## **TITLE**

Obstetrics & Gynaecology leadership representation in Australia and New Zealand: Aiming for gender equity.

## **RUNNING TITLE**

Leadership and Gender in O&G – where to next?

#### **AUTHORS**

#### **Dr Kirsten Fiona CONNAN**

BSc, MBBS (Hons), FRANZCOG, DDU (O&G), Masters (Clinical Education)

Specialist Obstetrician and Gynaecologist.

University of Melbourne, Department of Medical Education, Parkville, Victoria, Australia 3052.

# **Professor Michael QUINN (AM)**

MBChB, MGO, MRCP (UK), FRANZCOG, FRCOG, CGO

**Honorary Consultant** 

Royal Women's Hospital, Parkville, Victoria, Australia 3052

# **CORRESPONDING AUTHOR**

#### **Dr Kirsten Fiona CONNAN**

ORCID 0000-0002-3258-8465

TasOGS, 25 Argyle Street, Hobart, Tasmania 7000, AUSTRALIA.

## **ACKNOWLEDGEMENTS**

The authors disclose no conflict of interest.

We gratefully acknowledge the generous contribution of the RANZCOG Continuing Professional Development and Revalidation (CPRD) Committee and RANZCOG members toward the provision and completion of the study survey.

# **Abstract Word Count**

223

# **Manuscript Word Count**

2639

# **Table Count**

4

# **Key Words**

Obstetrics, Gynecology, Leadership, Gender, Medicine

#### **ABSTRACT**

## **Background**

As the leading medical specialty for women's healthcare in Australia and New Zealand, RANZCOG should be a lead organization in promoting gender equity. Despite the predominately female membership of RANZCOG, there are however few women in leadership positions. This research explores gender representation within RANZCOG and affiliated institutions in Australia and New Zealand. It also examines members' views on leadership, gender bias, and quota use.

#### Methods

A mixed methods analysis was performed on public documents from RANZCOG, RANZCOG affiliated hospitals (98 sites), university O&G departments in Australia and New Zealand (18 sites), and with an electronic survey of member experience and views of leadership, gender bias, and quota use.

# **Results**

In 2017 women comprised 80% of trainees and 46% of specialists within RANZCOG, but occupied only 14% of RANZCOG board positions, 32% of RANZCOG council positions, 32% of affiliated hospital leadership posts, and 31% of affiliated University O&G department leadership posts. Women expressed a 33% higher desire for leadership at all levels, and reported gender bias 53% more often, than men. 63% of RANZCOG members opposed gender quotas, although many recognized their limited knowledge of current gender representation within RANZCOG leadership.

# Discussion

RANZCOG lacks women in top level leadership positions. RANZCOG urgently needs to engage its members and create solutions to improve gender equity for both men and women within the specialty.

#### INTRODUCTION

Historically RANZCOG held a male membership majority, but the last two decades have seen a complete inversion of gender representation. In 2017 women comprised 46% of RANZCOG specialists and 80% of trainees (1). This placed obstetrics and gynaecology (O&G) as one of the most feminised medical specialties in Australia and Zealand, aligning it with many international O&G colleges (2-4).

Despite this a large gender leadership gap exists. Currently only one woman sits on the board, and since RANZCOG's inception in 1998 only one woman has held the presidency. This lack of female representation in top leadership positions is not unique to Australian O&G (5-9).

In her role as president of the Australian and New Zealand College of Anaesthetists, Professor Kate Leslie argued that leadership should model gender and racial diversity, rather than merely reflecting it (10). The current disparity between the gender representation of the RANZCOG board and membership threatens the authentic credibility of its leadership.

RANZCOG's gender gap also highlights the need for greater consideration of social fairness demanding leadership gender equity (11). If women within our membership strongly desire leadership roles, then identification of the biases and barriers that limit these aspirations is required.

There is clear evidence that gender diversity within leadership improves health outcomes and organisational performance (12, 13). Outcomes for RANZCOG members may thus be less than optimal, further translating into diminished outcomes for the health of women in the community.

Very little has been published on O&G gender leadership inequality in Australia and New Zealand. The first report on this topic was in 2010 with Professor Caroline de Costa reflecting on being one of only seven female specialists among 'several hundred' male specialists. The second followed the 2012 RANZCOG Annual Scientific Meeting where Professor de Costa highlighted the lack of women in RANZCOG leadership (14, 15).

