Orthopaedic Women's Link

Perhaps because orthopaedics was once the domain of blacksmiths and farmers and required the 'bone setters' to be 'strong as an ox', men have traditionally dominated the finer art of orthopaedic surgery. In 2011, the proportion of women working in the field of orthopaedics in Australia was 2.7 percent. In 2016, this had increased to 4.9 percent.

Nicole Williams, 2016.

Nicole Williams

'As a final year trainee [in 2009] I was invited to attend the Combined Orthopaedic meeting in Glasgow and present on orthopaedic training in Australia. There were training talks from UK, Canada, USA, NZ and South Africa. I was surprised to learn that Australia had the lowest female to male ratio of orthopaedic surgeons of all of those nations. At that talk I presented RACS data that 28 Australian orthopaedic surgeons were female compared with 995 male. In South Australia–Northern Territory where I am the training chair, we recently had 25 percent of trainees female, so times are changing.'

Does it matter if there are few women in orthopaedic surgery?

If women do not want to become orthopaedic surgeons, does it matter? Surely that's their choice?

The simple answer is that as women make up more than 50 percent of medical graduates in Australia (and have been seen to do so since relevant data was first collected in 2007[i]), it is reasonable to say that if the profession fails to attract a proportionate number of females, they are potentially missing out on about 50 percent of the talented graduates available who could one day make significant contributions to the profession and to orthopaedic patients.

Is orthopaedics too physically demanding?

Since the days when orthopods were 'bone setters', orthopaedics has had a reputation for requiring brute strength to manoeuvre fractured or dislocated bones and joints back into place. While this may have been true several decades ago, modern medical equipment has shifted the primary requisite to one of manual dexterity and mechanical ability.

Kerin Fielding was accepted onto the NSW Orthopaedic Training Program in 1988 as the first female trainee in the state and only the third nationally. She was described in the *Sydney Morning Herald* (August 20, 2013): 'Fielding didn't have to be a big boofy bloke to wrestle bones. She had four kids. She's a grown woman of about 170 centimetres with a body mass index of just under 24. She keeps fit but she's not obsessive.'

Fielding found great support from a number of orthopaedic specialists including Peter Dewey, Alan Nicholls, Robin Higgs, Bruce Shepherd, Jerome Goldberg and Warwick Bruce. She encountered very few women surgeons during her training. The support she received outweighed the, at times, hostile attitude from a number of supervisors. One of them on Fielding's first rotation, openly stated that he 'was not going to have the female' on his team.

Fielding specialises in hip and knee arthroplasty and spinal surgery in Wagga Wagga and, in 2015, she was elected to the Council of RACS where she is committed to addressing issues of bullying and harassment within the profession as a whole — issues she believes are genuinely being addressed by the College.

Female orthopaedic surgeons are still unusual enough to raise comment, not only in the media but in an online medical forum where it was noted that Nicole Leeks was a mere '5 foot 4 inches [and] seems an unlikely candidate to wrestle a 6 foot 2 inches man's hip into position'.

Kerin Fielding with her RACS Merit Award and medal, 2012.

Nicole Leeks

'Some of the older patients can be surprised, especially the older guys and say "oh do you do the surgery?" but I could count the snide remarks I've received on one hand'.

Are lifestyle factors a deterrent for women?

The *Journal of Bone and Joint Surgery* (March, 2012) addressed this question and found that lifestyle factors may have been cited as a deterrent for women specialising in orthopaedic surgery — or, in fact, surgery in general — in the past, but that it is now no more of a deterrent than it is for men when choosing a specialty.

Nicole Williams

'Pregnancy, breastfeeding and children can present challenges. You're trying to avoid radiation and bone cement at the stage when you might not want to share that you are pregnant. I'm sure any job is miserable with morning sickness but operating in a warmed paediatric theatre is particularly unpleasant. Mid-pregnancy I joked that I had developed the "orthopaedic belly" that some of my male colleagues used to say was good for resting legs against when plastering. My orthopaedic belly would occasionally kick at whatever I would rest on it.

Having a fantastic nanny has been essential for me. She has nannied for many years but never been "on call" before. That said, I think orthopaedics has been a terrific career choice for me. It has allowed me to travel the world presenting and conducting research as well as with Orthopaedic Outreach. I have the flexibility to choose how much private, public, research, teaching work I conduct so that I can still have a family life and stay active. My work is challenging, stimulating and fun. I love coming to work each day.'

Are women less capable surgeons than men?

In 2010, The US Association of Bone and Joint Surgeons conducted a survey among 90 orthopaedic surgery residents at University of Minnesota Department of Orthopedic Surgery to observe the differences between male and female performance levels in eight key competencies. The result: 'For the 90 residents at one residency program, we observed no differences between males' and females' performance.'

Linda Ferris

'I did my medical training at Sydney University and RNSH. Early influences in orthopaedics included Tom Taylor, Frank Harvey, Michael Ryan and Steve Ruff. I did an elective in orthopaedic surgery with Frank and when he asked if I was hoping to do orthopaedics I said yes and he was surprised but supportive. [One, who] was not encouraging, told me "women have no mechanical aptitude, if you put my wife in a field with a can-opener and a can she would starve to death", but his wife was an architect so I hope he was being funny.'

