CSIRO PUBLISHING
Australian Health Review, 2020, 44, 15–23
https://doi.org/10.1071/AH18074

Profile of the most common complaints for five health professions in Australia

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Abstract

Objective. The aims of this study were to profile the most common complaints and to examine whether any demographic factors are associated with receiving a complaint for five health professions in Australia.

Methods. A national cohort study was conducted for all complaints received for medicine, nursing/midwifery, dentistry, pharmacy and psychology from 1 July 2012 to 31 December 2013 (18 months). Data were collected from the Australian Health Practitioner Regulation Agency (AHPRA), the New South Wales (NSW) Health Professional Councils' Authority and the NSW Health Care Complaints Commission. The frequency and risk of complaints were summarised for the five professions and by demographic information.

Results. There were 545 283 practitioners registered with AHPRA between 1 July 2012 and 31 December 2013, consisting of 20 935 dentists, 101 066 medical practitioners, 363 040 nurses/midwives, 28 370 pharmacists and 31 872 psychologists. During the study period there were 12 616 complaints, corresponding to an annual rate of 1.5 per 100 practitioners. Complaints were most common for doctors and dentists (5% per annum per practitioner) and least common for nurses/midwives (0.5% per annum per practitioner). Sex ($P < 0.01$), age ($P < 0.01$) and country of birth ($P < 0.01$) were all associated with risk of complaint. The most common complaints were clinical care (44% of all complaints), medication (10%) and health impairment of the practitioner (8%). Types of complaints varied by profession, sex and age.

Conclusions. The risk of a complaint is low, but varies by profession and demographics. The types of complaints also vary by profession and demographics. Differences between professions is most likely driven by their different work tasks and work environments.

What is already known on this subject? Although complaints are summarised annually from state and national health regulators, no overall national summary of complaints across professions exists. Thus, it is difficult to examine which complaints are most common, how professions differ from each other or what factors may be associated with risk and type of complaint. Previous studies have primarily focused on a single profession, such as medicine, where, for example, the number of prior complaints, sex, doctor speciality and age have been found to be associated with recurrent complaints.
What does this paper add? This paper is the first of this kind to provide a national summary of all complaints from five of the most common health professions in Australia. We found that regardless of profession, men were at least twice as likely to have a complaint made against them than women. We also found that the types of complaint differed between men and women. There were similarities across professions for the most common types of complaints, but clear differences

between professions were also noted. Not surprising, clinical care was typically the most common type of complaint for the five professions, but somewhat surprising was the inclusion of health impairment as one of the most common types of complaints.

What are the implications for practitioners? Identifying the most common complaints, and the factors associated with these, may assist practitioners to understand their risk(s) of complaint and could potentially assist educators and regulators develop education programs that help reduce complaints.

Additional keywords: governance, health law, health services, health services research, workforce.

Received 17 April 2018, accepted 29 September 2018, published online 29 October 2019

Introduction

An inclusive definition of regulation defines it as state intervention in private spheres of activity to realise public purposes.[1] A main function of health practitioner regulators is to protect the public by ensuring those registered to practise have the appropriate education and skills and practise safely and competently. Health professional regulation has a long history in Australia, beginning in 1837 with the proclamation of the *Medical Practitioners Act 1837* (Tas.).

In 2010, health professional regulation in Australia was restructured into a national scheme established under the Health Practitioner Regulation National Law (the National Law) and now includes a total of 15 regulated health professions.[2] The National Scheme is a partnership model between the Australian Health Practitioner Regulation Agency (AHPRA) and the 15 national boards working together to administer the National Law consistently across state and territory borders of Australia. AHPRA administers a national register of all practitioners from the 15 professions. The national register is open to the public and includes registration details of individual practitioners and any disciplinary, orders or conditions that are required to be made public under the National Law.[2]

Management of complaints

An important function of health practitioner regulation is to receive complaints and take appropriate action in the public interest. The move in Australia to one national regulatory authority with separate professional boards comes at a time when regulation itself is under scrutiny.[3,4] Most developed countries have moved away from self-regulation to a regulatory system designed to protect the public interest, replacing professionally dominated schemes. The UK, US, Canada and New Zealand have all undertaken regulatory reforms, often as a result of inadequate responses to systematic incidences of patient harm.[5,6]

All complaints in Australia, except those in New South Wales (NSW) and Queensland, are managed by AHPRA in conjunction with the health practitioner boards, including investigations into the professional conduct, performance or health of practitioners. AHPRA receives and processes notifications, whereas national boards, or committees acting on their behalf, make regulatory decisions.

NSW chose not to join the complaint handling functions of the National Scheme, instead retaining its coregulatory system for complaint management, which was established in 1994 as a result of recommendations by the NSW Chelmsford Royal Commission.[7] These functions are undertaken by the Health Professional Councils Authority (HPCA) and the Health Care Complaints Commission (HCCC). Queensland was initially a part of the National Scheme for complaint management, but subsequently created a separate complaint entity on 1 July 2014 with the passage of the *Health Ombudsman Act 2013* (Qld).