#### **Research Aims**

This research aimed to audit the gender of those in leadership positions within obstetrics and gynaecology in Australia and New Zealand, including RANZCOG, RANZCOG accredited hospitals, and university O&G departments.

Secondary aims were to obtain views from RANZCOG members on leadership status, leadership desires, barriers to leadership, experience of gender bias, and views on gender quota use within the College.

#### **METHOD**

A mixed-method methodological approach was used to obtain a snapshot of the current gender representation of O&G leadership. This involved a content analysis review and tabulation of public document data, a quantitative analysis of closed questions from the survey, and a qualitative analysis of open-ended question responses within the survey.

Ethics approval was granted by the University of Melbourne Medical Education Human Ethics Advisory Group on the 14<sup>th</sup> of June 2017 (Ethics ID: 1749093).

Gender was defined as the identity and state of being of a male or female person, though non-exclusive and non-compulsory. The gender of those in leadership positions was determined by name, image, and pronoun use. Leadership was defined as holding a professional 'position of

leadership', including: RANZCOG presidency, board members, federal councilors, national chairs, Integrated Training Program (ITP) and Training and Assessment (T&A) state chairs, departmental or unit heads within O&G departments of RANZCOG accredited hospitals, and departmental heads within university O&G departments in Australia and New Zealand.

Gender and leadership data from RANZCOG were collected by review of public documents from the RANZCOG website. Data from RANZCOG affiliated institutions was similarly collected using institutional websites, public staff listings, and departmental phone directories.

All current RANZCOG trainees and specialists were invited to participate in an anonymous online survey distributed electronically through the RANZCOG Continuing Professional Development and Revalidation (CPRD) Committee.

For this research only RANZCOG specialists and specialist trainees were studied. In August 2017 2,530 RANZCOG members were invited by email to complete the online survey during a three-week window. A reminder email was sent seven days before survey close. De-identified survey data were downloaded to a secure computer for storage and analysis.

Quantitative data collected from RANZCOG, affiliated institutions, and survey responses were analysed using descriptive statistics, and used to identify gender and leadership positions. Chi-squared analysis was performed with statistical significance accepted at P < 0.05.

Qualitative data from the survey free-text comments were analysed using Braun and Clark's thematic analysis framework (16). This supported the contextualization of data in a specialty with limited published literature.

### **RESULTS**

Data were successfully collected from RANZCOG, all 98 RANZCOG accredited core training hospitals, and all 18 Australian and New Zealand universities with O&G departments.

In 2017 RANZCOG had a total female membership of 63%, comprising 46% female specialist membership and 80% female trainee membership. Females were the gender minority in all national RANZCOG leadership roles with the gender leadership gap most pronounced at top leadership levels (**Table 1**). In contrast women were overrepresented among RANZCOG educational leadership positions.

Table 1. RANZCOG committees

Committee Type	Number of Committee members	Female committee members
RANZCOG board †	7	14% (1)
Members 10 <sup>th</sup> RANZCOG Council †	25	36% (9)
National Chairs †	62	31% (19)
Training & Assessment (T&A) State Chairs †	7	71% (5)
(ITP) hospital Coordinators ‡	32	53% (17)

† National positions, ‡ ITP = Integrated Training Program

RANZCOG affiliated hospitals and university O&G departments demonstrated a gender leadership gap, with less than one third having female department heads (Table 2). Two outliers were seen, with both the North Island of New Zealand and Westmead Hospital (Australia) having a predominantly female leadership. Significantly contributing to the North Island was Auckland City Hospital, having exclusively females in leadership. In contrast, three Australian tertiary hospitals had no women in leadership.

Table 2. RANZCOG accredited hospitals and O&G university departments within Australia and New Zealand.

