

CHALLENGES IN TRAINING AND ITS ASSESSMENT: A SURVEY OF OB-GYN TRAINEES IN THE UNIVERSITY OF TURKU, FINLAND

IZZIVI POUČEVANJA IN OCENJEVANJA PRI SPECIALIZANTIH PORODNIŠTVA IN GINEKOLOGIJE UNIVERZE TURKU, FINSKA

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Abstract

Background: This survey evaluates how the goals in Ob-Gyn training are fulfilled in the University of Turku, Finland. The purpose was to assess the achieved quantity of Ob-Gyn interventions and procedures.

Methods: The figures in the EBCOG-logbook of 10 specialized trainees in 2006 and 2009 were collected and analysed.

Results: Based on this survey, the minimum requirements are fulfilled more effectively in obstetrics compared to gynaecology. There is an imbalance between EBCOG theoretical demands and the practical performance of these trainees because of the limited possibilities to perform traditional operations as much as needed.

Conclusions: The gynaecological aspects in training need more resources and new activities. Subsequently, there is a need to update the EBCOG-logbook, especially concerning the minimum requirements of procedures. All the trainers, as well as national and European organisations like EBCOG, should consider these findings seriously in order to ensure the high quality of young Ob-Gyn specialists. More quality assessment, 360 degree evaluation, Non-Technical Skills for Surgeons (NOTSS) evaluation etc. are needed.

Key words: training, obstetrics, gynaecology, log book, evaluation

Izvirni znanstveni članek
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Izvleček

Uvod: Ta pregled ocenjuje izpolnjevanje zahtev specializacije na Univerzi Turku, Finska. Namen je bil pregledati doseganje števila zahtevanih posegov v porodništvu in ginekologiji.

Metode: Izbrali in analizirali so številke za specializante, zdaj specialiste, za leti 2006 in 2009.

Rezultati: Na osnovi tega pregleda ugotavljajo, da so minimalne zahteve po posegih pravilneje izpolnjene v porodništvu kot v ginekologiji. Obstaja nesorazmerje med teoretičnimi zahtevami EBCOG-a in praktično performanco specializantov zaradi tega, ker ni mogoče več opravljati klasičnih operacij v zadostnem številu.

Zaključki: Ginekološki del specializacije potrebuje več razpoložljivih možnosti in novih aktivnosti. Posledično je treba posodobiti EBCOG-dnevnik specializanta, predvsem kar se tiče števila zahtevanih posegov. Vsi neposredni mentorji ter tudi nacionalne in evropske organizacije, take, kot je EBCOG, morajo zelo resno pristopiti k tem izsledkom, da bomo zagotavljali kakovost mladih specialistov porodništva in ginekologije. Treba je večkrat ocenjevati kakovost, 360-stopinjsko ocenjevati, določati netehnične veščine kirurgov in drugo.

Ključne besede: poučevanje, izobraževanje, porodništvo, ginekologija, dnevnik specializantov, evalvacija

1 INTRODUCTION

The specialist training system in Obstetrics and Gynaecology, including quality and quantity requirements, are defined by the European Board and the College of Obstetricians and Gynaecologists (EBCOG) (1), accompanied by the Union Européenne des Médecins Spécialistes (UEMS). Also the instructions and rules given by the national authorities must be followed. For example, in Finland the postgraduate training is controlled by the Ministry of Social and Health Affairs and the Ministry of Education, as well as the five national universities with medical faculties in Finland. During the 6-years postgraduate period of Ob-Gyn training in Finland, the latest legislation concerning specialist training from 1998 requires the trainees to be actively involved in overall and self-evaluation, as well as the development of the training program (2). The quantity assessment is based on the EBCOG logbook, which has been in use in Europe since 1990's (3). This logbook is considered an important tool in training and its assessment within Ob-Gyn. Cumulative numbers, other activities performed and proofs obtained from logbooks during training are completed in the Portfolio until the end of the training (Figure 1).

