A national survey of general practitioners' experiences of patient-initiated aggression in Australia

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ABSTRACT

Objective: To determine the prevalence of patient-initiated aggression toward general practitioners in Australia.

Design, setting and participants: A cross-sectional national survey, conducted during February – May 2010, of 3090 GPs in 19 Divisions of General Practice, purposively sampled to represent urban, rural and remote areas.

Main outcome measure: Proportion of GPs experiencing patient-initiated aggression.

Results: Eight-hundred and four GPs returned completed surveys (response rate, 26.3%). In the previous 12 months, 58% of GPs had experienced verbal abuse and 18% had experienced property damage or theft. Very few GPs had experienced physical abuse (6%), stalking (4%), sexual harassment (6%) or sexual assault (0.1%). After controlling for other demographic variables, GPs with fewer years of experience ($P = 0.003$), or who worked full-time or in larger practices (both $P = 0.03$) experienced significantly more verbal abuse than their counterparts, and GPs who worked full-time ($P = 0.004$) or in metropolitan areas ($P = 0.01$) experienced significantly more property damage or theft. Female GPs experienced significantly more sexual harassment than male GPs ($P < 0.001$).

Conclusions: This is the first national evidence of the prevalence of patient aggression toward GPs in Australia, which could inform the development of policies and guidelines that aim to reduce the prevalence of patient aggression toward GPs.

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Occupational violence has been recognised internationally as an issue that can affect employees in the health care sector, including primary health care providers.[1] Violence or aggression perpetrated by patients is an unacceptable risk to the health and wellbeing of general practice staff and has repercussions for the provision of primary health care to the community.[2] Robust data are needed to quantify the problem and in turn inform the development of appropriate policies and guidelines to reduce and prevent patient aggression toward general practitioners and their staff.

There are limited Australian data describing patient aggression toward general practice staff and GPs,[3] and no data reporting the national prevalence of patient-initiated aggression toward GPs. Although limited by sample size and recall bias, Australian studies have found that verbal abuse is the most frequently experienced type of patient aggression by GPs and receptionists.[4-8]

Our aim was to determine the national prevalence of patient-initiated aggression toward GPs and their staff in Australia. We conducted a literature review,[3] interviews with stakeholders,[9] interviews with GPs and focus groups with general practice staff, and a national survey of GPs and practice staff[10] about their experience of patient-initiated aggression. The survey was initially conducted online, but was reissued in paper format after a very poor response rate. The overall findings from this project have been published online.[11] Here, we present some expanded findings of the national paper-format survey of GPs' experiences of patient-initiated aggression over the previous 12 months.

METHODS

The development and content of the survey, along with details of the sample selection, are described in the final report.[11] Briefly, 19 Divisions of General Practice were purposively selected nationally to represent urban, rural and remote areas using the Rural, Remote and Metropolitan Areas classification system.[12] We mailed surveys and reply-paid envelopes to all GPs practising in these Divisions on 24 February 2010. A reminder card was mailed two weeks later; the stated survey closure date was 12 March 2010, but the final response was received on 27 May 2010.

Ethics approval to conduct the survey was received from the Human Research Ethics Committee at the Australian National University (protocol no. 2009/213).

Statistical analysis

Demographic characteristics of the respondents and the frequency of GPs' experiences of patient aggression are summarised by percentages. For this article, we conducted more complex statistical analysis that was not presented in the final report.[11] To accommodate the overrepresentation of rural areas in the initial sample selection and of female GP respondents, all estimates that are designed to reflect the whole GP population were weighted by sex and region. We used χ^2 analysis to determine whether there were significant differences between demographic variables for the experience of different types of aggression. Logistic regression analysis was used to identify which characteristics of GPs and their practices were most highly associated with the experience of different types of aggression. All confidence intervals and statistical tests accommodated the clustered nature of the sample design using the "complex sample" structures in SPSS version 18 (SPSS Inc, Chicago, Ill, USA).

