

Original Research

Satisfaction and Experiences of Gynecology and Obstetrics Residents in Croatia and Bosnia and Herzegovina with Training in Obstetrics

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Academic Editor: Michael H. Dahan

Submitted: 20 December 2022 Revised: 23 March 2023 Accepted: 10 April 2023 Published: 27 June 2023

Abstract

Background: Specialization in gynecology and obstetrics is declared by the laws and regulations of individual countries prescribed by the competent Ministry of Health, as well as in Croatia and Bosnia and Herzegovina. **Methods:** During the daily clinical practice, educational unevenness and dissatisfaction of individual residents were noticed along with other organizational-communication and professional problems in basic obstetric skills, which we objectified by a voluntary anonymous survey of 122 residents of gynecology and obstetrics (RGO) from Croatia and Bosnia and Herzegovina. Residents completed survey during their postgraduate resident education. **Results:** RGOs state global dissatisfaction with specialization in 78.6%, believe in 84.4% that the skills and number of skills are not consistent with the years of specialization and 89.3% believe that they do not have enough skills to be able to work independently after specialization. Thus, the average number of skills from the first level competencies according to 1–5 years of specialization correlates with the above: the average number of cesarean section is 95.6, vaginal breech delivery extremely low 2.2, vacuum extraction 6, forceps in the Croatia and Bosnia and Herzegovina does not perform, care of obstetrics anal sphincter injuries average 3 as well as shoulder dystotia, internal version 0.36 and external version 0.6. Thus, 29.5% of them believe that there is a global lack of interest in the specialization system, 31.9% cite the incompetence of mentors, 33.6% the usual practice of individual schools and clinics. In conclusion, 59.8% of RGOs believe that obstetrics is a challenging profession, 10.6% a demanding profession, 18.8% consider it a dangerous occupation, only 13.9% an attractive occupation, and the fact that obstetrics has turned into a profession with caesarean sections as the most common skill is considered by 56.6%, even 84.2% of RGOs in the last year of specialization. **Conclusions:** There is evidently an academic-professional disproportion between the necessity and need for education and skills, that is, required competencies and reality. We must become and be arbiters between anti-obstetrics and obstetrics full of skills and craftsmanship as a true profession of allopathic conventional medicine, and academic honesty towards RGOs.

Keywords: gynecology; obstetrics; education; skills; specialization

1. Introduction

Specialization in gynecology and obstetrics (G&O) is declared by the laws and regulations of individual countries prescribed by the competent Ministry of Health, as well as in Croatia and Bosnia and Herzegovina. Through the evolution of medicine from a basic general surgical specialty, G&O is a specialization made up of numerous skills for which a five-year specialization is sufficient, and then hospital specialists can focus on narrower specialties whose education lasts two more years according to current regulations. Thus, the Rulebook states the following: “The specialist has fully mastered the thematic area, knows the appropriate literature and is able to work independently and solve problems from the thematic area”, thus declaring the independent performance of obstetric operations 40 caesarean sections (CS), 40 assisted vaginal births—vaginal breech delivery (VBD), forceps or vacuum extraction (VE),

release of shoulder dystocia (SD), management of obstetrics anal sphincter injuries (OASIS) [1–4].

2. Material and Methods

During the daily clinical practice, educational unevenness and dissatisfaction of individual residents were noticed along with other organizational-communication and professional problems in basic obstetric skills, which we objectified by a voluntary anonymous survey of 122 residents of G&O (RGO) from Croatia (RH) and Bosnia and Herzegovina (BH). Residents completed survey during their postgraduate resident education.

In the survey, multiple-choice questions were asked, and the results were processed as numeric and percentages.



Table 1. General characteristics of participants, level of satisfaction with specialization and knowledge of competencies.

