

Bullying and sexual harassment of junior doctors in New South Wales, Australia: rate and reporting outcomes

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Abstract

Objective. The aim of this study was to describe rates of exposure to bullying and sexual harassment in junior doctors in first- or second-year prevocational medical training (PGY1 or PGY2 respectively) positions in New South Wales (NSW) and the Australian Capital Territory (ACT), and to explore the types of actions taken in response.

Methods. A cross-sectional survey of junior doctors in PGY1 or PGY2 positions was undertaken in 2015 and 2016 ($n = 374$ and 440 respectively). Thematic analysis was undertaken on free-text responses to describe the reporting process and outcomes in more depth.

Results. The estimated response rate was 17–20%. Results from both surveys followed almost identical trends. Most respondents in 2015 and 2016 reported being bullied ($n = 203$ (54.3%) and 253 (57.5%) respectively), 16–19% reported sexual harassment ($n = 58$ and 82 respectively) and 29% of females reported sexual harassment. Qualitative analysis elucidated reasons for not taking action in response to bullying and harassment, including workplace normalisation of these behaviours, fear of reprisal and lack of knowledge or confidence in the reporting process. For respondents who did take action, most reported ineffective or personally harmful outcomes when reporting to senior colleagues, including being dismissed or blamed, and an intention not to trust the process in the future.

Conclusions. The findings suggest that interventions targeted at the level of junior doctors to improve the culture of bullying and harassment in medicine are unlikely to be helpful. Different approaches that address the problem in a more systemic way are needed, as is further research about the effectiveness of such interventions.

What is known about the topic? Bullying and sexual harassment are common workplace experiences in the medical profession.

What does this paper add? Over half the junior doctors in the present study experienced bullying and nearly one-fifth experienced sexual harassment. Junior doctors are reluctant to speak out, not only for fear of reprisal, but also because they do not believe it is worth doing so.

What are the implications for practitioners? The data confirm a systemic problem of bullying in NSW. Primarily focusing on interventions with junior doctors (e.g. resilience training) is unlikely to solve the problem. Different and multipronged approaches (e.g. raising awareness in senior colleagues and training bystanders to intervene) should be tried and studied.

Additional keywords: bullying, junior doctors, medical trainee, psychological distress, sexual harassment, wellbeing.

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Introduction

Bullying and sexual harassment within the medical profession is of concern in Australia. In 2015, problems within surgical training became public,¹ quickly expanding into an acknowledgement that problems existed across the medical profession.^{2,3} An Australian cross-sectional survey found that 25% of doctors reported being bullied in the workplace in the previous 12 months.⁴ Detrimental effects to the medical workforce as a result of these behaviours include decreased job satisfaction, decreased workplace engagement,⁴ poor mental health and suicidal ideation⁵ and a potential for decreased patient safety.⁶

Junior doctors may be particularly vulnerable to bullying and sexual harassment given the hierarchical structure of the medical profession.^{7–9} Leisy and Ahmad⁸ identified that the prevalence of bullying and sexual harassment among junior doctors ranged from 30% to 89% in international cross-sectional surveys. In addition, the tragic deaths of junior doctors in New South Wales (NSW) have heightened concern over workplace stress.^{10–12} However, beyond prevalence, there is little information available that considers the actions taken in response to bullying and sexual harassment. It is therefore vital that bullying and sexual harassment of junior doctors in Australia be more fully elucidated in order to effectively address this problem.

In NSW and in the Australian Capital Territory (ACT), most doctors undertake 2 years of general prevocational training after graduation before specialist (vocational) training (PGY1 and PGY2). The annual NSW Junior Medical Officer (JMO) Census is a peer-led online survey of junior doctors during these prevocational years (PGY1 and PGY2). Included in the survey are five questions probing quantitative and qualitative aspects of the experience of being bullied and/or sexually harassed.

The present study had three aims: (1) to describe the rates of exposure to bullying and sexual harassment in junior doctors in PGY1 and PGY2 in NSW and the ACT, including the relationship with psychological distress; (2) to describe actions taken by junior doctors in response to bullying and sexual harassment; and (3) to explore the experiences of junior doctor of the reporting process.

