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3 (41) 2016: 020-026 • ORIGINAL ARTICLE

Request for caesarean section – should it be combined with anxiety and depression?

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SUMMARY

Introduction. The number of pregnancies terminated by a Cesarean section (CS) has been rising in Poland for many years. This increase is particularly evident in the group of operations conducted for indications other than obstetric. One of the causes of this situation can be the lack of legal possibility to conclude pregnancy with a CS due to psychological reasons (so-called "CS on request"). A request for a CS may result from tocophobia or anxiety-depressive disorders. The aim of the study was to evaluate the level of anxiety-depressive disorders among women who opt for 'a CS on demand.'
Material and methods. An Internet survey was based on a proprietary diagnostic questionnaire, containing questions about anxiety associated with pregnancy and birth, and the Hospital Anxiety and Depression Scale. Calculations were done in Microsoft Excel 2007 with statistical significance of $p < 0.05$.
Results. 1,005 women participated in the study. Their mean age was 27 years. 58% of respondents think that CS should be available on request. In 25% of supporters of 'a CS on request,' HADS-A indicated symptoms of anxiety; among opponents, it was 17% ($p < 0.05$). Signs of depression were observed in 12% of supporters and 6% of opponents ($p < 0.05$).
Conclusions. Women who opt for "a CS on demand" are characterized by a higher level of anxiety-depressive symptoms. In women who want to terminate their pregnancy by a CS with no medical indications, symptoms suggesting anxiety and depressive disorders should be sought and psychological or psychiatric consultation should be considered.
Key words: cesarean section; depression; anxiety

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Word count: 2500 **Tables:** 5 **Figures:** 2 **References:** 37

Received: 13.01.2016
Accepted: 23.03.2016
Published: 19.09.2016

INTRODUCTION

The number of pregnancies terminated by a Cesarean section (CS) has been rising in Poland for many years [1–4]. According to data from 2010, 33.9% of pregnancies are concluded with a CS [4]. WHO guidelines state that CS should be used in not more than 10–15% of pregnancies [5]. This increase is particularly evident in the group of operations conducted for indications other than obstetric [1,2]. One of the causes of this phenomenon can be the lack of legal possibility to conclude pregnancy with a CS due to psychological reasons (so-called "CS on request") [6,7]. A request for a Cesarean section may be caused by tocophobia or anxiety-depressive disorders [8–11]. This issue is currently frequently debated in the media and leads to various discussions, also among obstetricians [11].

AIM

The aim of the study was to evaluate the level of anxiety-depressive disorders among women who opt for 'a CS on demand'.

MATERIAL AND METHODS

An Internet survey was based on a proprietary diagnostic questionnaire, containing questions about anxiety associated with pregnancy and birth, and the Hospital Anxiety and Depression Scale by Zigmond and Snaith [12]. The study was approved by the Ethics Committee.

The survey was placed online at www.ebadania.pl. Its address was then published on 15 Internet portals intended for women. The questionnaire was active from January to December 2012. Respondents could provide more than 1 answer to certain questions. Another tool used in the study was the Polish version of the

HADS scale translated by Majkowicz. The HADS is a screening tool for anxiety-depressive disorders. It consists of two separate and independent subscales for anxiety and depression (0–7 normal, 8–10 borderline disorders, 11–21 evident disorders). The Polish modification also contains a subscale for aggression, but it was not tested in this study. The scale was initially designed to screen for anxiety and depressive disorders in patients with various somatic conditions who are not psychiatric patients [13]. Subsequent investigations have demonstrated its efficacy in somatic, psychiatric and primary care patients as well as in the general population [14]. Compared with other similar scales, it is shorter and easier to fill in by patients [8], which was significant in this study considering its nature. Calculations were done in Microsoft Excel 2007 with statistical significance of $p < 0.05$.

RESULTS

1,005 women participated in the study. Their mean age was 27 years (±5). 18.61% of the respondents resided in rural areas, 11.84% were from a town of up to 20 thousand inhabitants, 16.32% – from a town of up to 50 thousand inhabitants and 12.04% – from a city of up to 100 thousand inhabitants. The majority of the respondents resided in a big city of over 100 thousand people (41.19%).

