

# British Journal of Hospital Medicine

## Attitudes towards attrition amongst UK trainees in Obstetrics and Gynaecology: A mixed-methods analysis of survey responses

--Manuscript Draft--

<b>Manuscript Number:</b>	
<b>Full Title:</b>	Attitudes towards attrition amongst UK trainees in Obstetrics and Gynaecology: A mixed-methods analysis of survey responses
<b>Article Type:</b>	Education and training
<b>Corresponding Author:</b>	Sabrina O'Dwyer, MB ChB, MRCOG Imperial College Healthcare NHS Trust London, UNITED KINGDOM
<b>Corresponding Author Secondary Information:</b>	
<b>Corresponding Author's Institution:</b>	Imperial College Healthcare NHS Trust
<b>Corresponding Author's Secondary Institution:</b>	
<b>First Author:</b>	Irene Gafson, BMedSci MBBS MRCOG FHEA PGCert
<b>First Author Secondary Information:</b>	
<b>Order of Authors:</b>	Irene Gafson, BMedSci MBBS MRCOG FHEA PGCert Jane Currie, MBBS, MA, MRCOG, FHEA Sabrina O'Dwyer, MB ChB, MRCOG Katherine Woolf, BSc(Hons), FHEA Ann Griffin, MBBS, MRCP, SFHEA, MMedEd, EdD
<b>Order of Authors Secondary Information:</b>	
<b>Abstract:</b>	<p>Physician dissatisfaction in the workplace has consequences for patient safety. Currently in the UK, 1:5 doctors who enter specialist training in Obstetrics and Gynaecology (O&amp;G) leave the programme prior to completion. Trainee attrition has implications on workforce planning, healthcare services organisation, and patient care. We conducted a survey of current trainees' and former trainees' views concerning attrition and "peri-attrition" - a term we coined to describe the trainee who has seriously considered leaving the specialty.</p> <p>We identified six key themes, which describe trainees' feelings about O&amp;G attrition:</p> <ol style="list-style-type: none"> <li>1.Morale and undermining</li> <li>2.Training processes and paperwork</li> <li>3.Support and supervision</li> <li>4.Work-life balance/realities of life</li> <li>5.National Health Service environment</li> <li>6.Job satisfaction</li> </ol> <p>Our study discusses themes of an under-resourced health service, bullying, lack of work-life balance, and poor personal support.</p>

**Attitudes towards attrition amongst UK trainees in Obstetrics and Gynaecology: A mixed-methods analysis of survey responses**

Irene Gafson, Jane Currie, Sabrina O'Dwyer, Katherine Woolf, Ann Griffin

## Abstract

Physician dissatisfaction in the workplace has consequences for patient safety. Currently in the UK, 1:5 doctors who enter specialist training in Obstetrics and Gynaecology (O&G) leave the programme prior to completion. Trainee attrition has implications on workforce planning, healthcare services organisation, and patient care. We conducted a survey of current trainees' and former trainees' views concerning attrition and "peri-attrition" – a term we coined to describe the trainee who has seriously considered leaving the specialty.

We identified six key themes, which describe trainees' feelings about O&G attrition:

1. Morale and undermining
2. Training processes and paperwork
3. Support and supervision
4. Work-life balance/realities of life
5. National Health Service environment
6. Job satisfaction

Our study discusses themes of an under-resourced health service, bullying, lack of work-life balance, and poor personal support.

**Currently in the UK, 1:5 doctors who enter specialist training in Obstetrics and Gynaecology (O&G) leave the programme prior to completion. Trainee attrition and workplace dissatisfaction has implications on workforce planning, healthcare services organisation, and patient safety.**

## **Introduction**

Leaving a programme of medical specialty training (attrition) has wide reaching consequences. Medical retention has been a longstanding area of concern for policy-makers (Health Education England 2016, Department of Health 2000).