8

	Number of <u>Hospitals</u> Number of department heads		Females in department head position	
NEW ZEALAND	12	26	57.7%	
NZ – North Island	10	18	72.2%	
NZ – South Island	2	8	25%	

AUSTRALIA	86	256	22.7%	
NSW	25	55	27.3%	
VIC	22	64	37.5%	
QLD	16	30	26.7%	
SA/NT	9	25	16%	
WA	8	19	21%	
ACT	3	6	33.3%	
TAS	3	3	33.3%	
TOTAL	98	282	31.5%	
	Number of <u>Universities</u>	Number of department heads	Females in department head position	
NEW ZEALAND	2	3	66.6%	
AUSTRALIA	18	20	20%	
TOTAL	20	23	26.1%	

## **RANZCOG Survey**

A total of 770 responses from the online survey were received (30.4% response) with full completion by 93% of respondents. Responder demographics were statistically representative of RANZCOG membership trainee and specialist mix (p=0.32) with 31% of responders holding a current RANZCOG, university, or hospital leadership post.

Male responders were more likely to hold current leadership roles (p < 0.001). Female specialists were more likely to desire additional or future leadership positions (p < 0.001). There was no significant difference in leadership desire between male and female trainees (p = 0.279).

The top four barriers to future leadership (available time, family commitments, personal energy and position availability) were consistent between genders. Women rated all identifiable barriers higher on average than their male counterparts, except for 'lack of interest'.

Twenty percent of survey responders shared free-text comments related to O&G leadership, shared evenly between women (51%) and men (49%) (Table 3).

#### Connan & Quinn | Leadership and Gender in O&G - where to next? | 2019

'Leadership barriers' was the main theme from women, with sub-themes of 'gender barriers' (with 'denial of opportunity' due to gender), 'disillusionment' (to the 'institution' of RANZCOG), 'financial and time barriers' (commonly referencing 'family time'), and 'learning leadership' (the desire for leadership training).

#### Table 3. Thematic free-text comments.

#### Female responder 'O&G Leadership' free text comments

"...mostly male dominated and controlled. Males still have the majority of decision-making regarding appointments within hospitals and college. Often certain women that are chosen for a leadership role are those that are non-threatening and unlikely to advocate on behalf of rest" (F, 30+)

"college is very conservative and dominated by private male practitioners that are not representative of the trainees or fellows" (F, 50+,)

"a very large time commitment is involved in RANZCOG leadership, which incurs opportunity cost or impacts on family time" (F, 40+)

"I wish we had training on leadership during ITP etc training" (F, 30+)

#### Male responder 'O&G Leadership' free text comments

"RANZCOG has elections that have a set pattern of ascendancy in a rigid old boys' network that prevents others from outside joining and progressing through the ranks" (M, 40+)

"remuneration discrepancies with the private sector keep many a good leader out of leadership roles" (M, 50+)

"I have not recognised the college as being a resource for developing the necessary skills to be an effective leader" (M, 40+)

"too many old males running the show as far as college goes. Need shorted terms, faster turnover, less redundant long serving members" (M, 40+)

#### Female responder 'Gender Bias' free text comments

"I know several females who were overlooked for head of unit positions that were given to less qualified males. It is still happening." (F,40+)

"there are lesser credentialed men getting positions of leadership and career pathways mapped out for them on the basis of nepotism old school networks and gender bias all the time." (F, 40+)

"6 board members, one woman. Speaks for itself really" (F, 50+)

"didn't' find this to be an issue until I started being seriously interested in complex gynae surgery. Then came across perceptions about how I would not be as good after I had kids" (F, 30+)

"I have experienced direct bias during training due to pregnancy – not offered training role even though I was the most experienced registrar, on the basis on pregnancy alone" (F, 50+)

"I have received significant gender bias - verbally stated that didn't want female trainees as they were difficult personalities to work with and took too much time off for family purposes" (F, 40+)

#### Male responder 'Gender Bias' free text comments

"marked gender bias with patients preferring female clinicians" (M, 30+, Australia)

"if bias existed before it has now swung the other way and possibly too far" (M, 50+, Australia)

#### Connan & Quinn | Leadership and Gender in O&G - where to next? | 2019

"have witness female trainees getting more training and attention from male supervisors than myself" (M, 50+, New Zealand)

"these biases no longer exist in the hospitals and university within which I work" (M, 50+, Australia)

"I know of female trainees concerned about having a pregnancy and how it will affect this year's job and hence getting a job for next year" (M, 50+, Australia)

"training institutions and some directors still hold that women are not as good as males, despite the current numbers of female trainees" (M, 70+, Australia)

#### All responders 'Gender Quota' free text comments

"the most capable people ought to be representing us, regardless of gender" (M, 50+)

"selection/election should be based on merits and leadership ability" (M, 60+)