Year of specialization	1	2	3	4	5	Total 122
N (%)	n = 18 (14.7)	n = 31 (25.4)	n = 35 (28.6)	n = 19 (15.5)	n = 19 (15.5)	(100%)
The institution for which resident specializes						
- Outpatient system	2 (11.1)	7 (22.2)	6 (17.1)	4 (21)	4 (21)	23 (18.8)
- General hospital/county - cantonal hospital	11 (61.1)	6 (19.3)	14 (40)	9 (47.3)	8 (42.1)	48 (39.3)
- Clinical center/UCC	5 (27.7)	18 (58.1)	15 (42.8)	6 (31.5)	7 (36.8)	51 (41.8)
Global satisfaction with specialization						
Yes	5 (27.7)	4 (12.9)	6 (17.1)	6 (31.5)	5 (26.3)	26 (21.3)
No	13 (72.2)	27 (87.1)	29 (82.8)	13 (68.4)	14 (73.7)	96 (78.6)
Are the skills and their number consistent with the years of specialization?						
Yes	4 (22.2)	5 (16.1)	4 (11.4)	2 (10.5)	4 (21)	19 (15.5)
No	14 (77.7)	26 (83.8)	31 (88.6)	17 (89.4)	15 (78.9)	103 (84.4)
Do you think you have enough skills to be able to work independently in the delivery room immediately after the specialist exam?						
Yes	1 (5.5)	1 (3.2)	2 (5.7)	3 (15.7)	6 (31.5)	13 (10.6)
No	17 (94.4)	30 (96.7)	33 (94.2)	16 (84.2)	13 (68.4)	109 (89.3)
Are there a total of 40 basic obstetric procedures/skills						
- Enough for independent work	6 (33.3)	17 (54.8)	21 (60)	11 (57.9)	11 (57.9)	66 (54.1)
- Insufficient (dangerous)	12 (66.6)	14 (45.1)	14 (40)	8 (42.1)	8 (42.1)	56 (45.9)
Information about the level of competencies of residents in the country						
Yes	5 (27.7)	8 (25.8)	11 (31.5)	4 (21.1)	8 (42.1)	36 (29.5)
No	13 (72.2)	23 (74.1)	24 (68.5)	15 (78.9)	11 (57.9)	86 (70.4)
Do you consider yourself a competent obstetrician for your level of education?						
Yes	2 (11.1)	2 (6.4)	4 (11.5)	5 (26.3)	8 (42.1)	21 (17.2)
No	16 (88.8)	29 (93.5)	31 (88.5)	14 (73.6)	11 (57.9)	101 (82.7)
Does specialization have to be the same for inpatient and outpatient systems?						
Yes	9 (50.0)	18 (58.1)	21 (60)	13 (68.4)	12 (63.1)	73 (59.8)
No	9 (50.0)	13 (42)	14 (40)	6 (31.5)	7 (36.8)	49 (40.1)

UCC, university clinical center.

3. Results

The results were processed and presented in numbers and percentages in Tables 1,2,3,4. In Table 1, RGOs state global dissatisfaction with specialization in 78.6%, believe in 84.4% that the skills and number of skills are not consistent with the years of specialization and 89.3% believe that they do not have enough skills to be able to work independently after specialization. However, 54.1% of the RGOs believe that the 40 basic skills prescribed by the rulebook are not sufficient for independent work because all obstetrical skills (except caesarean section) are set collectively, so 82.7% of them are considered incompetent obstetricians for the level of education. 70.4% of RGOs are not informed about the level of competences in their country, 59.8 of them believe that specialization should be the same for outpatient and hospital systems, however, 40.1% believe that they should not be the same (like, France), because 18.8 % of outpatient system residents do not need to master all operative skills from the G&O residency program.