The establishment of the national registry enables examination of all complaints across Australia. A previous study used a national cohort to examine factors associated with recurrent complaints within the medical profession.[8] Annual reports of complaints received exist for NSW and all other states and territories, but there has been no previous national cohort study that summarises complaints across several professions.[9–11]

Aims

The aims of this study were to identify which complaints are most common and to examine whether any demographic factors are associated with receiving a complaint. The study evaluated the complaints received for five professions: dentistry, medicine, nursing/midwifery, pharmacy and psychology. These professions were selected because they represent the majority of the Australian health workforce, comprising over 85% of all registered health practitioners.[12]

It should be noted that the National Law uses the terminology of ‘notification’ for complaints. Throughout the paper for clarity and consistency we use ‘complaint’ to refer to either a complaint or a notification.

Methods

Design

A cohort study was conducted for the five health practitioner groups of medicine, nursing/midwifery, dentistry, psychology and pharmacy. The cohort comprised all complaints received for these professions during the 18-month period of 1 July 2012–31 December 2013. Complaints lodged against students were excluded. The complaints data were collected from three organisations: AHPRA, HPCA and HCCC. HPCA and HCCC independently provided the complaints data for NSW, whereas AHPRA provided the complaints data from all other states and territories, including Queensland. HPCA and HCCC data were merged to create a single NSW complaints dataset. The classification of complaints differs slightly between each of the three authorities. To ensure accuracy and consistency, the research team and the three agencies together agreed upon complaint classifications. Table S1, available as Supplementary Material to this paper, maps

the classification of complaints across the three authorities, with the types of complaints grouped into 21 categories.

AHPRA provided a deidentified dataset of all practitioners registered in each profession that included the demographic information of age group, sex, region of birth and state or territory of principal place of practice. To link practitioner information with complaint data, AHPRA created a unique study practitioner identification number (PID) and this PID was linked by AHPRA, HCCC and HPCA to their respective complaint datasets.

Ethics committee approval

Ethics approval for this study was obtained from the University of Sydney Research Ethics Committee (Reference no. 2012/2447). Contracts covering data access and confidentiality were also signed with AHPRA, HPCA and HCCC.

Statistical analysis

The frequency of complaints was summarised overall, within each profession and by demographic information. The annual rate of complaints was estimated by dividing the total number of complaints by 1.5 to adjust for complaints being collected over an 18-month period. The frequency of complaints according to type and category (see Table S1) was calculated and ranked from most to least common. Rate ratios were calculated using Poisson regression models to estimate relative differences adjusted for age, sex and region of birth, with robust standard errors used to calculate *P*-values and 95% confidence intervals (CIs).[13] Because of the large sample size, a lower significance level of 0.01 (1%) was used for analyses. Missing data were not imputed.

HCCC and HPCA independently classify a complaint using their own terminology. HCCC may also record several types of complaints for a single complaint lodged, whereas both HPCA and AHPRA only record one complaint classification per lodged complaint. For the purposes of analyses we have used HPCA classifications for NSW complaints.

Results

Cohort characteristics

In all, 545 283 practitioners in the five health professions were registered between 1 July 2012 and 31 December 2013, consisting of 20 935 dentists, 101 066 medical practitioners, 363 040 nurses/midwives, 28 370 pharmacists and 31 872 psychologists. Table 1 summarises the characteristics of the cohort. The age distribution is reasonably similar between dentistry, medicine and psychology, with a higher proportion in younger age groups. Nursing/midwifery is more evenly split across all age groups less than 65 years, whereas pharmacy has a much younger cohort with 13 535 of pharmacists being less than 35 years of age (48%). In all, 35 116 practitioners were aged ≥65 years (6%). There were substantial differences between the professions with regard to sex ratios: 40 220 women in medicine (40%), 9972 in dentistry (48%), 17 033 in pharmacy (60%), 25 059 in psychology (79%) and 325 062 in nursing/midwifery (90%). There was also some variability in region of birth across professions, with the number of practitioners born in Australia or New Zealand as follows: 46 752 medical practitioners (47%), 10 009 dentists (49%), 16 118 pharmacists (57%), 239 225 nurses/midwives (67%) and 23 581 psychologists (74%).

Frequency of complaints

Table 2 summarises the number and risk of complaints received over 18 months, overall and within each of the five professions. There was a total of 12 616 complaints, corresponding to an annual rate of 1.5 per 100 practitioner (1.5%). Over half of all complaints concerned a medical practitioner ($n = 7291$; 57.7%). Nursing/midwifery had the second highest number of complaints, but had the lowest rate per practitioner, with an annual rate of less than 1 per 100 per practitioner. Dentistry and medicine had the highest rate of complaints, with an annual rate of approximately 5 per 100 practitioner.

Are demographic factors associated with risk of complaint?