A Melbourne Institute survey through the University of Melbourne (in 2010), found that female medical specialists were earning less than their male colleagues and are earning almost 17 percent less.

Linda Ferris, 2016.

Linda Ferris

'One of my best experiences was going to the registrar conference and having someone from another state tell me that David Hall had said I was the best registrar he had worked with!! He never told me directly but it was great to hear.'

Melbourne orthopaedic surgeon, Annette Holian, is a prime example that women can 'cut it' in the toughest conditions. Holian has had five deployments to warzones since joining the RAAF in 2000. She has been twice to East Timor and three times to Afghanistan. She has also supported disaster relief and was chosen as a member of the first international surgical team to travel into Banda Aceh following the 2004 Boxing Day tsunami.

Annette Holian

'Aceh had recurrent earthquakes following the main event. This threatened our survival every day and night and made for short and very poor sleep. We had to really focus on ensuring our own personal safety, the health and wellbeing of our team, and only then could we focus on dealing with the overwhelming number of injured people in a hospital that had no running water, sometimes had power, had no sterilizer, no diathermy or suction, no surgical scrubs, no drapes and a bare minimum of surgical instruments.'

In 2005, she went back as one of two orthopaedic surgeons on the Royal Australian Navy ship, HMAS *Kanimbla* in response to an earthquake.

Annette Holian

'0n 2 April 2005, our second day on station, we lost a helicopter and nine team members including two doctors, two nurses and a medic, and four aircrew. I led the shore party to retrieve them. All Australians.'

Annette Holian.

The First Australian Medical Assistance Team Surgeons' and Anaesthetists' course (AUSMAT SAC) was run in mid 2010, just a few months after the Haiti earthquake. Holian taught in the course. Surgery focused on dirty wounds, gunshots and blast injury. Holian saw the need to include perioperative nurses and non-technical skills and then developed the AUSMAT Surgical Team Course.

From 2010 to 2015, Holian was Deputy Director of Trauma at the National Critical Care and Trauma Response Centre and since 2014, has served as Chair of the Military Section of RACS.

Is there subtle discrimination discouraging women from careers in orthopaedics?

Is there an 'old boys' network that perpetuates the exclusion of women in the specialty?

Loris Figgins was the first female orthopaedic surgeon in Australia. She began her studies at Melbourne University in 1945 and became number 13 in a clinical group with 12 males at the Royal Melbourne Hospital. She didn't mind being the only female and has said the boys didn't seem to mind.

Loris Figgins

'One physician always greeted us with, "how are the boys of the village today," then with a chuckle added, "oh, pardon me my dear." I think that apart from this, the only change my presence brought about was to put a curb on the bawdy jokes which were traditionally exchanged during these clinics.'

Loris Figgins.

After graduating, Figgins worked in the Pathology Department of the Queen Victoria Hospital before gaining a 12-month internship at the Frankston Orthopaedic Section of the Royal Children's Hospital. She recalled being thankful that the superintendent who appointed her decided that 'a woman would be preferable for a change.' After Frankston, she worked at the Austin Hospital for seven years, re-establishing and building up an orthopaedic unit. She undertook research work there under University of Melbourne professors, R Douglas Wright and Edgar King, but when the results of her work were published, she recalled, 'there was much criticism of both the treatment and my right to have an opinion … I felt so frustrated by their bigotry … I concluded that it was best to go overseas to the College of Surgeons in England and obtain their much sought-after qualification.'

Linda Ferris

I went to Lismore [in 1982] for an RMO rotation and the two orthopaedic surgeons there, Neil Thompson and David White, were so supportive that they offered me their first ever surgical registrar post after I passed my primary. So I did a 12 month rotation in Lismore as an orthopaedic service post also covering general surgery. I took call every day Monday to Friday until midnight and one weekend in three. It was a good year and while there I applied for the training scheme … I was led to believe I had a good chance but afterwards the two guys who did get in told me they had been told *before* the interviews that the jobs were theirs! They were nice guys but it was frustrating.

…Bob Bauze called me on the phone in Lismore and said I had such good references (especially from Frank Harvey) and he wanted to know why I thought I hadn't got a job in Sydney. I said I thought they weren't ready for a female trainee. Bob said they would love to have a female trainee in Adelaide so he offered me a service job in Adelaide. Bob does feel he should get some credit for my career!'

Linda Ferris was appointed as Head of the Orthopaedic Unit at Queen Elizabeth Hospital in Adelaide in 2015 and also served as State Chairman of AOA for two years.

Nicole Williams

'Many hospital operating suite changerooms had a designated "orthopaedic registrar locker". It was always in the male changeroom. As this was often the location that the on call registrar left the x-rays of the surgical cases for the day, this invariably caused problems for me. In some hospital operating theatres, they have a change room for "doctors" and another for "nurses".

Despite some people considering orthopaedic surgery to be a sexist specialty, I found the vast majority of my male senior colleagues to be encouraging and supportive. I could thank many surgeons, but some that stand out include Chris Harrington in Newcastle, Stephen Ruff at Royal North Shore and more recently Peter Cundy and Bruce Foster in Adelaide.'

