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Gender equity in Transplantation: A Report from the Women in Transplantation Workshop of the Transplantation Society of Australia and New Zealand

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NHMRC	National Health and Medical Research Council
SAGE	Science in Australia and Gender Equity
TSANZ	Transplant Society of Australia and New Zealand
WIT	Women in Transplantation

Abstract

The exponential growth of young talented females choosing science and medicine as their professional career over the past decade is substantial. Currently, more than half of the Australian medical doctoral graduates and early career researchers are comprised of women, but less than 20% of all academic professorial staff are female. The loss of female talent in the hierarchical ladder of Australian academia is a considerable waste of government investment, productivity and scientific innovation. Gender disparity in the professional workforce composition is even more striking within the field of transplantation. Women are grossly under-represented in leadership roles, with currently no female Heads of Unit in any of the Australian and New Zealand Transplanting centres. At the same time, there is also gender segregation with a greater concentration of women in lower-status academic position compared to their male counterparts. Given the extent and magnitude of the disparity, the Women In Transplantation Committee, a subcommittee of the Transplantation Society of Australia and New Zealand established a workshop comprising eight female clinicians/scientists in transplantation. The key objectives were to i) identify potential gender equity issues within the transplantation workforce, ii) devise and implement potential strategies and interventions to address some of these challenges at a societal level, iii) set realistic and achievable goals to enhance and facility gender equality, equity and diversity in transplantation.

Introduction

The Science in Australia and Gender Equity (SAGE) Pilot (1), a program based on the Athena SWAN Charter, was launched in Australia in 2014. The aim of this program was to achieve cultural change while enhancing gender equity within the disciplines of science, technology, engineering, mathematics and medicine. Although the program was focused on academic institutions, The Transplantation Society of Australia and New Zealand (TSANZ) (2) adopted the SAGE philosophy and sought to address the issues of gender equality and equity proactively. This report details the process and outcomes of the inaugural TSANZ Women In Transplantation workshop.

General aspects of gender equality and equity:

Gender inequality and inequity exists in science and medicine in Australia today. While the term equality refers to absolute numbers, equity refers to the fairness in structure for professional opportunities (3). In a recent study, a broad range of professors evaluated the application of undergraduate science students who had applied for a science laboratory manager position. All professors received the identical application for the position of science laboratory manager either assigned to a male or female applicant. Using validated scales, the professors rated the student's competence and hireability as well as the salary and amount of mentoring that would be offered. This study revealed that both male and female science faculty academics exhibited bias against female undergraduate students, evaluating them as less competent, hireable, and qualified, and offered them less funding and mentorship (4). These data indicate that a pervasive bias exists against women that result in the often unconscious downgrading of women in science.

Such gender bias is important to address as it translates into real-world disadvantages for women. Indeed, the data from SAGE Pilot highlighting gender inequity and inequality is startling (1). In all fields of science, technology, engineering, maths and medicine, gender representation is evenly distributed at the Bachelors to Academic B level (Lecturer). However, at Level C (Senior Lecturer) and beyond, men predominate. Men are more likely to reach the rank of professor with only 20% of all Level E positions awarded to women. If one considers medicine in isolation, the figures are similarly dramatic with 70%

of professors being male and only 30% being female. Salaries for female physicians (5) and physician-researchers (6) are consistently lower. Furthermore in academia, men are more likely to receive research funding. Indeed in 2016, 67% of all National Health and Medical Research Council (NHMRC) competitive grants were awarded to males. A similar breakdown was observed for those seeking person-support: 8.4% of female applicants received funding under the Career Development Fellowship scheme (20/237 applications) compared to 18.6% male applicants (40/215 applications); for the Practitioner Fellowship scheme 23.1% of women were successful (3/13 applications) compared with 33.3% of men (14/42 applications) (7). In the Transplantation Society of Australia and New Zealand (TSANZ), women comprise 45.8% (274 of a total of 598) of the membership, yet at the executive level there was only one female representative of an eight-person council (prior to May 2017 election).

These data from our region prompted the TSANZ to look at the society and membership proactively through the prism of gender equity and equality, which led to the formation of the Women In Transplantation (WIT) subdivision of the TSANZ. The TSANZ is the peak representative body of transplantation professionals in Australia and New Zealand and “aims to promote research, best clinical practice and advocacy to improve outcomes and increase access to organ transplantation in Australia and New Zealand” (2). The Society brings together transplantation professionals in medicine and science that share common ideals and principles. A WIT group exists also within The Transplantation Society (TTS) at the international level. The international WIT group recognises “the [ongoing and] increasing need to provide support and guidance to future generations of transplant professionals in order for them to reach their full potential” (8).