All professions

Males were more than twice (120%) as likely to be the subject of a complaint than females ($P < 0.001$). Age was also associated with risk of complaint; the risk was lowest for younger professionals (<35 years of age) and highest for those aged ≥45 years (3.1-fold higher in this group compared with the youngest group). Complaints were more common for overseas-born practitioners, unless from the UK or Ireland. Those from Africa and the Middle East were at the highest risk of complaint, with an average increased risk of 41% and 59% respectively. There were 1171 practitioners born in these two regions, representing 5% of all practitioners in the study, but 9% of all complaints. There was some variation between jurisdictions within each profession, but on average Queensland tended to have slightly higher risk of complaints (24% more compared with NSW), whereas Victoria, South Australia and Western Australian tended to have a lower risk of complaints compared with NSW (19%, 22% and 33% lower respectively). Complaints for the Australian Capital Territory, Northern Territory and Tasmania were too few to comment.

Dentistry

Males were 159% more likely to have a complaint than females, and those aged ≥45 years were approximately twice (100%) as likely to have a complaint than those <35 years of age. Dentists born outside Australia or New Zealand had an increased risk of a complaint, unless they were from the UK or Ireland.

Medicine

Males were twice (100%) as likely to be the subject of a complaint, and the risk of complaint increased with age, with those aged ≥45 years being over 400% as likely to have a complaint than those under 35 years of age. There was a 46%, 31% and 18% higher risk of complaint if a doctor was born in the Middle East, Africa or Asia respectively.

Nursing/midwifery

Males were 107% more likely to be the subject of a complaint. The risk of complaint was 44–64% higher for those aged

Table 1. Cohort characteristics for the five health professions

Data are given as *n* (%). Note, percentages for the overall row are row percentages, whereas all other percentages in the table are column percentages within each demographic factor. Missing values were excluded from percentage calculations. NSW, New South Wales, ACT, Australian Capital Territory, NT, Northern Territory, Qld, Queensland, SA, South Australia, Tas., Tasmania, Vic., Victoria, WA, Western Australia; NZ, New Zealand

	Dentistry	Medicine	Nursing/midwifery	Pharmacy	Psychology	Overall
Overall	20 935 (4)	101 066 (22)	363 040 (67)	28 370 (5)	31 872 (6)	545 283 (100)
Age[A] (years)						
18–34	6643 (32)	24 696 (24)	92 983 (26)	13 535 (48)	9094 (29)	146 951 (27)
35–44	4963 (24)	26 166 (26)	80 476 (22)	6039 (21)	8596 (27)	126 240 (23)
45–54	4276 (20)	21 492 (21)	92 244 (25)	3942 (14)	6215 (20)	128 169 (24)
54–64	3580 (17)	16 602 (16)	80 100 (22)	2978 (11)	5481 (17)	108 741 (20)
≥65	1459 (7)	12 092 (12)	17 205 (5)	1875 (7)	2485 (8)	35 116 (6)
Unknown	14	18	32	1	1	66
Sex						
Female	9972 (48)	40 220 (40)	325 062 (90)	17 033 (60)	25 059 (79)	417 346 (77)
Male	10 953 (52)	60 839 (60)	37 965 (10)	11 336 (40)	6812 (21)	127 905 (23)
Unknown	10	7	13	1	1	32
Region of birth						
Australia or NZ	10 009 (49)	46 752 (47)	239 225 (67)	16 118 (57)	23 581 (75)	335 685 (62)
Africa	1025 (5)	5668 (6)	11 004 (3)	1879 (7)	1181 (4)	20 757 (4)
Asia	5522 (27)	26 321 (27)	53 026 (15)	6893 (25)	1739 (6)	93 501 (17)
Europe	983 (5)	4669 (5)	8639 (2)	690 (2)	1491 (5)	16 472 (3)
Middle East	767 (4)	2828 (3)	1387 (0)	779 (3)	267 (1)	6028 (1)
UK or Ireland	1614 (8)	9965 (10)	35 155 (10)	1088 (4)	2220 (7)	50 042 (9)
Other	688 (3)	2986 (3)	8599 (2)	656 (2)	1120 (4)	14 049 (3)
Unknown	327	1877	6005	267	273	8749
Principal state or territory of practice						
NSW	6460 (32)	31 876 (32)	100 610 (28)	8802 (32)	10 611 (34)	158 359 (30)
ACT	383 (2)	2023 (2)	5801 (2)	469 (2)	853 (3)	9529 (2)
NT	146 (1)	1102 (1)	4253 (1)	213 (1)	232 (1)	5946 (1)
Qld	4129 (20)	19 502 (19)	69 279 (19)	5555 (20)	5657 (18)	104 122 (20)
SA	1717 (8)	7631 (8)	32 747 (9)	2036 (7)	1577 (5)	45 708 (9)
Tas.	351 (2)	2175 (2)	8593 (2)	681 (2)	532 (2)	12 332 (2)
Vic.	4804 (24)	24 448 (25)	95 932 (27)	7004 (25)	8647 (27)	140 835 (26)
WA	2424 (12)	9991 (10)	36 825 (10)	3056 (11)	3349 (11)	55 645 (11)
None or unknown	521	2318	9000	554	414	12 807

[A]Age as at 2014.