"skill is more relevant than gender" (M, 70+,)

"The historical anomaly of very few women in our profession has now been corrected (overcorrected substantially). It stands to reason that by sheer weight the numbers women will dominate all college positions in the future" (M, 50+)

I think we need to work harder to engage more of the Fellowship, make it easier for women to attend and encourage them to nominate" (M, 60+)

"the most qualified or suitable person should get the position, irrespective of gender, race or colour" (F, 40+)

"quotas are to be despised. They work against everything that feminism has fought so hard for. Positions should be on merit, not tokenism" (F, 50+)

"I think people need to get there on merit. But I think we have to ensure the blokes have got there on merit too (not just because of mates)" (F, 40+)

"as our college graduates more women, I am sure this will change with time" (F, 50+)

"Gender quotas help to ensure that all voices are heard despite the continuing bias against women" (F, 30+)

"the playing field at the top end is not level. Quotas as a transitional tool can help RANZCOG achieve leadership equity. Once leadership is equitable, then can be slowly tapered off" (F, 50+)

'Leadership barriers' was also the dominant theme from men, with sub-themes of 'disillusionment', 'financial and time barriers' (commonly referencing finances), 'learning leadership', and 'a changing of the guard' (succession planning or encouraging leadership renewal) (Table 3). No males identified 'gender bias' as a barrier to leadership.

Forty one percent of responders reported direct experience of gender bias, with women being more likely to report such bias (p = < 0.001). This remained significant for female specialists (p = < 0.001) but not trainees. Both male and female trainees reported higher rates of gender bias than their specialist colleagues (p = 0.0057).

Women identified 'lack of consideration for family responsibilities', 'others perceiving a lesser credibility due to gender', 'lack of mentoring' and 'others perceiving a lesser capability due to gender' as the top barriers to leadership. Men most commonly listed 'no identifiable barriers to leadership' (43%), a response universally absent among women.

The main theme from free text comments shared by female specialists was 'female gender bias is present', with sub-themes of 'less capable surgically' (implying surgical skills deteriorate after pregnancy) and 'pregnancy and parenting' (implying parenting and work cannot successfully coexist for women) (Table 3). No comments refuted the presence of gender bias.

One statement highlighted that women often hold biases against their own gender, and a minority of women reported that 'gender bias is reducing', 'we risk male gender bias', and 'males are now under-represented'.

The main theme from free text comments among male specialists was 'male gender bias is present', with a sub-theme of 'female provider preferred [by consumers]' (Table 3). Less than a quarter of responders acknowledged that 'female gender bias' exists, with a similar number reporting that 'gender bias has never existed' or is 'no longer present'.

Overall responders were opposed to quota use for both federal (63%) and state council (63%). This remained true for specialists (66%), with trainee responses at equipoise (50%). Between genders, women were more likely to support gender quotas at both federal and state level (Table 4).

Table 4. Should gender quotas be used?

	Federal council		State council			
	Yes	No	Unsure	Yes	No	Unsure
Male	13.1% (40)	77.4% (236)	9.5% (29)	12.46% (38)	77.38% (236)	.10.16% (31)
Female	29.02% (119)	52.44% (215)	18.54% (76)	28.54% (117)	52.44% (215)	.19.02% (78)
ALL	22.24% (159)	63.08% (451)	14.68% (105)	20.5% (155)	64.91% (451)	.14.59% (109)
<i>p</i> -value	<0.001*			<0.001*		

<sup>\*&#</sup>x27;No' and 'Unsure' were combined to indicate 'Not Yes' in the statistical analysis. Statistical significance remained when comparing 'Yes' and 'No' and 'Yes' and 'Not Yes'

A minority of female trainees (21%) provided free text on quotas use. Of those who did, the majority opposed quotas (Table 3). 'Merit' was the strongest theme within this cohort, with comments including; "should be talent, interest, and ability based" (**F**, 30+), and "it should be the person who's best for the job" (**F**, 20+). A sub-theme of 'minimum quotas' was present with comments including: "minimum quotas should be introduced for both genders. Currently there are fewer female specialists holding leadership roles with RANZCOG. As the number of female specialists increase, there will be under-representation of male specialists." (**F**, 30+).