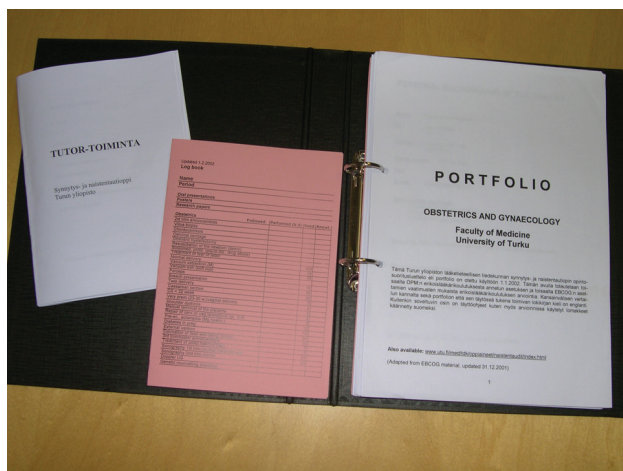


Figure 1. EBCOG Logbook (middle), Portfolio (right) and the Finnish guide for tutoring (left) used in training for Obstetrics and Gynaecology in Turku University of Finland (Photograph by the first author).

Slika 1. EBCOG Dnevnik specializanta (v sredini), portfolijo (desno) in finska navodila za mentorje, ki jih uporabljajo pri specializaciji porodništva in ginekologije na Univerzi Turku, Finska (fotografiral prvi avtor).

The content of training in Ob-Gyn in Finland is well defined and uniform throughout all the teaching hospitals (4) and listed in Table 1.

However, in some Middle European countries this is not self-evident, including in the university hospitals. This has been observed by the teaching hospital recognition process, which was introduced by EBCOG in the middle of the 1990's. This process grants five-year accreditations for each hospital that successfully fulfils the requirements and definitions. These consist of the use of logbooks and tutoring, mentoring/supervising, systematic self and senior evaluation and assessment, professional and scientific meetings, participation in congresses and educational activities etc. (Table 2).

The EBCOG hospital recognition committee conducted site-visits in five Finnish University hospitals in 2000-2001 and all were accredited for five years. Since then, the local authorities in Finland have conducted site-visits in all the Finnish central hospitals (N=15), which all are currently accredited for training in Ob-Gyn (5).

The free movement of professionals in Europe demands the uniform quality of doctors. The national organisations and universities, as well as training hospitals, should follow these requirements in the evaluation of the total training process and the individual trainees. Once the assessment becomes a routine practice in teaching hospitals, it is well accepted and properly integrated with other activities e.g. practical patient treatment (6). Both trainees and trainers are expected to respond with constructive criticism and recommendations on how to improve the training. This should be a natural part of the daily/weekly activities just like the doctor's other assignments in the hospital.

The aim of this survey was to locally assess how the minimum requirements of common and practical Ob-Gyn procedures and interventions recorded by the trainees in their EBCOG logbooks are fulfilled in the University of Turku during training.

2 MATERIALS AND METHODS

A basic tool for the assessment of the Ob-Gyn trainees at the University of Turku, Finland, since 2001 has been the EBCOG logbook, slightly modified for Finnish purposes (Figure 2).

*Table 1. Definitions used in training in Obstetrics and Gynaecology.**Tabela 1. Definicije pri specializaciji porodništva in ginekologije.*

Trainee = resident, registrar, young doctor in training

Trainer = senior doctor, specialist who works with the trainee every day

Tutor = senior colleague taking care of the trainee during training

Supervisor = academic person who supervises the whole training process

Mentor = supervisor

Logbook = leaflet summarizing all the achievements performed by the trainee

Portfolio = folder collecting all the material (logbook etc.), achieved during training

Skills = ability to perform procedures, interventions, operations etc.