35–65 years than for those aged less than 35 years. There was a 46% higher risk of complaint if a nurse was born in Africa.

Pharmacy

Males were over 150% more likely be the subject of complaint, but there was no association with age ($P = 0.13$). Being born in Africa increased the risk by 71%.

Psychology

Males were 130% more likely to be the subject of a complaint, and being aged ≥45 years increased the risk by more than 250%. There was no association with region of birth ($P = 0.94$).

Types of complaints by profession

Figure 1 shows the relative frequency of the complaint categories across professions. Overall, the five most common complaint categories, in declining order, were clinical care ($n = 5322$), medication ($n = 1262$), health impairment ($n = 989$), communication ($n = 952$) and documentation ($n = 531$). Together, these contributed to 75% of all complaints.

The 10 most common complaints make up 90% of all complaints, with the sixth to tenth most common complaints being behaviour ($n = 515$), boundary crossing ($n = 467$), offence ($n = 337$), billing ($n = 294$) and confidentiality ($n = 277$) respectively. For all professions, except pharmacy, the most common complaint category was clinical care, accounting for 71% of all complaints against dentists, 50% of all complaints in medicine and 26% of all complaints against nurses/midwives.

Categories of complaints were further subclassified into types: Table 3 shows the 10 most common types by profession. Of the 10 most common types of complaints for dentists, five related to clinical care. The remaining types of complaints related to billing, infection control, failure to communicate honestly, advertising breaches and providing care beyond the scope of practice. Five of the top 10 types of complaints for medicine also related to clinical care. The remaining most common complaints were inappropriate prescribing and three types of complaints relating to communication. For nursing/midwifery, three of the top 10 complaints related to clinical care, three related to heath impairment and two to behaviour. The three main causes of health impairment were: (1) mental illness,

Table 2. Frequency (*n*), annualised unadjusted rate per practitioner and relative risk of complaints overall and by age, sex, region of birth and principle state or territory of place within each profession

The unadjusted rate (Unadj. rate) is the estimated annual rate of complaints per 100 practitioners, calculated as number of complaints divided by the total number of practitioners and multiplied by 100 within each category, then divided by 1.5 to adjust for 18 month follow-up period. The adjusted relative risk (aRR) is adjusted for age, sex, region of birth, principle state or territory of residence and profession. Bolded values are statistically significant ($P < 0.01$). NSW, New South Wales, ACT, Australian Capital Territory, NT, Northern Territory, Qld, Queensland, SA, South Australia, Tas., Tasmania, Vic., Victoria, WA, Western Australia; NZ, New Zealand

	Dentistry			Medicine			Nursing/Midwifery			Pharmacy			Psychology			Overall		
	n	Unadj. rate	aRR	*n*	Unadj. rate	aRR	*n*	Unadj. rate	aRR	*n*	Unadj. rate	aRR	*n*	Unadj. rate	aRR	*n*	Unadj. rate	aRR
Overall	1501	4.8	–	7291	4.8	–	2502	0.5	–	633	1.5	–	689	1.4	–	12 616	1.5	–
Age (years)																		
18–34[A]	253	1.7		392	1.1		437	0.3		265	1.3		74	0.5		253	0.6	
35–44	386	5.2	**1.74**	1376	3.5	**3.04**	576	0.5	**1.42**	161	1.8	1.27	165	1.3	**2.31**	386	1.4	**1.90**
45–54	354	5.5	**1.91**	2217	6.9	**5.86**	716	0.5	**1.54**	88	1.5	1.08	193	2.1	**3.50**	354	1.9	**2.91**
54–64	328	6.1	**2.10**	1876	7.5	**6.35**	653	0.5	**1.64**	73	1.6	1.16	177	2.2	**3.29**	328	1.9	**3.10**
≥65	155	7.9	**2.01**	1241	8.0	**5.98**	107	0.4	1.13	36	1.6	0.83	68	2.0	**2.97**	155	3.5	**2.96**
Sex																		
Female[A]	344	2.3		1520	2.5		1988	0.4		228	0.9		402	1.1		4482	0.7	
Male	1147	7.0	**2.59**	5764	6.3	**2.01**	504	0.9	**2.07**	404	2.4	**2.58**	286	2.8	**2.30**	8105	4.2	**2.20**
Region of birth																		
Australia or NZ[A]	545	3.6		3200	4.6		1522	0.4		322	1.3		471	1.3		6060	1.2	
Africa	93	6.0	**1.58**	581	6.8	**1.31**	101	0.6	**1.46**	74	2.6	**1.71**	26	1.5	1.01	875	2.8	**1.41**
Asia	430	5.2	**1.76**	1773	4.5	**1.18**	278	0.3	0.94	148	2.2	1.13	32	1.2	1.22	2661	1.9	**1.22**
Europe	104	7.1	**1.85**	389	5.6	1.13	58	0.4	1.04	13	1.3	0.97	37	1.7	1.21	601	2.4	**1.21**
Middle East	100	8.7	**2.43**	253	6.0	**1.47**	12	0.6	1.39	25	2.1	1.51	6	1.5	1.08	396	4.4	**1.59**
UK or Ireland	110	4.5	1.36	600	4.0	0.93	254	0.5	1.11	13	0.8	0.63	54	1.6	1.04	1031	1.4	0.99
Other	55	5.3	**1.63**	208	4.6	1.17	64	0.5	1.03	18	1.8	1.11	29	1.7	1.14	374	1.8	**1.20**
Principle state or territory of practice																		
NSW[A]	619	6.4		2553	5.3		748	0.5		212	1.6		229	1.4		307	1.8	
ACT	22	3.8	0.71	192	6.3	1.27	48	0.6	1.08	5	0.7	0.50	40	3.1	2.31	4361	2.1	1.21
NT	9	4.1	0.81	77	4.7	1.11	52	0.8	**1.75**	8	2.5	1.73	8	2.3	1.54	154	1.7	1.26
Qld	350	5.7	1.05	1899	6.5	**1.32**	606	0.6	**1.21**	124	1.5	0.99	148	1.7	1.34	3127	2.0	**1.24**
SA	90	3.5	0.70	396	3.5	**0.70**	252	0.5	1.00	39	1.3	0.83	33	1.4	1.00	810	1.2	**0.78**
Tas.	20	3.8	0.66	130	4.0	**0.78**	80	0.6	1.23	12	1.2	0.78	15	1.9	1.38	257	1.4	0.88
Vic.	311	4.3	0.75	1450	4.0	**0.80**	516	0.4	**0.76**	178	1.7	1.06	169	1.3	0.95	2624	1.9	**0.81**
WA	64	1.8	**0.33**	564	3.8	**0.75**	179	0.3	**0.69**	54	1.2	0.77	45	0.9	0.63	906	1.6	**0.67**