Methods

Design

The present study was a cross-sectional survey of PGY1 or PGY2 junior doctors in 2015 and 2016 across NSW and the ACT. The project was approved by the Hunter New England Local Health District Human Research Ethics Committee.

Links to resources and contacts where participants could find support if distressed were included in the survey.

Participants

Doctors undertaking PGY1 or PGY2 training in NSW and the ACT were invited to participate in an online survey using a peer-led snowballing technique. First, an invitation to participate was generated as a web link to the survey, and the members of a representative group of PGY1s and PGY2s ($n = 46$) were then tasked with recruiting participants through their hospital, health service, email and social media networks to participate in the study. Those contacted were similarly encouraged to forward the web link to their peers. There were no exclusion criteria. The survey was administered in September 2015 and September 2016. The clinical year started in January of that year.

Data collection

Data were collected as part of a larger annual survey entitled the 'NSW JMO Census'. The data used in the present study included demographic variables, as well as nominal quantitative and free-text responses to a series of questions about bullying and sexual harassment (see Table 1). Data collection was conducted online via SurveyMonkey. The Health Education and Training Institute (HETI) of NSW hosted the SurveyMonkey account and was responsible for the security, collection and compilation of the data.

Data analysis

Quantitative data

Statistical analysis of quantitative data from the survey responses was conducted using SPSS version 24 (IBM Corp., Armonk, NY, USA). Data from the 2015 and 2016 surveys were considered separately due to the potential overlap of junior doctors responding to the survey twice about the same incident (i.e. as a PGY1 doctor in 2015 and then as a PGY2 doctor in 2016) because the wording of the survey questions did not allow differentiation of an incident as occurring in the first or second year of prevocational training.

Simple proportions and descriptive statistics were used. For 2×2 analyses, the Yates continuity-corrected Chi-squared test was used. In other cases, the Pearson Chi-square test was used.¹³ Psychological distress was measured as a dichotomous dependent variable based on respondent scores to the Kessler Psychological Distress Scale (K10).¹⁴ Low distress was classified as a K10 score ≤ 15 , and moderate to high distress was classified as

Table 1. Survey questions on the annual New South Wales Junior Medical Officer (JMO) Census related to bullying and sexual harassment

Question asked	Answer options
Q53. During your employment with the health service have you experienced bullying? (Bullying is defined as abuse or intimidation by use of threats, coercion or dominance.)	Never, occasionally, about monthly, about weekly, about daily
Q54. If you have experienced bullying during your employment with the health service, please indicate who perpetrated the bullying.	A fellow JMO, a more senior member of the medical team, a non-medical staff member
Q55. During your employment with the health service, have you experienced sexual harassment? (Sexual harassment is defined as the making of unwanted sexual advances or obscene remarks.)	Never, occasionally, about monthly, about weekly, about daily
Q56. Would you feel safe or protected reporting bullying or sexual harassment?	Yes, no
Q57. If you have experienced bullying or sexual harassment in your workplace, which internal avenues of escalation/support did you utilise?	Not applicable, free-text response

a K10 score ≥ 16 .¹⁵ Differences were considered statistically significant if $P < 0.05$ (one-tailed).

Qualitative data

Qualitative data regarding responses to bullying and/or sexual harassment from the 2015 and 2016 surveys were pooled. This was done due to the exploratory nature of the analyses, as well as the small sample size of respondents who provided qualitative data.

First, free-text responses regarding active actions in response to bullying and harassment were analysed using content analysis and coded into categories for simple descriptive quantitative analysis. Second, in order to explore the process of reporting and the perceived outcomes in greater depth, where junior doctors had decided not to take action in response to bullying and harassment, thematic analysis was undertaken on free-text responses describing these experience.¹⁶ Similarly, thematic analysis was undertaken on free-text responses describing junior doctor decisions not to report bullying and harassment. Thematic analysis was undertaken in an inductive manner, whereby themes were drawn from the data and with the specific research questions in mind. Four authors (AL, AK, DN, WL) independently coded free-text responses and compared coding decisions in an iterative manner to further refine emergent themes the coding approach. Any disagreements were resolved through discussion, and the iterative analytic process ceased when saturation was attained.

