

Female specialists in intensive care medicine: job satisfaction, challenges and work–life balance

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Training programs in intensive care medicine (ICM) in Australia and New Zealand were developed in the 1970s by the Faculty of Anaesthetists of the Royal Australasian College of Surgeons (FA, RACS) and the Royal Australasian College of Physicians (RACP). In 2010, graduates of these training programs were admitted as Fellows of the College of Intensive Care Medicine (CICM) of Australia and New Zealand. A survey of successful graduates from the ICM training program of the FA, RACS in 1984 showed that only two of the 24 Fellows surveyed were women.¹ A follow-up survey in 1995 of Fellows (by examination) of the Faculty of Intensive Care, Australian and New Zealand College of Anaesthetists² (FIC, ANZCA) identified 13 of 120 respondents (11%) as women. From 2002 until 2010, training in ICM was overseen by the Joint Faculty of Intensive Care Medicine (JFICM) of the ANZCA and the RACP. During this time, the proportion of Fellows who were women increased from 12.3% (minutes of the Board Meeting of the JFICM held 24 October 2002, Melbourne) to 15.4% (minutes of the Board Meeting of the JFICM held 5 November 2009, Melbourne). The Medical Training Review Panel (MTRP) report of 2015³ shows that women comprised 16.8% of Australian ICM specialists in 2013. In September 2015, women made up 18.7% of the total Fellowship of the CICM and 19.7% of active Fellows (personal communication, Caitlin Gheller, Administrative Officer, Training, CICM, Melbourne, 15 September 2015).

Although the proportion of women in the ICM workforce has clearly increased over the years, it has lagged behind the proportion of female medical graduates (domestic graduates, 52.8%; international graduates, 49.1%),³ employed medical practitioners (37.9%) and medical specialists (26.8%).⁴ The proportion of women in the ICM workforce is similar to that in reports from other countries; 14% of pulmonologists and critical care physicians in the United States in 2006 were women,⁵ and 17% of ICM specialists (by head count) in the United Kingdom in 2012 were women.⁶

The MTRP data report shows that ICM has the third lowest proportion of women among medical specialties in Australia, with only surgery (9.7% women) and oral and maxillofacial surgery (9.3% women) having lower proportions.³ It also shows that the proportions of female physicians are highest in specialties in which work hours can be controlled, such as sexual health medicine (54.1%

ABSTRACT

Objective: Women are under-represented in the intensive care medicine (ICM) specialist workforce. I aimed to better understand the challenges these women face so they can be considered in the training and support of ICM specialists.

Design and participants: All female Fellows of the College of Intensive Care Medicine (CICM) of Australia and New Zealand were surveyed using an online questionnaire. The study was approved by the Cabrini Human Research Ethics Committee. Thirty respondents with children volunteered to complete a second questionnaire.

Main outcome measures: I surveyed demographic and workforce data and women's experiences in the ICM specialist workforce in the first survey, and experiences with child-rearing in the second survey.

Results: The response rate was 80.3% (127/158). The median age bracket was 40–45 years, and 118 respondents were practising ICM, 85 full-time in a tertiary intensive care unit. Eighteen were ICU directors and 23 were CICM-appointed supervisors of training. Sixty-five women were mothers, and 70% returned to full-time work after their maternity leave. Child care was most commonly undertaken by family members or a nanny. Overall, 81% were satisfied with their experiences, but 37% felt they had been disadvantaged because of their sex. Fewer women with leadership roles felt disadvantaged. Their major challenges included the on-call work affecting child-rearing and family life, sexism in the workplace and difficulties with academic advancement.

Conclusion: The participation and satisfaction rates of women working in the ICM specialist workforce are encouraging. Although challenges exist, women contemplating a career in ICM should see it as achievable and rewarding.

Crit Care Resusc 2016; 18: 125–131

women), palliative medicine (51.8% women), paediatrics (47.2% women) and general practice (46.7% women).³ Data are similar for New Zealand,⁷ where the proportion of female ICM specialists was 18% in 2012 and was the fifth lowest of all specialties, with the highest being sexual health medicine (75% women) and family planning and reproduction (67% women).

My aim was to investigate aspects of practice by female Fellows of the CICM, determining their demographics and patterns of practice, the degree of satisfaction derived from their practice of ICM, and the challenges involved, particularly with respect to being female. My second survey investigated aspects of family life for these specialists, particularly with respect to child-rearing while practising in ICM.

I anticipate that my findings will allow the CICM to better understand the challenges that women face in the ICM workforce and to consider these in the recruitment, training, continuing professional development and support of specialists in ICM, so that women can make a greater contribution to the ICM workforce.