[A]Comparative group for calculations of RRs.

which accounted for 9% ($n = 206$); (2) misuse, abuse or addiction to drugs, which accounted for 7% ($n = 171$); and (3) misuse, abuse or addiction to alcohol, which accounted for 5% ($n = 111$). Five of the 10 most common complaints for pharmacists related to medication (six, if drug and poisons offences are included). The other issues for pharmacists were health impairment (mental health and drug abuse) and communication. For psychologists, only one of the top 10 types related to clinical care. The remainder mostly concerned professional conduct: confidentiality, boundary violations, documentation, communication, behaviour and health impairment (mental illness). The full listing of frequencies and rankings of types of complaints for each profession are in provided in Tables S2 and S3.

Types of complaints by demographics

Gender differences were observed for many types of complaints (see Table 4). Males were more likely than females to receive complaints about medicolegal conduct (142% higher), boundary crossing (136% higher), billing (86% higher), informed consent (80% higher) and clinical care (23% higher). Females were more likely than males to have a complaint about health impairment (138% higher), confidentiality (85% higher), behaviour (37% higher) and medication (37% higher).

Those <35 years of age were less likely to receive the following complaints (see Table S4): clinical care, communication, discrimination, medicolegal conduct. Communication, documentation and medicolegal conduct complaints were more common as age increased. Complaints regarding health impairment and offence decreased with age. Medication complaints were also most common in those <35 years of age.

Discussion

This cohort study has combined data from three regulatory agencies to produce a national picture of the complaint profiles for five health professions in Australia (medicine, dentistry, nursing/midwifery, pharmacy and psychology); this is the first national cohort of its kind. It has allowed us to examine which