A minority of male trainees (29%) provided free text on quotas use. Those opposed to quotas (50% of responders) expressed 'merit' as the main theme, with comments including "use the most capable, qualified and motivated person for the job no matter what gender" (M, 40+). Male trainees supporting quotas (50% of responders) expressed the 'better leadership' theme, including "I believe gender quotas are a good idea. Both, so that the representation is more representative, and because I believe gender balance makes for better leadership." (M, 30+).

Equally among male and female specialists, the dominant thematic reason to oppose quotas was 'best person for the job', with sub-themes of 'merit' and 'the pipeline' (the assumed 'inevitable correction' due to the increasingly feminised trainee cohort) (Table 3). A small number of male responders did acknowledge that barriers might limit women achieving leadership.

Common recommendations from female specialists who supported gender quotas included matching membership and leadership gender representation, and using quotas as a transitional tool to highlight gender bias and reduce the gender leadership gap at a faster rate than the pipeline effect alone.

#### **DISCUSSION**

This research reveals that significant under-representation of women exists on the RANZCOG board, along with leadership gaps in RANZCOG affiliated training hospitals and university O&G departments.

Although the lack of women in top-level medical leadership roles is well known, the desire for leadership among RANZCOG members is a unique finding. Female specialists show a significantly greater desire for both additional and future leadership roles than male specialists. For both genders, age above 50 years was associated with a lesser desire for future leadership, a surprise finding given that O&G leaders commonly fall within this age group. This may simply be an expression of satisfaction with leadership attained and no desire for additional leadership roles.

The international literature, predominantly from the United States, provides insight into the trends and barriers to women desiring O&G leadership. One of the earliest papers on the gender leadership gap included 25 years of O&G data revealing a feminised specialty with a persisting

gender leadership gap (5). The author provided suggestions to improve leadership representation including formalised mentoring, leadership training, restructuring the organisational queue to leadership, and the provision of childcare facilities. In 2019 these solutions remain just as relevant.

Consistent with international literature (6-8), educational leadership within RANZCOG shows an over-representation of women. This likely reflects the cultural bias of women becoming clinical educators, although the exact reason for this over-representation is unclear (17). When considered within the context of the observed underrepresentation of women at the highest leadership levels, this finding highlights the unreliability of mid-level leaders, typically those with educational roles, successfully progressing to top-level leaderships positions. This lack of leadership progression further refutes any significant contribution from the 'pipeline effect' to passively correct leadership gender imbalances in O&G.

Men and women both reported the same top four barriers to future leadership (available time, family commitments, personal energy, and position availability), with women reporting greater importance of all barriers. This is consistent with the literature revealing women are more negatively affected by family commitments, face leadership barriers from as early as medical school, and experience reduced levels of perceived leadership capability, capacity, and credibility (18, 19). Further to this is the near-universal expectation that women take primary responsibility for early child rearing, requiring more part-time work and career breaks, further delaying career and leadership progression (20, 21).

Gender quotas, stipulating minimum gender representation, provide one solution to improve leadership diversity. For many organisations this has led to improved organisational culture and increased financial revenue (22). Political organisations have achieved greater female representation through quota use, improving gender diversity and prioritising health legislation

that directly benefits perinatal and women's health outcomes (23, 24). In other industries board gender quotas have positively impacted female leadership vertically throughout organisations, an additional unintended benefit of quotas (25).

The majority of survey responses revealed that members consistently desired gender leadership equality, though not necessarily *equity*. This was suggested by the overwhelming prevalence of the '*merit*' theme as an absolute requirement for leadership, while expressing opposition to quotas. Although the '*meritocracy*' argument is frequently used to critique quota use, it overlooks the pre-existing absence of equal merit among the leadership with the clear contributions from gender, ethnic and socioeconomic privilege, while ignoring demonstrated improved outcomes with gender quota use and board diversity (26). It is interesting that arguments of '*merit*' are mostly made to oppose changes to leadership pathways that threaten the status quo, then to advocate for improving existing systems to become more merit based.

The desire for 'merit' was voiced while members simultaneously acknowledged overwhelming barriers for women desiring leadership. These included the 'pregnancy penalty', the 'limited flexibility' of training and council commitments, acknowledgment of the 'capability gap' that women can hold, and the lack of 'leadership training and mentoring'. Prioritising these areas could improve gender leadership equity within RANZCOG, whilst satisfying the strong expectation of appointment through 'merit'.