UK O&G training is a seven-year programme, where applicants are eligible to apply after a minimum of two years Foundation training following medical school. The reported attrition rate (trainees who leave the training programme prior to completion) for O&G is 20% (RCOG 2016).

Attrition in medical specialties has been studied by the UK-based Medical Careers Research Group's national longitudinal cohort studies of doctors' careers. Goldacre et al (Goldacre, Laxton et al. 2010) followed up large numbers of doctors who graduated from medical school in 1974, 1977, 1993 and 1996. They found 19% of doctors in O&G posts changed career/specialty over a five-year period. Although it would seem that attrition rates have remained relatively stable, a major change took place in UK postgraduate training in 2005. It was called Modernising Medical Careers (MMC), and fixed the point of entry into specialist training. Pre-2005, doctors would work an undefined number of junior medical jobs in an array of specialities before settling on a chosen specialty. Post-2005, doctors have fewer opportunities to test out a specialty in a stand-alone job following foundation year training. Thus the statistics are hard to compare as MMC changed the landscape of postgraduate training. "Trying out a specialty" and making a different eventual career choice is a different issue from people leaving the specialty because they are unhappy.

Dissatisfaction at work in the medical profession represents a patient safety issue as well as an issue of doctors' welfare (Bodenheimer, Sinsky 2014, Williams, Skinner 2003) and can lead to poorer outcomes, patient dissatisfaction, and an increase in costs (Bodenheimer, Sinsky 2014).

A German cross-specialty cohort study of junior doctors explored predictors of leaving clinical practice in 557 residents (Degen, Weigl et al. 2014). They found that lack of autonomy, unstructured training, and the inability to admit to or discuss their lack of knowledge predicted intention to leave. Other American studies identified demographic risk factors for attrition, including female gender, older age, underrepresented ethnic minorities, Asian race, and being international medical school graduates (McAlister, Andriole et al. 2008).

This study aimed to explore attitudes towards attrition in O&G training in the UK, and the reasons trainees have for thinking about leaving training (for whom we coined the term “peri-attrition”).

## **Methods**

### ***Study design***

We chose a mixed-methods design, using a quantitative questionnaire to gather frequency data on respondents and their attitudes. We used qualitative methods to analyse free-text responses.

### ***Participants and sampling***

We conducted two questionnaires: the 'peri-attrition questionnaire' (PAQ) for current O&G trainees; and the 'attrition questionnaire' (AQ) for former trainees who left the specialty training programme before completion.

At the time of distribution (September 2015), there were 183 O&G trainees within the training region of Health Education North Central and East London (HENCEL). 182 trainees had opted in to receive a regular email newsletter from the HENCEL O&G Trainees Committee (elected body of representatives). This newsletter was used to circulate the PAQ. HENCEL administrators were unable to give us a list of trainees who had left training. Thus, the HENCEL O&G Trainees Committee formulated a list of people known to have left training in recent years (2009 – 2015). We sent the AQ to these people directly.

### ***Questionnaire design***

The questions were devised by three of the authors, who were actively serving members of the trainees' committee. Questions and option lists were checked against previous questionnaires into recruitment in O&G (Currie, Huggins et al. 2013, Whitten, Higham 2007). Content was reviewed by the chair of the Training Programme Management Committee (TPMC), the body responsible for overseeing O&G training in HENCEL. It was felt that a formal pilot phase was not necessary.

In the questionnaire invitation email it was made clear that participation was voluntary, and that responses would be anonymised.

### ***Data gathering***

The electronic PAQ and AQ were sent by email to 183 trainees and 10 former trainees in September 2015, as previously mentioned. Three reminder emails were sent in September and October 2015. We used Qualtrics software (Qualtrics 2015) to gather questionnaire data.

### ***Analysis***

#### *Quantitative*

We used Excel to calculate descriptive statistics.