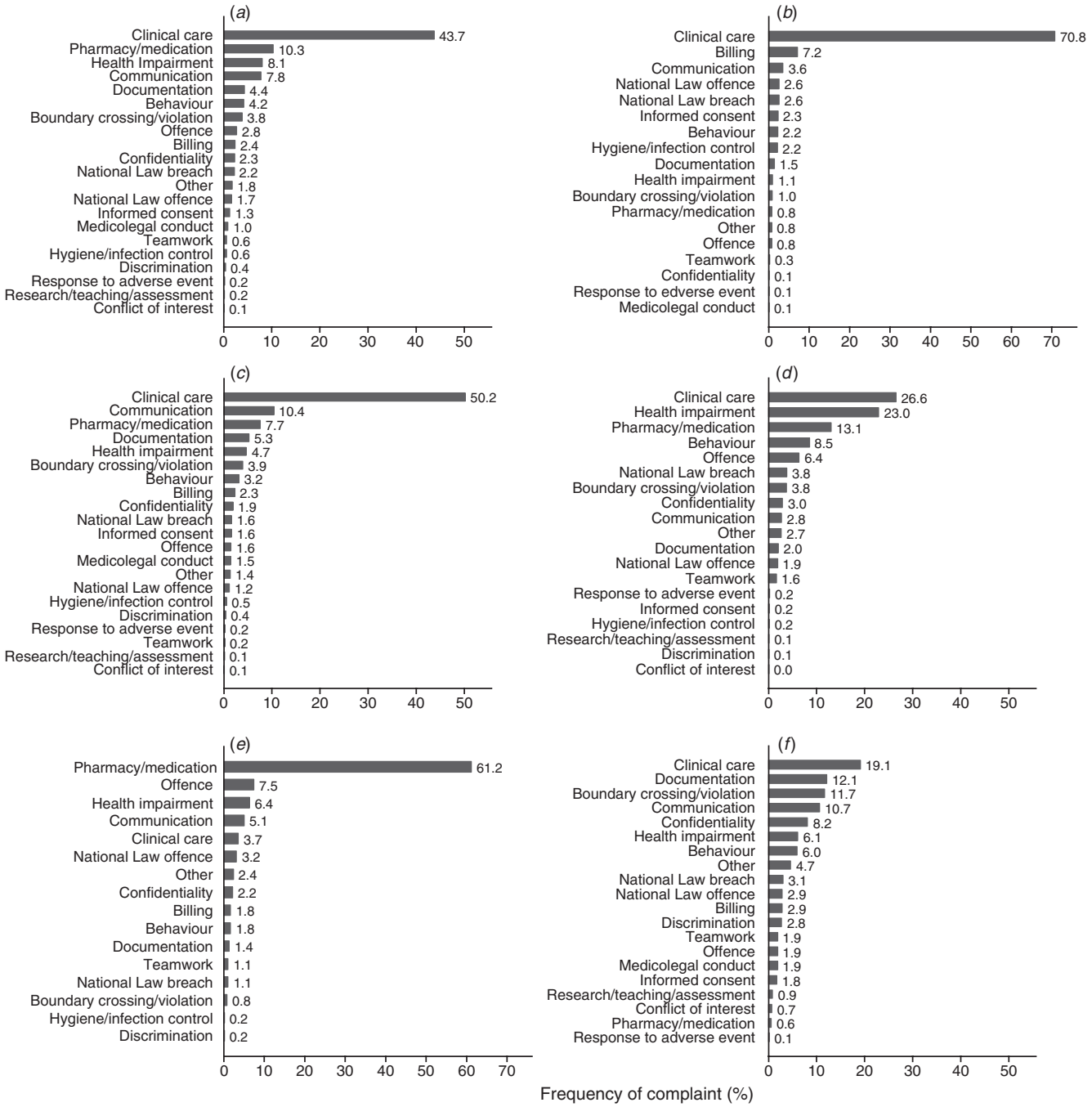

Fig. 1. Relative frequency of complaint categories (*a*) overall and in the (*b*) dentistry, (*c*) medicine, (*d*) nursing/midwifery, (*e*) pharmacy and (*f*) psychology professions separately.

complaints are most common, both within and across professions, enabling us to identify where risk and type of complaints are most common, providing the potential to improve our education and training of health professionals.

Overall, the risk of complaint is low for registered practitioners. Doctors and dentists had the highest rates of complaints per practitioner, whereas nursing/midwifery had the lowest rate. Regardless of profession, men were more than twice as likely to receive a complaint than women. Unless from the UK or Ireland, being born overseas was a risk factor for complaints. In particular, African- and Middle Eastern-born practitioners were at the highest risk. The reasons why overseas-born practitioners are at higher risk of complaints is unclear, but this was also reflected in a 2012 Australian study of doctors in Western Australia and Victoria, which found an increased risk of complaints for overseas- compared with Australian-trained doctors.[14] However, the present results differ from those of a 2011 study of Victorian complaint-prone doctors that found