RESULTS

A total of 3090 surveys were mailed to GPs; 21 surveys were undeliverable and six were returned blank. Of the remaining 3063, 804 completed surveys were received (response rate, 26.3%), including 22 that did not arrive in time to be included in the final report.[11] Equal numbers of female and male GPs responded, and most GPs worked full-time (Box 1). Where survey respondents could be compared with the Australian GP population, they were significantly different (χ^2 test, $P < 0.01$). Although the age distribution of respondents differed from the GP population, mean age was the same in both groups (51 years). Practice location and state patterns in the survey sample differed from the GP population because of the group of Divisions selected (Box 1).

Verbal abuse was the most frequent type of patient aggression experienced by GPs in the previous 12 months (57.5%) (Box 2) and sexual assault was the least frequent (0.1%).

Factors predicting GPs' experience of patient aggression

The χ^2 analysis showed that younger GPs ($P<0.01$), GPs with fewer years of experience ($P<0.001$) and those who worked full-time ($P<0.01$) more frequently experienced verbal abuse (Box 2). Male GPs ($P<0.01$) and those who worked full-time ($P<0.001$) more frequently experienced property damage or theft. Female GPs ($P<0.001$), younger GPs ($P<0.01$) and GPs with fewer years of experience ($P=0.02$) more frequently experienced sexual harassment. There were too few reports of sexual assault to perform χ^2 analysis or logistic regression.

When controlling for other demographic variables, logistic regression demonstrated that GPs with fewer years in practice ($P=0.003$) and those who worked full-time or in larger practices (both $P=0.03$) experienced significantly more verbal abuse (Box 2). Full-time GPs ($P=0.004$) and those who worked in metropolitan areas ($P=0.01$) experienced significantly more property damage or theft than their part-time and non-metropolitan counterparts. Female GPs and GPs with less experience reported significantly more sexual harassment than male GPs ($P<0.001$) and GPs with more experience ($P=0.04$), respectively.

1 Demographic characteristics of general practitioner survey respondents ($n=804$) compared with total Australian GP population ($n=22\,965$)*

Characteristic	Survey respondents	Australian GPs*	Characteristic	Survey respondents	Australian GPs*
Sex†			Practice location†		
Female	50.8%	37.0%	Metropolitan	57.2%	71.5%
Male	49.1%	63.0%	Non-metropolitan	42.3%	28.5%
Age (years)†			Practice state†		
< 35	6.8%	9.7%	Australian Capital Territory	12.2%	1.5%
35–44	20.8%	23.9%	New South Wales	18.7%	32.2%
45–54	36.2%	31.7%	Northern Territory	4.4%	1.1%
⩾ 55	35.2%	34.6%	Queensland	11.0%	18.6%
Years in practice			South Australia	10.8%	8.7%
Range	1–63	na	Tasmania	16.6%	2.4%
Mean (SD)	21.5 (11.5)	na	Victoria	17.6%	26.0%
Full or part-time			Western Australia	8.8%	9.6%
Part-time‡	35.9%	na	Services provided		
Full-time§	64.0%	na	Home visits during hours	64.9%	na
Practice composition			Home visits after hours	48.1%	na
Solo GP	10.3%	8.2%	After-hours consultations		
Group practice	59.7%	na	Weekdays	28.8%	na
Corporate practice	20.3%	na	Weekends	34.6%	na
Other	9.7%	na	None of these	18.6%	na

na = appropriate comparator data not available. * Comparator data sources: total number of GPs, sex and practice state;[13] age and practice location;[14] practice composition.[15] † Survey respondents differ significantly from Australian GP population (χ^2 test, $P<0.01$). ‡ < 30 h/week. § ⩾ 30 h/week. ◆

Times of particular risk

GPs were asked to identify times when they felt at particular risk of patient aggression. Almost 60% of GPs did not perceive any of the nominated times as risky (< 10% for practice opening time, mornings, lunch times, afternoons, Saturday mornings, and after closing on weekends). However, 26% and 19% of respondents perceived practice closing time and after hours, respectively, as times of particular risk of patient aggression, and 24% thought that when limited practice staff were working was a time of particular risk.

Impact of aggression

GPs were most likely to indicate that patient aggression had negatively affected their emotional wellbeing (26%), but less likely to agree that it had affected their capacity to provide services (11%) or their physical wellbeing (7%).