Methods

Ethics approval

I surveyed female Fellows of the CICM using an online questionnaire. The study was approved by the Cabrini Human Research Ethics Committee (approval number 09-20-05-13). The survey was anonymous, and internet protocol addresses were not stored. A response to the invitation email was taken as implied consent.

Survey design and distribution

The survey was a structured, multiple-choice, online questionnaire sent to all women who were current Fellows of the CICM on 2 September 2013 (see Appendix online at cicm.org.au/Resources/Publications/Journal). An invitation to participate was sent in an email which contained a link to the questionnaire on an online survey site (SurveyMonkey). Responses were obtained over a 5-week period; a reminder email was sent on 16 September 2013, and the last response was received on 7 October 2013.

The survey consisted of 25 open and categorical questions about participant demographics, specialty, place and hours of work, aspects of satisfaction provided by work, and perceptions of the effect of gender and whether or not respondents were mothers. I noted common themes among the responses to the open questions.

Respondents with children were asked to complete a second questionnaire, sent on 7 October 2013, with a reminder sent on 16 October 2013. This second survey finished on 22 October 2013. In it, I sought information from the woman about how many children she had, her periods of maternity leave, her employment on return to work, child care arrangements and the influence of motherhood on her employment and career.

Data analysis

I used descriptive statistics to analyse the results, and assessed differences in categorical variables (yes and no responses) using the χ^2 test.

Results

The survey response rate was 80.3% (127 of 158 female Fellows) and the median age bracket was 40–45 years. The distribution among the states and territories of Australia and New Zealand and other overseas countries reflected that of the College Fellowship as a whole. All respondents were in active medical practice, with 93% practising ICM. Eighteen were directors of intensive care units, five were deputy directors and 23 were supervisors of training (SOTs). Some (35%) had a second ICM position, a small number (8%) had a third ICM position, and 19% of respondents spent at least some of their professional life practising another specialty.

A total of 81% of respondents stated that they were satisfied with their experiences as an ICM specialist. The most satisfying aspects of their work were their relationships with other ICU staff members, being involved in the management of patients over the entire admission, relationships with the families of patients, supervising and teaching trainees and end-of-life care. Twelve per cent felt dissatisfied with their experiences in the ICM specialist workforce. Aspects of work that generated the least satisfaction and the most difficulty were being on call, administrative tasks and research.

When asked if there were some advantages to being a woman in the ICM specialist workforce, 38% agreed. The nominated advantages included being better diplomats and having less ego than their male counterparts, and having advanced multitasking and communication skills. When asked if they felt they had been disadvantaged as a woman in the ICM specialist workforce, 37% agreed. The proportion who felt disadvantaged was lower among women who were directors, deputy directors or SOTs ($P = 0.04$) but was not influenced by age, whether employment was full-time or part-time, the type of ICU (tertiary, private etc) or whether respondents were mothers. The major gender-related issues identified by women who felt disadvantaged by their sex were the balance between work, child-rearing and family life, sexism in the workplace (referred to by 25% of respondents) and difficulties with academic advancement (see Table 1).

About half of the survey respondents stated that their work–life balance was satisfactory. This proportion was the same for women with children, those who worked part-time, those working in a public or private ICU and those with leadership roles, and was independent of age. Despite this, when asked “Knowing what you know now, would you still choose a career in intensive care medicine?”, over 80% of respondents answered “Yes”.

The questions about family showed that 55% of respondents had one or more children. In this group, most women (60%) became mothers while working as a specialist, and 18% and 22% had their first child before starting training and during training, respectively.

Table 1. Examples of free-text responses describing disadvantages of being female in the intensive care workforce**Balance between work, child-rearing and family life**

- "Difficult to balance family life with job"
- "Pressure to do well at work as well as at home"
- "Significant out-of-hours and weekends impact negatively on family life"
- "The unpredictability of intensive care unit (ICU) practice can result in not being able to attend things (school functions) that other working mothers may be able to"
- "When children are home sick, there is little flexibility sometimes in the system when you are on call"
- "Having young children and working long hours, sometimes going for days without seeing them"
- "Male colleagues find it easier to prioritise work (eg, attending international conferences when children are young)"

Sexism in the workplace

- "ICU as a specialty is, in general, a 'boys' club'"
- "Chauvinism is the norm"
- "Conservative and bloke-like culture"
- "The ICU culture has an embedded and covert sexual bias"
- "Get the feeling of not being taken seriously and having to put up with sexist comments/behaviour"
- "Being assertive is easily mislabelled as hysterical or bitchy, whereas the same behaviour from a male would not be commented on"
- "Was told not to apply for consultant positions until I had the 'family business' out of my system. I am confident none of my male colleagues had this discussion"
- "There is still a lot of discrimination at multiple levels"
- "How many times have male doctors commented on my appearance rather than the quality of my talk or presentation?"