In Australia/New Zealand, an inaugural workshop was organised, to address the issues of gender inequality and inequity. An expression of interest to participate was circulated to all female TSANZ members via email broadcast. In November 2016, an interdisciplinary group of eight women from across Australia (Victoria, New South Wales, Queensland) and New Zealand met to identify the challenges faced by female TSANZ members with the goals to create potential solutions and to generate a vision statement and develop an action plan.

Identifying challenges for gender equity in the transplantation workforce in Australia and New Zealand

Career choices: There is evidence in Australia that some clinical specialties are more attractive to women (9). Women tend to favour general practice, public health, paediatrics and psychiatry while avoiding specialties with a significant on-call burden or unpredictable working hours. Both intrinsic and extrinsic factors that influence the career choice of medical graduates have been put forward as contributing influences (10). Intrinsic factors relate to the skill and aptitude of the graduate, the interest in helping people and the intellectual content of the specialty. Extrinsic factors, potentially more modifiable, include workplace culture, work experience since graduation and the opportunity to work flexible hours. In addition, women considered domestic circumstances in their career choice.

Career shape and trajectory: Despite gender parity at medical schools in Australia since the year 2000, women in the medical profession advance more slowly than men, particularly in academic medicine, and as a result there are far fewer women in leadership positions (11, 12). With those in medical leadership, the positions are skewed towards non-clinical roles in government departments with a focus on public health, rather than on clinical positions in health services (13). Furthermore, several studies have shown that it takes women longer to be promoted to full professor in academia (14, 15). Domestic responsibilities, lack of flexible working hours and lack of role models are the obstacles that have been identified (3). Buddeberg-Fischer and co-workers showed that female physicians experienced lower objective and subjective criteria of career achievement, advancement and satisfaction. They also noted that female physicians were less well mentored and were less likely to work at university hospitals or research institutions (16).

Remuneration: The gender pay gap in medicine and science is a tangible and significant issue that must be addressed. Women physicians are paid up to 45% less than men in the US (6), Europe (17), England (18) and Australia (19, 20).

Hiring and roles: As women choose jobs with flexible work hours to manage domestic responsibilities, career options and academic progression are restricted. Specifically, there is limited support for flexible

work arrangements at institutional and professional college levels with few part-time jobs and training positions available. For example, in 2005, less than 10% of trainees in medical specialties were job sharing (10), a factor that discourages the participation of women with carer responsibilities. In specialties such as paediatrics however, where strong support of part-time training pathways exist, women remain part of the medical workforce and are more likely to progress to senior roles (21).

Workplace culture: Women who are successful in male gender-typed domains may be penalized for their success (22). Such negativity in ratings of likability and interpersonal hostility may result from the perceived violation of gender-stereotypes, specifically the perception that women be nurturing and egalitarian.

Identifying potential solutions for gender equity in the transplantation workforce in Australia and New Zealand

Unanimously it was felt that equity and equality should become mainstream within the TSANZ. To achieve this, women within the TSANZ need a voice. There are examples on how gender equity is pursued: The Women in Intensive Care Network (WIN) (23), a subdivision of the Australasian Intensive Care Society helps through website hosting blogs, relevant publications and networking events.

Mentoring and sponsorship: In academic medicine, mentoring has an important influence on personal development, career guidance, career choice and research productivity (24). Women lack adequate mentors and role models, not only limiting entry into, but also progression within academic medicine. Furthermore, women commencing a career in academia, may become discouraged and abandon it, unless positively supported (25). Focusing on mentors and role models has been seen as essential to implementing change. Although evidence suggests that mentorship is critical there are many unanswered questions. Should mentees choose mentors or be assigned to them and how often should mentoring occur? Most male professionals have more experience mentoring men than they do mentoring women, and their male mentees progress further than their female mentees. The key to men and women being valuable mentors to women is the understanding of the challenges that women disproportionately face in developing their careers (26). Moreover, any mentor/mentee relationship

should focus on genuine belief in fairness, gender equity, and the development of talent in any organisation (27).

Of additional relevance, a sponsor differs from a mentor. Whereas a mentor provides guidance, a sponsor is someone that will advocate and directly affect the chance of promotion. Sponsors enable and accelerate career progression and men are more likely than women to attract a career sponsor (25). At Swinburne University of Technology, Australia, a peer-support promotion program was instituted which resulted in a record number of female academics applying for promotion (28). Driven from within by a group of female academics at Swinburne, the program includes a number of methods to motivate women to apply for promotion. This program empowered female academics to better understand their own strengths and the promotion process, and provided a support structure for women in the process of applying for promotion. The number of applications for promotion from women doubled in that particular year, nearly reaching parity with applications from men for the first time. Similar initiatives have started at other institutions, under the prompting of SAGE.