#### *Qualitative*

We adopted a constructivist approach to analysis of free text responses (Charmaz 2006) in order to acknowledge that part of our research team were themselves trainees. All free text responses from both questionnaires were labelled and combined to create a dataset. Following immersion in the dataset, we created an initial set of codes to describe the entire dataset, which we independently grouped into themes. We used the process of constant comparison to create an agreed consensus of themes and codes. Any disparity was discussed and resolved.

## **Results**

### ***Peri-attrition questionnaire***

Quotations have been presented in their original form, with corrections made for spelling errors.

All acronyms and abbreviations are explained in the glossary (Appendix 1).

#### *Response rate*

54/183 (30%) of trainees responded. The representativeness of respondents varied by grade, ranging from 15% of ST3s (Specialty Trainees in their 3<sup>rd</sup> year of O&G training) to 48% of ST6s (see Figure 1).

#### *Demographics*

48/54 (89%) respondents were female, 5/54 (9%) was male and 1/54 (2%) respondent preferred not to say.

#### *Attitudes and behaviours in relation to peri-attrition*

43/54 (80%) of the respondents stated that they had considered leaving the specialty, which represents 43/183 (23.5%) of all HENCEL trainees.

The reasons for considering leaving are shown in Figure 2. The median number of options selected was two with a range of zero to seven options selected. The free text answers given in 'other' are represented in the coding framework.

4/43 (9.3%) of the peri-attrition respondents expressed their career doubts and concerns to careers guidance professionals.

### ***Attrition questionnaire***

#### *Response rate*

8/ 10 (80%) former trainees responded.

### *Demographics*

All respondents were female. They had left in the years from 2009 to 2015, with the majority being in ST1 to ST3. Five have pursued a career in General Practice; three have pursued alternative medical career paths.

### *Attitudes and behaviours in relation to attrition*

5/8 (62.5%) had expressed their career doubts and concerns to careers guidance professionals whilst still a trainee.

### ***Coding framework***

Figure 3 illustrates the six key themes that describe all of our qualitative data.

### *Morale and undermining*

Trainees frequently described low morale working in O&G and receiving “very little in the way of praise for a job well done” (PAQ respondent 37, ST5).

When trainees attempted to broach their concerns within their departments or with the local educational leads, they described a lack of listening: “Bad experience in a department notorious for bullying, which is raised year after year on the GMC survey and nothing changes!” (PAQ respondent 12, ST7). Several trainees alluded to the need for a cultural change:

*“People are made to feel bad for considering other things. People need to be seen as individuals with respect to their plans, and not to be told that academics will be rubbish at clinical work before they have even started.” (PAQ respondent 51, ST1)*

There was a single comment alluding to racial discrimination within the specialty:

*“Constant hitting the visible and invisible walls of discrimination and prejudice- tired of running the extra 5 miles to be on par with white British trainees, seeing the injustice in training.” (PAQ respondent 26, ST5)*



### *Training processes and paperwork*

Many trainees described the difficulties associated with juggling “the burden of endless ePortfolio, audit, QI, exams, ARCPs, WPBAs, matching” (PAQ respondent 57, ST4). ‘Matching’ refers to the process of competitive interview at key stages of training to allocate hospital rotations. Training-related paperwork detracts from some trainees’ “love of the clinical aspects”.

Some respondents felt that they were “treated as a number” in the course of training:

*“I’m on a conveyor belt to a consultant job I don’t want and don’t feel designed for.” (PAQ respondent 21, ST6)*

As with all postgraduate training, O&G has formal examinations. Some trainees described the difficulties encountered in passing these exams and how “assistance with exam preparation to keep you motivated” could help (PAQ respondent 48, ST6).

### *Support and Supervision*

There were both positive and negative comments regarding trainees’ experiences of educational supervision. The increased workload in the NHS also affects consultants and a few respondents indicated this may be the cause for the lack of time to provide educational supervision. Consultant burnout and fatigue could affect their ability to take on an effective and empathetic role.

