



Since January 2020 Elsevier has created a COVID-19 resource centre with free information in English and Mandarin on the novel coronavirus COVID-19. The COVID-19 resource centre is hosted on Elsevier Connect, the company's public news and information website.

Elsevier hereby grants permission to make all its COVID-19-related research that is available on the COVID-19 resource centre - including this research content - immediately available in PubMed Central and other publicly funded repositories, such as the WHO COVID database with rights for unrestricted research re-use and analyses in any form or by any means with acknowledgement of the original source. These permissions are granted for free by Elsevier for as long as the COVID-19 resource centre remains active.



Contents lists available at ScienceDirect

European Journal of Obstetrics & Gynecology and Reproductive Biology

journal homepage: www.elsevier.com/locate/ejogrb

Full length article

The influence of the COVID-19 outbreak on European trainees in obstetrics and gynaecology: A survey of the impact on training and trainee



Ferry Boekhorst^{a,*}, Hajra Khattak^b, Elif Goknur Topcu^c, Agnieszka Horala^d, Manuel Gonçalves Henriques^e

^a Haaglanden Medical Center, Lijnbaan 32, 2512VA, The Hague, The Netherlands

^b Tommy's National Centre for Miscarriage Research, Institute of Metabolism and Systems Research, University of Birmingham, Birmingham, B15 2TT, UK

^c Kackar State Hospital, 53340, Pazar, Rize, Turkey

^d Gynecologic Oncology Department, Poznan University of Medical Sciences, 33 Polna Street, 60-535, Poznan, Poland

^e Hospital Professor Doutor Fernando Fonseca, IC 19, 2720-276, Amadora, Portugal

ARTICLE INFO

Article history:

Received 20 November 2020

Received in revised form 16 February 2021

Accepted 7 April 2021

Keywords:

COVID-19

ENTOG

Europe

Gynaecology

Obstetrics

Training

ABSTRACT

Objective: The purpose of this study is to evaluate how the obstetrics and gynaecology residency program and trainees have been affected by the Corona Virus Disease-19 (COVID-19) pandemic in Europe.

Study Design: This study is a cross-sectional explorative survey using an online questionnaire. The questionnaire comprised of 40 questions that were subdivided into 4 subjects; workload, specialist training aspects in obstetrics and gynaecology, health and safety of the trainee and women's health and maternal health issues. Inclusion criteria consisted of being a trainee in Obstetrics and Gynaecology (ObGyn) at the time of the COVID-19 pandemic in Europe or trainees who had recently finished their training during the time of the outbreak. Taking part in the survey was voluntary. The questionnaire was shared on the website of the European Network for Trainees in Obstetrics and Gynaecology (ENTOG), ENTOG social media, in the ENTOG-newsletter and through the national representatives of ENTOG.

Results: 110 ObGyn trainees from 25 different countries responded to the questionnaire. Almost all trainees (95 %, N = 105) reported an effect on their training due to COVID-19 pandemic. Training was interrupted in 21 % of cases (n = 23). Trainees observed a decrease in educational activities or lectures and a decrease in number of patients. The possibility of training surgical skills decreased, because 67 % (N = 74) trainees reported that surgeries were cancelled. Trainees expressed concerns about reaching the goals of their ObGyn specialist training in 60 % (n = 66) of cases. A decrease in workload was experienced during the first COVID-19 wave in Europe by 60 % (n = 66) of trainees. On average these trainees worked 33 % less hours compared to a normal workweek. Although 22 % (n = 24) were expected to be available continuously for 24 h a day and 7 days a week for unscheduled duties, 15 % (n = 16) were deployed to work on special COVID-units. Concerning preparation, 45 % of the trainees (n = 50) had not received any training for treating COVID-positive patients. Trainees claimed to have enough personal protective equipment (PPE), although problems were reported. Any form of psychosocial support was arranged for 65 % of trainees (n = 71) by the hospital or department. The results of the survey suggest that obstetric care was not affected much (92 % (n = 102) of the respondents said at least necessary care continued) while patients in need for reproductive medicine were affected the most; out of the 110 departments 58 % (n = 60) were closed and 35 % (n = 36) reduced their activities. Access to family planning and benign gynaecology were also significantly reduced; 77 % and 87 % respectively of the departments were less accessible or only open to emergency cases.