Results

Demographics

In 2015, of 393 doctors who completed the full survey, 374 (95%) completed the bullying portion. In 2016, of 448 doctors who completed the full survey, 440 (98%) completed the bullying portion. We estimate the response rate to be between 17% and 20%. This estimate is based on the 19th report by the Medical Training Review Panel¹⁷ citing 2195 doctors in PGY1 or PGY2 positions across NSW and the ACT for 2015, and assuming the same number of positions in 2016 (data currently unavailable). Most respondents were PGY1, aged 25–27 years, female, not married and without dependents (Table 2).

Exposure to bullying and/or sexual harassment

In 2015, 54.3% ($n = 203$) of respondents reported having been bullied, and 15.5% ($n = 58$) reported sexual harassment. A significantly greater proportion of females (60.0%) than males (45.6%) reported having been bullied, and a significantly greater proportion of females (22.7%) than males (4.7%) reported sexual harassment. There were no significant differences in the proportion of bullying or sexual harassment across marital status or age (Tables 3, 4). A greater proportion of respondents who were exposed to bullying ($n = 140$; 69%) reported moderate to high psychological distress than those who were not exposed to bullying ($n = 64$ (37%); $\chi^2_{1374} = 37.24$, $P < 0.001$).

In 2016, 57.5% ($n = 253$) of respondents reported having been bullied, and 18.6% ($n = 82$) reported sexual harassment. A significantly greater proportion of females (62.2%) than males (51.3%) reported having been bullied, and a significantly greater proportion of females (29.2%) than males (4.8%)

reported sexual harassment. A greater proportion of respondents who were exposed to bullying ($n = 165$; 65%) reported moderate to high psychological distress than those who were not exposed to bullying ($n = 81$ (43%); $\chi^2_{1440} = 20.92$, $P < 0.001$).

Most respondents in both 2015 and 2016 reported occasional incidents of bullying and sexual harassment, occurring less than monthly (Table 5), with the perpetrator most frequently being a senior medical staff member (Table 6).

Action taken in response to bullying and/or sexual harassment

Of the 486 respondents reporting bullying and/or sexual harassment across 2015 and 2016, 136 (28%) provided free-text responses regarding their response to the incident/s. Responses to bullying and/or sexual harassment were considered as either

Table 2. Demographics of the 2015 and 2016 survey respondents
Data are given as n (%)

Variable	2015 ($n = 374$)	2016 ($n = 440$)
Year of training		
PGY 1	227 (60.7)	261 (59.3)
PGY 2	147 (39.3)	179 (40.7)
Age (years)		
<25	69 (18.8)	96 (21.9)
25–27	178 (48.4)	206 (46.9)
28–30	67 (18.2)	65 (14.8)
≥ 31	54 (14.7)	72 (16.4)
Gender		
Female	225 (60.2)	251 (57.0)
Male	149 (39.8)	189 (43.0)
Marital status		
Single	232 (62.0)	254 (57.7)
De facto/married	142 (38.0)	186 (42.3)
Dependents		
Yes	34 (9.1)	38 (8.6)
No	340 (90.9)	402 (91.4)

Table 3. Results of Chi-square tests comparing demographic variables of respondents, in 2015 and 2016, who experienced bullying

	χ^2	2015 d.f.	P-value	χ^2	2016 d.f.	P-value
Gender	6.88	1	0.009	4.74	1	0.029
Marital status	0.00	1	1.000	0.08	1	0.777
Age group	2.57	3	0.463	2.03	3	0.566

Table 4. Results of Yates continuity-corrected Chi-squared tests comparing demographic variables of respondents, in 2015 and 2016, who experienced sexual harassment

	χ^2	2015 d.f.	P-value	χ^2	2016 d.f.	P-value
Gender	20.74	1	<0.001	40.44	1	<0.001
Marital status	0.20	1	0.654	0.33	1	0.565
Age group	0.51 ^A	3	0.916	5.48 ^A	3	0.140

^APearson’s Chi-squared tests used for contingency tables greater than 2×2 .

constituting action (took action within the system) or inaction (no active action, including avoidance). Of those respondents who provided qualitative data, 60% ($n=82$) took some kind of action within the system. Action responses were further classified as either escalated (including escalation to Director of Training, management unit, other senior medical colleague, other manager,

incident monitoring system, external organisations), peer sharing or direct action (talking directly to the perpetrator). Conversely, 40% ($n=54$) of respondents did not take action within the system (Table 7).