Difficulties with academic advancement

- "Similarly to the corporate world, the positions of authority tend to be held by males ... [in] the line-up of speakers at the College of Intensive Care Medicine (CICM) conference or Australian and New Zealand Intensive Care Society, 90% are male"
- "Lose opportunities in prime years to publish and be recognised for work outside the clinical realm"
- "Do not have enough time to do research"
- "Tend to be excluded at higher levels of the profession"
- "There is a lot of female ICU talent [who do not] see the light of day" [in reference to CICM speakers at the Annual Scientific Meeting and the Clinical Trials Group]

Thirty respondents with children volunteered to complete a second survey. Of these, half were practising ICM full-time and 40% were practising part-time. Most respondents had one (33%) or two (47%) children, and one had four children. Almost 75% took a period of maternity leave that was 6 months or less, and 40% (12 women) took a period of maternity leave that was less than 3 months after the birth of their first child. Seventy per cent of respondents returned to full-time ICM practice after their maternity leave with their first child, 65% returned after the second child and 30% after the third. Child care while the woman was working was most commonly provided by family members (45%), a nanny (24%) or a crèche (14%). About 40% of respondents said that motherhood had no effect on their ability to practise ICM or their career progression, and one-third of respondents felt it had "somewhat of an effect".

Discussion

My findings show that, despite the relatively small proportion of women in the ICM specialist workforce in Australia and New Zealand, all respondents had remained in the medical workforce and most still practised in ICM. This suggests that the challenges noted by survey respondents are surmountable. There have been no previous studies of female ICM specialists, therefore the following comparisons I make are with women in other medical specialties.

Studies in other jurisdictions and specialties suggest that women are under-represented in leadership roles.⁸⁻¹¹ The most recent annual report from the Centre for Outcome and Resource Evaluation (CORE) of the Australian and New Zealand Intensive Care Society notes that 208 adult and paediatric ICUs in Australia and New Zealand contributed data to the CORE in 2013.¹² These ICUs all have a director, and given that my survey response rate was 80%, 18

female ICU directors probably represents about 10% of ICU directors and is less than the proportion of women in the ICM specialist workforce in 2013 (16.8%).³ There are 118 ICUs accredited for training listed on the CICM website (www.cicm.org.au). These ICUs all have at least one SOT. Female SOTs are about 25% more prevalent than female ICU directors, and the pool of training units is smaller. Using the same assumptions, approximately 22% of SOTs are women. It would therefore seem that although women are under-represented as directors, this is not the case for SOTs.

The 80% of respondents who stated that they were satisfied with their experiences in the ICM workforce in Australia and New Zealand corresponds closely with the findings in studies of women in other countries and specialties (79.5% for female emergency physicians in the US,¹³ 83% for paediatric surgeons in the US,¹⁴ 93% for paediatric surgeons in the UK,¹⁵ 83% for Canadian ophthalmologists¹⁶ and 79% for US colorectal surgeons¹⁷). I note that the areas identified by respondents as providing the most satisfaction involved human interactions (including discussions involving end-of-life care). A systematic review of facets of career satisfaction for female physicians in the US¹⁸ noted multiple studies that established a concordant correlation between patient and peer relationships and career satisfaction of female physicians. I did not survey men working in ICM, so whether the areas that give them career satisfaction are the same or different from those of women remains unknown. The US systematic review also noted that career satisfaction was highest among the women who were the most academically productive and the older women, and that family obligations were not considered major obstacles to career satisfaction or success.¹⁸

A relatively small (but not insignificant) percentage of respondents felt dissatisfied with their experience in the ICM workforce. Their major reasons were the heavy clinical load and the on-call responsibilities. These reasons were also major causes of dissatisfaction in the 1996 survey of new graduates (men and women) from the intensive care Fellowship program of Australia and New Zealand,² and in the systematic review of Rizvi and colleagues.¹⁸ Other reasons noted by Rizvi and colleagues include gender-based harassment or discrimination and lack of mentoring.¹⁸