Table 3. Most common types of complaint by profession

Profession	Ranking	Category[A]	Type	No. complaints (%)
Overall	1	Clinical care	Inadequate or inappropriate treatment	2379 (20.0)
	2	Clinical care	Inadequate or inappropriate procedure	599 (5.0)
	3	Clinical care	Missed, incorrect or delayed diagnosis	470 (3.9)
	4	Medication	Inappropriate, unlawful or inaccurate prescribing	410 (3.4)
	5	Health impairment	Mental illness	374 (3.1)
	6	Medication	Inappropriate, unlawful or inaccurate dispensing (medication)	331 (2.8)
	7	Clinical care	Inadequate or inappropriate testing or investigation	330 (2.8)
	8	Communication	Disrespectful manner	329 (2.8)
	9	Communication	Failure to communicate openly, honestly and effectively	320 (2.7)
	10	Health impairment	Misuse, abuse or addiction (drugs)	299 (2.5)
Dentistry	1	Clinical care	Inadequate or inappropriate treatment	739 (54.1)
	2	Clinical care	Inadequate or inappropriate procedure	93 (6.8)
	3	Billing	Inappropriate fees or billing practices	70 (5.1)
	4	Hygiene/infection control	Breach of infection control procedure or standards	31 (2.3)
	5	Communication	Failure to communicate openly, honestly and effectively	31 (2.3)
	6	National Law offence	Advertising breach	29 (2.1)
	7	Clinical care	Unnecessary treatment or overservicing	23 (1.7)
	8	Clinical care	Other clinical care issue	22 (1.6)
	9	National Law breach	Providing care beyond scope of practice	20 (1.5)
	10	Clinical care	Inadequate or inappropriate follow-up or review	19 (1.4)
Medicine	1	Clinical care	Inadequate or inappropriate treatment	1237 (18.1)
	2	Clinical care	Inadequate or inappropriate procedure	448 (6.6)
	3	Clinical care	Missed, incorrect or delayed diagnosis	428 (6.3)
	4	Medication	Inappropriate, unlawful or inaccurate prescribing	376 (5.5)
	5	Clinical care	Inadequate or inappropriate testing or investigation	310 (4.5)
	6	Communication	Disrespectful manner	267 (3.9)
	7	Communication	Failure to communicate openly, honestly and effectively	234 (3.4)
	8	Clinical care	Inadequate or inappropriate history or examination	187 (2.7)
	9	Clinical care	Inadequate or inappropriate follow-up or review	161 (2.4)
	10	Communication	Insensitive or inappropriate comments (not sexual)	153 (2.2)
Nursing/Midwifery	1	Clinical care	Inadequate or inappropriate treatment	322 (13.3)
	2	Health impairment	Mental illness	206 (8.5)
	3	Medication	Inappropriate administration (medication)	187 (7.7)
	4	Health impairment	Misuse, abuse or addiction (drugs)	171 (7.1)
	5	Health impairment	Misuse, abuse or addiction (alcohol)	111 (4.6)
	6	Behaviour	Threats, bullying, harassment, reprisal	101 (4.2)
	7	Clinical care	Inadequate or inappropriate monitoring	100 (4.1)
	8	Behaviour	Aggressive behaviour	83 (3.4)
	9	Other	Other issue	64 (2.7)
	10	Clinical care	Other clinical care issue	55 (2.3)
Pharmacy	1	Medication	Inappropriate, unlawful or inaccurate dispensing (medication)	283 (45.2)
	2	Medication	Inappropriate supply (medication)	28 (4.5)
	3	Offence	Drugs and poisons offence	27 (4.3)
	4	Medication	Inappropriate administration (medication)	20 (3.2)
	5	Medication	Refusal to prescribe or dispense (medication)	18 (2.9)
	6	Health impairment	Mental illness	17 (2.7)
	7	Health impairment	Misuse, abuse or addiction (drugs)	16 (2.6)
	8	Other	Other issue	15 (2.4)
	9	Medication	Inadequate counselling or information about medication	14 (2.2)
	10	Communication	Disrespectful manner	14 (2.2)
Psychology	1	Clinical care	Inadequate or inappropriate treatment	75 (11.1)
	2	Confidentiality	Inappropriate disclosure of patient information	44 (6.5)
	3	Boundary crossing	Other inappropriate relationship (non-sexual)	36 (5.3)
	4	Documentation	Health report: inadequate, inaccurate or misleading	35 (5.2)
	5	Documentation	Health record: inadequate, inaccurate or misleading	31 (4.6)
	6	Other	Other issue	31 (4.6)
	7	Boundary crossing	Inappropriate sexual relationship	30 (4.4)

(*continued next page*)

Table 3. (*continued*)

Profession	Ranking	Category[A]	Type	No. complaints (%)
	8	Communication	Failure to communicate openly, honestly and effectively	29 (4.3)
	9	Behaviour	Threats, bullying, harassment, reprisal	26 (3.8)
	10	Health impairment	Mental illness	25 (3.7)

[A]Health impairment refers to the health impairment of the health professional. See Table S1 for types of health impairment.

Table 4. Differences between sexes by complaint category

Unless indicated otherwise, data are given as *n* (%). Percentages are column percentages. Note, because of the large sample size, significance was set at $P < 0.01$

Category[A]	Female	Male	Difference in proportions (male–female)	Adjusted relative difference (vs females)[B]	*P*-value
Behaviour	222 (5.1)	293 (3.8)	1.3	0.73	0.001
Billing	66 (1.5)	228 (2.9)	–1.4	1.86	<0.001
Boundary crossing	85 (2.0)	382 (4.9)	–2.9	2.35	<0.001
Clinical care	1624 (37.4)	3688 (47.3)	–9.9	1.23	<0.001
Communication	282 (6.5)	669 (8.6)	–2.1	1.15	0.057
Confidentiality	142 (3.3)	135 (1.7)	1.6	0.54	<0.001
Documentation	166 (3.8)	363 (4.7)	–0.9	1.06	0.60
Health impairment	603 (13.9)	378 (4.8)	9.1	0.42	<0.001
Informed consent	38 (0.9)	123 (1.6)	–0.7	1.80	0.002
Medication	550 (12.6)	704 (9.0)	3.6	0.73	<0.001
Medicolegal conduct	18 (0.4)	98 (1.3)	–0.9	2.42	<0.001
National Law breach	118 (2.7)	150 (1.9)	0.8	0.74	0.034
National Law offence	89 (2)	115 (1.5)	0.5	0.79	0.16
Offence	145 (3.3)	190 (2.4)	0.9	0.92	0.52