Reasons not to escalate

Thematic analysis further elucidated the reasons for not taking action (Fig. 1). Reasons included the normalisation of bullying and/or sexual harassment as '*rampant! [. . .] the culture is not to complain*', fear of reprisal for reporting:

I felt raising the concern was likely to impact negatively on my future career prospects

lack of knowledge about, or confidence in, the reporting process:

[I] did not know the appropriate channels to use

disengagement from the organisation:

I felt it would be more painful trying to change it than putting up with it

and feeling encouraged by other staff not to report the behaviour (for more quotes, see Table 8). One particular case of sexual

Table 5. Number (%) of respondents in 2015 and 2016 who reported bullying or sexual harassment

Event type	2015 ($n=374$)	2016 ($n=440$)
Bullying		
Ever bullied	203 (54.3)	253 (57.5)
Occasionally	151 (40.4)	177 (40.2)
About monthly	25 (6.7)	50 (11.4)
About weekly	21 (5.6)	22 (5.0)
About daily	6 (1.6)	4 (0.9)
Sexual Harassment		
Ever sexually harassed	58 (15.5)	82 (18.6)
Occasionally	51 (13.6)	73 (16.6)
About monthly	5 (1.3)	4 (0.9)
About weekly	2 (0.5)	4 (0.9)
About daily	0 (0)	1 (0.2)

Table 6. Number (%) of respondents in 2015 and 2016 who reported bullying by perpetrator type
JMO, junior medical officer

Perpetrator type	2015 ($n=211$)	2016 ($n=254$)
Senior medical staff	123 (58.3)	154 (60.6)
Non-medical staff (e.g. nursing)	70 (33.2)	86 (33.9)
Manager	11 (5.2)	3 (1.2)
Fellow JMO	7 (3.3)	11 (4.3)

Table 7. Number (%) of respondents in 2015 and 2016 (combined) as a function of response type to bullying and/or sexual harassment ($n=136$)

Response	No. respondents (%)
No action taken	54 (40)
Action taken	82 (60)
Peer sharing	7 (5)
Direct action (e.g. talk to perpetrator)	4 (3)
Escalation	71 (52)