Conclusion: COVID-19 pandemic has had a tremendous effect on the ObGyn training in Europe. Exposure to learning opportunities, surgeries and teaching has been decreased during the outbreak and may result in a decrease in quality of care provided to women in the future if impairment of training is not recovered.

© 2021 Elsevier B.V. All rights reserved.

* Corresponding author at: Permanent address: Slauerhoffpad 55, 2321WG, Leiden, The Netherlands.

E-mail addresses: ferryboekhorst@gmail.com (F. Boekhorst), h.khattak@doctors.org.uk (H. Khattak), goknurtopcu@gmail.com (E.G. Topcu), agnieszkaOlemanska@gmail.com (A. Horala), manuelghenriques@hff.min-saude.pt (M. Gonçalves Henriques).

Introduction

The Corona Virus Disease-19 (COVID-19) pandemic has had a profound effect on the healthcare system [1]. It is needless to say the pandemic has not only had a personal but also professional impact on lives of healthcare staff. Recent reports of specialties such as surgery and radiology, have shown a significant impact on the training needs of residents during the pandemic [2,3]. A survey conducted on Italian obstetrics and gynaecology (ObGyn) trainees specifically showed a marked disruption of training and changes to the training program [4].

As the European Network for Trainees in Obstetrics and Gynaecology (ENTOG), an organisation that aims to improve and harmonize training in Obstetrics and Gynaecology across Europe [5], we felt compelled to explore the impact of the pandemic on ObGyn trainees. The aim of the survey was to investigate how the pandemic affected training in obstetrics and gynaecology across Europe from a trainee's perspective. Through this study, we hope to provide an overview of the effects of the pandemic on training such that the trainees as well as trainers are better prepared to overcome the deficiencies that have risen due to the changes made during the pandemic.

Methods

Study type

This study is a cross-sectional explorative survey using online questionnaires. Inclusion criteria comprised of being an ObGyn-trainee in Europe at the time of the COVID-19 pandemic (or having had finished training during the time of the outbreak) in addition to adequate understanding of written English. Respondents from outside Europe or a non-ENTOG member country were excluded.

Questionnaires

A non-validated questionnaire was prepared using Google Forms. The questionnaire comprised of 40 questions including multiple choice questions, multi-answer questions, open questions and 5-point and 10-point Likert scales. The questions were subdivided into four categories: workload, specialist training aspects, trainee's health and safety and women's health and maternal health issues. All respondents were asked to give information about their nationality, type of hospital and level of training. The link to the questionnaire was shared on the ENTOG website, ENTOG social media, ENTOG newsletter and through the national representatives of ENTOG. Taking part in the survey was voluntary. The questionnaire was live from the 20th of April 2020 until the 1st of July 2020.

The questionnaire was translated into Turkish and a third version was created for the World Association of Trainees in Obstetrics and Gynaecology (WATOG), which was additionally translated to Spanish. However, the data collected in Spanish and Turkish were not used in this report.

Data analysis

The survey collected both quantitative data as well as answers to open-ended questions. Data was analysed in Microsoft Excel using simple descriptive statistics.

Results

Characteristics

The survey included 110 trainees from 25 countries (Table 1). Respondents were aged between 25 and 44 (mean: 31.3); 14

Table 1

Number of participants per country.

Albania 2	Estonia 5	Netherlands 23	Sweden 1
Austria 5	Finland 1	Norway 2	Switzerland 7
Belgium 2	France 2	Poland 4	Turkey 5
Bulgaria 1	Germany 3	Portugal 8	UK 23
Croatia 2	Ireland 1	Romania 1	
Czech Republic 1	Latvia 1	Russia 3	
Denmark 4	Lithuania 2	Spain 1	

trainees were reported to be in the first year of training, 22 in the second, 16 in the third, 17 in the fourth, 18 in the fifth and 11 in their sixth year. Due to variation in training programmes, seven trainees were beyond six years in their training programme. Furthermore, 46 trainees were based in university hospitals and 65 in non-university hospitals.

Workload

A decrease in workload was reported by 60 % of the trainees (n = 66). Only nine percent (n = 10) of trainees reported an increase in working hours. It was found however that the overall workload felt amplified due to stress related factors and an increased need for flexibility.

