering was coded into: no suffering (0), moderate suffering (1–5) and severe current suffering ( $\geq 6$ ) (13).

Economic hardship was investigated by asking women how easy it would be for women to pay a bill of 4230 US \$ (originally converted from 20 000 SEK) within a week, adjusted by countries’ consumer price index to the level

### Key Message

The experience of abuse in healthcare is common among pregnant women in Northern Europe. Women who report current suffering from this abuse are more likely to express fear of childbirth and a preference for birth by cesarean section. Routine antenatal care provides a window of opportunity to identify such suffering and create new and positive experiences of healthcare.

Mild AHC	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 later were disturbed by or suffered from the experience?
Moderate AHC	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?
Severe AHC	Have you experienced anybody in the health services purposely, as you understood it, hurting you physically or emotionally, grossly violating you or using your body and your subordinated position to his or her own advantage?
Answering options	No, never Yes, as a child (<18) Yes, as an adult (≥ 18) Yes, both as a child and an adult

**Figure 1.** Questions and answer options in the Bidens study on abuse in healthcare (AHC).

appropriate in the participating countries. Thus the amount in Estonia was 24 700 EEK, i.e. less than half of that in Sweden (2105 US\$). The answering option “very difficult” was defined as experiencing economic hardship. Depressive symptoms were assessed using a short version of the Edinburgh Postpartum Depression Scale (EPDS-5) (17). Women indicating that beside their partner they had no one to confide in were categorized as not having social support. Women were asked if they had experienced the post-traumatic stress symptoms of avoidance, intrusions and numbness during the last 12 months. A positive answer to any of these defined a woman as having post-traumatic stress symptoms (7).

Fear of childbirth (FOC) was assessed by the Wijma Delivery Expectancy/Experience Questionnaire (W-DEQ) version A (18). A sum score of 85 or more is considered to represent severe FOC (19). Women were asked how they would prefer to give birth; the option “by cesarean section (CS)” was defined as a wish for CS.

Experience of previous childbirth was assessed by one question and the woman was said to have a negative birth experience if she described it as “mostly negative” or “very negative” and not “mostly positive” or “very positive”, which were the other alternative answers. Women were asked how they gave birth the first and last time. Answering options were recorded into “spontaneous vaginal birth” including cephalic or breech presentation, “instrumental vaginal birth” including vacuum extraction and forceps delivery, “elective CS” and “emergency CS”. Priority was given to the method of the last birth and only when this was lacking did the method for the first birth count.

### Ethics

The study was conducted in accordance with the ethical guidelines developed by the World Health Organization

(20), which highlight the importance of ensuring women’s safety, confidentiality and privacy. The information letter instructed women to complete the form in a place where they could be undisturbed, and included local telephone numbers and e-mail addresses to contact if help was desired. Additionally, in Belgium, Estonia and Sweden the participants had the opportunity to complete the questionnaires at the clinic, and measures were taken to avoid accompanying persons being present while the women filled out the survey. Formal approvals of local ethical committees and data protection agencies were obtained at all sites, as listed below.

**Belgium.** The Ethical Committee of Ghent University acted as the central ethical committee for the study; U(Z) Gent, 22012008/B67020072813, date of approval: 1 February 2008, Waregem hospital date added: 21 October 2008.

**Iceland.** The scientific board approved the study (24.06.2008-VSN-b2008030024/03-15) according to Icelandic regulations, date: 24 June 2008.

**Denmark.** Even though ethical approval for non-invasive studies is not required, the study was presented to the Research Ethics Committee of the Capital Region, who found no objections to the study (H-A-2008-002), date: 11 February 2008. Permission was obtained from the Danish Data Protection Agency (J.nr. 2007-41-1663).

**Estonia.** Ethical permission was given by the Ethics Review Committee on Human Research of the University of Tartu, Estonia; 190/M-29, 192/-22, 196/X-2, date: 17 December 2007, East-Tallinn Central Hospital added: 19 January 2009, Russian language and prolonged period added: 22 February 2010, East-Viru Central Hospital added: 26 April 2010.

**Norway.** The Regional Committee for Medical Research Ethics in North approved the study (72/2006), date: 29 August 2007; and the Data Inspectorate (NSD) (15214/3/) also approved the study, date: 19 December 2007.