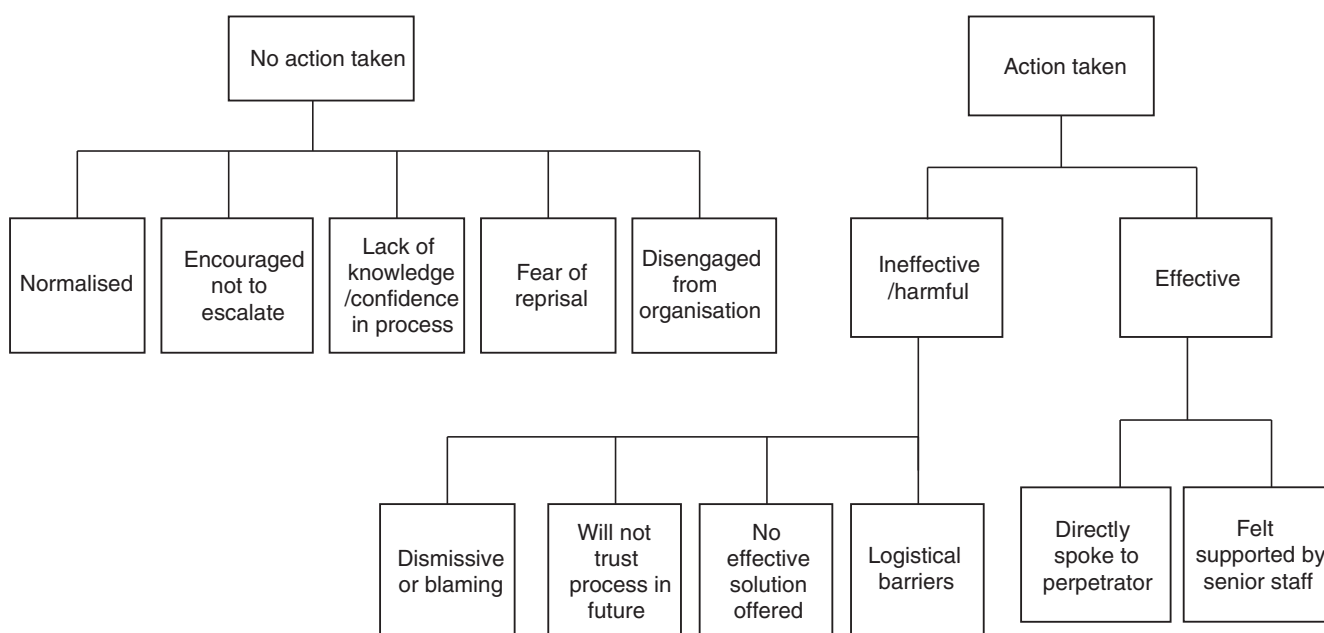


Fig. 1. Process of response types taken by junior doctors to bullying and sexual harassment.

harassment clearly illustrated the extent of the respondent's lack of confidence in the reporting process:

[The senior staff member] *was touching me more regularly [...] he managed to get me alone with him [...] I did not escalate it because, honestly, no one would care.* [Note, the full quote is not included here for risk of potential identification]

Junior doctor experiences of the reporting process

Ineffective or harmful responses

For respondents who did take action within the system in response to bullying and/or sexual harassment, most reported ineffective or personally harmful outcomes when reporting to senior colleagues.

Dismissive or blaming. Once again, many respondents described a workplace culture where they perceived bullying and/or sexual harassment behaviours to be normalised by senior staff:

DPET [Director of Prevocational Education and Training] was not helpful, dismissed my concerns.

Another junior doctor described their experience in reporting the behaviour to their DPET:

Instead of support, providing understanding, or even validation of how I was feeling, the DPET turned it back onto me and suggested [...] that I am being 'too sensitive'.

Will not trust process in future. For some respondents, their experience of the reporting process provided further stress and led to a distrust of using the reporting process again in the future:

[JMO manager and senior staff] were terrible and I will never report bullying again.

In one case, after speaking to their DPET informally about being sexually harassed, the respondent was further bullied by the perpetrator as a result:

Table 8. Reasons provided by respondents for choosing not to escalate (themes, explanations, example quotes)
DPETs, Directors of Prevocational Education and Training