Achieving sustainable gender equity for RANZCOG's leadership landscape will require numerous initiatives. Beyond quota use, additional interventions to consider include: targeted succession planning; leadership programs; improved training, workforce, and committee flexibility; gender-diverse conference panels; childcare facilities; parenting policies; mentor programs; networking events and institutional women networks (10, 27-29). Responders to our

study mentioned all these possible solutions. Such change however must be founded upon a whole membership desire and acceptance of the need for gender equity.

In our survey both men and women acknowledged the decreasing number of males within the speciality. Fifteen years ago Levensen *et al* highlighted the progressive feminisation of medicine, suggesting this could lead to a reduced status for the profession, workforce issues, and lowered incomes as professional demographics interact with pre-existing cultural and societal biases (30). This is now being raised in obstetrics and gynaecology internationally (31, 32).

When considering the feminisation of RANZCOG, survey respondents raised their concerns of reduced opportunity for same-sex mentoring and role modeling, fewer full-time workers, patient reluctance for male providers, and reduced male participation within the specialty. Although this could be seen to be at odds with the goal of improving RANZCOG's gender leadership problem, the feminisation of our trainee cohort warrants further consideration.

One limitation of our study was the necessarily narrow definition of leadership, excluding less formal leadership roles outside RANZCOG, universities, and public hospitals. Future investigation may benefit from expanding the leadership definition, the application of incentives to improve survey response, and using in-depth interviews with successful female leaders to explore their leadership pathways.

Although RANZCOG's identified gender leadership gap may at first be demoralising, we have reassuringly identified a strong desire for leadership and many constructive solutions from our members.

## Connan & Quinn | Leadership and Gender in O&G – where to next? | 2019

Gender equity is not only a matter of justice and rights, it is crucial for producing the best research and providing the best care to patients. If the fields of science, medicine, and global health are to hope to work towards improving human lives, they must be representative of the societies they serve (33).

- The Lancet Editors

## **References**

- 1. Royal Australian and New Zealand College of Obstetrics and Gynaecology. Available from: https://www.ranzcog.edu.au.
- 2. Mackee N. Medical Journal of Australia. MJA New Generation. 3 September 2012. Available from: https://www.mja.com.au/journal/2012/197/5/new-generation.
- 3. Royal College of Obstetrics and Gynaecology. The Future Workforce in Obstetrics and Gynaecology. May 2009. Available from: https://www.rcog.org.uk/globalassets/documents/guidelines/rcogfutureworkforcesum mary.pdf.
- 4. Rayburn WF. The Obstetrician-Gynecologist Workforce in the United States. Facts, Figues, and Implications. 2017. Available from: https://m.acog.org/~/media/BB3A7629943642ADA47058D0BDCD1521.pdf.
- 5. Selter VL. Changes and Challenges for Women in Academic Obstetrics and Gynecology. Am J Obstet Gynecol. 1999;180(4):837-48.
- 6. Hofler LG, Hacker MR, Dodge LE, Ricciotti HA. Subspecialty and Gender of Obstetrics and Gynecology Faculty in Department-Based Leadership Roles. Obstet and Gynecol. 2015;125(2):471-6.
- 7. Hofler LG, Hacker MR, Dodge LE, Schutzberg R, Ricciotti HA. Comparison of Women in Department Leadership in Obstetrics and Gynecology With Those in Other Specialties. Obstet Gynecol. 2016;127(3):442-7.
- 8. Ricciotti HA, Dodge LE, Aluko A, Hofler LG, Kacker MR. Geographic Comparison of Women in Academic Obstetrics and Gynecology Department-Based Leadership Roles. Obstet Gynecol. 2017 130(4):853-61.
- 9. Boylan J, Dacre J, Gordon H. Addresssing Women's Underrepresentation in Medical Leadership. The Lancet. 2019;393(10171):e14.
- 10. Leslie K, Hopf HW, Houston P, O'Sullivan E. Women, Minorities, and Leadership in Anesthesiology: Take the Pledge. Anesthesia & Analgesia. 2017;124(5):1394-6.
- 11. Mlambo-Ngcuka P. UNWOMEN. 6 March 2015. Available from: http://www.unwomen.org/en/news/stories/2015/3/pga-ed-speech.
- 12. Workplace Gender Equality Agency. The business case. Available from: https://www.wgea.gov.au/topics/workplace-gender-equality/the-business-case.