Competence = quality of performance

*Table 2. The requirements of the Finnish training curriculum of Obstetrics and Gynaecology in 2011 after graduation from Medical School (4).**Tabela 2. Zahteve v času specializacije porodništva in ginekologije leta 2011. po tem ko kandidat zaključi medicinsko fakulteto.*

Service at a public health care centre (9 months)

Service at a surgery (6 months)

Service at Obstetrics and Gynaecology (4 years and 9 months), of which

1(-2) years and 9 months in local and/or central hospitals, of which

6 months service in relevant discipline e.g. paediatrics, etc. or in a research project (optional)

(2-)3 years in a university hospital

Theoretical studies (80 hours)

Theoretical examination

Slika 2. Dve strani iz dnevnika specializanta porodništva in ginekologije na Univerzi Turku, Finska – v elektornski kumulativni obliki; nivo zbranih posegov je opisan z barvami (številke v oklepajih so minimalne zahteve EBCOGa, zelena barva pomeni, da je minimalni nivo presežen) (fotografiral prvi avtor).

[illegible]

[illegible]

This survey consists of the results obtained from 10 trainees who specialized in Obstetrics and Gynaecology during 2006-2008 at the University of Turku, Finland. The most common interventions and procedures achieved, especially during the latter half i.e. years 2-3 of the training in the university hospital, are compared to the minimum requirements given by EBCOG. The results are presented in tables as the mean number and range and as the percentage of young doctors who succeeded in reaching the minimum quantity level needed. Regarding the competence of the procedures performed, EBCOG logbooks divide them into 5 ratings: 1 passive attendance and assistance, 2 needs close supervision, 3 able to carry out procedure with some supervision, 4 able to carry out procedure without supervision and 5 able to supervise and teach the procedure. In this survey, only score 4 and score 5 performances were accepted. The main interest in gynaecological procedures was focused on common procedures performed in outpatient polyclinics, in

3 RESULTS

3.1 Gynaecology

The minimum EBCOG requirements in outpatient procedures were successfully achieved by more than half of the trainees (Table 3). The mean number of the procedures performed, however, clearly exceeded the minimum level because the range was very large. Some of the trainees surpassed the minimum level even 3- to 10-fold compared to the requirements. The mean number of diagnostic hysteroscopies performed exceeded the requirements by more than twice and this level was achieved in all the trainees (Table 4). On the other hand, only 40 percent achieved the minimum level in performing the hysteroscopic excision of the polyps or thermoablation.

Table 3. Gynaecological outpatient procedures
Tabela 3. Ginekološki posegi v ambulantni.

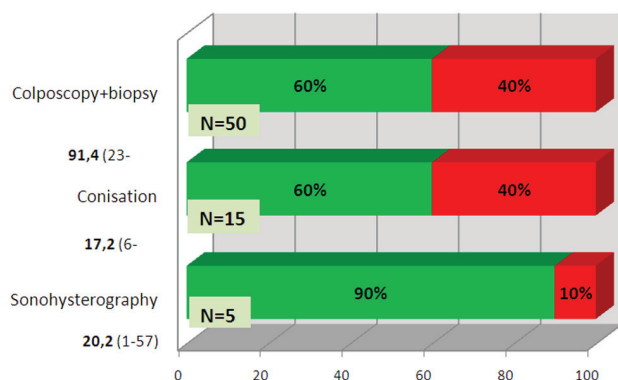
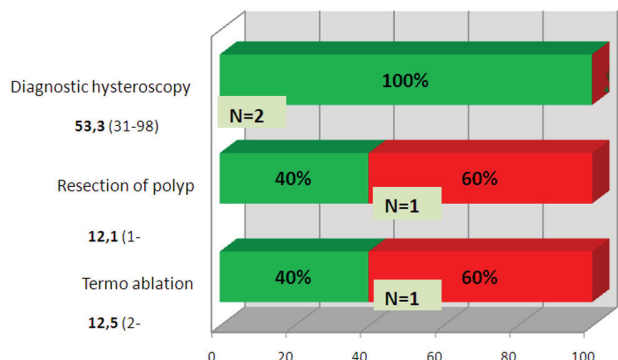


Table 4. Hysteroscopic day-case surgery
Tabela 4. Histeroskopski posegi, delani po principu dnevne bolnišnice.