Working from home was introduced to many trainees. It was reported that 38 % (n = 42) of the trainees spent at least some part of their working hours working from home and 19 % (n = 8) of those reported 20 h or more of work from home per week. Furthermore, 15 % (n = 16) were deployed to work on special COVID-units and one trainee from the UK was completely (100 %) re-deployed to an intensive care unit (ICU).

More than half, 52 % (n = 57), of the trainees reported that they had adequate time to rest whilst at work and 76 % (n = 84) reported enough time to rest after work. Furthermore, 22 % (n = 24) were expected to be on a stand-by continuously for 24 h a day and 7 days a week for unscheduled duties including on-calls. Nine percent of trainees (n = 10) felt overworked and ten percent (n = 11) felt burnt-out.

According to 29 % of trainees (n = 32) the COVID-19 outbreak was causing the lack of time to rest, the need for 24/7 availability and ultimately the feeling of being overworked or burnt-out.

Training aspects

Almost all trainees (95 %, N = 105) reported an effect on their training due to COVID-19 (Fig. 1). Training was interrupted in 21 % of cases (n = 23) or often the focus on their training was lacking. Trainees observed a decrease in educational activities, a decrease in number of patients and a decrease in the possibilities of acquiring surgical skills. Sixty three percent (n = 69) of the trainees reported a decrease in patient contact up to 75 % and only 15 % (n = 10) of them judged the remaining number of patients still adequate with respect to their training programme. Fifteen percent of all trainees (n = 17) reported more than 75 % decrease in patient contact and understandably found this inadequate to meet the goals of their training programme (Fig. 2).

Surgical skills training decreased in 67 % (n = 74) due to cancellation of surgeries (Fig. 3). Only five percent (n = 6) met the goals for their surgical competencies. This was dependent on the rotation the trainee was in, those in gynaecological oncology shown to be affected the least.

As a result of the COVID-19 pandemic and its impact on the issues mentioned above, 60 % (n = 66) expressed concerns about reaching their training objectives. The results were noted to be independent of the stage of training (Fig. 4). The total duration of training may be a factor influencing the degree of concern (Fig. 5).

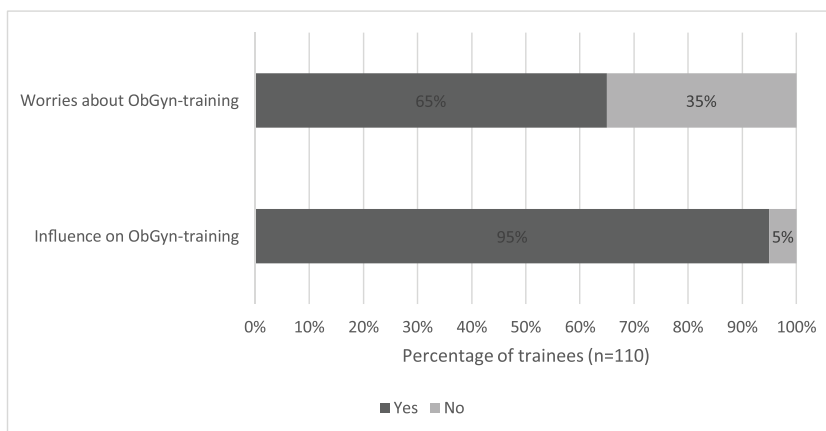


Fig. 1. Percentage of trainees experiencing an influence on their ObGyn-training and feeling worried about that due to the COVID-19 pandemic.

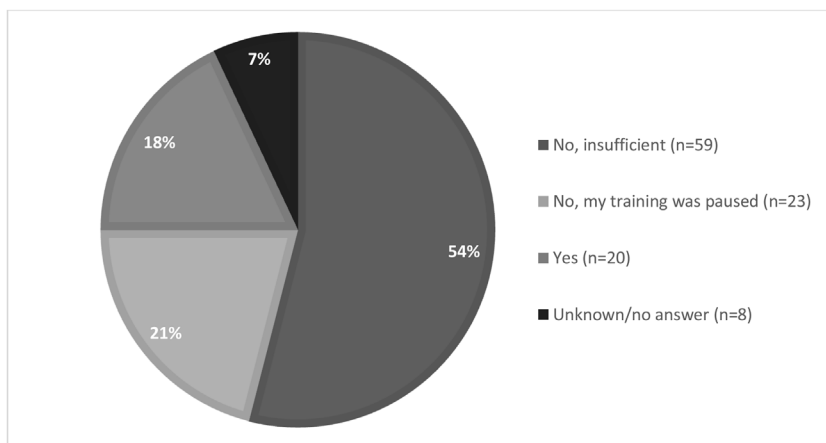


Fig. 2. Answers to the question “Do you have sufficient exposure to out-patient clinic patients to meet the targets of your training programme?” (n = 110).