**Sweden.** The study was approved by the Regional Ethical Committee in Stockholm (2006/354-31/1), date: 14 June 2006. The data was anonymized prior to analysis.

### Statistical analysis

Cross-tabulation and Pearson's chi-squared tests were performed to assess and compare the prevalence of AHC between countries. The same statistical analyses were performed to assess the prevalence of selected socio-demographic and obstetric factors by level of experienced AHC (none, mild, moderate or severe) and level of current suffering (none, mild to moderate, and severe). Level of significance was set at  $p < 0.05$ , two-sided. The association between AHC and selected obstetric factors was further examined by calculating adjusted odds ratios (aOR) with 95% confidence intervals (CI), using logistic regression analysis. Besides age and country of residence, we adjusted for the following a priori covariates based on the literature: any other abuse (8,21), gestational age for fill-

ing out the questionnaire, symptoms of depression, economic hardship and previous mode of delivery for multiparous women (22). The analyses of obstetric characteristics were stratified by parity as studies have shown that these groups differ considerably in relation to FOC (22). We performed a post-protocol sensitivity analysis for the association between AHC and a wish for CS among multiparous women adjusting for the same characteristics as for nulliparous women, i.e. without adjusting for previous mode of delivery, as their first mode of delivery could have been associated with AHC. Comparison group consisted of women with no AHC. Analyses were performed in SPSS version 19.0 (IBM Corp., Armonk, NY, USA).

### Results

Of all the 6923 women included, 1431 (20.7%) reported AHC, 951 (13.7%) as an adult only, 280 (4.1%) as a child only, and 200 (2.9%) both in adult- and childhood. The proportion of women reporting AHC differed significantly between the countries in our population. The prevalence of any lifetime AHC ranged from 13.5% in Belgium to 30.2% in Estonia (Table 1). AHC experienced during the past 12 months was also lowest in Belgium (1.7%) and Norway (1.9%) and highest in Estonia (5.2%)

**Table 1.** Prevalence of experience of abuse in healthcare and current suffering among pregnant women in the Bidens cohort study, 2008–2010.

	Belgium <i>n</i> = 837		Iceland <i>n</i> = 588		Denmark <i>n</i> = 1261		Estonia <i>n</i> = 939		Norway <i>n</i> = 2363		Sweden <i>n</i> = 935		Total <i>n</i> = 6923	
	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%
Level of severity														
Mild														
<18 years only*	19	2.3	14	2.4	24	1.9	27	2.9	31	1.3	16	1.7	131	1.9
≥18 years only***	16	1.9	44	7.5	97	7.7	60	6.4	87	3.7	51	5.5	355	5.1
Both***	7	0.8	9	1.5	9	0.7	10	1.1	8	0.3	9	1.0	52	0.8
Moderate														
<18 years only*	17	2.0	5	0.9	16	1.3	21	2.2	37	1.6	15	1.6	111	1.6
≥18 years only***	29	3.5	39	6.6	131	10.4	90	9.6	141	6.0	86	9.2	516	9.0
Both***	8	1.0	2	0.3	20	1.6	41	4.4	26	1.1	14	1.5	111	1.6
Severe														
<18 years only*	11	1.3	3	0.5	7	0.6	5	0.5	6	0.3	6	0.6	38	0.5
≥18 years only***	5	0.6	15	2.6	12	1.0	15	1.6	22	0.9	11	1.2	80	1.2
Both***	1	0.1	7	1.2	4	0.3	15	1.6	5	0.2	5	0.5	37	0.5
Abuse past 12 months***	14	1.7	25	4.3	61	4.8	49	5.2	44	1.9	36	3.9	229	3.3
Any lifetime abuse***	113	13.5	138	23.5	320	25.4	284	30.2	363	15.4	213	22.8	1431	20.7
Current suffering*** <sup>a</sup>														
None	45	39.8	44	31.9	73	22.8	107	37.7	128	35.3	51	23.9	448	31.3
Mild to moderate (1–5)	29	25.7	74	53.6	172	53.8	132	46.5	166	45.7	115	54.0	688	48.1
Severe (6–10)	11	9.7	13	9.4	63	19.7	17	6.0	37	10.2	39	18.3	180	12.6
Missing	28	24.8	7	5.1	12	3.8	28	9.9	32	8.8	8	3.8	115	8.0

\* $p < 0.05$ , \*\*\* $p < 0.001$ .