Legend for Tables 3 and 4: The figures concerning the procedures are given as the mean number (bold left) and range (in parentheses) and as the percentage of trainees who succeeded (green) and did not succeed (red) in reaching the minimum quantity level needed (boxes inside the columns).

The minimum number of diagnostic laparoscopies performed in the operating theatre was achieved by 80% of the trainees while the mean number was well above the minimum level again due to the wide range of numbers (Table 5). Only 30% of the trainees fulfilled the minimum requirement for minor laparoscopic procedures (e.g. adnexal surgery). Also the mean number of these procedures was less than required. However, 60% of the trainees exceeded the minimum level of open surgery (laparotomy) procedures. More than half of the trainees achieved the minimum number in vaginal and abdominal hysterectomies, but only one third in laparoscopic ones (Table 6). A remarkably wide range of the number of procedures performed was observed.

Table 5. Minor gynaecological procedures in operating theatre

Tabela 5. Manjši ginekološki posegi v operacijski dvorani.

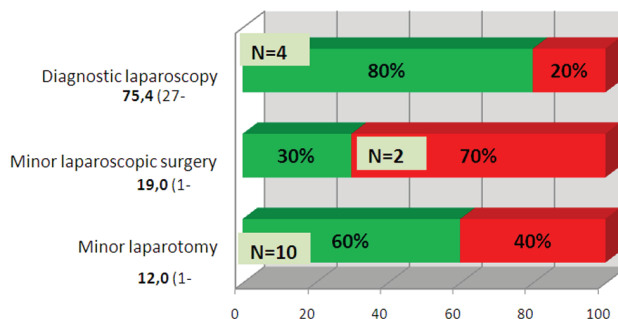
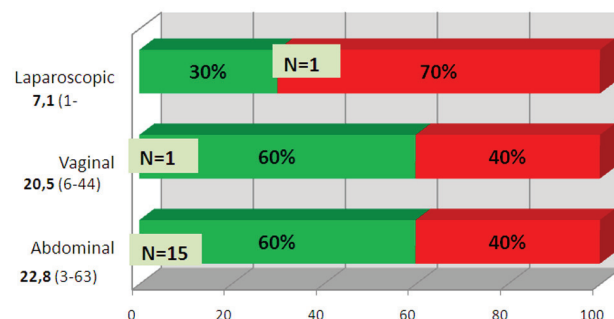


Table 6. Hysterectomies by type of approach
Tabela 6. Histerektomije po načinu pristopa.



Legend for Tables 5 and 6: The figures concerning the procedures are given as the mean number (bold left) and range (in parentheses) and as the percentage of trainees who succeeded (green) and did not succeed (red) in reaching the minimum quantity level needed (boxes inside the columns).

3.2 Obstetrics

The minimum number of obstetrical interventions was achieved by at least half of the trainees except for shoulder dystocia. The minimum EBCOG number of vacuum extractions and CS was well exceeded by everyone (Table 7). The mean number of treatments or procedures due to postpartum complications was well above the minimum requirement and the majority of the trainees clearly achieved the minimum level (Table 8).

Table 7. Interventions and procedures in delivery
Tabela 7. Intervencije in posegi med porodom.