*“Consultants were busy and did not have enough empathy for a commute/childcare/lack of sleep due to young children...” (AQ respondent 8)*

Many trainees commented on how they felt unsupported following serious incidents with patients. Some specified the loss of firm structure and camaraderie amongst medical staff may be part of the problem.

*“It’s now much harder to get to know your colleagues, and therefore identify senior mentors... There’s now less opportunity to talk through stressful events with senior colleagues, debrief, offload, and ask for informal advice.” (PAQ respondent 47, ST7)*

The following is an extreme example of lack of support:

*"I felt [leaving O&G] was a taboo subject...I did not speak to anyone in the deanery until I had handed in my notice...I felt I could not speak to anyone about it because there is a stigma around not seeming 'keen' and not appearing to love it." (AQ respondent 3)*

#### *Work-life Balance and Realities of Life*

Many trainees cited the option of less than full time (LTFT) working as a positive aspect of the job, or a "pull factor" towards a career in O&G:

*"Ultimately I still love the essence of the work. Hoping to achieve a better work life balance by going LTFT..." (PAQ respondent 55, ST4)*

Conversely, some respondents cited poor work-life balance as the reason for leaving training.

*"The reasons that I left the training programme relate solely to the difficulties in achieving work-life balance - I have a young family and was finding that I just didn't see enough of them." (AQ respondent 10)*

Some trainees feel that challenges in gaining clinical experience while working LTFT are neither understood nor addressed.

*"I had taken 3 years out to do an MD in minimal access surgery. Afterwards, I was not getting enough support or operating time to develop the skills. The full-timers passed me by." (AQ respondent 8)*

Flexibility in training does not only apply in the context of balancing work with family life. Overwhelmingly, when asked for possible solutions to the problem of attrition, respondents mention "more flexibility" and giving people time out of programme (OOP) where needed. This would allow trainees more autonomy in determining their career trajectory, or simply have a break and reflective space if they are having a difficult time during training.

#### *NHS environment*

The theme of the wider NHS environment generated mostly negative remarks:

*"With the NHS in its current state there is very little that can be done" (PAQ respondent 11, ST4)*

This was made more explicit with references to intense workload, low staffing levels and poor funding.

*"The endless juggling to make ends meet with rosters staffed by not enough doctors, locums that don't turn up etc." (PAQ respondent 37, ST5)*

The culture of working in the NHS was discussed, with mention of infantilisation of trainees, a blame culture, and working conditions not improving as a consultant. .

*"A feeling of being treated like a child, a blame culture where I was working, poor working conditions in the NHS..."(PAQ respondent 47, ST7)*

#### *Job satisfaction*

Job satisfaction was consistently and repeatedly raised as a positive feature of working in O&G.

*"I love the job, looking after the women and the satisfaction of caring for them to the best of my ability." (PAQ respondent 37, ST5)*

Job satisfaction was a positive pull factor, keeping trainees in the specialty even when struggling.

*"I love my job- I love my patients ... the constant emotional burden of all these issues I have mentioned... it drains you, then some patient gives you a hug or a smile and thanks you. You just forget it." (PAQ respondent 26, ST5)*

## **Discussion**

### ***Statement of principal findings***

Our findings show trainees' attitudes towards attrition and peri-attrition, underlying reasons for leaving, and experiences can be summarized under the six themes in Figure 3.

The majority of respondents expressed their on-going interest and passion for working in O&G, with job satisfaction from helping patients a key feature. However, there was an overall sense of frustration and exhaustion with both the system of working in the NHS, as well as the underlying training process.

We did not specifically gather data regarding attitudes towards O&G specifically versus Medicine in general. However, a large questionnaire study in 2004 on attrition amongst cross-specialty doctors in the UK has revealed perceived poor working conditions in the NHS, long working hours, poor work-life balance, and a desire to travel and work abroad as reasons for wishing to leave Medicine in the UK (Moss, Lambert et al. 2004). It is interesting to note that doctors' perception of poor working conditions and lack of work-life balance has not improved in spite of the introduction of the European Working Time Directive (EWTD) in 2009, which limits the working week to 48 hours.