<sup>a</sup>Pearson's Chi-squared-test among those who reported experience of abuse in the healthcare,  $n = 1431$ .

and Denmark (4.8%) (Table 1). Severe current suffering was most frequent among Danish (19.7%) and Swedish (18.3%) women and least frequent among Estonian (6.0%) and Icelandic (9.4%) women (Table 1). In all, 629 nulliparous and 802 multiparous women reported having experienced AHC. Of these, 50 nulliparous women and 65 multiparous women did not answer the question on current suffering. The level of suffering those women reported, increased significantly with the level of severity indicated, for both nulliparous and multiparous women ( $p < 0.001$ ) (Table 1). Similarly, recent AHC was associated with more suffering than non-recent AHC for both nulli- and multiparous women ( $p < 0.001$ ) (data not shown).

AHC was significantly associated with women reporting suffering from economic hardship, post-traumatic and depressive symptoms, and lacking social support (Table 2). The majority of these associated characteristics showed a “dose-response effect”, i.e. increasing severity of the AHC was associated with an increasing proportion of women reporting any other abuse, symptoms of depression, and post-traumatic stress.

Experience of AHC before adjustment was significantly associated with FOC, a wish to give birth by CS, having received counseling during pregnancy, and the experience of miscarriage and termination of pregnancy for both nulliparous and multiparous women (Table 3). Likewise we observed an association between current suffering from AHC and the same selected obstetric characteristics, except for miscarriage or termination of pregnancy among both nulliparous and multiparous women (Table 4). After controlling for confounding characteristics, AHC reported by nulliparous women remained significantly associated with FOC in a dose-response fashion: aOR 1.50 (95% CI 1.03–2.19) for mild AHC, aOR 1.58 (95% CI 1.12–2.23) for moderate AHC, and aOR 2.25 (95% CI 1.23–4.12) for severe AHC (Table 5). Among multiparous women, moderate AHC was associated with counseling for FOC during pregnancy and a negative birth experience: aOR 2.31 (95% CI 1.49–3.59) and aOR 2.58 (95% CI 2.00–3.34), respectively. In the sensitivity analyses (i.e. not adjusted for previous mode of delivery), moderate AHC was also associated with a wish for CS [aOR 1.65 (95% CI 1.11–2.45)], while the associa-

**Table 2.** Socio-demographic characteristics for women reporting experience of abuse in healthcare (AHC), in the Bidens cohort study, 2008–2010.

	Mild AHC <i>n</i> = 538		Moderate AHC <i>n</i> = 738		Severe AHC <i>n</i> = 155		No AHC <i>n</i> = 5492		Total <i>n</i> = 6923		<i>p</i> -value Pearson's $\chi^2$
	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%	
<i>n</i> provided when cases missing											
Age <i>n</i> = 6909											
<25 years	77	14.3	84	11.4	23	14.8	701	12.8	885	12.2	0.027
25–30 years	221	41.2	281	38.2	63	40.6	2275	41.5	2840	41.1	
31–35 years	157	29.2	258	35.1	39	25.2	1798	32.8	2252	32.6	
≥35 years	82	15.3	113	15.4	30	19.4	707	12.9	932	13.5	
Education <i>n</i> = 6870											
<9 years	21	3.9	24	3.3	10	6.5	177	3.2	323	3.4	0.133
10–13 years	136	25.5	195	26.6	49	31.8	1389	25.5	1769	25.7	
>13 years	376	70.5	514	70.1	95	61.7	3884	71.3	4869	70.9	
Civil status											
Married/cohabiting	511	95.0	690	93.5	146	94.2	5244	95.5	6591	95.2	0.108
Not married/cohabiting	27	5.0	48	6.5	9	5.8	248	4.5	323	4.8	
Economic hardship	150	27.9	251	34.0	59	38.1	1320	24.1	1780	25.7	<0.001
Lacking social support	26	4.8	53	7.2	8	5.2	212	3.9	299	4.3	<0.001
Post-traumatic stress symptoms	111	20.6	179	24.3	41	26.5	503	9.2	834	12.0	<0.001
Symptoms of depression <i>n</i> = 6820	69	13.0	134	18.4	32	20.6	378	7.0	613	9.0	<0.001
Any other previous abuse <sup>a</sup>	295	54.8	455	61.7	127	81.9	1804	32.8	2681	38.7	<0.001
Parity											
Nulliparous	259	48.1	302	40.9	68	43.9	2787	50.7	3416	49.3	<0.001
Multiparous	279	51.9	436	59.1	87	56.1	2705	49.3	3507	50.7	
Gestational age when filling out the questionnaire <i>n</i> = 6873											
<20 weeks	89	16.6	125	17.1	22	14.5	848	15.5	1084	15.8	0.762
20–30 weeks	371	69.3	509	69.7	107	70.5	3781	69.3	4768	69.4	
>30 weeks	76	14.2	96	13.2	23	15.1	826	15.1	1021	14.9	