DISCUSSION

This first national survey to determine the prevalence of patient aggression experienced by GPs in Australia found that verbal abuse was the most frequent form of aggression experienced. This is consistent with other Australian studies,[4-6,8] although the prevalence of verbal abuse found here was somewhat higher than previously documented.[5,6,8] One exception that found a higher prevalence of verbal abuse (62%) was a study that included occupational violence perpetrated by colleagues as well as patients.[4]

We found that GPs experienced property damage or theft and physical and sexual forms of patient aggression less frequently than verbal abuse in the previous 12 months. The other Australian studies of GPs found slightly higher rates of property damage or theft and a comparable prevalence of physical and sexual forms of aggression.[5,6,8] The variation in prevalence of patient aggression found by these studies is likely to be due to geographical diversity in the sample populations and different sampling strategies.

Internationally, empirical evidence from Europe and the United Kingdom has been collected using variable definitions of patient aggression, over different time periods and from GPs practising in diverse health care systems.[16-20] Verbal abuse has consistently been reported as the most commonly experienced type of aggression directed toward GPs and receptionists, and has been reported at higher frequencies in the UK and Ireland than in Australia.[19,21-25] There have been few national studies in other countries examining the prevalence of patient aggression toward GPs. A national study in New Zealand received a response rate of 52% and found lower percentages of patient aggression than in our study.[26] While verbal abuse was reported by only 15% of GPs in a 12-month period, the New Zealand study also enquired about vexatious complaints and intimidation, which were experienced by 7% and 12% of GPs, respectively. A national study conducted by the British Medical Association used stratified random sampling to survey doctors (including GPs) in the UK and GPs in Northern Ireland.[16,17] Both surveys received a response rate of 30%, comparable to our study, and found that about 45% of GP respondents had experienced verbal abuse in the previous year.[16,17]

Some factors found to be significant in our bivariate analysis were subsequently not significant in the multivariate analysis, due to relationships between explanatory variables. The χ^2 analysis indicated that male and full-time

2 Prevalence and logistic regression analysis of general practitioners' experiences of patient-initiated aggression in the previous 12 months ($n = 804$)*

	Verbal abuse				Property damage or theft				Physical abuse				Stalking				Sexual harassment			
Prevalence (95% CI)	57.5% (53.7%–61.2%)				17.9% (14.7%–21.5%)				5.8% (4.4%–7.5%)				3.6% (2.2%–5.8%)				5.6% (4.3%–7.4%)			
Variable	%	$P^{\dagger}$	OR	$P^{\ddagger}$	%	$P^{\dagger}$	OR	$P^{\ddagger}$	%	$P^{\dagger}$	OR	$P^{\ddagger}$	%	$P^{\dagger}$	OR	$P^{\ddagger}$	%	$P^{\dagger}$	OR	$P^{\ddagger}$
Sex																				
Female	56.0%	0.5	0.90	0.5	13.4%	< 0.01	0.83	0.3	3.8%	0.02	0.64	0.2	3.1%	0.7	0.89	0.8	10.1%	< 0.001	4.27	< 0.001
Male	58.4%		1.00		20.7%		1.00		7.0%		1.00		3.7%		1.00		2.5%		1.00	
Age (years)																				
< 35	78.7%		0.67	0.5	8.9%		0.70	0.6	8.3%		1.28	0.8	4.2%		1.32	0.7	11.3%		0.77	0.7
35–44	62.5%		1.31	0.4	16.5%		1.49	0.3	3.7%		0.51	0.3	3.9%		1.32	0.6	6.1%		0.51	0.2
45–54	57.0%		1.24	0.3	20.1%		1.39	0.2	5.8%		0.86	0.8	4.8%		2.02	0.04	7.6%		1.26	0.6
⩾ 55	52.4%		1.00		17.5%		1.00		6.5%		1.00		2.2%		1.00		2.8%		1.00	
Change for each year		< 0.01				0.2				0.5				0.2				< 0.01		
Years in practice																				
< 5	71.1%				8.4%				3.6%				3.7%				10.0%			
5–9	74.4%				10.3%				6.4%				7.5%				5.9%			
10–19	63.6%				19.6%				3.4%				3.6%				10.5%			
20–29	58.0%				17.7%				8.2%				3.2%				5.2%			
30–39	44.8%				17.2%				5.1%				3.4%				1.9%			
40–49	49.5%				20.1%				5.2%				3.2%				0			
⩾ 50	25.5%				22.0%				0				0				0			
Change for each year		< 0.001	0.97	0.003		0.3	1.01	0.5		0.5	0.99	0.8		0.8	0.98	0.4		0.02	0.95	0.04
Full or part-time																				
Part-time§	47.5%	< 0.01	0.58	0.03	8.9%	< 0.001	0.31	0.004	3.9%	0.02	0.71	0.3	2.2%	0.2	0.65	0.3	6.0%	0.67	0.85	0.6
Full-time¶	62.4%		1.00		22.4%		1.00		6.7%		1.00		4.2%		1.00		5.4%		1.00	
Practice location																				
Metro	55.4%	0.2	1.00		20.3%	0.06	1.00		6.0%	0.8	1.00		3.6%	0.9	1.00		5.1%	0.4	1.00	
Non-metro	61.8%		1.06	0.7	13.0%		0.45	0.01	5.3%		0.74	0.4	3.4%		0.79	0.7	7.0%		1.22	0.5
Practice size																				
Solo			1.00				1.00				1.00				1.00				1.00	
Not solo			1.78	0.03			0.75	0.3			1.23	0.7			0.55	0.2			6.69	0.07
Service provision																				
Home visits																				
During hours			0.83	0.4			0.74	0.3			0.62	0.5			0.76	0.3			0.66	0.3
After hours			1.18	0.2			1.68	0.01			1.39	0.3			1.06	0.8			2.13	0.02
After-hours consultations																				
Weekdays			0.91	0.6			1.11	0.6			1.61	0.2			1.62	0.4			0.68	0.4
Weekends			1.30	0.1			1.34	0.2			1.39	0.4			0.95	0.9			1.77	0.2
None of these			1.00				1.00				1.00				1.00				1.00	
Nagelkerke pseudo R^2			0.09				0.12				0.05				0.04				0.15	