Theme	Explanation	Example quotes
Normalising the behaviour	Some respondents perceived bullying or sexual harassment to be part of a broader culture ' <i>of blame and persecution</i> '. They described the behaviour as generally accepted by others in the workplace, either in relation to a specific perpetrator or more broadly as a consequence of overworked staff. For this reason, some came to accept that such behaviours may occur, and that the best response was to ' <i>duck and cover, suck it up, just keep swimming</i> '.	It's acceptable and justified because everyone is overworked and should not be taken personally. I did not feel I could escalate it, as the bullying was by my consultant who was also my supervisor and it was well-known and accepted in the hospital.
Encouraged not to escalate	Some other respondents reported being told directly by senior staff or perpetrators that such behaviour was not to be taken seriously, and not to report the behaviour.	I brought it up briefly at an exit interview at the end of the term which was run by a consultant unrelated to the team. He laughed it off and said I was on a surgical term so misogyny was to be expected to some extent. ... consultants/registrar making obscene/crude remarks but always justifying by saying, it's a joke, don't report.
Lack of knowledge of, or confidence in, the reporting process	Some respondents were not clear about the options available to them to respond to such behaviours, or perceived a lack of process at their site even when these factors would not have precluded them from making a complaint in reality. For other respondents, they did not feel confident that their concerns would be addressed appropriately by the reporting process. This lack of confidence was further compounded by the acutely perceived difference in power and status between parties when the perpetrator was senior.	I don't know if there is an avenue of escalation in the health service network where I am employed currently. I [took no action] because I have no DPETs currently. [The perpetrator] has been a part of the department for years and if there was [an] incident raised involving me and them, my clinical supervisor will always side with the [perpetrator] who has been there for years and can create more trouble, rather than side with an intern who will only be there for 10 weeks.
Fear of reprisal	Some respondents decided against taking action due to perceived consequences to their training and career progress, including ' <i>the importance of referees</i> '. Some perceived that making a complaint about such behaviour would have negative impacts on their career.	I didn't feel comfortable/didn't feel it would lead to anything productive and I was worried that it would come back to me in the end.
Disengagement from the organisation	Several respondents provided comments that indicated that the perceived benefits of taking action for themselves and others were not enough to overcome the personal risk or effect of taking action. Few junior doctors discussed how acting may be important for others or for the organisation, whereas some also commented that improving culture did not appear to be an organisational priority from their perspective.	I felt it would be easier to get through a difficult term without making extra issues. This guy [perpetrator who was a ward clerk] would have to book every appointment or follow up. [Respondent made a complaint to the public complaints forum] to be told that a public complaints forum, which was open for all complaints, was not open for internal staff complaints.

...he told people I'd made a complaint and bullied me in other ways about it.

Overall, the process was a demoralising and discouraging experience for the respondent:

I now feel even more discouraged in making a complaint than I did before.

No effective solution offered. Despite reporting the behaviour through appropriate channels, it was common for respondents to report that senior staff, such as the DPET or Director of Medical Services (DMS), offered no solution:

...discussed with DPET and JMO manager who never followed up

...approached DPET – little feedback or response given.

Even when escalation went as far as the accreditation authority and medical indemnity insurers, respondents reported that:

...no one was interested in hearing about it, there was no support offered.

When solutions were offered by senior staff, respondents were generally dissatisfied or perceived the solutions as unsuitable:

The JMO manager, DPET & Deputy DMS were notified [...] I was offered a change of hospital, which I felt was inappropriate considering I was the victim.

Logistical barriers to effective outcome. Other junior doctors described logistical barriers to effective reporting of bullying or harassment. A respondent described reporting bullying from the JMO unit manager as:

...extremely difficult, because that's who you're supposed to go to for issues like this, and the director of medical services had little to no time for a discussion about this matter.

Effective responses

Respondents described rare instances in which they felt that the response taken to bullying or harassment behaviours was effective in stopping the behaviour. Direct action (i.e. speaking directly to the perpetrator) was considered an effective response by several respondents:

I confronted issues with perpetrator himself, who apologised and backed off.

I explained to perpetrator that behaviour was inappropriate, and they stopped.

Supportive management staff were also cited in several comments as an example of an effective response strategy:

Spoke to my consultant who managed the issues with the non-medical [perpetrator].

Discussion

Bullying was reported by over half the respondents, and sexual harassment by 15–19% of respondents. For most respondents

who experienced bullying or sexual harassment, incidents occurred less than monthly. However, approximately 15% of respondents reported more frequent incidents (monthly, weekly, daily). Although definitions of bullying and harassment differ across studies, the exposure rates reported by the present study are in line with other recent international estimates.^{8,18} Of note, sexual harassment rates in the present study were lower than those reported elsewhere (33% for students and residents pooled).¹⁸ Finally, females more often reported experiencing bullying and harassment than males, which, again, is in line with international findings from medical students through to junior doctors and trainees.^{18–20}

In response to a bullying or sexual harassment incident, 60% of respondents reported taking action of some kind. Escalation to a senior medical staff member was the most common response, yet most found this process either ineffective or harmful. Complaints were often dismissed or behaviours blamed on the sensitivity of the complainant, and/or no further action taken by the senior medical staff member after the complaint had been lodged. These experiences deterred some respondents from reporting incidents of bullying or harassment again in the future. Not all responses provided by senior staff were experienced as ineffective; however, cases of supportive and effective outcomes were rare.