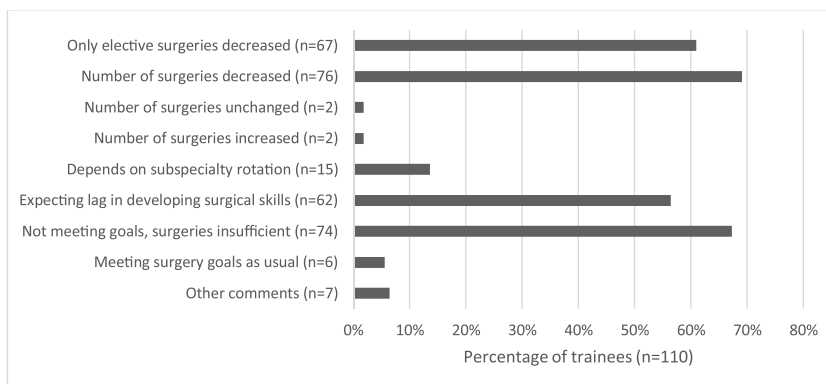


Fig. 3. Answers to the question “What changed with respect to the amount of surgeries you can perform? Does it meet the current goals of your training programme?”.

Most trainees were able to express their concerns to their trainers. Seventy three percent of the trainees (n = 80) reported that they were able to do so or had already done it: 58 % of trainees (n = 64) had already made arrangements with their trainers on how to overcome the shortcomings caused as a result of the COVID-19 pandemic. Thirty nine percent (n = 43) arranged to reassess what they missed and to create a further plan after the first wave of COVID-19. A few trainees reported that it was futile to discuss these issues.

Despite the difficulties experienced, an extraordinary situation such as the pandemic could also provide training-opportunities (Fig. 6). This was evident by many trainees (72 %) having reported to have gained specific competencies because of the COVID-19 pandemic including organisational skills during crisis-management, development of guidelines and protocols and the organisation of their department. Trainees also reported to have gained a better understanding of healthcare system in their country. Furthermore, trainees who were deployed to other specialties



Fig. 4. Concerns about reaching the goals of the ObGyn-training due to the COVID-19 pandemic per year of training.

reported to have gained further skills in internal and critical care medicine, in particular looking after unwell COVID positive patients. Ten trainees (9%) gained a better understanding of hygiene, transmission of infectious diseases and personal

protective measures. Finally, the new approach of triage by telehealth, teleconferencing with colleagues and working from home were perceived as a positive outcome of the COVID-19 pandemic on the future of the specialist training.

Trainee's health and safety

Although countries vary in their strategies in stopping the spread of COVID-19, social distancing was common to all. Only nine percent of the trainees (n = 10) reported to have kept social distance at all times in their hospital, despite substantial efforts to implement social distancing rules. Regulations on what to do if a healthcare worker was having COVID-19 symptoms was clear to all trainees (n = 108) and COVID-testing was accessible for all (n = 98) but ten trainees.

When trainees attended deliveries of COVID-positive patients, they reported better use of personal protective equipment (PPE) (Fig. 7). Fifty nine percent (n = 65) never experienced PPE problems. However, deficiencies were noted. Depending on the availability, some trainees used different types of masks.