Angela Hatfield

'At no point ever was I made to feel less or inferior because I was a girl. Never did the surgeons I worked for treat me differently. I loved working with the cohort of registrars I trained with. Never did any of my fellow registrars treat me differently.

There are so many surgeons that stick in my mind as mentors, advocates and supporters through my training, in particular Jim Powell, Michael Neil, Charles New, David McNicol, Andreas Loefler, John Harrison and Adrian van der Rijt.

I personally think we can say that orthopaedic training and selection is truly based on merit not gender. By constantly harping on being a minority, for whatever reason, I think we belittle all the surgeons who have gone before who certainly proved to me in their actions every day, that nothing mattered except doing a good job.'

Susan Liew

'I had the privilege of having marvellous and unwavering support from my (all male) mentors. Brian Davie, Jonathon Hooper, Phil Griffin and Chris Haw supported me getting on the training program. John O'Brien and David Hjorth encouraged my interest in spinal surgery. John, Peter Wilde, Ian Torode, and Bob Dickens guided my spinal training. Later on, my (still all male) colleagues at the Austin and Royal Children's were nothing but supportive during my four episodes of maternity leave. And as for my administrative self: wisdom, kindness, and encouragement were generously given by other legendary Melbournian Heads of Units such as Bob, Kevin King, John Harris, John Hart, Barry Elliott, and one hospital administrator: Jennifer Williams … oh, a woman…'

Susan Liew.

Kerin Fielding, said she had never experienced any direct discrimination in her work, but thought that low-level sexism existed. She feels the same about this in 2016 as when she began as an orthopaedic surgeon in 1992.

Kerin Fielding

'You have to be better than the rest of them … you still have to prove yourself.'

Formation of the Orthopaedic Women's Link (OWL)

A Harvard survey[iii] in 2012 cited the lack of female role models in orthopaedics as an important barrier to women entering the specialty.

In Australia, Sarah Watts recognised the struggles that were unique to women working in orthopaedics: professional isolation, lack of senior role models and mentors, lack of a women's network, pregnancy at work, dealing with the 'boys club', and issues with work–life balance. Her road to becoming an orthopaedic surgeon differed from her male colleagues, but it was a story familiar to many professional women.

Sarah Watts

'My training was a little different to most, as it was interrupted twice to have my two children. I had my daughter as a second year trainee in 2005, and my son as a third year trainee in 2007. With two very young children, my final years of orthopaedic training were particularly difficult, and it was so hard to combine the demands of their existence, with the need to bank very long hours of study.

Of course, as all final year trainees know, there was a lot of hard work, challenges and even dark times. There were also positive things that surprised me: the strength of belief that others had in me, and unexpected support that some of my mentors offered.

I remember a colleague, also preparing for the fellowship exam, celebrating the fact that he was about to go home from work at 4 pm. His usual schedule was to do four hours of study when he got home, followed by a glass of wine and a home cooked dinner. He'd retire shortly afterwards, for an early night, ready for the next day.

My life could not have been further from this example. I worked at a busier hospital, the witching hour started when I got home — which extended to at least 9 pm (probably so my children actually could spend some time with their mother), nappies, bottles, bathtime, making lunches for kindy, and a few loads of washing. It was a good night if I got cheese on toast. By 9.30 pm I usually started study and usually worked until midnight. My eight-month-old still woke twice a night, and then I was up again for work the next day…'

Watts became determined to set up a 'women's link', a formal group to mentor each other, offer support, commiserate and congratulate. She looked into the international orthopaedic associations, and found that other associations had their own women's groups. It seemed obvious that AOA needed the same.

Watts drew up a proposal to the AOA to form a women's orthopaedic group in 2011, submitting it through the Queensland representative at the AOA Board meeting. The proposal was accepted, and OWL was on the launching pad.

Sarah Watts, 2016.

Sarah Watts

'I remember the surgeons who had a truly positive influence on my career, and the benefit their mentorship offered. If it wasn't for their influence I might not be where I am today. I felt that this positivity could be harnessed in the future through a mentorship program in OWL.'

Initially, OWL was a one-woman-band but Watts's goal was to have a place at the annual ASM, attract some interest and members, and become established. Over the course of the next four years, OWL has had a meeting at every ASM, and steady interest in the group has grown. Inspirational speakers have participated every year including orthopaedic doctors Sue Liew, Annette Holian and Sheanna Maine.

In 2015, a move was made to make OWL an official subcommittee of the AOA; this was formalised at the AOA Board Meeting in February 2016.

Following this, OWL has commenced official AOA duties. It has quarterly meetings, office bearers, a formal membership system, an annual plan, and its goals are starting to expand. The mentorship program is also beginning.

Issues being addressed by OWL in 2016 include radiation safety and pregnancy, return to work after maternity leave, international policies and organisations, and looking at training problems versus gender issues.

i Source: Medical Deans Australia and New Zealand Inc.
ii 2011 Rakabee Pty Ltd.
iii Dr Charles Day, 'Orthopaedic Residents' Perceptions of Gender Diversity in Orthopaedic Surgery', 2012.