Professionalism Competencies for Junior Medical Officers.

Part 2: A Qualitative Analysis

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Abstract

Aim

The Australian Curriculum Framework for Junior Doctors (ACFJD) outlines professionalism as one of its three core learning areas of curriculum for Junior Medical Officers (JMOs).

A gap may exist, however, between the current professional competencies outlined in the ACFJD, and those required of JMOs in reality. Anecdotal reports from recent meetings of Victorian stakeholders suggest a need to further reassess and detail what professional attributes are required by JMOs.

Forming part 2 of a research project, this study sought to review JMO professional attributes as described within Australian medical postgraduate curriculum. In particular, to explore the alignment between the ACFJD and speciality college curriculum, and assess concordance between the specialist college curricula.

Method

A qualitative matrix analysis through categorising thematic content analysis of Australian specialty college curricula.

Results and Discussion

Matrix analysis identified 117 professional skills - 47 were already outlined in the ACFJD with an additional 32 professional skills that were deemed significant. In addition, findings revealed a poor concordance throughout the college curricula compared to the ACFJD. This was reflected by a less than 50% generalisability for 20 attributes, and 75% generalisability for 13 attributes only.

Conclusion

This literature review has revealed a lack of consensus in professional attributes detailed by the ACFJD compared with Australian specialty training colleges. Future research is required to further explore the professional competencies outlined by the ACFJD as well as attributes identified within this research, and assess their relative importance and how they can best be developed along the medical training continuum.

Introduction

Professionalism and its role in medical training is garnering growing recognition within the field of medicine.[1-3] Amidst the calls for improved teaching of professionalism to residents,[1] there continues to be discussion over what key skills and competencies should be included in this teaching, and the optimum way in which these should be taught.

Part 1 of this study explored the Australian Curriculum Framework for Junior Doctors (ACFJD) and general literature interpretations of professionalism competencies for JMOs. The ACFJD 'outlines the knowledge, skills and behaviours required of prevocational doctors (PGY1, PGY2 and above) in order to work safely in Australian hospitals and other healthcare settings'.[3] Subsequently, it is expected that junior doctors will take those competencies into their careers as they commence specialty training. There are currently 15 specialty colleges registered with AMA, each with a curriculum that outlines professional skills and attributes to be fostered in trainees. Given that specialty training through these colleges forms the next step in training for JMOs, it was inferred in this study that attributes described by the colleges are also applicable to JMOs. Hence, the college curricula were viewed as valuable comparable resources for the ACFJD.

Part 1 sought to assess general literature and research interpretations of key professionalism competencies for Australian JMOs. As Part 2, this study builds on this to explore the required professional attributes for Australian JMOs according to Australian Specialty colleges.

Methodology

Documents outlining professionalism for trainees from the 15 specialty colleges of Australia were obtained from either college websites or networking strategies via representatives from the colleges. These documents are referred to as curricula literature as they predominantly involve curricula, in addition to training manuals, professionalism charter and codes of ethics. One college had both a curricula and code of ethics as linked documents, otherwise each college was analysed according to one document. Two colleges requested to have their curricula content de-identified given that it was under review at the time. For this reason, college specific information has been kept anonymous in this research.

College curricula literature were analysed through a thematic content analysis (TCA) theoretical framework, as informed by Miles and Huberman's *Qualitative data analysis.*[4] This enabled exploration and analysis interpretations of professional skills according to the college curricula in comparison to current understandings of professional skills according to the ACFJD.

The curricula were analysed using TCA to identify themes following an adapted matrix method of analysis as suggested by Miles and Huberman.[4] This approach was modelled on previous research methodology conducted by the primary author and methodology described is paraphrased with permission.[5]

This qualitative process involved the use of *clustered conceptual matrixes*. Following this the data analysis process involved using *coding, memos* and *matrices* to develop conceptual understandings of themes.

Codes, comprising the first stage of formal data analysis, refer to abbreviated 'labels that describe the different topics and underlying assumptions in the data'.[6] Codes were defined according to a clear operational definition, so that a singular code represented a shared understanding by the research team.[7] A 'start list' of codes, was identified according to competencies outlined in the ACFJD.[3] The code list was frequently updated as the analysis progressed. This involved *filling in,* that is, adding new codes – that is, professional attributes - and updating the coding scheme; *bridging,* which involved linking relationships between the codes; *extension* by returning to

materials coded earlier and recoding them according to new codes that had emerged. *Surfacing* involved the identification of new emergent themes.