Because I only surveyed women and the responses were subjective, the perceived advantages of being a woman in the ICM workforce (eg, being better diplomats, communicators and multitaskers and having less ego than their male counterparts) may not reflect the opinions of the Fellowship as a whole. However, these responses are consistent with the psychology literature, which shows that when compared with men, women have better verbal skills, score more highly on agreeableness and tender-mindedness and have lower self-esteem, while men score more highly on sensation seeking, interests in things versus

people and physical aggression.¹⁹ A study exploring gender differences among UK hospital consultants found that, in contrast to men, who often showed direct, abrupt and didactic conversation styles, women were more accepting of problems with nursing staff, were more affable with patients and showed more nurturing, empathy and sympathy through their voice and body language.²⁰

Just over one-third of respondents indicated that they had been disadvantaged because of their gender. It is not surprising that women who had been promoted to positions of director, deputy director or SOT had a lower incidence of feeling disadvantaged than those who had not. The responses in Table 1 showing the reasons for women feeling disadvantaged because of their gender can be categorised into three main areas: the balance between work, child-rearing and family life; sexism and/or gender discrimination in the workplace; and difficulties with academic advancement.

Many respondents stated that they often found it difficult to juggle work and family responsibilities, particularly as their work has a significant requirement for work out of hours and on weekends.

Several studies show that female doctors are more likely to have a spouse or domestic partner who is employed full-time,^{21,22} and when they are married or partnered and have children, they spend 8.5 more hours per week on domestic activities than do men.²¹ Male doctors with children are more likely to have a partner who does not work,²³ and can therefore delegate family responsibilities when under pressure at work.

The challenges of motherhood for female doctors have been well documented²⁴⁻²⁶ and include problems with working through pregnancy, maternity leave, childcare, arranging suitable rosters and, in some cases, accepting that non-clinical aspects of work, such as research, are simply not possible, at least for a time. Similar problems may arise when a female ICM specialist is a carer for other family members. This was not identified by any respondents to the survey.

One-quarter of respondents referred to a culture of sexism and discrimination in ICUs, where they felt their views were not taken seriously and where standards of behaviour appeared to be different for men and women. Although no respondents reported any sort of physical assault, these discriminatory behaviours can be described as forms of sexual harassment, because the term covers a range of behaviour including everyday exchanges communicating derogatory messages.²⁷ Of my respondents, 37% believed that they had been disadvantaged because of their gender. Although important, this is very much less than the rates of perceived gender-based discrimination reported in US studies of female medical students (83%²⁸ and 87%²⁹), during medical training in general (73%³⁰), in surgery in particular (88%²⁹), and in specialist surgical practice (91%²⁹). This difference may reflect a different culture in Australian

and New Zealand ICUs from that of medical schools and hospitals in the US. However, it is more likely that the difference was a result of the way the question was framed; respondents in my survey may not have believed that “lack of respect from the medical team” or “inappropriate verbal exchange” were examples of disadvantage due to their gender. Several respondents to the survey mentioned that they had been questioned about whether they intended to have children when discussing future employment. There is evidence that this sort of inappropriate questioning is still widespread. In a study of trainees and recently graduated Fellows of the Royal Australian and New Zealand College of Obstetrics and Gynaecology (RANZCOG), 26% of female respondents reported that they had been asked about future pregnancies by a prospective employer.³¹

Several respondents commented on the small number of women speaking at ICM meetings and clinical trials forums. Some attributed this to a lack of time to conduct research or undertake activities that would improve their curriculum vitae and lead to academic advancement, because of commitment to children and family life. Although many female doctors elect to work part-time and aspire less often to senior hospital and academic positions,^{24,32} the evidence suggests that there are significant differences in opportunities for academic advancement between men and women, even when children are not involved. An editorial in the *British Journal of Anaesthesia*⁸ explores this phenomenon. As examples, women publish fewer scientific articles,³³ are under-represented on editorial boards of major medical journals³⁴ and earn less than men as physician-researchers.³⁵

A survey of over 4000 full-time faculty at 26 nationally representative US medical colleges suggests that medical schools have failed to create and sustain an environment in which women feel fully accepted and supported to succeed.⁹ It is therefore appropriate that some university medical schools have designed special programs to support female faculty¹⁰ and others have suggested strategies for continuing the advancement of women, so that gender equity in academic medicine can be achieved.^{36,37} These strategies include addressing the constraints of traditional gender roles by individuals and institutions, eliminating sexism and gender discrimination and encouraging effective mentorship.

Only 50% of respondents stated that their work–life balance was satisfactory, but 80% stated that they were satisfied with their career and that, given their time again, they would still choose a career in ICM. Consequently, there appears to be an acceptance that the lifestyle of an ICM specialist will involve juggling work activities with activities outside work. Interestingly, all subgroups examined, including mothers, had similar rates for achieving an acceptable work–life balance.

