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Task transfer: A survey of Australian surgeons on the role of the non-medical surgical assistant

Abstract

Background: A non-medical surgical assistant is a clinician who provides perioperative care in the role of surgical assistant but does not possess a medical degree. This role has been practiced in Australia for more than 20 years.

Aim: This survey investigates Australian surgeons' attitudes and current practice regarding the role of the non-medical surgical assistant.

Design/method: Distribution of the survey was online in December 2015 by the Royal Australasian College of Surgeons (RACS). Data analysis was descriptive using online survey methodology and convenience sampling.

Results: In the private sector in Australia 105 respondents (35 per cent) use a non-medical surgical assistant. In the private sector in Australia, 188 respondents (64 per cent) were 'very supportive' or 'supportive to some degree' of the role, with 60 (20 per cent) 'undecided' and 48 (16 per cent) 'not supportive'.

Conclusion: The results illustrate there is support in the Australian surgical community for the role. The majority of respondents advocated contribution to governance of the role and curricula oversight by the RACS.

Keywords: non-medical surgical assistant, perioperative nurse surgeon's assistant, perioperative nurse practitioner, Royal Australasian College of Surgeons

Introduction

The lines of demarcation between health care professionals were once clear. Gender, education and the ability to prescribe have historically differentiated doctors and nurses[1]. Privileges of medical practice protected by legislation and insurance reimbursement are no longer the sole domain of the medical doctor[2]. A need for 'non-physician practitioners' to meet changes in the health care environment has contributed to less defined lines of demarcation between health care professionals' roles[3–6]. In the light of alterations to the context of health care and availability of resources, registered nurses (RNs) and allied health professionals are acknowledged as an under-used asset for safe and cost effective health care delivery[7–10]. Task transfer does not dilute medical care but does strengthen health care[11].

Background

The role of the non-medical surgical assistant (NMSA) is well established in the international setting with clinicians who are not medical doctors providing perioperative care[12]. An example of international support for the NMSA role is well illustrated in the United Kingdom (UK). The Royal College of Surgeons England (RCSE) has been proactive

in undertaking a comprehensive review of the curriculum of the NMSA[13]. The objective was to improve performance of the entire surgical team. This work culminated with the updated curriculum framework for the surgical care practitioner (SCP) in 2014[14]. The RCSE also requested streamlining of titles of NMSA within the UK to standardise parameters for the roles[13,15].

By comparison, the Royal Australasian College of Surgeons (RACS) has had little input into curriculum or training of the NMSA in Australia. The most recent position statement (2015) from the RACS on the surgical assistant does not outline what specific qualifications a surgical assistant should hold and suggests the level of knowledge and skill is at the discretion of the surgeon[16]. This is in contrast to the Medicare Benefits Scheme which will only remunerate doctors for intraoperative 'assisting at operation' in the private sector[17].

The majority of clinicians performing this role in Australia are RNs [18]. The nursing labels in Australia for NMSAs are perioperative nurse surgeon's assistant (PNSA) or nurse practitioner (NP)[19,20].

At the inception of the NMSA role in Australia in 1999, the RACS president indicated that the RACS would support an intraoperative component of the role[21]. There is a paucity of evidence of early RACS support in the Australian literature. A surgical workforce census report in 2011 outlined that RACS members were supportive of the roles of NP and physician assistant (PA) as surgical assistants[22]. A 2006 paper by RACS members on the topic of the NMSA highlighted recruitment, training and supervision of the NMSA as potential issues. The emphasis of this paper was that evolution of roles should be within a framework of 'defined knowledge and competencies' based in evidence, supporting a high level of care and patient safety[23].

Historically many advanced practice roles have been to meet a clinical need without the accompanying statutory direction and governance[20,24–26]. What is prominent in the literature about advance practice nursing roles is the need for regulated, standardised education and accompanying suitable clinical proficiencies[6,13,27–32].