Removing financial disincentives: The gender pay gap needs to be addressed at an institutional level (29). Some research institutions have financial incentives in place. For example Queensland Institute of Medical Research Berghofer (QIMR Berghofer) provides female scientists with at least one child below high-school age an annual lump sum payment of \$10,000 to be used at the academic's discretion. In addition, this institute has reserved places at a near-by child care centre and provides dedicated car parking for women in late term pregnancy (30).

Routine support and celebration: Evidence shows that women are not only reluctant to self-promote but that self-promotion and negotiation can in fact be harmful to their career progression (31). By integrating a system of routine support and promotion of women's success and achievements in the field of transplantation, the WIT aims to empower female members to better understand their own strengths and foster a collegial community of support. Social media is a powerful tool with vast reach that can be used to communicate ideas, promote participation, encourage collaboration and promote and develop research (32). Campaigns like #ILookLikeASurgeon in 2015 which aimed to challenge the

stereotype of the typical surgeon as male, engaged international and local media. At its peak the hashtag represented more than 13,000 tweets and nearly 34 million impressions in 20 languages from over 75 countries (33) and its influence continues with more than 500 tweets a day in April 2017 (34).

Hiring and roles: Conservative social norms and the current male-orientated career pathways of academia and medicine make it difficult for women to balance the demands of childrearing, care-giving and professional career. The addition of unconscious gender bias in recruitment and promotion leads to an underrepresentation of women in leadership. In detail, female representation can be encouraged by developing an organisational approach within the TSANZ that ensures that executive roles are equally assigned according to gender. Such a strategy is not about establishing quotas, but rather it is about removing unconscious biases. In addition, the TSANZ plans to advocate for the development of training and career pathways that acknowledge and allow for parenting and other caring responsibilities.

Workplace culture: Culture matters (35). It has been shown that a supportive work culture in which there was support for work-life balance, equal access to opportunities, freedom from gender bias and support from senior academics, buffered women from the negative impact of both work overload and long work hours.

Equality designed into TSANZ events: It is the WIT vision to ensure equality for events such as the annual scientific meeting ensuring equal gender representation in invited speakers and chairs of sessions. Together this will ensure that women are represented, promoted and recognised for their excellent contribution to transplantation.

TSANZ gender equity and equality vision for the future

The vision of the TSANZ WIT is to **prioritise gender equality, equity, diversity and inclusiveness in transplantation**. As a means of promoting a supportive culture for women in TSANZ, a number of tangible changes have been instituted. As an initial step a proposed amendment to the constitution of the TSANZ has been put forward to read that the members of council will include at least three men and three women. This will be voted on at the next annual general meeting, however, at the most recent

election in May 2017 all four new elected council members were women. The gender split of invited speakers and session chairs at the Annual Scientific Meeting will be reported to council annually with the aim of gender equality. For the first time in 2017, a subsidised child minding facility has been made available enabling greater participation for our members.

Professor Josette Eris was a well-known and respected figure within the field of transplantation both nationally and internationally. Prof. Eris was the only female president of the TSANZ and served on the TTS council. Prof. Eris' untimely and premature passing was recognised at the 2017 TSANZ Annual Scientific Meeting with the Josette Eris Lecture – this perpetual lecture will feature established and aspiring women in transplantation with the inaugural lecture given by Prof. Lori West. In addition, the Josette Eris Memorial Award has been established. This award seeks to encourage early to mid-career female members in the transplant community to remain competitive in their field as they balance the challenges and commitments of work and family.

The next phase of initiatives will plan on increasing the promotion of WIT members through social media. This will enable the opportunity to promote WIT and their achievements while engaging new members through networking events. A conversation about how to effectively mentor women in TSANZ will be part of a larger discussion on women's leadership development. Such an initiative will require involvement from both men and women to have substantive success.

Moving forward

Gender diversity matters and the evidence is clear: the most diverse teams produce the most resilient workforces, make the best boardroom decisions and solve the most difficult scientific challenges. The TSANZ is leading the way in gender equality and equity in transplantation. The flow-on effect will enhance, promote and facilitate the mission of the society in promoting high quality research and clinical care for individuals with organ failure before and after transplantation.

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