The proportion of female ICM specialists in Australia and New Zealand who are mothers (55%) is similar to that seen

in other hospital-based groups, such as orthopaedic surgeons in the US (57%)³⁸ and hospital doctors (49%) in a study conducted in Birmingham, UK.²⁴ The proportion of female ICM specialists is lower than that in general practitioners (81%) working for the Birmingham Health Authority.²⁴

Sixty per cent of first children were born to mothers who were already specialists. A similar pattern is seen in female residents across some training programs at three academic institutions in the US,³⁹ and in female general surgical trainees who were members of the Association of Women Surgeons in the US.⁴⁰ In both these studies, more than half the respondents delayed childbearing until after they had finished training and were working as specialists, because of a perception of stigma associated with pregnancy during training. In the female general surgical trainees,⁴⁰ this perception had decreased in the most recent graduating cohort. My study did not investigate reasons why CICM Fellows chose to delay pregnancy, but the reasons are likely to reflect perceptions that training in ICM is arduous and that part-time training positions may be difficult to source, rather than being about stigma associated with pregnancy. A survey of hospital consultants conducted by the Royal College of Physicians in the UK showed that 48% of women had their first child while in registrar and specialty training posts, and 25% had their first child as a consultant.⁴¹

My second survey, of women with children, showed that the most common period of maternity leave was 6 months, although some women took only 3 months and others took longer, particularly with second and subsequent children. Perhaps because of the perceived stigma associated with pregnancy during surgical training in the US, the median duration of maternity leave appears to be very much lower there: for orthopaedic surgeons during training it was 4 weeks and for women working as a specialist it was 7 weeks.³⁸ Several respondents alluded to having experienced resentment from colleagues when they were on leave and absent from the roster. In the survey of RANZCOG trainees and recent graduates, 42% of women taking parental leave reported receiving negative comments about their leave.³¹

Study limitations

Despite the high response rate to my survey, it underwent very limited statistical analysis. The results are a snapshot of how women participate in the ICM specialist workforce and their feelings about and attitudes to their work. Only Fellows current in September 2013 were surveyed, raising the possibility that women who were so dissatisfied with participating in the ICM workforce that they relinquished their Fellowship were missed. CICM records show that only three female Fellows have retired and three did not take up Fellowship of the College when it was formed in 2010. Although dissatisfaction cannot be ruled out in

these individuals, it is unlikely that their inclusion would have changed the overall findings of the survey, because of their small number. The CICM records also show that the proportion of women among active and inactive trainees is similar (34% v 32%), which suggests that there is not currently a gender-related reason for trainees to leave or suspend their training in ICM. It is also possible that, because of the requirement for anonymity, one or more respondents may have completed the survey more than once, particularly when prompted by a reminder email. The relatively short period (5 weeks) for which the survey remained open and its considerable length render this unlikely. Even if this occurred, the findings of this predominantly qualitative study would be unlikely to change.

Recommendations

Despite increasing numbers of female ICM specialists in Australia and New Zealand and the generally positive feedback they have provided, it is important for the CICM to be aware of the issues that women face when the CICM introduces new policy and provides support. Most employment issues and the culture within ICUs are more the business of hospitals and health services than of the CICM, but the College could consider taking more initiative in promoting change. Universities Australia is the peak body representing the university sector in Australia, and it has developed a strategy for women. The strategy includes encouraging universities to ensure equitable work practices, increasing recognition and representation of women at all levels and in leadership roles in particular, and identifying and mentoring potential leaders.⁴² A Melbourne research group has undertaken a qualitative study involving Australian medical leaders that suggests reasons and remedies for under-representation in medical leadership roles.⁴³ They also suggest interventions for Colleges to support female leaders. The expert advisory group on discrimination, bullying and sexual harassment advising the RACS has made several recommendations to the College,⁴⁴ one of which involves fostering diversity. This includes increasing representation of female surgeons on RACS committees, identifying and redressing barriers to gender equity and supporting change. The findings of my study provide a basis for the CICM to redress the gender inequity in ICM.

Conclusion

Although a significant gender disparity remains, the participation and satisfaction rates of women working in the ICM specialist workforce are encouraging. Around one-third of women considered that they had been disadvantaged in their career because of their gender but this was less so in women in leadership roles. The major issues identified were the balance between work and family demands,

sexism in the workplace and the limited opportunities for academic advancement. Although challenges exist, women contemplating a career in ICM should see it as achievable and rewarding.

Competing interests

None declared.