OR = odds ratio. Metro = metropolitan. * Analyses are based on data weighted by sex and region. Sample size for logistic regression = 788. † From χ^2 analysis. ‡ From logistic regression analysis. § < 30 h/week. ¶ ⩾ 30 h/week. ◆

GPs experienced property damage or theft more frequently than female and part-time GPs. However, logistic regression did not show sex as a predictor for property damage or theft. This may be because being male is associated with working full-time, and it is working full-time that predicts the increased likelihood of property damage or theft.

Working full-time or in larger practices was associated with increased prevalence of verbal abuse. As working full-time was also associated with property damage or theft, it appears that GPs working in practices with greater numbers of patients and for longer hours experience more patient aggression. Greater exposure to patients may increase the prospect that GPs will encounter dissatisfied or disgruntled patients who behave in an aggressive

manner. It is unknown whether GPs who work in larger practices or full-time are more successful in managing aggressive patients because of their more frequent exposure to verbal abuse and property damage or theft.

GPs with fewer years in practice were more likely to experience verbal abuse than those with more experience. GPs who have been practising for a longer time may have better developed skills in defusing difficult situations, garner greater respect from patients, or have patients with a long ongoing relationship with the GP who are less likely to resort to verbal abuse.

The finding that female GPs experience a greater prevalence of sexual harassment reflects societal trends, where women are significantly more likely to experience sexual violence than men.[27]

Our study is primarily limited by the clustered nature of the sampling and the potential response bias. GPs working in settings where patient-initiated aggression has been experienced would be more likely to respond than those who have not experienced aggression. The overall response rate was low, which is not surprising given that GPs anecdotally are the most surveyed health professional group in Australia. Data regarding the patient populations of the practices were not available, which may have limited the explanatory power of the models.

Despite these limitations, this is the first Australian survey to determine the national prevalence of patient aggression toward GPs. Its findings could be used to inform policy and practice to reduce patient aggression. Measures such as physical changes to the layout of the practice may help prevent physical or sexual abuse. General practice staff and GPs may become better equipped to deal with verbal abuse through education and training in defusing difficult situations. Further research is required to develop, implement and evaluate interventions targeted at reducing patient-initiated aggression toward GPs and practice staff. It is in the best interests of the community to ensure GPs' health and well-being are not affected by patient aggression, to enable their continued participation in the workforce and provision of primary health care services.

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COMPETING INTERESTS

None identified.

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