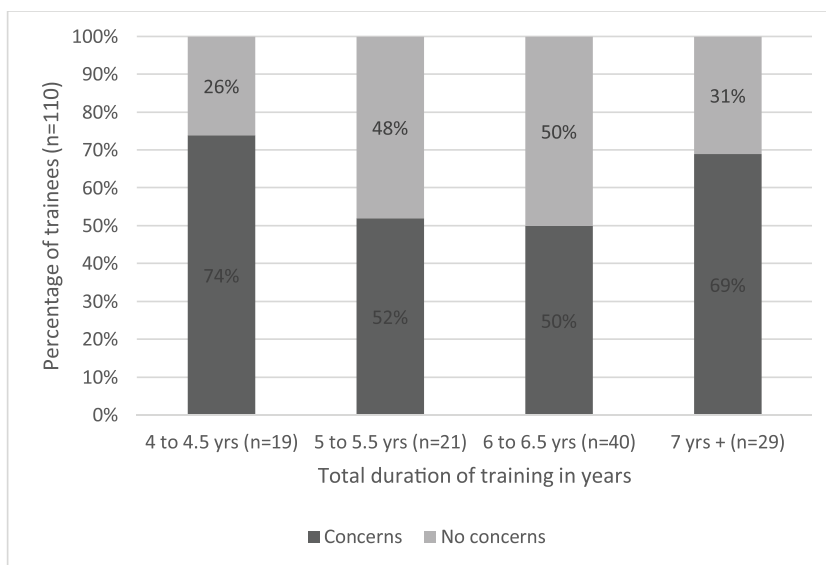


Fig. 5. Concerns about reaching the goals of the ObGyn specialist training due to the COVID-19 outbreak related to the total duration of training.

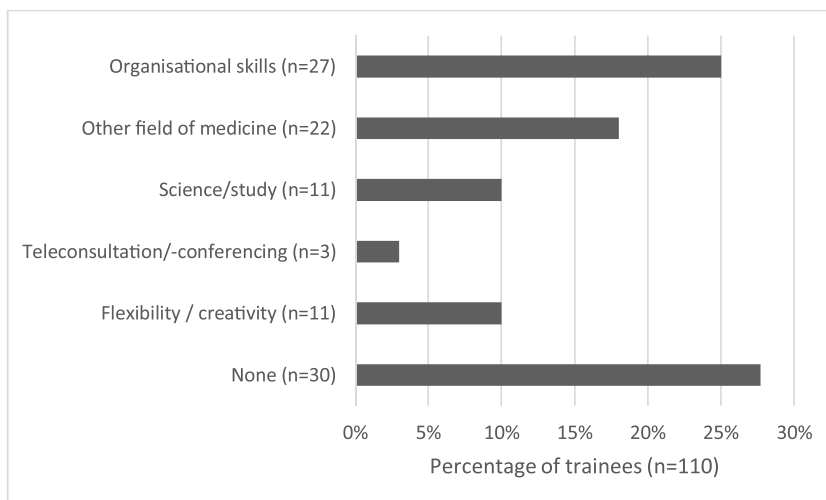


Fig. 6. Training opportunities experienced by trainees as a result of the COVID-19 pandemic.

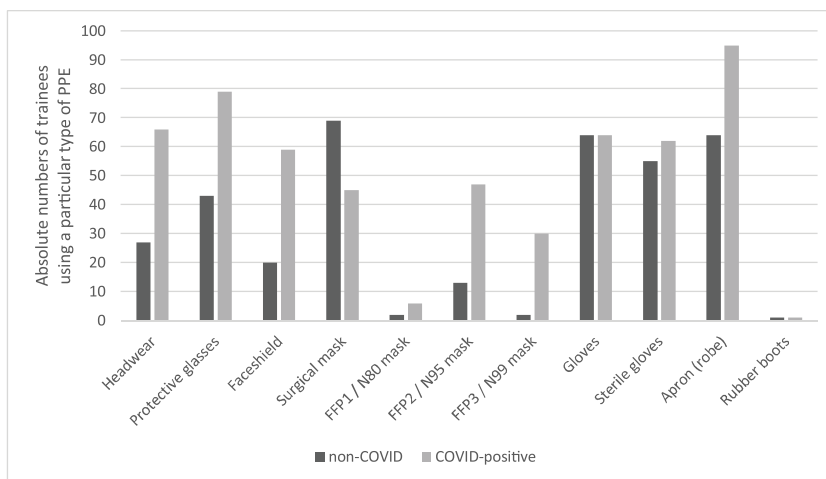


Fig. 7. Personal protective equipment (PPE) used by trainees (n = 110) when attending deliveries of non–COVID patients versus deliveries of COVID patients.

Sometimes trainees missed wearing PPE (32 %, n = 35). Alarmingly, six trainees – five from the UK – said that they often missed wearing PPE and two trainees – again one from the UK – could never protect themselves as per the rules. In general, quality standards decreased: cheaper masks were used, disposables were reused, and previously mandatory protection was not mandatory anymore in specific situations such as attending deliveries. Twenty percent (n = 22) were not trained on how to use PPE properly.