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References

- 1 Byth PL, Harrison GA. A survey of successful FFARACS candidates in Australasia. *Crit Care Med* 1986; 14: 583-6.
- 2 Harrison GA, Byth PL, D'Este CA. The third five-year survey of fellows (by examination) of the Faculty of Intensive Care, Australian and New Zealand College of Anaesthetists. *Anaesth Intensive Care* 1998; 26: 401-10.
- 3 Medical Training Review Panel. Eighteenth report. Canberra: Australian Government Department of Health, 2015. <http://www.ncbi.nlm.nih.gov/pubmed/9743856> (accessed Feb 2016).
- 4 Australian Institute of Health and Welfare. Medical workforce, 2012 (AIHW Cat. No. HWL 54; National Health Workforce Series No. 8). Canberra: AIHW, 2014. <http://www.aihw.gov.au/publication-detail/?id=60129546100> (accessed Feb 2016).
- 5 United States Department of Health and Human Services, Health Resources and Services Administration. The critical care workforce: a study of the supply and demand for critical care physicians [report to Congress]. Rockville, Md: HRSA, 2006. <http://bhpr.hrsa.gov/healthworkforce/supplydemand/medicine> (accessed Feb 2016).
- 6 Centre for Workforce Intelligence. In-depth review of the anaesthetics and intensive care medicine workforce. London: CfWI, 2015. <http://www.cfwi.org.uk/publications/in-depth-review-of-the-anaesthetics-and-intensive-care-medicine-workforce> (accessed Feb 2016).
- 7 Medical Council of New Zealand. The New Zealand medical workforce in 2012. Wellington: MCNZ. <https://www.mcnz.org.nz/news-and-publications/workforce-statistics> (accessed Feb 2016).
- 8 Galley HF, Colvin LA. Next on the agenda: gender. *Br J Anaesth* 2013; 111: 139-42.
- 9 Pololi LH, Civian JT, Dottolo AL, Krupat E. Experiencing the culture of academic medicine: gender matters, a national study. *J Gen Intern Med* 2013; 28: 201-7.
- 10 Bauman MD, Howell LP, Villablanca AC. The Women in Medicine and Health Science program: an innovative initiative to support female faculty at the University of California Davis School of Medicine. *Acad Med* 2014; 89: 1462-6.
- 11 Hofler L, Hacker MR, Dodge LE, Ricciotti HA. Subspecialty and gender of obstetrics and gynecology faculty in department based leadership roles. *Obstet Gynecol* 2015; 125: 471-6.