Obstetrical competencies certainly depend on the institutions where specialization is performed (Table 2). 61 (50%) RGOs specialized in a general/county/cantonal hospital (CH) as a secondary perinatal care center (first group), and 61 (50%) in a clinical center (CC) or university clinical

center (UCC) as a tertiary level perinatal care (second group). The percentage of performing CS between groups I and II is almost 12% higher, and the differences between the technique of performing CS are not significant. Internal manual rotation is not performed in any CH, while it is performed only in one CC (so below 1%). There is a similar relationship between internal and external fetal version, with the fact that versions are practiced more often in UCC. VBD and VE is performed more often in the first group, unlike the second. OASIS repair in both institutions is performed 50% by obstetricians and 50% by surgeons, which is certainly not the basis of good clinical practice. The trainees believe that 84.4% of manual assistance with SD is performed in both groups, and in 15.5% they believe that inadequate procedures are carried out. The incidence of routine episiotomy is still high, up to 43.3%, with a slightly lower incidence in the first group. Funda pressure (FP) is mandatory, routinely performed in an extremely high percentage of 86.8% FP, and selectively in 13.1%, while there is no hospital where FP is not performed! Manual or digital revision of the scar after vaginal birth after caesarean (VBAC) is performed in almost 60% with minor differences between institutions, although the state of the art has been to avoid this procedure as unnecessary for almost two decades. It is evident that certain skills are based on es-

Table 2. Obstetrical competencies according to institutions where specialization is performed.

Obstetrical competencies	General Hospital/Cantonal Hospital	Clinical center/University Clinical Center	Total
N (%)	N 61 (50)	N 61 (50)	122 (100%)
Average number of cesarean sections performed per resident	65.5	53.3	59.4
Cesarean section method			
- Misgav Ladach (Stark)	27 (44.2)	30 (49.2)	57 (46.7)
- Dorffler	22 (36)	19 (31.1)	41 (33.6)
- Modified method (Habek)	12 (19.6)	12 (19.6)	24 (19.6)
Liepmann internal manual rotation			
Yes	0 (0)	1 (1.6)	1 (0.82)
No	61 (100)	60 (98.3)	121 (99.1)
Internal version			
Yes	2 (3.2)	26 (42.6)	28 (22.9)
No	59 (96.7)	35 (57.3)	94 (77)
External version			
Yes	1 (1.6)	30 (49.2)	31 (25.4)
No	60 (98.3)	31 (50.8)	91 (74.6)
Vaginal breech delivery			
Yes	41 (67.2)	26 (42.6)	67 (54.9)
No	20 (32.7)	35 (57.3)	55 (45.1)
Delivery by vacuum extraction			
Yes	58 (95.1)	35 (57.3)	93 (76.2)
No	3 (4.9)	26 (42.6)	29 (23.7)
Management of OASIS by obstetricians			
Yes	26 (42.6)	35 (57.3)	61 (50)
No	35 (57.3)	26 (42.6)	61 (50)
Proper manual assistance in the delivery of shoulder dystocia			
Yes	49 (80.3)	54 (88.5)	103 (84.4)
No	12 (19.6)	7 (11.4)	19 (15.5)
An episiotomy is performed			
- Routine	25 (40.9)	28 (45.9)	53 (43.4)
- Selective, restrictive	36 (59)	33 (54.1)	69 (56.5)
Using fundal pressure			
- Yes (required)	55 (90.1)	51 (83.6)	106 (86.8)
- No			
- Selectively	6 (9.8)	10 (16.3)	16 (13.1)
Is manual/digital revision of the VBAC scar performed			
Yes	38 (62.2)	35 (57.3)	73 (59.8)
No	23 (37.7)	26 (42.6)	49 (40.1)

OASIS, obstetrics anal sphincter injuries; VBAC, vaginal birth after caesarean.