#### ***Strengths and weaknesses of the study***

This study explored attitudes of trainees in O&G in a single region and thus may not reflect national concerns; however the findings are consistent with other studies (Whitten, Higham 2007, Thangaratinam, Yanamandra et al. 2006).

Data was obtained through electronic questionnaires; while this generated large quantities of free text responses (not compulsory) it might not have been as rich as data generated through interview or focus group. However, it allowed inclusion of opinions of a greater number of trainees than other methods would have allowed. A response rate of 30% is in fact a typical response rate amongst doctors (Cunningham, Quan et al. 2015). A desire to complete the questionnaire could lead to a risk of response bias (Coggon, Rose et al. ), so we used mainly descriptive statistics and focused our analysis on the qualitative data collected.

There were only a small number of trainees that could be contacted for the AQ, however the response rate was 80% (8/10). We feel it is imperative that training programme directors gather feedback to all trainees who have taken this huge life decision. .

Our findings support previous work done regarding the effect of stress and lack of work-life balance on O&G trainees, and the reasons why people choose O&G as a specialty. (Thangaratinam, Yanamandra et al. 2006, Whitten, Higham 2007)

***.Meaning of the study: possible explanations and implications for clinicians and policymakers***

Postgraduate medical training in the UK has changed tremendously over the past 10 years, as has the political and financial landscape surrounding the NHS (Temple 2010, Tooke 2008). The complexity of issues outlined in this study may explain how a simple reduction of working hours through EWTD implementation has not resulted in eradicating the problem of attrition and peri-attrition.

With the introduction of MMC and the formalization of postgraduate medical education, there was an introduction of an elaborate framework of assessment for doctors. From our findings, trainees have clearly experienced anxiety and pressure from these requirements.

Prior to the MMC changes, junior doctors had the opportunity to test out a variety of specialties before making a final decision. Now, they are asked to address the issue of long-term career specialisation choice at a junior level. When a trainee chooses to leave a training programme, it is considered a personal failure. Perhaps we need to remove this stigma or taboo and normalise “testing out” a specialty.

The quality of educational supervision can greatly influence a trainee’s experience in a particular placement. .Currently, GMC guidance stipulates that only consultants with formal training in educational supervision should become educational supervisors, with time allocated in consultant job planning to perform this role. Evidence in the literature recognizes the importance of the supervision relationship, constructive feedback, sufficient time for supervision and adherence to a supervision framework (Kilminster, Jolly 2000, Kilminster, Cottrell et al. 2007).

Supervision has been further disrupted by the loss of the firm structure following the introduction of full shift patterns, resulting in the collapse of the apprenticeship model of learning. Both trainees and educational supervisors have needed to adapt to ensure that trainees continue to receive training of a high quality that meets all the curriculum requirements.

Furthermore, with O&G training, where adverse outcome is relatively common, there is a risk of trainees becoming “second victims” following serious incidents (Schrøder, Jørgensen et al. 2016, Scott, Hirschinger et al. 2009). Thus the role of the educational supervisor needs to be extended to include trainee welfare.

Feminization of the UK medical workforce has been previously cited as the reason behind staffing shortages and roster gaps (McKinstry, Dacre 2008), due to doctors taking time out for maternity leave and returning to work LTFT. Our survey respondents made many positive comments concerning flexibility and ability to work LTFT. In current times where men and women share the responsibilities of childcare and wage earning in a household, the option of working LTFT for the purposes of better work-life balance is highly likely to benefit trainees of both genders. In the interest of overall long-term retention, the challenges that LTFT working puts on the workforce needs to be tackled more creatively than simply to condemn LTFT working and parental leave.