- 12 Australian and New Zealand Intensive Care Society Centre for Outcome and Resource Evaluation. Annual report 2012–2013. Melbourne: ANZICS, 2014. <http://www.anzics.com.au/Pages/CORE/CORE-Reports.aspx> (accessed Feb 2016).
- 13 Clem KJ, Promes SB, Glickman SW, et al. Factors enhancing career satisfaction among female emergency physicians. *Ann Emerg Med* 2008; 51: 723-8.
- 14 Caniano DA, Sonnino RE, Paolo AM. Keys to career satisfaction: insights from a survey of women pediatric surgeons. *J Pediatr Surg* 2004; 39: 984-90.
- 15 Smith NP, Dykes EH, Youngson GS, Losty PD. Is the grass greener? A survey of female pediatric surgeons in the United Kingdom. *J Pediatr Surg* 2006; 41: 1879-81.
- 16 McAlister C, Jin YP, Braga-Mele R, et al. Comparison of lifestyle and practice patterns between male and female Canadian ophthalmologists. *Can J Ophthalmol* 2014; 49: 287-90.
- 17 Zutshi M, Hammel J, Hull T. Colorectal surgeons: gender differences in perceptions of a career. *J Gastrointest Surg* 2010; 14: 830-43.
- 18 Rizvi R, Raymer L, Kunik M, Fisher J. Facets of career satisfaction for women physicians in the United States: a systematic review. *Women Health* 2012; 52: 403-21.
- 19 Hyde JS. Gender similarities and differences. *Annu Rev Psychol* 2014; 65: 373-98.
- 20 Jefferson L, Bloor K, Spilsbury K. Exploring gender differences in the working lives of UK hospital consultants. *J R Soc Med* 2015; 108: 184-91.
- 21 Jolly S, Griffith KA, DeCastro R, et al. Gender differences in time spent on parenting and domestic responsibilities by high-achieving young physician–researchers. *Ann Intern Med* 2014; 160: 344-53.
- 22 Stamm M, Buddeberg-Fischer B. How do physicians and their partners coordinate their careers and private lives? *Swiss Med Wkly* 2011; 141: w13179.
- 23 Holliday EB, Ahmed AA, Jaggi R, et al. Pregnancy and Parenthood in Radiation Oncology, Views and Experiences Survey (PROVES): results of a blinded prospective trainee parenting and career development assessment. *Int J Radiat Oncol Biol Phys* 2015; 92: 516-24.
- 24 Sinden NJ, Sherriff JM, Westmore SEL, et al. Patterns of childbearing behaviour among female hospital doctors and GPs. *Fam Pract* 2003; 20: 486-8.
- 25 Verlander G. Female physicians: Balancing career and family. *Acad Psychiatry* 2004; 28: 331-6.
- 26 Scheuller-Weidekamm C, Kautzky-Willer A. Challenges of work-life balance for women physicians/mothers working in leadership positions. *Gend Med* 2012; 9: 244-50.
- 27 Matthews B, Bismark MM. Sexual harassment in the medical profession: legal and ethical responsibilities. *Med J Aust* 2015; 203: 189-92.
- 28 Nora LM, McLaughlin MA, Fosson SE, et al. Gender discrimination and sexual harassment in medical education: perspectives gained by a 14-school study. *Acad Med* 2002; 77: 1226-34.
- 29 Bruce AN, Battista A, Plankey MW, et al. Perceptions of gender-based discrimination during surgical training and practice. *Med Educ Online* 2015; 20: 25923. doi: 10.3402/meo.v20.25923.
- 30 Komaromy M, Bindman AB, Haber RJ, Sande MA. Sexual harassment in medical training. *N Engl J Med* 1993; 328: 322-6.
- 31 De Costa CM, Permezel M, Farrell LM, et al. Integrating parental leave into specialist training: experience of trainees and recently graduated RANZCOG Fellows. *Med J Aust* 2013; 199: 359-62.
- 32 Buddeberg-Fischer B, Stamm M, Buddeberg C, et al. The impact of gender and parenthood on physicians' careers — professional and personal situation seven years after graduation. *BMC Health Serv Res* 2010; 10: 40. doi: 10.1186/1472-6963-10-40.
- 33 Fridner A, Norell A, Akesson G, et al. Possible reasons why female physicians publish fewer scientific articles than male physicians — a cross-sectional study. *BMC Med Educ* 2015; 15: 67. doi: 10.1186/s12909-015-0347-9.
- 34 Amrein K, Langmann A, Fahrleitner-Pammer A, et al. Women underrepresented on editorial boards of 60 major medical journals. *Gend Med* 2011; 8: 378-87.
- 35 Jaggi R, Griffith KA, Stewart A, et al. Gender differences in the salaries of physician researchers. *JAMA* 2012; 307: 2410-7.
- 36 Zhuge Y, Kaufman J, Simeone DM, et al. Is there still a glass ceiling for women in academic medicine? *Ann Surg* 2011; 253: 637-43.
- 37 Carr PL, Gunn CM, Kaplan SA, et al. Inadequate progress for women in academic medicine; findings from the National Faculty Study. *J Womens Health (Larchmt)* 2015; 24: 190-9.
- 38 Hamilton AR, Tyson MD, Braga JA, Lerner LB. Childbearing and pregnancy characteristics of female orthopaedic surgeons. *J Bone Joint Surg Am* 2012; 94: e77.
- 39 Willett LL, Wellons MF, Hartig JR, et al. Do women residents delay childbearing due to perceived career threats? *Acad Med* 2010; 85: 640-6.
- 40 Turner PL, Lumpkins K, Gabre J, et al. Pregnancy among women surgeons: trends over time. *Arch Surg* 2012; 147: 474-9.
- 41 Alderman B, Cornish F, McEwan J. Reconciling parenthood with a medical career. *BMJ Careers* http://careers.bmj.com/careers/advice/Reconciling_parenthood_with_a_medical_career (accessed Feb 2016).
- 42 Universities Australia. Strategy for women: 2011–2014 [policy paper]. Canberra: UA, 2010. <https://www.universitiesaustralia.edu.au/news/policy-papers> (accessed Feb 2016).
- 43 Bismark M, Morris J, Thomas L, et al. Reasons and remedies for under-representation of women in medical leadership roles: a qualitative study from Australia. *BMJ Open* 2015; 5: e009384. doi: 10.1136/bmjopen-2015-009384.
- 44 Expert Advisory Group on discrimination, bullying and sexual harassment. Report to the Royal Australasian College of Surgeons: draft. Melbourne: RACS, 2015. <https://www.surgeons.org/media/22045685/EAG-Report-to-RACS-Draft-08-Sept-2015.pdf> (accessed Feb 2016). □

Appendix

This appendix was part of the submitted manuscript and has been peer reviewed. It is posted as supplied by the authors.