Throughout the analysis process, *memos* were written regarding emergent themes and methods of categorising data.[7] *Memos*, kept as an individual reference source, serve to identity relationships between ways of understanding a particular phenomena.[8]

According to shared codes and memos made throughout the analysis process, themes were clustered and given frequencies forming the *conceptual clustered matrix.*

Elements of *researcher triangulation* were also used in this research, in order to promote validity and reliability, and therefore optimise the rigour of the study.[9] This involved *inter-rater reliability* and consisted of the research team cross-checking thematic findings. In addition, meetings were used to update and categorise the codes used in analysis and develop the relationships between themes.

Results

Table 1 shows the professionalism competencies outlined by the ACFJD and the percentage concordance each competency has with specialty college curriculum; that is, the percentage of college curricula which recognise and discuss that same attribute. As shown below there is a less than 50% generalisability for 20 (of 47) of ACFJD competencies. Only 13 of 47 professional competencies outlined in the ACFJD are viewed by 75% or more colleges as necessary professional attributes for trainees.

Table 1. Concordance of ACFJD Professional Competencies with College Curricula

Learning Topic	**Competencies**	**Concordance (%) with college curricula**
Access to healthcare	Identifies how physical or cognitive disability can limit patients' access to healthcare services	30
	Provides access to culturally appropriate healthcare	76.7
	Demonstrates a non-discriminatory approach to patient care	40
Culture, society and healthcare	Behaves in ways which acknowledge the social, economic & political factors inpatient illness	70
	Behaves in ways which acknowledge the impact of culture, ethnicity & spirituality on health	70
	Identifies his/her own cultural values that may impact on his/her role as a doctor	60
Indigenous patients	Behaves in ways which acknowledge the impact of history & the experience of Indigenous Australians	53.3
	Behaves in ways which acknowledge Indigenous Australians' spirituality & relationship to the land	46.7
	Behaves in ways which acknowledge the diversity of indigenous cultures, experiences & communities	46.7

Professional standards	Complies with the legal requirements of being a doctor e.g. maintaining registration	6.7
	Adheres to professional standards	70
	Respects patient privacy & confidentiality	40
Medicine and the law	Complies with the legal requirements in patient care e.g. Mental Health Act, death certification	66.7
	Completes appropriate medico-legal documentation	80
	Liaises with legal & statutory authorities, including mandatory reporting where applicable (ADV)	60
Health promotions	Advocates for healthy lifestyles and explains environmental & lifestyle risks to health	100
	Uses a non-judgemental approach to patients & his/her lifestyle choices (e.g. discusses options; offers choice)	40
	Evaluates the positive and negative aspects of health screening and prevention when making healthcare decisions (ADV)	33.3
Healthcare resources	Identifies the potential impact of resource constraint on patient care	83.3
	Uses finite healthcare resources wisely to achieve the best outcomes	83.3
	Behaves in ways that acknowledge the complexities and competing demands of the healthcare system (ADV)	80
Professional responsibility	Behaves in ways which acknowledge the professional responsibilities relevant to his/her health care role	53.3
	Maintains an appropriate standard of professional practice & works within personal capabilities	46.7
	Reflects on personal experiences, actions & decision-making	66.7
	Acts as a role model of professional behaviour	33.3
Time management	Prioritises workload to maximise patient outcomes and health service function	86.7
	Demonstrates punctuality	26.7
Personal well-being	Is aware of and optimises personal health & well-being	60
	Behaves in ways to mitigate the personal health risks of medical practice e.g. fatigue, stress	63.3
	Behaves in ways which mitigate the potential risk to others from your own health status e.g. infection	60
Ethical practice	Behaves in ways which acknowledge the ethical complexity of practice & follows professional & ethical codes	63.3
	Consults colleagues about ethical concerns	63.3
	Accepts responsibility for ethical decisions	60
Practitioner in difficulty	Identifies the support services available	16.7
	Recognises the signs of a colleague in difficulty	53.3
	Refers appropriately & responds with empathy	46.7
Doctors as leaders	Shows an ability to work well with and lead others	66.7
	Exhibits the qualities of a good leader and takes the leadership role when required (ADV)	83.3
Professional development	Explores and is open to a variety of career options	13.3
	Participates in a variety of continuing education opportunities	40