The surveyed women came from the following regions in Poland: Dolnośląskie – 7.66%; Kujawsko-Pomorskie – 3.18%; Lubelskie – 4.08%; Lubuskie – 1.69%; Łódzkie – 3.28%; Mazowieckie – 11.55%; Małopolskie – 11.44%; Opolskie – 8.56%; Podkarpackie – 3.78%; Podlaskie – 2.39%; Pomorskie – 5.27%; Śląskie – 22.5%; Świętokrzyskie – 3.28%; Warmińsko-Mazurskie – 1.39%; Wielkopolskie – 6.67%; Zachodniopomorskie – 3.28%.

Primary education was declared by 1.19% of women, vocational – 3.48%, secondary – 22.6%, higher – 53.13%, school pupils – 1.39% and students – 18.21%.

65.77% of patients remained in permanent relationships. For 64.24% of the women from this group, it was marriage, for 12.11% – engagement, for 14.42% – conjugal relationship and for 9.23% – partnership.

In the opinion of nearly a half of the respondents, their partners wanted to have children (49%). Every third woman (32%) believed that her partner wanted to have a child as soon as possible. Nearly a half of the respondents described their financial status as average. Those with a poor financial status significantly more often supported Cesarean section. Over a half of the surveyed women (57.81%) believed that Cesarean section should be available on request (supporters – group 1) whereas 42.19% believed the opposite (opponents – group 2).

The two groups were not significantly different in terms of age, number of women being currently pregnant, number of Cesarean sections conducted in the past or complications in the present or previous pregnancies. Concerns associated with pregnancy and labor were expressed by 59.38% of women from group 1 and 52.12% of women from group 2 ($p>0.05$). Statistically more women with a history of natural childbirth were opponents of a CS on request (group 2). The women who declared medical education were significantly more frequently opponents of a CS on request (group 1 – 13.25%, group 2 – 25.24%) (Tab.1).

The level of anxiety indicating evident anxiety disorder was observed in 25.3% of supporters of a CS on request; among opponents, it was 17.22% ($p< 0.05$) (Fig. 1). Evident signs of depression were observed in 12.22% of supporters and 6.13% of opponents ($p < 0.05$) (Fig. 2).

Tab. 1. Characteristics of the surveyed groups of women

	Supporters n=581	Opponents n=424	Total n=1,005 *p<0.05
Currently pregnant	37.87%	40.80%	39.10%
History of Cesarean section	10.50%	14.15%	12.04%
History of natural birth	21.17% *	33.49% *	26.37%
History of miscarriage	11.70%	15.09%	13.13%
Complications in previous pregnancies	12.05%	13.44%	12.64%
Complications in the present pregnancy	7.57%	8.73%	8.06%
Medical education	13.25% *	25.24% *	18.31%

Statistically significant differences between supporters and opponents of a CS on request were noted in the following aspects (self-assessment, scale 0–5, where 0 – no fear, 5 – very strong fear): strong fear of labor pain (group 1 – 41%, group 2 – 25%, total 24%), perineotomy (group 1 – 45%, group 2 – 30%) and bearing down (group 1 – 32%, group 2 – 16%), fear of losing blood during childbirth (group 1 – 20%, group 2 – 9%), death during childbirth (group 1 – 21%, group 2 – 11%), losing sexual ability (group 1 – 18%, group 2 – 8%), fear of other procedures associated with childbirth (group 1 – 35%, group 2 – 23%), inconveniences associated with pregnancy (group 1 – 13%, group 2 – 7%) and frequent gynecological check-ups (group 1 – 5%, group 2 – 1%).

When asked about the preferred manner of concluding own pregnancy, women from both groups usually stated that they would conform to the doctor's opinion (group 1 – 45%, group 2 – 43%). The opponents significantly more frequently selected natural birth as the manner to conclude their own pregnancy (group 1 – 27%, group 2 – 53%). Cesarean section was significantly more often selected by the supporters (group 1 – 26%, group 2 – 4%) (Tab. 2.). In women who declared medical education, 7.48% would like to conclude their pregnancy by a CS. This manner of childbirth was selected by 17.60% of women with higher education. Women with the history of miscarriage supported Cesarean section on request in 59% of cases.