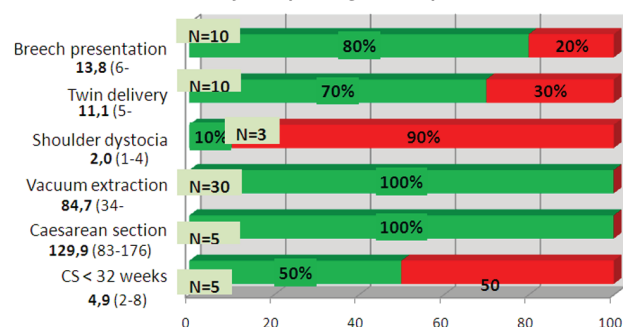
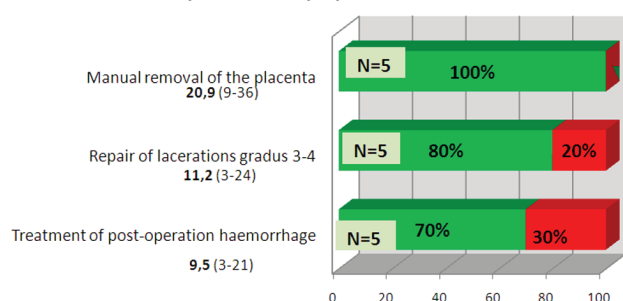


Table 8. Procedures due to post-partum complications
Tabela 8. Postopki zaradi poporodne krvavitve.



Legend for Tables 7 and 8: The figures concerning the procedures are given as the mean number (bold left) and range (in parentheses) and as the percentage of trainees who succeeded (green) and did not succeed (red) in reaching the minimum quantity level needed (boxed inside the columns).

4 DISCUSSION

Detailed guidelines concerning the structure and requirements of Ob-Gyn-training are released in Europe by EBCOG and all the EU-countries are expected to follow these. The regular assessment of training in Europe should be performed mandatorily by the trainees themselves, as well as by their trainers. Tools for this purpose - e.g. the Logbook and Portfolio - have been free for use since the 1990s. In practice their use varies remarkably and further and repeated guidance is needed (5, 7). It is evident, however, that there are very few reports on how the training is carried out in reality and what its final outcome is. No consensus exists on the reliability and validity of the methods used in assessing the quality of the trainees completing their training period. The need for such concrete models is well recognized worldwide in educational institutes (8, 9). In practice, most of the basic assessment relies on the responsibility of the supervisors and the trainers,

who should finally guarantee the good professional quality of young specialists. The present survey focused on the quantity of gynaecological and obstetrical procedures (at the highest competence level) that the trainees have performed during their training. It shows that the minimum level of required interventions and procedures are achieved better in obstetrics than in gynaecology. The insufficient number of gynaecological procedures performed during the training period is also reported from other European countries at the moment (Juriy Wladimiroff, EBCOG, personal communication). The Logbook is a basic tool in the assessment of training in Europe. The information also includes several quality aspects of the trainees, which are more difficult to assess than the quantity aspects – i.e. “simple” figures recorded as procedures and interventions. In Finnish practice, the trainees, trainers and other responsible senior doctors and supervisors all follow the achieved numbers of procedures regularly. In this survey, we evaluated the trainees’ performance on a high competence level (score 4 or 5), hence these numbers also tell us something about the high quality. Every 2nd or 3rd month, the senior doctors are expected to guide the trainees if their number of procedures and interventions are below the minimum requirements. And if, for example, the lack of gynaecological procedures is evident, one should increase the operating days for the trainee and offer them the use of simulator models, which are currently very good options for reaching basic operating skills (10). This equipment helps overcome the reality that there is currently a lack of traditional routine operations in many teaching hospitals. At the moment, training using simulator models is also mandatory in some European countries like Slovenia, before acceptance to perform surgical interventions, especially endoscopy on patients.