Self-directed learning	Identifies and addresses personal learning objectives	76.7
	Establishes and uses current evidence based resources to support own learning	80
	Seeks opportunities to reflect on and learn from clinical practice	70
	Seeks and responds to feedback on learning	46.7
	Participates in research and quality improvement activities where possible	96.7
Teaching	Plans, develops and conducts teaching sessions for peers and juniors	76.7
	Uses varied approaches to teaching small and large groups	76.7
	Incorporates teaching into clinical work	90
	Evaluates and responds to feedback on own teaching	30
Supervision	Provides effective supervision e.g. by being available, offering an orientation, learning opportunities, and by being a role model	20
	Adapts level of supervision to the learner's competence and confidence	26.7
Assessment and feedback	Provides constructive, timely and specific feedback based on observation of performance	46.7
	Participates in feedback and assessment processes	40
	Provides constructive guidance or refers to an appropriate support to address problems (ADV)	53.3

A total of 117 different professionalism attributes were identified between the 15 different college curricula. Of these 117 professional attributes, only 47 were outlined in the ACFJD. Of the 70 skills remaining, 19 were listed by only 1 college, 3 skills by 2 colleges, and 9 skills by 3 colleges. A skill was considered significant if outlined by more than 4 colleges, these are demonstrated in Table 2 below.

In total, 38 professional attributes were identified within this study, which are not currently outlined in the ACFJD as professionalism competencies. Of these 38 attributes, 6 (marked with a * in table 2) are discussed under different core learning areas of the curricula, such as under 'Communication'. As such, this study has identified 32 potential professional attributes for JMOs.

For the purpose of simplification, these attributes have been described according to the attributes as described by Monrouxe et al. This incorporates *individual attributes* (attitudes, behaviours and values), *collective attributes* (attributes that uphold the medical profession and the trust place in it by society), *interpersonal attributes* (shared participation, teamwork) and *attributes to manage complex situations and interactions* (adapting to different situational contexts).[10]

Table 2. Professional attributes identified as potentially relevant to JMOs in addition to those outlined in the ACFJD

Individual Attributes		**Collective attributes**		**Interpersonal attributes**		**Attributes to manage complex situations and interactions**	
Integrity	14	Patient Safety*	14	Respect to colleagues*	11	Research skills	12

Compassion	13	Collaboration*	10	Negotiation	10	Administration skills	10
Honesty	10	Health Promotion*	9	Respect patient autonomy and patient centred care	10	Information management*	10
Empathy	9	Interprofessionalism*	8	Conflict Resolution	8	Adaptability/flexibility	8
Critical thinking/appraisal	8	Appropriate relationship with media	6	Mentoring	8	Tolerance of uncertainty/ambiguity	8
Understanding	7	Understanding of social determinants of health	5	Rapport building	8	Participates in Audit	8
Altruism	5	Appropriate boundaries in Doctor-Patient Relationship	4	Delegation	7	Managing conflicts of interest	6
Idealism and positivity	4			Appropriate responses to complaints/dissatisfaction/errors	6	Report Writing	5
				Counselling Skills	5	Informed consent	5
						Appropriate Handovers	5
						Triage Skills	5
						Political Lobbying	4
						Financial management	4
						Timely referrals	4

Discussion

This study identified a poor correlation between the ACFJD and interpretations of the Australian specialty colleges regarding what professionalism attributes are required by their trainees. Of the 47 professionalism competencies outlined in the ACFJD, matrix analysis demonstrated a less than 50% concordance for 20 competencies. Only 13 competencies had a 75% generalisabiity between the 15 college curricula.

College curricula reflected initial literature searches wherein components of professionalism were interpreted throughout the 15 curricula to comprise: competencies, principles, professional identity, social values, skills, behaviours, attributes, attitudes, responsibilities and professional guidelines. In addition to this, there were also significantly varied interpretations between colleges as to what actually signifies professional attributes. For example, for what one college describes as a professional attribute another interprets it, for example, as a component of ‘communication’ competency.

This study also highlighted the possibility that the current framework is incomplete in its competency set for professionalism for JMOs. Within this study 32 new attributes were identified that are currently not

described within the ACFJD. In particular, the largest number of attributes identified fell into the set of attributes for managing complex situations and interactions. This could be a consequence of junior doctors having only recently commenced their training, and some of these particular attributes are beyond the scope of their practice, such as interacting with the media.

As Garfield et al. reflects, 'Although all doctors may acquire similar values during their time in medical school, their experiences during postgraduate training vary significantly by specialty'.[11] As such, some attributes identified within this study may be more applicable to certain specialties as opposed to others, suggesting that they may not be appropriate for JMOs commencing professional practice.