established practice, i.e., customary law and inherited competences in some institutions. Thus, the average number of skills from the first level competencies according to 1–5 years of specialization correlates with the above: the average number of CS is 95.6, VBD extremely low 2.2 (due to elective CS for breech presentation), 6 VE, forceps in the RH and BH does not perform, care of OASIS average 3 as well as SD, internal version 0.36 and external version 0.6. It can be concluded from these data that the basic competences, apart from the performance of CS, are not correlated with the number needed to acquire independent work (Table 3). Table 4 shows the results of the RGOs on the reasons

for insufficient specialist practical education. Thus, 29.5% of them believe that there is a global lack of interest in the specialization system, 31.9% cite the incompetence of mentors, 33.6% the usual practice of individual schools and clinics. However, in the same way that in a high 80.3% there is “independent medicine” without guidelines and unification, fear in 25.4% and ignorance in 22.9% cite other reasons; fear of forensic implications is considered reasonable in 36.8%, unreasonable in 15.5%, and imposed 36.6%. In conclusion, 59.8% of RGOs believe that obstetrics is a challenging profession, 10.6% a demanding profession, 18.8% consider it a dangerous occupation, only 13.9% an attrac-

Table 3. Number of skills from first level competencies (n%).

Year of specialization	1	2	3	4	5	Total 22 (%)
N = 122	n = 18	n = 31	n = 35	n = 19	n = 19	
Cesarean section (average number)	18.6	34.8	82.5	108.3	236.6	95.6
Breech delivery (average number)	1.5	1.8	3.5	2.5	4.3	2.2
Vacuum extraction (average number)	2	6.2	9	4.3	9.5	6
Forceps (average number)	0	0	0	0	0	0
Management of OASIS (average number)	0.25	1	7	4.5	3.8	3
Management of shoulder dystotia (average number)	1.5	3.4	4	4.6	3.5	3
Internal version (average number)	0.25	0	0.5	0.4	0.42	0.36
External version (average number)	0.25	1	1	1	0.71	0.6
Total (average number)	2.75	5.75	13.2	15.3	31.8	13.6

OASIS, obstetrics anal sphincter injuries.

Table 4. Reasons for insufficient resident practical education.

Year of specialization	1	2	3	4	5	122
N (%)	n = 18	n = 31	n = 35	n = 19	n = 19	
Global disinterest in the specialization system	3 (16.6)	6 (19.35)	6 (17.1)	9 (47.3)	12 (63.1)	36 (29.5)
Incompetence of the mentor	4 (22.2)	11 (35.5)	10 (28.6)	8 (42.1)	6 (31.5)	39 (31.9)
Usual practice of individual clinics and departments	8 (44.4)	10 (32.2)	4 (11.4)	4 (21)	15 (78.9)	41 (33.6)
Is there a principle of “self-practicing medicine” in your institution?	11 (61.1)	25 (80.6)	32 (91.5)	14 (73.6)	16 (84.2)	92 (80.3)
Fear	3 (16.6)	9 (29)	4 (11.4)	6 (31.5)	9 (47.3)	31 (25.4)
Nescience	2 (11.1)	8 (25.8)	5 (14.3)	6 (31.5)	7 (36.8)	28 (22.9)
Fear of forensic implications						
- Reasonable	9 (50)	12 (38.7)	11 (31.4)	7 (36.8)	6 (31.5)	45 (36.8)
- Unreasonable	1 (5.5)	4 (12.9)	5 (14.3)	4 (21)	5 (26.3)	19 (15.5)
- Imposed	8 (44.4)	15 (48.4)	17 (48.5)	7 (36.8)	9 (47.3)	44 (36.6)
Obstetrics is a challenging profession	10 (55.5)	16 (51.6)	22 (62.8)	11 (57.9)	14 (73.6)	73 (59.8)
Obstetrics is a demanding profession	3 (16.6)	5 (16.1)	2 (5.7)	1 (5.2)	2 (10.5)	13 (10.6)
Obstetrics is a dangerous profession	4 (22.2)	6 (19.3)	3 (8.5)	2 (10.5)	8 (42.1)	23 (18.8)
Obstetrics is an attractive profession	4 (22.2)	2 (6.45)	1 (2.8)	2 (10.5)	8 (42.1)	17 (13.9)
Has obstetrics turned into the art of caesarean section?	8 (44.4)	15 (48.4)	19 (54.3)	11 (57.9)	16 (84.2)	69 (56.6)

tive occupation, and the fact that obstetrics has turned into a profession with caesarean sections as the most common skill is considered by 56.6%, even 84.2% of RGOs in the last year of specialization.