The fact that all trainees do not achieve the minimum level of surgical procedures in gynaecology has raised serious discussions Europe-wide about overall surgical training in Ob-Gyn: should we focus surgical training more on those who are really well-oriented, skilled and highly motivated in gynaecological operations. This argument could especially concern those who are more oriented towards the private sector after specialization and have trouble achieving the minimum surgical requirements. This idea, however, would harm the current EBCOG professional requirement for harmonizing all the specialized obstetricians and gynaecologists in Europe. In addition, this kind of selection in training should perhaps be decided in the early years of the training period and would not be easy because one never knows where a specialist will work

after 10 or 20 years. In Finland, there has been no debate at all concerning this matter, but in France, for example, there still exists a minor group of lower level of specialization called Medical Gynaecologist training, which consists of only 4 years instead of the ordinary EBCOG minimum of 5 years. We propose that in the future, we should individualize the training more than is presently done. And the same concept of specialization would also concern the hospitals.

The problem of the insufficient number of gynaecological procedures achieved during training is evidently a reflection of the overall decrease in gynaecological operations, especially hysterectomies. For instance in Finland, the number of annual hysterectomies has halved in 10-15 years (11). Meanwhile, the type of hysterectomy has changed dramatically so that in Turku at the moment, as in whole Finland, the rate of abdominal hysterectomies is rather low while laparoscopic and vaginal ones comprise the majority (75%) of all hysterectomies. Some of the reasons for this decrease are based on more conservative approaches, for example in the treatment of menorrhagia i.e. due to the increased use of the levonorgestrel-releasing intrauterine device and thermo ablations for this indication. These changes should be especially taken into consideration while teaching gynaecological procedures. EBCOG should also reconsider the minimum numbers required for hysterectomy procedures. The same is true for many other Ob-Gyn procedures, some old ones disappear and many new ones appear (e.g. curettage versus diagnostic hysteroscopy or sono-hystero-graphy, laparoscopic versus hysteroscopic sterilisation etc.). Again, in this regard, the new simulators in ultrasound, hysteroscopy and laparoscopy are good options for trainees.

In interpreting the results of this survey, we have to accept the possible problems and pitfalls in collecting the material. We know that to achieve at least the minimum number of procedures required is also highly dependent on the proper attitude of the trainees. If the trainees do not actively seek to fulfil the goals, they are unlikely to be achieved using obligatory efforts. Thus, the wide range of procedures and interventions might mirror the lack of active reporting in logbooks and, unfortunately, the possibility of miss- or underreporting. During the last three years of the relatively lengthy six-year-long specialisation, the trainees are highly motivated to fulfil the training activities. Logbook information during this period can be considered reliable and hence was used for this survey. Regular contact, however, between supervisors and trainers motivate the proper collection

of activities during training. In Turku, we are fortunate in that our trainees have been active and satisfactorily collected the information in their logbooks and they have also helped the senior doctors and responsible teachers improve and modify the content of the logbook. Consequently, we have no reason to doubt the reliability of the present results. However, although one single result shows that, for example, 50% of all the trainees had achieved the minimum level required, some trainees could only have very few procedures because of the wide range between performances. So a "good average" unfortunately does not guarantee a sufficient quantity for all.

The assessment of education and training in Obstetrics and Gynaecology should be directed towards two levels: on the one hand, the system itself in teaching hospitals and on the other, to the individuals undergoing the training. The former happens via the European rules for international or national hospital recognition, the latter mostly by the figures collected in logbooks as used in this survey. This, unfortunately, eventually evaluates more quantity than quality, although the procedures were scored at a high competence as in this survey. It would be useful to create a follow-up of the subjects' performances and/or add information about the outcome – i.e. perioperative morbidity and complications of procedures and interventions (12). Additionally, the evaluation by senior doctors and contemporary colleagues in training, as well as 360 degree evaluation and NOTSS (Non-Technical Skills of Surgeon) (13), would be helpful for giving an overall impression of the trainees. Furthermore, one important field, the scientific and professional knowledge of the trainees, should be evaluated and this happens obligatorily in Finland through the national theoretical examination before completing the training (see table 2). In addition, clinical skills could also be evaluated by groups of senior teachers, as in Sweden (14), but this requires extreme effort and is not the prevailing method in Finland, at least at the moment. Moreover, interaction in interviews, patient clinical examinations, diagnostic set up, decision-making, counselling, professionalism and organisational talents, as well as generic competencies like communication, management skills and collaboration, remain difficult to assess. The importance of developing suitable tools to assess these skills has been identified (15).