LTFT working has also been associated with other challenges. The general problem of lack of training opportunities and emphasis on service provision may seem amplified if a trainee is working LTFT. The prolonged period of training may not compensate for the need for continual hands-on experience in developing surgical skill (Moulton, Dubrowski et al. 2006, Reznick, MacRae 2006).

In summary, our respondents echoed the predictions of the 2008 Tooke Report, which stated that MMC was “unlikely to encourage or reward striving for excellence, offer appropriate flexibility to trainees, facilitate future workforce design...” (Tooke 2008) However with increased awareness of the current challenges in postgraduate specialty training, positive steps can be taken to make changes as we move forward.

## **Figure 1**

Training grades of PAQ respondents compared to overall trainee numbers in region.

## **Figure 2**

Peri-attrition respondents' reasons stated for considering leaving O&G training.

## **Figure 3**

Six key themes identified

## **Appendix 1**

### ***Glossary – Acronyms used in quotations and figures***

- AQ – Attrition Questionnaire
- ARCP – Annual Review of Competence Progression
- ATSM – Advanced training specialty module
- BMA – British Medical Association
- DDRB – Doctors' and Dentists' Remuneration Body
- E-portfolio - electronic portfolio
- EWTB – European Working Time Directive
- GMC – General Medical Council
- HENCEL – Health Education North Central and East London
- JDC – Junior Doctors Committee
- LTFT – Less than Full Time
- O&G – Obstetrics and Gynaecology
- OOP – Out of program
- OOPC – Out of program Career Break
- OOPE – Out of program Experience
- MD – Masters - terminal medical degree
- MDU – Medical Defence Union
- MMC – Modernizing Medical Careers
- NHS – National Health Services
- NHSE – National Health Service Employers
- PAQ – Peri-attrition Questionnaire
- PSU – Professional Support Unit
- QIPs – Quality Improvement Projects
- QI – Quality Improvement
- RCOG – Royal College of Obstetricians and Gynaecologists
- SHO – Senior house officer
- SI – Serious Incident
- ST – Specialty Trainee (usually followed by year of training 1-7)
- TPMC – Training Program Management Committee
- UCL – University College London
- WPBA – Workplace Based Assessment

## References

- BODENHEIMER, T. and SINSKY, C., 2014. From triple to quadruple aim: care of the patient requires care of the provider. *Annals of family medicine*, **12**(6), pp. 573-576.
- CHARMAZ, K., 2006. *Constructing grounded theory: a practical guide through qualitative analysis*. London: Sage.
- COGGON, D., ROSE, G. and BARKER, D., Chapter 5. Planning and conducting a survey. *Epidemiology for the Uninitiated*. 4 edn. The BMJ, .
- CUNNINGHAM, C.T., QUAN, H., HEMMELGARN, B., NOSEWORTHY, T., BECK, C.A., DIXON, E., SAMUEL, S., GHALI, W.A., SYKES, L.L. and JETTÉ, N., 2015. Exploring physician specialist response rates to web-based surveys. *BMC medical research methodology*, **15**(1), pp. 1.
- CURRIE, J., HUGGINS, M. and WHITTEN, M., 2013. *Recruitment and Retention into Obstetrics and Gynaecology: What are the influencing factors and how have they changed with changes in postgraduate training? Special Issue: Abstracts of the RCOG World Congress 2013, 24–26 June 2013, Liverpool, United Kingdom*. Wiley Online Library.
- DEGEN, C., WEIGL, M., GLASER, J., LI, J. and ANGERER, P., 2014. The impact of training and working conditions on junior doctors' intention to leave clinical practice. *BMC medical education*, **14**(1), pp. 1.
- DEPARTMENT OF HEALTH, 2000. *The NHS plan: a plan for investment, a plan for reform*.
- GOLDACRE, M.J., LAXTON, L. and LAMBERT, T.W., 2010. Medical graduates' early career choices of specialty and their eventual specialty destinations: UK prospective cohort studies. *BMJ (Clinical research ed.)*, **341**, pp. c3199.
- HEALTH EDUCATION ENGLAND, 2016-last update, HEE commissioning and investment plan 2016/2017. Available: <https://hee.nhs.uk/sites/default/files/documents/HEE%20commissioning%20and%20investment%20plan.pdf> [10/25, 2016].
- KILMINSTER, S. and JOLLY, B., 2000. Effective supervision in clinical practice settings: a literature review. *Medical education*, **34**(10), pp. 827-840.
- KILMINSTER, S., COTTRELL, D., GRANT, J. and JOLLY, B., 2007. AMEE Guide No. 27: Effective educational and clinical supervision. *Medical teacher*, **29**(1), pp. 2-19.
- MCALISTER, R.P., ANDRIOLE, D.A., BROTHERTON, S.E. and JEFFE, D.B., 2008. Attrition in residents entering US obstetrics and gynecology residencies: analysis of National GME Census data. *American Journal of Obstetrics and Gynecology*, **199**(5), pp. 574. e1-574. e6.
- MCKINSTRY, B. and DACRE, J., 2008. Are there too many female medical graduates? *British medical journal*, **7647**, pp. 748.
- MOSS, P.J., LAMBERT, T.W., GOLDACRE, M.J. and LEE, P., 2004. Reasons for considering leaving UK medicine: questionnaire study of junior doctors' comments. *BMJ (Clinical research ed.)*, **329**(7477), pp. 1263.