4. Discussion

Obstetrics is a profession of high professional and forensic risk, and numerous forensic reports and expertise emphasize constant basic and constant “refresh” education as the basis for preventing unwanted events and thus preserving the dignity of the professionalism of obstetrics [1–4]. Thus, recent works indicate a significant reduction of birth injuries in SD with continuous training of skills [1–9], as well as in VBD [10–14], with the desire and will to improve skills, especially in the delivery of twins and VBD, although with a smaller share due to insufficient numbers according to a recent New Zealand study [14]. Also, there are articles by Swiss authors who critically processed the monitoring and interpretation of the learning curve of residents from performing CS, as well as basic abdominal operations

in obstetrics [15], and Soergel *et al.* [16] presented article in which they found that experience during CS reaches a plateau after 10–15 CS, however, they emphasize that the learning process is highly individualized and difficult to predict, so supervision and evaluation of the resident by an experienced surgeon is important.

The fact is that the practice of G&O specialization is defined according to individual countries, but it is not globally unified and depends on numerous independent factors. Current perinatal statistics depend on the institutions, unified and non-unified clinical practice of individual institutions, obstetric authorities who promote classic obstetric skills and training in contrast to those who promote only CS in twin pregnancies, breech presentation, malpresentation and malposition of the fetus as the only obstetric skills and thus a complete they ruin the name of the G&O specialization and prevent the acquisition of basic obstetric skills. These fundamental manual skills in obstetrics, especially in emergencies (e.g., shoulder dystocia) directly correlate with perinatal outcome, as proven by all clinical and forensic studies from historical to recent.

The fact of today's obstetrics is a significant increase in the performance of the most frequently elective CS from various obstetric and non-obstetrics reasons over the past two decades in the world, as well as in the Republic of Croatia and Bosnia and Herzegovina [17,18], which contributed to a decrease in experience in basic obstetric skills, as well as a decrease in skills and the incompetence of solving complicated peracute obstetric cases that became the reasons for litigation processes, and such an enormous number of CS pandemics became a problem today due to placenta accreta spectrum disorders (PAS), which became an iatrogenically determined obstetric problem [19–21]. However, numerous papers indicate the reduction of unnecessary CS by revitalizing basic obstetric skills and using those skills in daily practice [22–26].

Furthermore, in the Republic of Croatia and Bosnia and Herzegovina there is a problem of midwifery still being an unregulated profession in Bosnia and Herzegovina, while in Croatia it is regulated by the Law on Midwifery, but it is not consistently applied. Thus, in addition to an inadequate number of set competencies and skills, RGOs actually have to perform part of the elementary midwifery profession during their specialization, which is unacceptable in the western developed world, especially when there are numerous reports on midwifery procedures, including recent reports on midwifery VBD [12].

Although G&O specialization programs are defined, the learning curves will not be identical for all RGOs of all specializations in all institutions. In non-clinical institutions (CH), the young RGOs will immediately start a more intensive program, especially the acquisition of skills in operating professions, which will be felt when comparing the types and number of RGOs skills of the same levels in CC and UCC. Therefore, mentoring and monitoring of specializations is a necessity of the system, about which numerous discussions have been and will be, because there are situations in our area when the specialist does not even know who his mentor is, and his education will be spontaneous and elemental. As we like to refer to neighboring countries towards the West, it is necessary to accept their ways of monitoring specializations because they are based on grading and acquisition of skills and knowledge and their meticulous monitoring for the benefit of all participants, especially RGOs. However, as there is an obvious difference between the specializations in G&O in the Republic of Croatia and Bosnia and Herzegovina and the countries of the Western world, the results cannot be compared, so this research of ours as an Editorial wanted to point out this problem of one country in the European Union and one country in transition. We hope that this highlighted problem will be fixed by the mentoring system and RGOs will enable mastering of basic skills because they are aware of their incompetence.