Aim

The survey aimed to clarify:

1. surgeons' opinions
    - Do surgeons support the role in Australia?
    - Which qualifications were appropriate?
    - What governance structure was required?
    - What input should the RACS have in curriculum development and training?
2. surgeons' practice
    - Quantify the experience of surgeons.
    - Determine who in Australia was using NMSAs.

Participants/ethics

The survey had ethics approval from The University of Queensland (#2015000084).

While this paper refers to Australian surgeons, RACS' membership also includes New Zealand (NZ) surgeons, who constituted only 1 per cent of respondents. Surgeons, both active and retired, and trainees were eligible for the survey.

Survey/sampling

The survey was advertised as per RACS's policy for 'external' surveys via their online newsletter, *Fax mentis*, in December 2015 and January 2016. Due to a low response rate, second round contact was established with individual surgical specialty associations and societies. Once the survey was distributed beyond the affiliation with the RACS, membership of the RACS was not necessary to participate.

When specialty surgical groups were approached, how they chose to circulate the survey to members influenced how many members responded. Some specialty groups such as General Surgeons Australia and the Australia and New Zealand Society of Vascular Surgeons emailed the survey link directly to members; the Australian Orthopaedic Association Limited (AOA) placed a link to the survey on their website. For this reason specialty response rates were not reflective of the membership of these surgical specialty organisations. Low response does expose the survey to non-responder bias[33].

In a recent practice audit of the NMSA role in Australia, the surgical specialty with the highest uptake of NMSA use was orthopaedic surgery, followed by general surgery and then gynaecology[18]. Gynaecologists and obstetricians were not well represented in the membership of the RACS and the Royal Australian and New Zealand College of Obstetricians and Gynaecologists declined the request to circulate the survey to members.

Data analysis

Collected data were predominately of quantitative character. Descriptive data analysis was undertaken within Qualtrics (Qualtrics, Provo, UT) software[34].

Table 1: Demographic data of participants

Age (years)	n=343 (%)
30 or younger	4 (1)
31–40	77 (23)
41–50	105 (31)
51–60	83 (24)
61–70	56 (16)
71–80	12 (3)
81 or older	6 (2)

Gender	n=344 (%)
Male	284 (83)
Female	60 (17)

Experience as a consultant (years)	n=335 (%)
Trainee	17 (5)
5 or less	70 (21)
6–10	45 (13)
11–15	46 (14)
16–20	38 (11)
21–25	35 (10)
26–30	27 (8)
31–35	29 (9)
36 or more	28 (8)

Practicing status and state/territory/ country if practicing*		n=337 (%)
Practicing	Victoria	79 (23)
	New South Wales	97 (29)
	Queensland	103 (31)
	Northern Territory	5 (1)
	Western Australia	28 (8)
	South Australia	35 (10)
	Tasmania	10 (3)
	Australian Capital Territory	4 (1)
	New Zealand	4 (1)
Retired		6 (2)
Not currently practicing (other than retirement)		2 (1)

Region of practice*	n=336 (%)
Metropolitan	227 (68)
Regional	117 (35)
Rural	27 (8)

** Participants may practice in more than one state or region*

Results

In total 445 surveys were submitted, however, not all respondents answered all of the questions. The majority of respondents (227 or 68 per cent) practiced in the metropolitan area and the largest number of respondents were from Queensland (103 or 31 per cent). Demographics of respondents are presented in Table 1.

General surgery was the most common specialty with 187 (56 per cent) respondents. This influenced the highest uptake of NMSA in general surgery (see Table 2, on the next page). In regard to support of the role of the NMSA in the private sector in Australia, 188 respondents (69 per cent) were 'very supportive' or 'supportive to some degree', with 60 (22 per cent) 'undecided' and 48 (16 per cent) were 'not supportive'. Surgeons were less supportive of the NMSA in the public sector (refer Figure 1). Of the 334 responses 125 (38 per cent) had no experience working with an NMSA, while 116 (35 per cent) had experience with an NMSA in Australia. When amount of experience working with an NMSA and level of support of the NMSA were cross-tabulated, surgeons with 'No experience' working with an NMSA constituted the highest tally for 'not supportive' or 'undecided'.