Among the supporters who declared the will to conclude their own pregnancy by a CS (26%), 33% had a high HADS-A score (>11) and 19% had high HADS-D score. 43% of

Fig. 1. Number of women with a high HADS-A score (≥11)

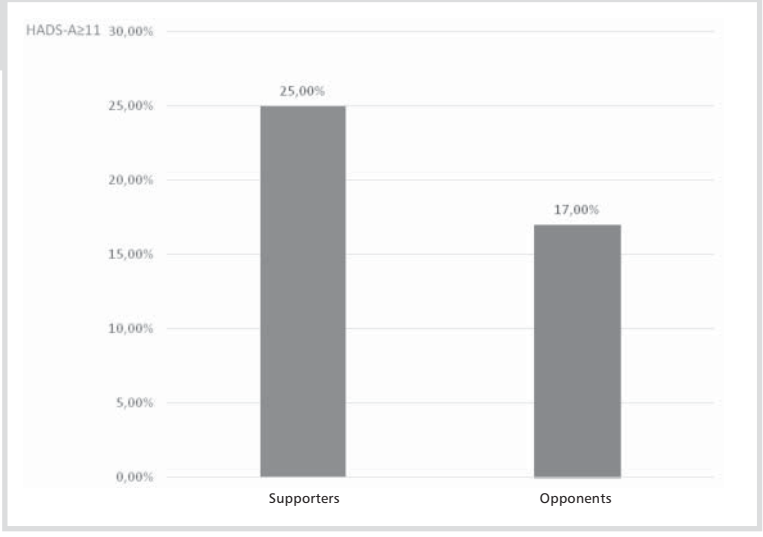
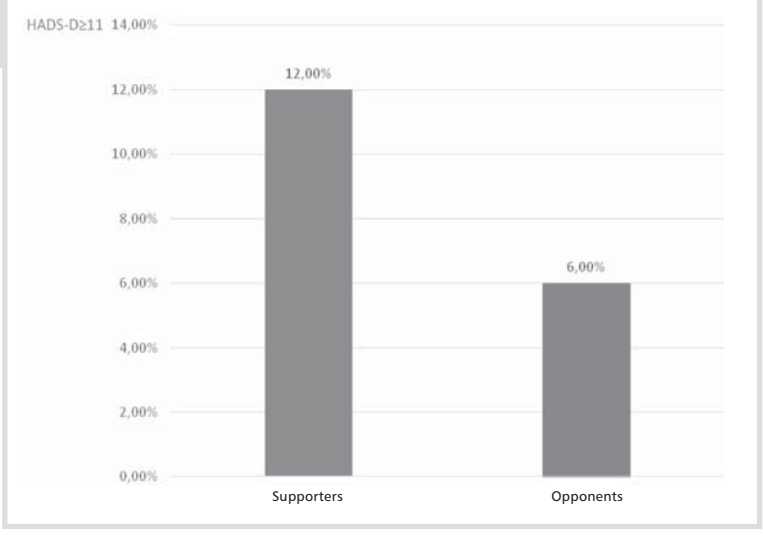


Fig. 2. Number of women with a high HADS score (≥11)



women who selected this manner of childbirth would change their minds and selected natural childbirth if they could receive anesthesia. The supporters of a CS on request more frequently selected a private hospital for a place to conclude their pregnancy (group 1 –36%, group 2 – 24%), whereas the opponents would choose a labor room in a public hospital (group 1 – 15%, group 2 – 22%). A single hospital room was the most frequently selected in both groups (Tab. 3). Almost all respondents (96%) thought that anesthesia for natural childbirth should be available on request free of charge.

The respondents self-evaluated their knowledge on pregnancy and childbirth on a 1–5 scale, where 1 denoted insufficient knowledge and 5 – very good knowledge. The supporters of CS on request statistically more frequently assessed their knowledge as insufficient, i.e. lower or equal to 3, whereas the opponents

Tab. 2. Preferred methods of ending own pregnancy

Methods of ending pregnancy	Supporters n=581	Opponents n=424	Total n=1,005 *p<0.05
Natural birth	26,68% *	52,59% *	37,51%
CS	26,16% *	4,01% *	16,82%
Miscarriage	2,75% *	0% *	1,59%
Physician	44,41%	43,40%	44,08%