5. Conclusions

There is evidently an academic-professional disproportion between the necessity and need for education and skills, that is, required competencies and reality. We must become and be arbiters between anti-obstetrics and obstetrics full of skills and craftsmanship as a true profession of allopathic conventional medicine, and academic honesty towards RGOs.

Availability of Data and Materials

The datasets used and/or analyzed during the current study are available from the corresponding author on reasonable request.

Author Contributions

DH contributed to the collection of data and writing the manuscript. AC, MM, PŠP, MB and RH contributed to analysis of the data and writing the manuscript. All authors contributed to editorial changes in the manuscript. All authors read and approved the final manuscript. All authors have participated sufficiently in the work to take public responsibility for appropriate portions of the content and agreed to be accountable for all aspects of the work in ensuring that questions related to its accuracy or integrity.

Ethics Approval and Consent to Participate

Not applicable.

Acknowledgment

We would like to express our gratitude to all those who helped us during the writing of this manuscript.

Funding

This research received no external funding.

Conflict of Interest

The authors declare no conflict of interest. Dubravko Habek is serving as one of the Editorial Board members and Guest editors of this journal. We declare that Dubravko Habek had no involvement in the peer review of this article and has no access to information regarding its peer review. Full responsibility for the editorial process for this article was delegated to Michael H. Dahan.

References

- [1] Mehlman MJ. Medical practice guidelines as malpractice safe harbors: illusion or deceit? *The Journal of Law, Medicine & Ethics*. 2012; 40: 286–300.
- [2] Domingues AP, Moura P, Vieira DN. Obstetric litigation: the importance of the quality of clinical files and its influence on expertise conclusions. *Journal of Obstetrics and Gynaecology*. 2015; 35: 146–149.
- [3] Habek D. Forensic expertise in obstetrics and gynecology - Forensic expert experience. *European Journal of Obstetrics, Gynaecology, and Reproductive Biology*. 2021; 256: 1–5.