Despite these limitations, this study has highlighted 32 attributes not currently included within the ACFJD which are arguably of significance. In particular, many of these 'new' attributes are outlined within comparable professionalism frameworks such as the UK Foundation Year curriculum, which underpins the professional attributes required of JMOs in the United Kingdom.[12] This curriculum highlights moral attributes such as honesty and integrity, in addition to skills currently outlined within the ACFJD. Likewise the Charter on Medical Professionalism as produced by the ABIM Foundation, ACP-ASIM Foundation and the European Federation of Internal Medicine, highlights appropriate relations with patients, managing conflicts of interest and honesty, in addition to a skill set in line with the ACFJD.[13] The American Medical Association (AMA) also emphasises the humanistic qualities of professionalism, highlighting honesty and accountability in addition to other principles consistent with the ACFJD.[14]

Implications of findings

This research has identified a poor concordance between professional attributes outlined within the ACFJD and those outlined in specialty college curricula. The poor correlation between the various colleges suggests that there is a limited consensus between the colleges of what professional attributes should entail. This lack of consensus suggests that further exploration is warranted into professional attributes for JMOs through evidence-based research.

In addition, this study has identified 32 professional attributes potentially applicable to JMOs, which are not currently included within the ACFJD. This warrants further investigation and consideration of potential inclusion in future revisions.

Generally, this research suggests that there may be varied understanding and a current paucity of evidence regarding what should constitute the professional attribute set for JMOs, and the wider medical practitioner community.

Conclusion

This literature review has revealed a lack of consensus in professional attributes detailed by the ACFJD compared with those outlined by Australian specialty training colleges. Furthermore, an additional set of potentially appropriate professional attributes for JMOs has been identified. Future research will explore the professional competencies outlined by the ACFJD as well as those identified within this research, as well as assess their relative importance and how they can be best developed within JMOs.

References:

1. Cruess RL and S. Commentary: Teaching professionalism: general principles. 2006.
2. Buyx AM, Maxwell B, Schone-Seifert B. Challenges of educating for medical professionalism: who should step up to the line? *Medical education*. 2008;42:758-64.
3. Confederate of Postgraduate Medical Education Councils. Australian Curriculum Framework for Junior Doctors Project. Available at: http://www.cpmec.org.au/. Accessed
4. Miles MB, Huberman AM. *Qualitative Data Analysis: an expanded sourcebook*.California: Sage Publications Ltd; 1994: pp 49-78, 91-5, 109-15, 215-6, 8-21, 37.
5. Willems A, Waxman B, Bacon AK, et al. Interprofessional non-technical skills for surgeons in disaster response: a qualitative study of the Australian perspective. *Journal of interprofessional care*. 2013;27:177-83.
6. Hudak PL, Clark JP, Hawker GA, et al. "You're perfect for the procedure! Why don't you want it?" Elderly arthritis patients' unwillingness to consider total joint arthroplasty surgery: a qualitative study. *Med Decis Making*. 2002;22:272-8.
7. Miles M, Huberman A. *Qualitative Data Analysis: an expanded sourcebook*.California: Sage Publications Ltd; 1994: pp p. 49-78, 91-5, 109-15, 215-6, 8-21, 37.
8. Charmaz K. *Constructing Grounded Theory*.Chippenham: SAGE Publications Ltd.; 2006: pp.
9. Barbour RS. Checklists for improving rigour in qualitative research: a case of the tail wagging the dog? *BMJ*. 2001;322:1115-7.
10. Monrouxe LV, Rees CE, Hu W. Differences in medical students' explicit discourses of professionalism: acting, representing, becoming. *Medical education*. [Research Support, Non-U.S. Gov't]. 2011;45:585-602.
11. Garfield JM, Garfield FB, Hevelone ND, et al. Doctors in acute and longitudinal care specialties emphasise different professional attributes: implications for training programmes. *Medical education*. 2009;43:749-56.
12. Australian Medical Association. *2012 AMA Junior Doctor TraInIng, EducatIon and Supervision Survey. Report of Findings*. Barton, Australia2012.
13. Blank L, Kimball H, McDonald W, et al. Medical professionalism in the new millennium: a physician charter 15 months later. *Annals of internal medicine*. 2003;138:839-41.
14. Tealdi JC. Physicians' charter and the new professionalism. *Lancet*. 2002;359:2041.