<sup>a</sup>Excluded mild physical abuse in childhood due to low specificity.

**Table 3.** Obstetric characteristics for women reporting experience of abuse in healthcare (AHC), by parity, in the Bidens cohort study, 2008–2010.

	Mild AHC		Moderate AHC		Severe AHC		No AHC		Total		p-value Pearson's $\chi^2$
	n	%	n	%	n	%	n	%	n	%	
Nulliparous n = 3416	n = 259		n = 302		n = 68		n = 2787		n = 3416		
Fear of childbirth	43	16.6	56	18.5	17	25.0	260	9.3	376	11.0	<0.001
Wish for CS	8	3.1	9	3.0	3	4.4	38	1.4	58	1.7	0.013
Counseling during pregnancy for FOC <sup>a</sup>	11	4.2	10	3.3	5	7.4	44	1.6	70	2.0	<0.001
Experience of miscarriage	37	14.3	61	20.2	16	23.5	358	12.8	472	13.8	<0.001
Experience of termination of pregnancy	46	17.8	67	22.2	15	22.1	368	13.2	496	14.5	<0.001
Multiparous n = 3507	n = 279		n = 436		n = 87		n = 2705		n = 3507		
Fear of childbirth	37	13.3	67	15.4	14	16.1	248	9.2	366	10.4	<0.001
Wish for CS	16	5.7	38	8.7	6	6.9	144	5.3	204	5.8	0.044
Counseling before pregnancy for FOC	10	3.6	24	5.5	6	6.9	91	3.4	131	3.7	0.064
Counseling during pregnancy for FOC	14	5.0	37	8.5	5	5.7	93	3.4	149	4.2	<0.001
Negative birth experience	55	19.7	137	31.4	19	21.8	390	14.4	601	17.1	<0.001
Previous mode of delivery: n = 3495											
Spontaneous vaginal birth	221	79.8	306	70.3	60	71.4	2013	75.0	2600	71.4	0.015
Instrumental vaginal birth	19	6.9	35	8.0	7	8.3	272	10.1	333	9.6	
Planned CS	13	4.7	25	5.7	5	6.0	123	4.6	166	4.8	
Emergency CS	24	8.7	69	15.9	12	14.3	277	10.3	382	11.0	
Experience of miscarriage	93	33.3	150	34.4	42	48.3	870	32.3	1155	32.9	0.015
Experience of termination of pregnancy	72	25.8	120	27.5	29	33.3	529	19.6	750	21.4	<0.001

<sup>a</sup>Only two women among the nulliparous women reported having received counseling for fear of childbirth before pregnancy. CS, cesarean section; FOC, fear of childbirth.

**Table 4.** Association between selected obstetric characteristics and current suffering from the experience of abuse in healthcare, by parity, among women reporting abuse in healthcare, in the Bidens cohort study, 2008–2010.

	No current suffering		Mild to moderate current suffering		Severe current suffering		p-value Pearson's $\chi^2$
	n	%	n	%	n	%	
Nulliparous n = 579 <sup>b</sup>	n = 196		n = 307		n = 76		
Fear of childbirth	30	15.3	53	17.5	28	36.8	<0.001
Wish for CS	3	1.5	9	2.9	7	9.2	0.005
Counseling during pregnancy for FOC <sup>a</sup>	4	2.0	12	3.9	9	11.8	0.002
Experience of miscarriage	29	14.8	60	19.5	14	18.4	0.393
Experience of termination of pregnancy	48	24.5	53	17.3	18	23.7	0.114
Multiparous n = 737 <sup>c</sup>	n = 252		n = 381		n = 104		
Fear of childbirth	23	9.2	54	14.2	30	28.9	<0.001
Wish for CS	11	4.4	27	7.1	20	19.2	<0.001
Counseling before pregnancy for FOC	10	4.0	19	5.0	9	8.7	0.187
Counseling during pregnancy for FOC	8	3.2	26	6.8	17	16.3	<0.001
Negative birth experience	47	18.7	101	26.5	45	43.3	<0.001
Experience of miscarriage	84	33.3	135	35.2	44	42.3	0.272
Experience of termination of pregnancy	79	31.3	92	24.1	30	28.8	0.128

<sup>a</sup>Only two women among the nulliparous women reported having received counseling for fear of childbirth before pregnancy.