Regarding qualifications, as outlined in Table 3 on page 17, 175 surgeons (53 per cent) thought a registered nurse (RN) with any postgraduate surgical assisting qualification was sufficient to work in the role. Looking at both extremes of the nursing qualification spectrum, 50 surgeons (15 per cent) thought an enrolled nurse qualification was sufficient while 119 (36 per cent) thought an NP qualification was appropriate. Other qualifications considered appropriate were physician assistant (PA) (105 or 32 per cent) or any allied health degree (34 or 10 per cent) with 79 (24 per cent) asserting that only a medical degree was acceptable.

As outlined in Table 4 (see page 18), surgeons were equally divided on whether the Nursing and Midwifery Board of Australia (NMBA) or the Medical Board of Australia (MBA) should govern the role of the NMSA. Regarding the RACS, 139 (43 per cent) thought the RACS should contribute to governance, 42 (13 per cent) thought the RACS should have sole responsibility for curriculum development whereas 180 (56 per cent) thought the RACS should have input into curriculum development.

Current practice reflects 105 respondents (35 per cent) currently used an NMSA in the private sector and 30 (9 per cent) used an NMSA in the public sector. A number of respondents 16 (5 per cent) used an NMSA to operate on public patients in the private sector.

Figure 1: Surgeon support for NMSA role in public and private sectors

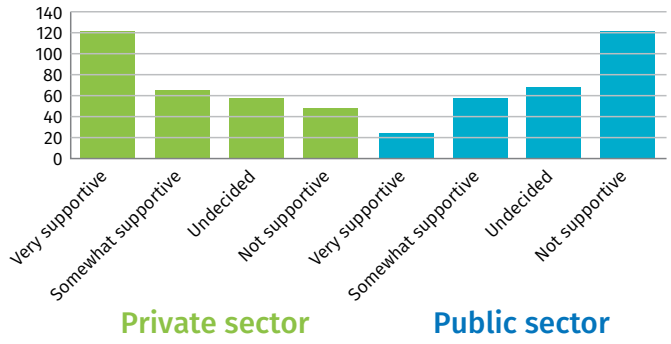

Table 2: Utilisation of an NMSA in Australia via surgical specialty

		Worked with an NMSA:			
Surgical specialty	Total number of respondents	in the public sector	in the private sector	on public patients in the private sector	Other
Cardiothoracic surgery	11	0	4	1	0
General surgery	187	22	47	1	3
Neurosurgery	35	2	6	1	0
Orthopaedic surgery	49	2	27	2	3
Otolaryngology, head and neck surgery	6	0	0	0	0
Paediatric surgery	1	1	0	0	0
Plastic and reconstructive surgery	9	1	7	1	0
Ophthalmology	3	0	3	1	0
Gynaecology/ obstetrics/ fertility	4	0	4	0	0
Urology	8	1	4	1	0
Vascular surgery	28	2	6	1	0
Other	8	1	2	1	0
Total NMSA used	–	**32**	**110**	**10**	**6**

Discussion

Scrutinising the trends of support between the public and private sectors, a similar number of surgeons were 'very supportive' of the NMSA in the private sector as 'not supportive' in the public sector. This may be attributed to a concern that the NMSA will negatively impact junior doctor training; however, this is not supported in the literature[20,28,35–37]. Regarding current practice, nine of the 16 surgeons who operate on public patients in the private sector were from Queensland, most likely due to a contract between the state and a corporate health care provider to address public surgical waiting lists. The NMSA proved an economical alternative to medical assistants for this contract[38].

There was support amongst respondents for a wide range of qualifications to perform the role of the NMSA. In this survey 36 per cent of respondents thought an NP qualification was appropriate and 32 per cent thought a PA was appropriate. This percentage of support is less than reported in a surgical workforce census report published by the RACS in 2011[22]. In this report 48.6 per cent of surgeons supported the role of NP (nursing model) as surgical assistant and 46.3 per cent supported the role of PA (medical model) as a surgical assistant[39,40].