Intensive Care Practice Amongst Female CICM Fellows

* 1. Please indicate your current age in years:

<30 30 - 35 35 - 40 40 - 45 45 - 50 50 - 55 55 - 60 >60

* 2. In what year did you gain your first specialist qualification in Intensive Care Medicine (include qualifications obtained prior to the formation of CICM)?

* 3. Do you currently practice medicine?

- Yes
- No (if no, please describe your current work and proceed to Question 16)

Comments

4. In what state/country is your current primary medical employment?

- Australian Capital Territory, Australia
- New South Wales, Australia
- Northern Territory, Australia
- Queensland, Australia
- South Australia, Australia
- Victoria, Australia
- Tasmania, Australia
- Western Australia, Australia
- New Zealand
- Other (please specify)

5. Are you currently practicing intensive care medicine?

Yes

No (if no, please describe your current medical practice then proceed to Question 16)

Comments:

Intensive Care Practice Amongst Female CICM Fellows

For each position you hold in intensive care medicine please answer the following questions.

6. POSITION ONE: Type of Intensive Care Unit (select all that apply)

- Tertiary
- Metro
- Rural
- Public
- Private

7. POSITION ONE: Terms of employment (select all that apply)

- Full time
- Part time
- On Call Commitment

Please provide hours of work and hours on call for an average week:

8. POSITION ONE: Position held in the department (select all that apply)

- Director
- Deputy Director
- Supervisor of Training
- None of the above
- Other (please specify):

Intensive Care Practice Amongst Female CICM Fellows

If you hold only one position in intensive care, please indicate that in the first question below and skip to Question 15.

9. POSITION TWO: Type of Intensive Care Unit

- Tertiary
- Metropolitan
- Rural
- Public
- Private
- I don't have a second position in intensive care medicine

10. POSITION TWO: Terms of Employment:

- Part time
- On call

Please provide hours of work and hours on call for an average week

11. POSITION TWO: Position held:

- Director
- Deputy Director
- Supervisor of Training
- None of the above
- Other (please specify):

Intensive Care Practice Amongst Female CICM Fellows

Please answer questions on this page if you hold a third position in intensive care medicine. If you do not have a third position in intensive care, please indicate this below in the first question and skip to Question 15.

12. POSITION THREE: Type of Intensive Care Unit

- Tertiary
- Metro
- Rural
- Public
- Private
- I don't have a third position in intensive care medicine

13. POSITION THREE: Terms of employment

- Part time
- On call commitment

Please provide hours of work and hours on call for an average week

14. POSITION THREE: Position held

- Director
- Deputy Director
- Supervisor of Training
- None of the above

Other (please specify):

15. If you work in intensive care medicine part time and have other medical employment, please describe your practice.

* 16. EXPERIENCES IN THE INTENSIVE CARE WORKFORCE - If you are no longer in the intensive care workforce please comment with respect to your previous practice.

How satisfied are you with working in intensive care medicine?

Not at all satisfied	Somewhat dissatisfied	Neutral	Somewhat satisfied	Very satisfied
<input type="radio"/>				

17. What aspects of intensive care medicine provide you with the most satisfaction?

- Longitudinal patient care
- Interventional procedures
- Supervising/teaching trainees
- Relationships with ICU staff
- Relationships with patients' families
- End of life care
- Research
- Administration

Other (please specify):

18. What aspects of intensive care do you find most difficult?

- Longitudinal patient care
- Interventional procedures
- Supervising/teaching trainees
- Relationships with ICU staff
- Relationships with patients' families
- End of life care
- Research
- Administration
- On-call component

Other (please specify)

19. Do you believe there are any aspects of practising intensive care medicine in which being female is an advantage? If so, please explain what and why.

- Yes
- No

If yes please specify:

20. Do you believe there are any aspects of practising intensive care medicine in which being female is a disadvantage? If so, please explain what and why.

- Yes
- No

If yes please specify:

21. Do you feel you have ever been disadvantaged in your work because of your gender?

Yes

No

Comments:

22. Do you believe you have been able to achieve a satisfactory work-life balance whilst working as an intensive care specialist?

Yes

No

Comments:

Intensive Care Practice Amongst Female CICM Fellows

23. Knowing what you know now, would you still choose a career in intensive care medicine?

Yes

No

Comments:

24. Do you have a child/children?

Yes

No

25. If yes, was your first child born when you were:

Prior to training in Intensive Care Medicine

A trainee

Post Fellowship

I have no children

If you have children and would be prepared to participate in a further questionnaire on combining child rearing and working as an intensive care specialist please email lauraf@cicm.org.au to register your consent for an additional questionnaire to be sent.