<sup>b</sup>50 nulliparous women had not reported suffering.

<sup>c</sup>65 nulliparous women had not reported suffering.

CS, cesarean section; FOC, fear of childbirth.

tions remained non-significant for mild and severe AHC. Among women who reported having experienced AHC, severe suffering, but not mild or moderate suffering, was

associated with FOC, a wish for birth by CS, counseling for FOC during pregnancy for all women and a negative birth experience for multiparous women (Table 5). We





1 observed no significant association between the recent  
2 experience of AHC and the selected obstetric characteris-  
3 tics (Table 5).

## 4 Discussion

5  
6 In our study one in five pregnant women attending rou-  
7 tine antenatal care reported some lifetime AHC and cur-  
8 rent suffering from the perceived abuse was common.  
9 However, the prevalence of AHC varied significantly  
10 between the countries in the study. Characteristics for  
11 women reporting AHC included reporting other forms of  
12 abuse, economic hardship, lack of social support, and  
13 symptoms of post-traumatic stress and depression.  
14 Among nulliparous women, AHC was associated with  
15 FOC, in particular among women with severe current  
16 suffering. For multiparous women the association  
17 between AHC and FOC was only significant among  
18 women with severe current suffering from AHC. In fact,  
19 current severe suffering from AHC was significantly asso-  
20 ciated with FOC, the wish for birth by CS, and counsel-  
21 ing for FOC for both nulli- and multiparous women.  
22

23 Our study is based on a large unselected population of  
24 pregnant women attending routine antenatal care. A great  
25 advantage was the use of descriptive validated questions  
26 to assess AHC (16). The study was done in several North-  
27 ern European countries, which allowed differences  
28 between the countries to be explored. Translation of the  
29 questionnaire followed the accepted high standard for  
30 research, which includes translation, back-translation and  
31 comparison. Although we have used validated questions,  
32 these questions have only been validated in a Swedish  
33 context among mainly Swedish women (16). Further-  
34 more, the AHC questions were not designed specifically  
35 for an obstetric population and we have no information  
36 as to whether the AHC indicated was suffered as part of  
37 previous obstetric care, whether it concerned one or more  
38 or even recurrent events, and whether the woman was a  
39 patient herself or experienced AHC as a relative. Our  
40 study is cross-sectional and we can therefore not presume  
41 causality. We observed a “dose-response effect” in our  
42 study for most of the associations with the socio-econ-  
43 omic background characteristics, strengthening the sug-  
44 gession of a real association between AHC and the  
45 characteristics investigated (23). This “dose-response  
46 effect” was not as uniformly observed for the associations  
47 with the obstetric characteristics. Moderate AHC is about  
48 a “normal event” that unexpectedly and inexplicably  
49 turned into a horrible event. This question very clearly  
50 could refer to a previous childbirth and this would  
51 explain why for multiparous women the strongest associ-  
52 ations were found for moderate AHC, disrupting the  
53 dose-response effect.

The descriptive questions measuring AHC in our study reflect the essential attributes of being treated without empathy, care and respect, and losing value as a human being, as described in the concept analysis by Brugge-  
mann et al. (3). Mild AHC describes an offending, grossly degrading encounter, moderate AHC a really terrible and insulting experience, and severe AHC an intentionally grossly violating event. The questions are unlikely to be answered positively as the result of a healthcare worker “just doing their job”. It could be argued that patients may experience not being shown respect for their opinion (part of the description of mild AHC) when a healthcare worker makes a decision not fully understood by the patient. However, this part about disrespect is written in the context of other unacceptable practices such as black-mail.