- [4] Habek D, Cerovac A. A Forensic Aspect of Fetal Shoulder Dystocia. *Zeitschrift Fur Geburtshilfe Und Neonatologie*. 2020; 224: 257–261.
- [5] Chauhan SP, Laye MR, Lutgendorf M, McBurney JW, Keiser SD, Magann EF, *et al.* A multicenter assessment of 1,177 cases of shoulder dystocia: lessons learned. *American Journal of Perinatology*. 2014; 31: 401–406.
- [6] Zaami S, Busardò FP, Signore F, Felici N, Briganti V, Baglio G, *et al.* Obstetric brachial plexus palsy: a population-based retrospective case-control study and medicolegal considerations. *The Journal of Maternal-Fetal & Neonatal Medicine*. 2018; 31: 1412–1417.
- [7] Inglis SR, Feier N, Chetiyaar JB, Naylor MH, Summersille M, Cervellione KL, *et al.* Effects of shoulder dystocia training on the incidence of brachial plexus injury. *American Journal of Obstetrics and Gynecology*. 2011; 204: 322.e1–322.e6.
- [8] Crofts JF, Lenguerrand E, Bentham GL, Tawfik S, Claireaux HA, Odd D, *et al.* Prevention of brachial plexus injury-12 years of shoulder dystocia training: an interrupted time-series study. *BJOG: An International Journal of Obstetrics and Gynaecology*. 2016; 123: 111–118.
- [9] Habek D, Prka M, Luetić AT, Marton I, Medić F, Miletić AI. Obstetrics injuries during shoulder dystocia in a tertiary perinatal center. *European Journal of Obstetrics, Gynecology, and Reproductive Biology*. 2022; 278: 33–37.
- [10] Gregorić A, Benčić A, Habek D. Mode of vaginal delivery in breech presentation and perinatal outcome. *Ginekologia Polska*. 2022; 93: 728–734.
- [11] Jennewein L, Kielland-Kaisen U, Paul B, Möllmann CJ, Klemm AS, Schulze S, *et al.* Maternal and neonatal outcome after vaginal breech delivery at term of children weighing more or less than 3.8 kg: A FRABAT prospective cohort study. *PLoS ONE*. 2018; 13: e0202760.
- [12] Dasgupta T, Hunter S, Reid S, Sandall J, Shennan A, Davies SM, *et al.* Breech specialist midwives and clinics in the OptiBreech Trial feasibility study: An implementation process evaluation. *Birth*. 2022. (online ahead of print)
- [13] Habek D. Birth injuries correlate with the mode of assistance in vaginal breech delivery. *Arch Gynecol Obstet*. 2022. (online ahead of print)
- [14] Yeoh SGJ, Rolnik DL, Regan JA, Lee PYA. Experience and confidence in vaginal breech and twin deliveries among obstetric trainees and new specialists in Australia and New Zealand. *The Australian & New Zealand Journal of Obstetrics & Gynaecology*. 2019; 59: 545–549.
- [15] Müller I, Zimmermann R. The learning curve in the context of the cesarean section. *Gynakol Geburtshilfliche Rundsch*. 2003; 43: 238–244. (In German)
- [16] Soergel P, Jensen T, Makowski L, von Kaisenberg C, Hillemanns P. Characterisation of the learning curve of caesarean section. *Archives of Gynecology and Obstetrics*. 2012; 286: 29–33.
- [17] Wiklund I, Edman G, Andolf E. Cesarean section on maternal request: reasons for the request, self-estimated health, expectations, experience of birth and signs of depression among first-time mothers. *Acta Obstetrica et Gynecologica Scandinavica*. 2007; 86: 451–456.
- [18] Habek D. Tocophobia: Is It Being Treated Surgically? *Psychiatria Danubina*. 2020; 32: 447–448.
- [19] Habek D, Prka M, Čartolovni A, Cerovac A, Dokozić D. Caesarean section between doctrine to heresis. Medicoethical and deontological view of caesareology: an opinion. *Clinical and Experimental Obstetrics & Gynecology*. 2021; 48: 1–4.
- [20] Habek D. Obstetrics philosophy of extraperitoneal cesarean section and possible placental percreta into urinary bladder. *Clinical and Experimental Obstetrics & Gynecology*. 2021; 4: 995–996.
- [21] Jauniaux E, Jurkovic D. Placenta accreta: pathogenesis of a 20th century iatrogenic uterine disease. *Placenta*. 2012; 33: 244–251.
- [22] Robinson DW, Anana M, Edens MA, Kanter M, Khandelwal S, Shah K, *et al.* Training in Emergency Obstetrics: A Needs Assessment of U.S. Emergency Medicine Program Directors. *The Western Journal of Emergency Medicine*. 2018; 19: 87–92.
- [23] Bertholdt C, Piffer A, Pol H, Morel O, Guerby P. Management of persistent occiput posterior position: The added value of manual rotation. *International Journal of Gynaecology and Obstetrics*. 2022; 157: 613–617.
- [24] Chen I, Opiyo N, Tavender E, Mortazhejri S, Rader T, Petkovic J, *et al.* Non-clinical interventions for reducing unnecessary caesarean section. *The Cochrane Database of Systematic Reviews*. 2018; 9: CD005528.
- [25] Habek D. Intrapartum repositioning of brow presentation. *Journal of Obstetrics and Gynaecology*. 2021; 41: 998–999.
- [26] Habek D, Marton I, Prka M, Luetić A. Manual rotation in cases of the intrapartum arrest of fetal head. *European Journal of Obstetrics, Gynecology, and Reproductive Biology*. 2017; 219: 66–67.