One possibility could also be daily/weekly observation of the trainees by senior doctors (9). Such efforts are, however, very challenging and this is why we could concentrate on a combination of simpler, easily repeatable models (like simple 1-10 scoring), which

could be used and compared between trainees and hospitals. The EBCOG logbook, which now gives us figures for assessment, could also be developed for this purpose. Overall, good training standards are of the uppermost importance, as also given in the new EBCOG textbook of Standards of Care (16).

References

1. European Board and College of Obstetrics and Gynecology. Available from: <http://www.ebcog.org>.
2. Opetusministeriö (Ministry of Education in Finland). Asetus Erikoislääkäritutkinnosta. (Legislation of Specialist Training) 1998. Available from: <http://www.finlex.fi/fi/laki/ajantasa/1998/19980678>.
3. EBCOG Logbook, Updated June 2005. Available from: http://www.ebcog.org/index.php?option=com_content&view=article&id=31&Itemid=69.
4. Turku University Finland, Faculty of Medicine. Educational program of post-graduate training. Available from: http://www.med.utu.fi/opiskelu/ll_koulutusohjelma/.
5. Mäkinen J, Aaltonen R, Silventoinen S, Tomás E, Kujansuu E, Heinonen S: Gynekologit tekivät sen jo - jatkokoulutus auditoitu koko maassa. (The gynaecologists did it – Ob-Gyn Training has been audited in Finland). *Suom Lääkäril (Finn Med J)* 2005; 60; 4767-4769.
6. Ritämäki N: Auditointi tavaksi (Auditing should be a custom). *Nuori Lääkäri (Young Doctor)* 2011; 48.
7. Meretoja A, Kantanen A-M: Neurologit tekivät sen taas, Auditointien tuloksena entistä parempaa erikoislääkäriskoulutusta. (The neurologists did it again, better training as a result of auditing). *Suom Lääkäril (Finn Med J)* 2009; 64; 388-393.
8. Baker K. Determining resident clinical performance: getting beyond the noise. *Anesthesiology* 2011; 115: 862-878.
9. Fernández Gálvez GM. Assessment of clinical competence in pediatric residency with the Mini-Clinical Evaluation Exercise (Mini-CEX). *Arch Argent Pediatric* 2011; 109: 314-320.
10. Molinas R, Campo R. Defining a structured training program for acquiring basic and advanced laparoscopic psychomotor skills in a simulator. *Gynaecol Surg* 2010; 7: 427-435.
11. Brummer T, Jalkanen J, Fraser J, Heikkinen A-M, Kauko M, Mäkinen J, Puistola U, Sjöberg J, Tomas E, Härkki P. FINHYST 2006 – national prospective 1-year survey of 5279 hysterectomies. *Hum Reprod* 2009; 24: 2515-2522.
12. Gawande A. Complications: a surgeon's notes on an imperfect science. Metropolitan Books, 2002: 288.
13. Yule S, Flin R, Paterson-Brown S, Maran N. Non-technical skills for surgeons: a review of the literature. *Surgery* 2006; 139: 140-149.
14. Sveriges läkarförbunds och Sveska Läkaresällskapetsstiftelse för utbildningskvalitet (SPUR). Site Visit - Quality Assurance in Postgraduate Training. Available from: <http://www.lakarforbundet.se/spur>.
15. Van der Lee N, Fokkema JPI, Scheele F. Generic competence in postgraduate medical training. *Slov J Publ Health* 2011 (in press).
16. Mahmood T. Training standards (Standard 16). In: Standards of Care, released by EBCOG 2011: 46-49.