AHC is not the same as medical error, nor does an evaluation of satisfaction actually capture AHC (3). Complaints may do so to some extent, as a considerable amount of them are about disrespect (24) and thus reflect the attribute “an uncaring encounter” (3). In agreement with the few other studies from high-income countries, the background variables associated with women reporting AHC paint a picture of vulnerable women who have experienced other forms of abuse and suffer from depressive and post-traumatic symptoms (7,8).

It seems right to presume that with an increasing number of contacts with the healthcare system the risk of experiencing AHC increases. This could explain why multiparous women reported AHC more often. It is not surprising that a history of AHC is associated with FOC for nulliparous women. These women have no real idea what is going to happen or how they will cope, and their previous experience with healthcare staff will logically add anxiety to their expectations as measured by the W-DEQ (18). Multiparous women have a previous birth experience to relate to and their expectations are about a known event. If the previous birth was an AHC event, it seems that only severe current suffering from this AHC experience contributed to more anxiety for birth.

There is no ready explanation for why there was such a variation in the prevalence of and associated suffering from AHC among the participating countries. This could partly be due to cultural aspects or a different understanding of the questions, despite our efforts to produce good translations. For the Belgian sample one-fourth of the answers for current suffering were missing. We do not know whether women did not answer because they were not suffering or whether they found it difficult to grade their suffering. Violence within the healthcare settings often reflects dynamics that are broadly prevalent in society, which may explain why the prevalence of suffering was highest in Estonia, whereas severe suffering was

lowest (1). If the events described in the questions are common they might be more likely to be experienced as “normal” (6). In each of the participating countries a good command of the “local” language was required for participation, except in Estonia, where the questionnaire was provided in both Estonian and Russian. Approximately 20% of the respondents in Estonia used the Russian language questionnaire. Most of these women lived in the Eastern part of Estonia where a Russian background and mother tongue are common. In Sweden, around 20% of the women reported their mother tongue to be different from the language of the questionnaire. The corresponding prevalence in Norway and Denmark was 7%, in Belgium 3% and in Iceland 1%. The variation in the ethnic composition of the national samples does not correspond with the prevalence of AHC and it seems unlikely that the AHC can be explained as “feeling discriminated against” or “cultural misunderstandings” by women recently immigrated or with a minority background. In fact, removing women who reported their mother tongue to be different from the language of the questionnaire did not change the prevalence of any AHC in any of the countries (data not shown).

AHC is a sensitive issue. It is difficult to accept that in a system meant to bring cure, comfort and care, patients may experience the opposite. Qualitative research suggests that professionals sometimes feels sure they know what is best for a patient without finding out whether the patient agrees or even tolerating disagreement from the patient on what is best (5). Individual wishes may be disregarded by staff when it is easier to standardize and follow procedures (5). Women may experience being objectified (dehumanized), stereotyped, meeting prejudice if their wishes are not understood. This kind of treatment is more likely when staff are involved in only a part of women’s care (5), for example assisting at a birth without being involved otherwise. Women are also more vulnerable when professionals are involved in care relating to intimate body parts, as in obstetrics. In addition, too few staff to care for too many women may lead to ignoring individual wishes. As a result, precious moments of joy can be ruined by rush or inconsiderate actions. Even well intended actions can be misunderstood. It may be necessary for healthcare workers to take time to discuss expectations and if necessary explain why these cannot be met.

It has been suggested that the topic of AHC should receive greater attention (1,6). A postpartum conversation with women about their childbirth experience may iron out misunderstandings, give the woman the opportunity to voice any uncaring treatment she has received and, if too late to prevent AHC, may prevent suffering from AHC. What seems crucial in preventing the occurrence of

AHC is enabling patients and healthcare workers to break their silence and speak up about AHC (10,25,26).

It was clear from our results that current severe suffering was significant in relation to the associated obstetric characteristics. Interestingly, women sought counseling during pregnancy. This suggests a great opportunity for treatment through listening, caring, attempting to understand, taking action to prevent re-victimization, and establishing confidence in the healthcare system.

Our study found that abuse experienced in healthcare is common among women attending routine antenatal care. For women with severe current suffering from AHC this is associated with FOC and a wish for CS. Health professionals in obstetric care should be aware of this. During pregnancy, women have regular contact with the healthcare services, offering an opportunity for dealing with past bad experience(s) and creating new positive experiences for the woman, leading to a re-establishment of confidence and trust in the healthcare.

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