While 47 respondents (15 per cent) thought the RACS should have no input into the initial and ongoing education of the role of the NMSA in Australia, the paper published by the RACS representatives in 2006 states the RACS would support new health care roles in surgery if an appropriate curriculum and standards are developed[23]. For proper curriculum and standards development it would be ideal to have surgeon input. This view is supported by

Table 3: Qualifications of NMSAs that Australian surgeons have worked with and qualifications that Australian surgeons considered appropriate for the role of NMSA

Qualifications of NMSAs that Australian surgeons have worked with*	n=332 (%)
Enrolled Nurse	24 (7)
Registered Nurse	160 (48)
Nurse Practitioner	39 (12)
Physician Assistant	18 (5)
Allied Health Professional	2 (1)
I have not worked with an NMSA in Australia	146 (44)
Other	8 (2)
I don't know the qualification of the NMSA	6 (2)

Qualifications that Australian surgeons considered appropriate for the role of NMSA*	n=328 (%)
Enrolled Nurse	50 (15)
Registered Nurse (RN)	109 (33)
RN with any postgraduate surgical assisting qualification	175 (53)
RN with a master's postgraduate surgical assisting qualification	108 (33)
Nurse Practitioner	119 (36)
Physician Assistant	105 (32)
Allied Health Professional	34 (11)
Only clinicians with a medical degree should be a surgical assistant	79 (24)
Other	8 (2)

** Participants were able to select more than one option*

222 respondents (69 per cent) who selected 'sole responsibility for curriculum development' or 'input into curriculum development' as their answer to this question.

Conclusion

Survey results are highly dependent on the circulation process. To obtain more thorough results a RACS internal survey emailed directly to members would be the ideal method.

The results presented here, skewed by the mode of distribution, show that there is support in the surgical community for the role of the NMSA in Australia. Results indicate that the RACS should be involved in governance and curriculum development of the role of the NMSA in Australia.

It is anticipated this paper will provide stimulus for discussion within the RACS on the role of the NMSA in Australia. Similar to the RCSE, RACS and the wider Australian surgical community has the opportunity to support and guide development of the role of the NMSA in Australia. As stated by Dr Van Der Weyden, past editor of the *Medical Journal of Australia*, knowing when to delegate professional responsibilities is not a task for the individual practitioner, but for the profession[41].

Limitations

Low response rate due to the RACS's policy regarding circulation of 'external' surveys was problematic. The optimal sample size of 368 was reached by circulation outside the discrete RACS population.

Postscript

During the process of this manuscript being reviewed and published the Royal Australasian College of Surgeons wrote a letter to the Australian Association of Nurse Surgical Assistants. The letter outlines support for the role of the Perioperative Nurse Surgeon's Assistant and highlights the need for standardised education and formal credentialing of the role.

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Table 4: Australian surgeons' opinions on the role of the Royal Australasian College of Surgeons (RACS) in NMSA education and who should govern the NMSA role

RACS's role in NMSA education*	n=324 (%)
Sole responsibility for curriculum development	42 (13)
Input into curriculum development	180 (56)
Mentor NMSA students assisting qualification	136 (42)
Conduct lectures or practical skills sessions	157 (48)
Initial and ongoing credentialing of NMSAs in hospitals	110 (34)
Develop standard, policy and position statement for the NMSA	151 (47)
Other	6 (2)
I don't think the RACS should have input	47 (15)

Who should govern the NMSA role*	
Australian Health Professional Regulation Agency (AHPRA) via the Nursing and Midwifery Board of Australia	140 (43)
AHPRA via the Medical Board of Australia	133 (41)
Royal Australasian College of Surgeons	139 (43)
Other medical associations e.g. surgical specialty groups	23 (7)
Australian College of Nursing	50 (15)
Australian College of Nurse Practitioners	64 (20)
Other professional nursing associations e.g. ACORN	72 (22)
Hospital executive via credentialing process	127 (39)
Other	7 (2)
I don't support the role of the NMSA	62 (19)

** Participants were able to select more than one option*

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