Conversely, existing theoretical models may help explain why so many respondents (40%) in the present survey reported taking no action in relation to their experience of bullying or harassment or, indeed, went on further to explain why they felt that taking action would do more harm than good. Hollis²¹ built on the work of Kahn²² to propose that bullying in service organisations can be explained as a result of employee disengagement when resources are placed under stress in order to meet high demands for service:

...employees who must fend off harassment and bullying behaviour at work will make defending the self the priority over organisational objectives.²¹

Given that the junior doctors in the present study were on contracts of no more than 2 years and moving between terms every 10–12 weeks, this explanation seems particularly relevant.

There are limitations to the methodology used in the present study. First, the overall response rate as a percentage of possible respondents is low based on traditional conceptions of survey response. Second, survey respondents may represent a biased sample in that they were more motivated to respond to the survey to report particularly negative experiences. Third, in addition to the low response rate, it was not possible to be clear about how many junior doctors received the survey. Finally, the snowballing recruitment technique used introduces the possibility that not all respondents were junior doctors. Foreseeing the potential of these issues to weaken our study findings, we attempted to strengthen the study design in several ways. First, we argue that the innovative approach to response collection, starting with a large representative sample of junior doctors, improves the response rate. Second, the inclusion of data from across 2 years allowed for comparison of findings. Third, the additional focus on qualitative analysis into response processes and experiences enlarged the scope of the study beyond quantitative and statistical measures. Qualitative analyses of this kind are not as

limited by low response rates in the same way as quantitative analyses. Finally, because the JMO census is a lengthy survey where bullying and harassment is one of many areas of focus, the sample may be more resistant to selection bias with regard to this particular topic.

We believe that the qualitative findings of the present study help explain why junior doctors often choose not to report bullying and sexual harassment. Junior doctors may feel a more compelling need to preserve their own selves over following official policy (e.g. by tolerating the behaviour until their rotation changes). The corollary of this is that a focus on interventions at the level of the junior doctor is unlikely to demonstrate an improvement in the current culture within medicine. In fact, recent calls to implement systems that improve the resilience of junior doctors in withstanding workplace stress¹¹ could be seen as unethical if not implemented as part of a broader systemic suite of interventions.

The findings suggest a need for new approaches to the problem, such as better education and training for staff who support, work with or supervise junior doctors. Such changes have already started to be implemented in Australia. External and independent programs of support have been set up for medical students and vocational trainees in some College programs and for junior doctors through the NSW Health JMO support line. But are these changes enough? The efficacy of these new initiatives needs to be monitored and studied further. In addition, the role of those with governance responsibilities within healthcare organisations to more effectively address issues of this nature needs more extensive examination. Finally, the results of the present study highlight that ongoing conversations about further innovative measures to address the problem of bullying and harassment of junior doctors continue to be an important and timely priority for the medical training community.

Competing interests

The authors declare no competing interests.