Almost half of the trainees (n = 50) did not receive any training for treating COVID-positive patients. Among the ones assigned to specific COVID-wards or ICUs (32 trainees), 38 % (n = 12) of them did not receive adequate training. On a 10-point Likert-scale the trainees marked their preparedness to deal with COVID-positive patients with average of 5.2; they assessed their safety at work on average as 6.4 and their personal health status as 7.3. When comparing these scores between the countries, the least satisfied trainees were from the UK: 11 out of 23 trainees from the UK marked their preparedness as 5 or less, 14 out of 23 marked their sense of safety at job 5 or less and 14 out of 23 scored 5 or less for their personal health. All except the UK scored ‘sufficient’ or ‘good’ on safety (Fig. 8). Trainees from all countries except Switzerland and the UK marked ‘sufficient’ or ‘good’ on health status (Table 2).

Concerning psychosocial health of trainees, 65 % of the trainees (n = 71) said there was some form of psychosocial support for the personnel provided by the hospital or department. Fourteen

percent (n = 15) said there was no attention to psychosocial wellbeing of trainees.

Women’s health and maternal health issues

As a result of all measures taken to reduce the spread of COVID-19, the wellbeing of not only trainees but also the care of patients has been affected. Overall trainees felt that obstetric care was not affected; 47 % (n = 52) of the respondents said it was “unchanged” and a further 45 % (N = 50) felt that the department was accessible for all the necessary care and emergencies; just two trainees (2%) thought that patients had inadequate access to their department. Family planning was one of the most affected fields as 34 % (n = 37) answered that all the procedures were cancelled or that there was no access to family planning for the patients and in 43 % (n = 47) of cases, access was decreased because of COVID-19 measures. Access to procedures from benign gynaecology were also significantly reduced; 87 % (n = 96) of the departments were less accessible or only open to emergency cases, others were closed (n = 7) and only five were operating as usual. Patients in need for reproductive medicine were affected the most; out of the 103 departments 58 % (n = 60) were closed and 35 % (n = 36) reduced their activities. Gynaecological oncology was affected as well, although 56 % of the trainees did not observe any differences in the accessibility of care. Nevertheless, women were diagnosed with a delay (19 %, n = 21)

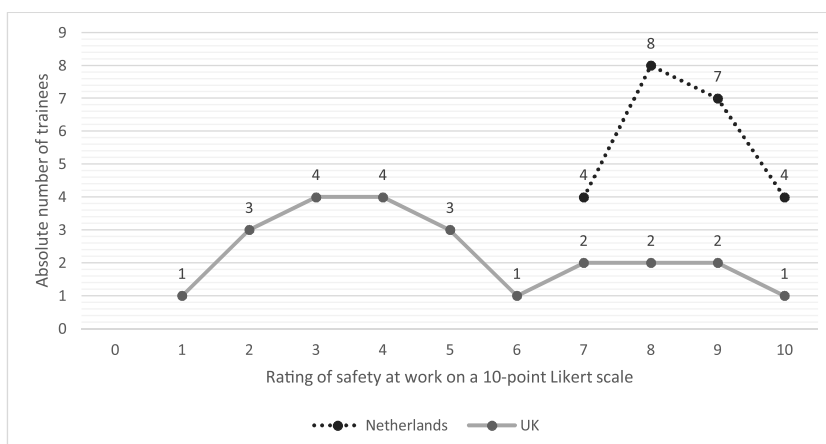


Fig. 8. Comparison between the assessment of safety at work by trainees from the Netherlands (n = 23) and the United Kingdom (n = 23), the two countries with most participants to the questionnaire.

Table 2

Average scores of the trainees from countries with 5 or more participants to the survey.

Country	Preparedness	Safety	Health
Austria	5,4	9,8	8
Denmark	5	8,3	9
Estonia	4,8	7,6	6,8
Netherlands	6,5	8,5	7,6
Portugal	5,3	7,1	7
Switzerland	4,4	7,7	4,3
Turkey	7,2	8	7,4
UK	4,6	5	4,7

and 14 % of the trainees (n = 15) thought that there was a delay by the patient in seeking medical attention. Trainees also reported longer waiting times for surgery (25 %, n = 27) and delays in the start of radiotherapy (12 %, n = 13) or chemotherapy (13 %, n = 14). We found that 24 % of trainees (n = 26) felt therapeutic choices have been influenced by the COVID-19 outbreak.