MOULTON, C.A., DUBROWSKI, A., MACRAE, H., GRAHAM, B., GROBER, E. and REZNICK, R., 2006. Teaching surgical skills: what kind of practice makes perfect?: a randomized, controlled trial. *Annals of Surgery*, **244**(3), pp. 400-409.

QUALTRICS, 2015. *Qualtrics, first released 2005*.

RCOG, 2016-last update, RCOG statement: Imposition of junior doctors' contract. Available: <https://www.rcog.org.uk/en/news/rcog-statement-imposition-of-junior-doctors-contract/> [8/15, 2016].

REZNICK, R.K. and MACRAE, H., 2006. Teaching surgical skills—changes in the wind. *New England Journal of Medicine*, **355**(25), pp. 2664-2669.

SCHRØDER, K., JØRGENSEN, J.S., LAMONT, R.F. and HVIDT, N.C., 2016. Blame and guilt—a mixed methods study of obstetricians' and midwives' experiences and existential considerations after involvement in traumatic childbirth. *Acta Obstetrica et Gynecologica Scandinavica*, .

SCOTT, S.D., HIRSCHINGER, L.E., COX, K.R., MCCOIG, M., BRANDT, J. and HALL, L.W., 2009. The natural history of recovery for the healthcare provider "second victim" after adverse patient events. *Quality & safety in health care*, **18**(5), pp. 325-330.

TEMPLE, J., 2010. Time for training: a review of the impact of the European Working Time Directive on the quality of training. *Medical Education England*, **33**.

THANGARATINAM, S., YANAMANDRA, S., DEB, S. and COOMARASAMY, A., 2006. Specialist training in obstetrics and gynaecology: A survey on work-life balance and stress among trainees in UK. *Journal of Obstetrics & Gynecology*, **26**(4), pp. 302-304.

TOOKE, J., 2008. *Aspiring to excellence: final report of the independent inquiry into Modernising Medical Careers*.

WHITTEN, S. and HIGHAM, J., 2007. Recruitment and retention into obstetrics and gynaecology: the influencing factors. *British journal of hospital medicine*, **68**(1), pp. 42-46.

WILLIAMS, E.S. and SKINNER, A.C., 2003. Outcomes of physician job satisfaction: a narrative review, implications, and directions for future research. *Health care management review*, **28**(2), pp. 119-139.