Tab. 3. Preferred place of birth

Preferred place of birth	Supporters n=581	Opponents n=424	Total n=1,005 *p<0.05
Hospital, the room does not matter	15,32% *	21,70% *	18,01%
Hospital, but a single family room only	50,43%	55,66%	52,64%
Hospital, water birth in a single family room	24,10%	25%	24,78%
Private hospital	35,63% *	24,06% *	30,75%
Home	4,30%	5,66%	4,88%
Other	0,86%	1,65%	1,19%

Tab. 4. Self-assessment of knowledge

Self-assessment	Supporters n=581	Opponents n=424	Total n=1,005 *p<0.05
1 – Insufficient	1,38%	0,47%	1,00%
2 – Poor	8,26%	4,95%	6,87%
3 – Sufficient	28,57% *	13,92% *	22.38%
4 – Good	43,89%	48,58%	45,87%
5 – Very good	17,90% *	32,08% *	23,88%
Evaluation ≤ 3	38,21% *	19,34% *	30,25%

Tab. 5. Sources of knowledge

Sources of knowledge	Supporters n=581	Opponents n=424	Total n=1,005 *p<0.05
TV	3,44%	1,42%	2,59%
Internet	27,19%	20,75%	24,48%
Radio	1,89%	0,71%	1,39%
Women's magazines	11,02%	6,13%	8,95%
Magazines for women who plan pregnancy or are pregnant	24,61%	16,98%	21,39%
Medical and para-medical books	33,91%	34,91%	34,33%
Physician / gynecologist	68,67%	70,28%	69,35%
Close persons (e.g. mother, sister, friends)	35,63%	26,42%	31,74%
School / university classes	12,74%	18,63%	15,22%
Own experience	33,39%	37,59%	35,12%

significantly more often believed their knowledge to be very good (Tab. 4). The most important source of knowledge about pregnancy and childbirth in both groups was the physician (Tab. 5).

DISCUSSION

Anxiety and depressive disorders are one of the most common psychiatric conditions. Sartorius et al. report that 25% of primary care patients had detectable psychiatric disorders, with anxiety and depression being the most common (10.2% and 11.7%, respectively). Nearly a half of them were not diagnosed by a primary care physician [15–17]. Dróżdż et al. report that depressive disorders can affect 23% of primary care patients in Poland [18]. According to Słomko, Poręba et al., a mental disorder can be an indication for a Cesarean section. However, such an opinion raises controversies. According to these authors, many disorders from this group of indications should be treated critically and considered only temporary indications that might need verification during effective psycho- and pharmacotherapy, and as a woman gains knowledge about childbirth in ante-natal classes [11]. The lack of direct assessment of mental health by a psychologist or psychiatrist was a limitation of this study. Despite this, the results indicate a high risk of anxiety and depressive disorders in women who support a Cesarean section on request. Over a half of respondents (58%) believe that Cesarean section should be commonly available, and as many as 26% of them would like to conclude their pregnancy in this manner. According to Sienkiewicz et al., 70% of women believe that Cesarean section has become fashionable, and 21% of them would like to have it performed [19]. In studies by Skrzypulec et al. [20], this percentage is similar (20%). Moreover, Guzikowski et al. [21] report that 37.9% of women awaiting childbirth would like to end their pregnancy by a CS on request.

In a publication by Błaszczak et al., the STAI questionnaire showed that women with a high anxiety level as a trait before and after childbirth (16.9% of respondents) mostly (60.6%) gave birth by a Cesarean section. Moreover, CS was performed in 41.7% of women with anxious personality as a trait. The authors suggest that psychological assistance should be provided to these women during ante-natal classes [22].

The most significant factor that makes pregnant women consider Cesarean section is fear of pain [19]. It has been observed that anxiety is associated with sensitization of pain experience [23], and anxiety before childbirth is accompanied by lower tolerance to pain [24]. In this paper, fear of perineotomy was greater for the surveyed women than fear of labor pain. Moreover, women experience anxiety related to medical procedures associated with childbirth and to bearing down. Nowacki and Pańszczyk, based on a study conducted among women after a CS performed in a private hospital, found that making it easier to give birth to a healthy child was a superior factor for patients. It was followed by fear of pain and avoidance of late consequences of natural labor [25]. A similar relationship was observed by Skrzypulec et al. [20], Feinnman [26] and Singer [27]. According to Guzikowski et al., other causes of a CS on request were: anxiety about the postpartum condition of a neonate (20.2%), fear of long and exhausting labor (17.8%), fear of labor pain (15.2%), the right to decide about oneself (8.2%), anxiety associated with consequences of natural birth, such as pelvic prolapse (4.4%), and deterioration of the quality of sexual intercourse (3.2%). Only 5.3% of responses concerned safety issues, and all of them were associated with a belief that natural labor is more dangerous than Cesarean section [21].

