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

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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. Privileges of medical practice protected by legislation and insurance reimbursement are no longer the sole domain of the medical doctor. 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. 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. Task transfer does not dilute medical care but does strengthen health care.

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. 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. 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. The RCSE also requested
streamlining of titles of NMSA within the UK to standardise parameters for
the roles.

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. This is in contrast to the
Medicare Benefits Scheme which
will only remunerate doctors for
intraoperative ‘assisting at operation’
in the private sector.

The majority of clinicians performing
this role in Australia are RNs. The
nursing labels in Australia for NMSAs
are perioperative nurse surgeon’s
assistant (PNSA) or nurse practitioner
(NP).

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. 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. 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.

Historically many advanced practice
roles have been to meet a clinical
need without the accompanying
statutory direction and governance.
What is prominent in the literature about advance
practice nursing roles is the need for
regulated, standardised education
and accompanying suitable clinical
proficiencies.

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.

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. 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
deprecated 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.
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.

Table 1: Demographic data of participants

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

<table>
<thead>
<tr>
<th>Gender</th>
<th>n=344 (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Male</td>
<td>284 (83)</td>
</tr>
<tr>
<td>Female</td>
<td>60 (17)</td>
</tr>
</tbody>
</table>

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

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

<table>
<thead>
<tr>
<th>Region of practice*</th>
<th>n=336 (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Metropolitan</td>
<td>227 (68)</td>
</tr>
<tr>
<td>Regional</td>
<td>117 (35)</td>
</tr>
<tr>
<td>Rural</td>
<td>27 (8)</td>
</tr>
</tbody>
</table>

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

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. 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.

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. For proper curriculum and standards development it would be ideal to have surgeon input. This view is supported by...
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 profession41.

**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.

There was no financial assistance for this project.

**References**


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

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

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

* Participants were able to select more than one option

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

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

* Participants were able to select more than one option

Who should govern the NMSA role*

<table>
<thead>
<tr>
<th>Who should govern the NMSA role*</th>
<th>n=324 (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Australian Health Professional Regulation Agency (AHPRA) via the Nursing and Midwifery Board of Australia</td>
<td>140 (43)</td>
</tr>
<tr>
<td>AHPRA via the Medical Board of Australia</td>
<td>133 (41)</td>
</tr>
<tr>
<td>Royal Australasian College of Surgeons</td>
<td>139 (43)</td>
</tr>
<tr>
<td>Other medical associations e.g. surgical specialty groups</td>
<td>23 (7)</td>
</tr>
<tr>
<td>Australian College of Nursing</td>
<td>50 (15)</td>
</tr>
<tr>
<td>Australian College of Nurse Practitioners</td>
<td>64 (20)</td>
</tr>
<tr>
<td>Other professional nursing associations e.g. ACORN</td>
<td>72 (22)</td>
</tr>
<tr>
<td>Hospital executive via credentialing process</td>
<td>127 (39)</td>
</tr>
<tr>
<td>Other</td>
<td>7 (2)</td>
</tr>
<tr>
<td>I don’t support the role of the NMSA</td>
<td>62 (19)</td>
</tr>
</tbody>
</table>

* Participants were able to select more than one option

References

37. Anil J. Surgical care practitioners are having a detrimental effect on surgical training [Internet]. London: British Medical Journal Careers; 2006.