[A]Categories of conflict of interest, discrimination, hygiene/infection control, research/teaching/assessment, response to adverse events and teamwork were excluded due to small numbers for these complaints.
[B]Adjusted for age and region of birth.

that overseas-trained general practitioners less likely than Australian-trained doctors to receive a complaint.[15] Overseas data from the UK confirm our results of increased complaints for non-White doctors and doctors qualifying outside Europe.[16] More research is required to understand the reasons for the increased risk of complaint for practitioners born or trained outside Australia and New Zealand.

Although the most common categories of complaint were similar across professions, there was nevertheless variation. To a large extent the most common types of complaints across professions match their work tasks and work environments. Not surprisingly, clinical care accounted for the largest volume of complaints, which is consistent with data from the complaint entities. Four of the five professions recorded clinical care as the most common category of complaint, no doubt reflecting, in part, the importance of the clinical relationship in medicine, nursing/midwifery, dentistry and psychology. Medications were the second most common complaint, and not surprisingly this was the most common complaint for pharmacists. One unexpected finding was that health impairment was the third most common complaint, and was particularly common for nurses and midwives.

Aside from profession-specific tasks, two factors may affect the pattern of complaints observed. One relates to professional cultures and the other relates to the level of external scrutiny associated with employment location. Because most complaints about nurse health impairment emanate from employing hospitals, it is hypothesised that the difference may reflect different 'cultures' between the two professions of nursing/midwifery and medicine in their willingness to report impairment. This hypothesis receives support from a study of 816 mandatory reports to AHPRA by Bismark *et al*.[17] In that study, 59% of all referrals concerned a nurse or midwife, 26% concerned a medical practitioner and 2% related to dentists. Most dentists work in the private sector and many are solo practitioners; this may affect notifications about impairment because no external employment system exists to monitor and report. In these circumstances, patients play a more important role as a complainant to the regulators.

The fourth most common complaint was communication; even though communication is an integral component of patient-centred care provision, 'communication' was a commonly cited complaint in medicine, pharmacy and psychology professions, implying that perhaps professional development and tertiary education need to be more considerate of how clinically relevant and important information is provided to patients. Our findings are similar to those of other studies. A study by Bismark *et al*.[17] in 2013 of complaints against medical doctors between 2000 and 2011 to Australian complaint entities made similar findings, with 53% of complaints about clinical care and another 8% about medications.[8] Australian state and territory complaint commissions also

record treatment (clinical care) as the most frequent type of complaint.[18]

Study limitations

We have used administrative data for this study: this has advantages and disadvantages. Using administrative data has allowed us to conduct a national cohort study and obtain a snapshot of all healthcare complaints in Australia of the five most common professions. There was little missing data, but there were limitations in terms of the data available for examining potential factors associated with complaints. We were essentially limited to examining age, sex and country of birth, but would have liked to have been able to examine other factors, such as where practitioners trained (which was not captured consistently at the time of data extraction). We have chosen to examine nursing and midwifery together because these complaints are dealt with by the same board, but there could be differences between these two professions.

Conclusion

Risk of a complaint is low, but varies by profession and demographics. The types of complaints also vary by profession and demographics. Differences between professions are most likely driven by different work tasks and work environments. Identifying the most common complaints, and the factors associated with these, may help practitioners understand their risk(s) of complaint and could assist with the development of education programs that help reduce complaints.

Competing interests

M. Walton is a former member of the AHPRA Management Committee and was the founding Commissioner for the HCCC in NSW (1994–2000). E. M. Chiarella was a member of the AHPRA-affiliated Nursing and Midwifery Board of Australia. B Bennett is a former member of: the AHPRA-affiliated Medical Board of Australia, the NSW Medical Board, and the HPCA-affiliated Medical Council of NSW. The remaining authors have no conflicts of interest to declare. The views expressed in this article are the personal views of the authors and should not be taken as representing the views of any of the organisations with which the authors have been or are affiliated.

Acknowledgements

This study was funded by an Australian Research Council (ARC) Linkage Grant (LP110200075), in partnership with AHPRA and the NSW HPCA, as part of an overall study that compares complaints under the Australian national system and the state of NSW. AHPRA, HCCC and HPCA provided in kind contribution, and, as linkage partners, discussed with the authors the cohort period for this study, provided the data and reviewed the manuscript before submission. This grant provided funding for S. Pierce and M. Nagy. The authors acknowledge the personnel at AHPRA, HCCC and HPCA who were involved in the data extraction, promptly answered queries and attended stakeholder meetings. The authors also acknowledge Claudette Satchell, who was the project manager for the ARC grant.

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