In general, 41 % (n = 45) marked the quality of care they have been providing in the obstetrics and gynaecology department as 'sufficient', 29 % (n = 32) marked it less than the usual standard of care and 4% (n = 4) regarded it insufficient. The highest standard of care was still provided in 26 % (n = 29) of the departments, according to the trainees.

Discussion

Since its outbreak in December 2019, the COVID-19 pandemic has affected health care globally and inadvertently has had a huge impact on residency training programs worldwide [2–4]. Through our survey, we endeavoured to focus on the effect of COVID-19 pandemic on teaching and training in Obstetrics and Gynaecology in Europe.

Our results showed that most of the ObGyn trainees in our survey experienced a lesser workload than usual, resulting in decreased learning opportunities. This puts training in obstetrics and gynaecology under jeopardy. It is therefore imperative to take into account the future of these trainees and the patients they will treat. It is expected that although most trainees will be able to catch up with the training time being lost, many trainees in their penultimate years may not be able to do so. This is of course due to no fault of their own as the decisions that will shape their training are likely to be based on supervisory and political adjudications. ENTOG believes that all trainees should be able to overcome the challenges in their training that have been caused by COVID-19. Impairment of training programmes may lead to a decrease in the quality of training and subsequently affecting the quality of women's healthcare. Uncertainty about the future of training raises concerns in trainees and therefore every trainee should be able to discuss their anxieties with their tutors and/or program directors. This should involve planning to complete the missing components of training, ultimately not affecting the care provided to women and their babies.

Furthermore as trainees reported having gained further experience through deployment, trainees may benefit from elective placement on intensive care or internal medicine departments. Additionally, the pandemic provided trainees with opportunities to develop non-clinical skills. The Canadian Medical Education Directives for Specialists (CanMEDs) encourages such opportunities, leadership in particular [6]. There are trainees in this survey who had the opportunity to improve CanMEDs competencies due to the COVID-19 pandemic. More trainees should be actively invited to be involved in such activities in the future.

The issue of personal safety varies significantly across the continent. Although we will not be able to make strong inferences, it was evident that UK scored the lowest on 'safety' measures (i.e. PPE use and availability). As the first rule of basic life support is that the caretaker makes sure that his or her surroundings are safe. ENTOG believes that trainees during their work, should be well-prepared and adequately equipped to be able to protect themselves and stay safe and healthy. Getting infected with COVID-19 can impact the whole team and therefore leave patients without proper care. Therefore, the safety of the personnel should be a priority for every hospital.

To the best of our knowledge this is the first report of the effect of the COVID-19 pandemic on ObGyn training across Europe. This survey gives a broad view on how European ObGyn trainees experienced this extraordinary period of their training. The strengths of this study are the wide range of countries that took part in this survey (25 countries) and a spectrum of trainees in various years of training. About 95% of the 110 questionnaires were filled in completely. And it was possible to identify specific problems which were highlighted in the report and thus we were able to formulate relevant advice for the future.

The survey also has its limitations. First of all, some European countries were not represented, or they have been represented by only one or two trainees, which does not provide a reliable view on the situation in that particular country. This therefore makes it difficult to make a comparison. The impact of the pandemic varied between countries. We were unable to receive replies from trainees in Italy, a country that was affected the most at the time (they also had their own survey) [4]. Spain, which was also affected severely, was only represented by one trainee. The fact that countries like such were not adequately involved in this study and the fact that there is no case of a near normal distribution of the trainee population in Europe, a selection bias could have influenced our results significantly. It is possible that the number of participants may have been relatively low due to language barriers.

It is evident that the COVID-19 pandemic has affected both staff and patients across various specialties and O&G is no exception [7–10]. We also observed collateral damage to women's health due to a decrease in accessibility of the services. Impact on medical training was also reported: medical students experienced shortcomings and lack of opportunities [10–12] as did residents in several other medical specialties, especially surgical [3,4,10,13,14]. The findings from our survey echoes these findings.

Conclusion

Due to the COVID-19 pandemic the training of trainees in obstetrics and gynaecology has been affected. The impact on the training varies per trainee, but issues like workload, exposure to learning opportunities, theoretical education and trainee-related psychosocial factors have all been affected. Measures taken to reduce the spread of the pandemic seems to have resulted in a decreased access to women's healthcare during the outbreak and may result in a decrease in quality of women's healthcare in the future if impairment of training cannot be recovered.