#### Connan & Quinn | Leadership and Gender in O&G – where to next? | 2019

- 13. European Institute for Gender Equality. Economic Benefits of Gender Equality in European Union. Available from: http://eige.europa.eu/gender-mainstreaming/policy-areas/economic-and-financial-affairs/economic-benefits-gender-equality.
- 14. de Costa CM. We 'never' train women in Sydney. Med J Aust. 2010;193.674-678.
- 15. de Costa CM. Arthur Wilson Oration 2012: 'Hi Lucille, I'm Doctor Gold' the changing roles of women in obstetrics and gynaecology. Aust N Z J Obstet Gynaecol. 2012 Dec;52(6):508-512.
- 16. Braun V, Clark V. Using Thematic Analysis in Psychology. . Qualitative Research in Psychology 2006;3(2):77-101.
- 17. Carnes M, Bartels CM, Kaatz A, Kolehmainen C. Why is John more likely to become department chair than Jennifer? Tran Am Clin Climatol Assoc. 2015;126:197-214.
- 18. Reed V, Buddeberg-Fischer B. Career obstacles for women in medicine: an overview. Medical education. 2001;35(2):139-47.
- 19. Jolly S, Griffith KA, DeCastro R, Stewart A, Ubel P, Jagsi R. Gender differences in time spent on parenting and domestic responsibilities by high-achieving young physician-researchers. Ann Intern Med. 2014;160(5):344-53.
- 20. Sandler B, Tachett JJ, Longo WE, Yoo PS. Pregnancy and Parenthood among Surgery Residents: Results of the First Nationwide Survery of General Surgery Residency Program Directors. . Journal of American College of Surgeons. 2015;222(6):1090-6.
- 21. Bruce AN, Battista A, Plankey MW, Johnson LB, Marshall MB. Perceptions of gender-based discrimination during surgical training and practice. Med Educ Online. 2015;20(1):25923.
- 22. McKinsey & Company. Women in the workplace. 2017. Available from: https://www.mckinsey.com/global-themes/gender-equality/women-in-the-workplace-2017.
- 23. International Idea Institute for Democracy and Electoral Assistance. Gender Quotas Database. Available from: http://www.quotaproject.org.
- 24. Macfarquhar N. Study Finds More Women in Politics. The New York Times. 2008. Available from: http://www.nytimes.com/2008/09/19/world/19nations.html?\_r.
- 25. Wang M, Kelan E. The Gender Quota and Female Leadership: Effects of the Norwegian Gender Quota on Board Chairs and CEOs. Journal of Business Ethics 2013;117(3):449-66.

#### Connan & Quinn | Leadership and Gender in O&G - where to next? | 2019

- 26. Coe IR, Wiley R, Bekker L-G. Organisational best practice towards gender equality in science and medicine. The Lancet 2019;393(10171):587-93.
- 27. Ladd LM, Bonaminio DN, Gonda AS, Gasparis PT, Bell WL, Aaron VD, Heitkamp DE. A Mentorship and Networking Group for Women in Radiology. J Am Coll Radiol. 2017;14(7):987-90.
- 28. Valantine H, Sandborg CI. Changing the culture of academic medicine to eliminate the gender leadership gap: 50/50 by 2020. Acad Med. 2013 Oct;88(10):1411-3.
- 29. Westring A, McDonald JM, Carr P, Grisso JA. An Integrated Framework for Gender Equity in Academic Medicine. Acad Med. 2016;91(8):1041-4.
- 30. Levinson W, Lurie N. When Most Doctors Are Women: What Lies Ahead? Ann Intern Med 2004;141:471-4.
- 31. Bogusz R. Prestige of the medical profession. Is there a connection between feminizartion and decreased prestige? Pol J Public Health. 2018;128(2):85-8.
- 32. Mohamed NA, Abdulhadi N, Al-Maniri AA, Al-Lawati NR, Al-Qasmi AM. The trend of feminization of doctor's workforce in Oman: is it a phenomenon that could rouse the health system? Human Resources for Health. 2018;16(9).
- 33. The Lancet Editorial. Feminism is for everybody. The Lancet. 2019;393(10171):493.