According to Wardak and Iwanowicz-Palus, it can be suspected that patients fearing labor pain have no support from their environment, and tales about pain, exhaustion, complications and duration of labor only escalate anxiety [9]. In this paper, 24% of women evaluated fear of labor pain at 5 (scale 0–5). The attendance at ante-natal classes, family-assisted birth and reduction of anxiety before labor can reduce the number of requests for a CS. According to Piziak, the participants of ante-natal classes had natural births much more frequently even though there were no differences in the evaluation of anxiety associated with labor and subjective assessment of pain between participants of ante-natal classes and women who did not take part in such classes [28]. Kaźmierczak et al. observed that CS was needed half as often in a group of family-assisted labors, and primiparas needed analgesia less often. What is more, non-family-assisted labors were characterized by more frequent perineotomies, which are a reason of fear among women [29,30]. According to Sienkiewicz et al., women derive their knowledge mainly from the press (78%), and the greatest percentage of CS supporters (23%) were found among women whose main source of knowled-

ge was a doctor [19]. In the author's own studies, all women stated that a doctor was the most important source of knowledge. Those who declared medical education, and apparently possessed greater knowledge about a procedure of CS, were less willing for it to become widely available. According to English studies, 1/3 of female obstetricians would like to give birth by a CS. The main reason for such a decision was fear of pelvic floor muscle damage during childbirth and a belief about greater safety of a child during CS. This opinion was shared by 46% of male doctors [31,32]. Our study has demonstrated that 4% of opponents of CS on request would like to end their pregnancy in this manner. 2.75% of CS on request supporters would like to have a miscarriage. This manner of terminating pregnancy was not wanted by any of CS opponents.

Nowacki and Pańszczyk claim that women with higher and secondary education are convinced about positive consequences of a CS [25]. These data correspond with the results obtained by Błaszczak, Plich and Szamlewska [22], according to which women with higher education and good financial status were characterized by increased anxiety. This, however, is not confirmed by Saisto and Halmesmäki [33], who claim that fear of labor is characteristic of women with lower education and poorer financial status. In our studies, women with lower education (primary, vocational) statistically more frequently opted for a CS on request.

The supporters of a CS on request more often indicated private hospitals as preferred places for childbirth, probably because such places facilitate obtaining the requested procedure. This dependency was confirmed in many studies [25,34–36]. In this study, all women more often selected a single room as a preferred place for delivery. This indicates a need to create intimate conditions during childbirth. An option of home birth was not popular.

Women who had previously given birth in a natural way were more frequently against CS on request. According to Cekański [8], strengthening motivation for natural birth is the way to reduce the number of CS requests. He provides the example of Norway, where after appropriate therapeutic management 65–63% of women requesting a CS changed their mind and agreed to give a natural birth (only 14% did not withdraw their requests). Since the most common reason for a CS request is fear of pain [8,11,19,23–25], 43% of women (in our study) would change their decision about a CS if offered effective analgesia during labor. In order to reduce the number of requests for a CS, Suchocki [37] suggests conducting conversations about childbirth with pregnant patients during check-up visits. These conversations should include their concerns, preferences about the manner of delivery and possibilities of pain management.

CONCLUSIONS

1. Women who opt for "a CS on demand" are characterized by a higher level of anxiety-depressive symptoms.
2. In women who want to terminate their pregnancy by a CS with no medical indications, symptoms suggesting anxiety and depressive disorders should be sought and psychological or psychiatric consultation should be considered.
3. The introduction of analgesia to natural labor could reduce the number of CS requests.
4. Persuading women to give birth naturally could reduce the number of requests for a Cesarean section during subsequent childbirths.

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