We agree that the COVID-19 pandemic is a cause for innovation, as was seen in the study of Chick et al. [15] We hope this survey provides an overview of the challenges that ObGyn trainees have faced and encourage trainees and their supervisors to start thinking about solutions.

Thus, concluding from this survey, we suggest the following recommendations

- All trainees should be able to compensate for any missed training opportunities as a result of the COVID-19 pandemic; every

trainee should be able to discuss their concerns with their tutors and/or program directors and ideally be able to make a plan for the future to complete the missing components of training.

- Trainees should be invited to get involved in policy making and crisis management on both departmental and hospital level in order to acquire leadership competencies.
- Lectures and other educational activities should be continued, possibly by using virtual platforms; trainees should be encouraged to lead in organising such events.
- Individually there may be a need for an elective placement in intensive care or internal medicine in the ObGyn training programme.
- Every trainee should be able to stay safe and healthy.

Following this, the pandemic may result in various new innovations. Their implementation in training programmes should be monitored [12]. Therefore, a follow-up survey will be necessary to assess whether these innovative changes have been fruitful.

Declaration of Competing Interest

None.

Appendix A. Supplementary data

Supplementary material related to this article can be found, in the online version, at doi:<https://doi.org/10.1016/j.ejogrb.2021.04.005>.

References

- [1] European centers for disease control (ECDC) website. 2020. <https://www.ecdc.europa.eu/en/covid-19-pandemic>.
- [2] He K, Stolarski A, Whang E, Kristo G. Addressing general surgery residents' concerns in the early phase of the COVID-19 pandemic. *J Surg Edu* 2020;77(4):735–8.
- [3] Warhadpande S, Khaja MS, Sabri SS. The impact of COVID-19 on interventional radiology training programs: what you need to know. *Acad Radiol* 2020;27(6):868–71.
- [4] Bitonti G, Palumbo AR, Gallo C, Rania E, Saccone G, De Vivo V, et al. Being an obstetrics and gynaecology resident during the COVID-19: impact of the pandemic on the residency training program. *Eur J Ob Gyn Rep Biol* 2020;253:48–51.
- [5] European network for trainees in obstetrics and gynaecology (ENTOG) website. 2020. <http://www.entog.eu/>.
- [6] Canadian medical education directives (CanMEDS) framework, royal college of physicians and surgeons of Canada website. 2020. <http://www.royalcollege.ca/rcsite/canmeds/canmeds-framework-e>.
- [7] Feral-Pierssens AL, Claret PG, Chouihed T. Collateral damage of the COVID-19 outbreak: expression of concern. *Eur J Emerg Med* 2020;4(May 10):1097.
- [8] Masroor S. Collateral damage of COVID-19 pandemic: delayed medical care. *J Card Surg* 2020;(May 17):10–1111.
- [9] Verweij EJ, M'hamdi HI, Steegers EAP, Reiss IKM, Schoenmakers S. Collateral damage of the COVID-19 pandemic: a Dutch perinatal perspective. *BMJ* 2020;(June 12)369 m2326.
- [10] Rimmer MP, Al Wattar BH, UKARCOG Members. Provision of obstetrics and gynaecology services during the COVID-19 pandemic: a survey of junior doctors in the UK National Health Service. *BJOG* 2020;(May 27)10 1111/1471-0528.16313.
- [11] Ding A. Medical education-collateral damage of COVID-19? *Postgrad Med J* 2020;0:1–2.
- [12] Ferrel MN, Ryan JJ. The impact of COVID-19 on medical education. *Cureus* 2020;12(3).
- [13] Kwon YS, Tabakin AL, Patel HV, Backstrand JR, Jang TL, Kim IY, et al. Adapting urology training in the COVID-19 era. *Urology* 2020;141:15–9.
- [14] Huntley RE, Ludwig DC, Dillon JK. Early effects of COVID-19 on oral and maxillofacial surgery residency training – results from a national survey. *J Oral Maxillofac Surg* 2020;78(8):1257–67.
- [15] Chick RC, Clifton GT, Peace KM, Propper BW, Hale DF, Alseidi AA, et al. Using technology to maintain the education of residents during the COVID-19 pandemic. *J Surg Educ* 2020;77(4):729–32.