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References

- Expert Advisory Group on discrimination, bullying and sexual harassment advising the Royal Australasian College of Surgeons (RACS). Report to the RACS: draft. 2015. Available at: <https://www.surgeons.org/media/22045685/EAG-Report-to-RACS-Draft-08-Sept-2015.pdf> [verified May 2017].
- Coopes A. Operate with respect: how Australia is confronting sexual harassment of trainees. *BMJ* 2016; 354: i4210. doi:10.1136/bmj.i4210
- Jamieson J, Mitchell R, Le Fevre J, Perry A. Bullying and harassment of trainees: an unspoken emergency? *EMA* 2015; 27: 464–7. doi:10.1111/1742-6723.12465
- Askew DA, Schluter PJ, Dick M-L, Régo PM, Turner C, Wilkinson D. Bullying in the Australian medical workforce: cross-sectional data from an Australian e-Cohort study. *Aust Health Rev* 2012; 36: 197–204. doi:10.1071/AH11048
- beyondblue. National mental health survey of doctors and medical students. 2013. Available at: <https://www.beyondblue.org.au/docs/default-source/research-project-files/bl1132-report-nmhdms-full-report-web> [verified June 2017].
- Paice E, Smith D. Bullying of trainee doctors is a patient safety issue. *Clin Teach* 2009; 6: 13–17. doi:10.1111/j.1743-498X.2008.00251.x
- Roscigno VJ, Lopez SH, Hodson R. Supervisory bullying, status inequalities and organizational context. *Soc Forces* 2009; 87: 1561–89. doi:10.1353/sof.0.0178
- Leisy HB, Ahmad M. Altering workplace attitudes for resident education (AWARE): discovering solutions for medical resident bullying through literature review. *BMC Med Educ* 2016; 16: 127. doi:10.1186/s12909-016-0639-8
- Angoff NR, Duncan L, Roxas N, Hansen H. Power day: addressing the use and abuse of power in medical training. *J Bioeth Inq* 2016; 13: 203–13. doi:10.1007/s11673-016-9714-4
- Brennan R. Family blames ‘brutal expectations’ for junior doctor suicide death. *Daily Telegraph* 20 March 2017. Available at: <http://www.dailytelegraph.com.au/news/nsw/family-blames-brutal-expectations-for-junior-doctor-suicide-death/news-story/09cc22a3928-f11a7684ea599028493c5> [verified June 2017].
- Murray R, Crotty B. What needs to happen to build resilience and improve mental health among junior doctors. *The Conversation* 25 May 2017. Available at: <https://theconversation.com/what-needs-to-happen-to-build-resilience-and-improve-mental-health-among-junior-doctors-77797> [verified June 2017].
- Worthington E, MacKenzie P. Doctor suicides prompt calls for overhaul of mandatory reporting laws. *ABC News* 13 April 2017. Available at: <http://www.abc.net.au/news/2017-04-13/doctor-suicides-prompt-calls-for-overhaul/8443842> [verified June 2017].
- Hitchcock DB. Yates and contingency tables: 75 years later. *Electron J Hist Probab Stat* 2009; 5: 1–14.
- Kessler RC, Andrews G, Colpe LJ, Hiripi E, Mroczek DK, Normand SL, Walters EE, Zaslavsky AM. Short screening scales to monitor population prevalences and trends in non-specific psychological distress. *Psychol Med* 2002; 32: 959–976.
- Australian Bureau of Statistics (ABS). 4817.0.55.001– Information paper: use of the Kessler Psychological Distress Scale in ABS health surveys, Australia, 2007–08. 2012. Available at: www.abs.gov.au/ausstats/abs@.nsf/Lookup/4817.0.55.001Chapter92007-08 [verified June 2017].
- Braun V, Clarke V. Using thematic analysis in psychology. *Qual Res Psychol* 2006; 3: 77–101. doi:10.1191/1478088706qp0630a
- Medical Training Review Panel. Medical Training Review Panel: nineteenth report. 2016. Available at: [http://www.health.gov.au/internet/main/publishing.nsf/content/8795A75044FBB48CCA257F630070C2EE/\\$File/Medical%20Training%20Review%20Panel%20nineteenth%20report.pdf](http://www.health.gov.au/internet/main/publishing.nsf/content/8795A75044FBB48CCA257F630070C2EE/$File/Medical%20Training%20Review%20Panel%20nineteenth%20report.pdf) [verified 9 January 2018].
- Fnaiss N, Soobiah C, Chen MH, Lillie E, Perrier L, Tashkhandi M, Straus SE, Mamdani M, Al-Omran M, Tricco AC. Harassment and discrimination in medical training: a systematic review and meta-analysis. *Acad Med* 2014; 89: 817–27. doi:10.1097/ACM.0000000000000200
- Quine L. Workplace bullying in junior doctors: questionnaire survey. *BMJ* 2002; 324: 878–9. doi:10.1136/bmj.324.7342.878
- Chadaga AR, Villines D, Krikorian A. Bullying in the American graduate medical education system: a national cross-sectional survey. *PLoS One* 2016; 11: e0150246. doi:10.1371/journal.pone.0150246
- Hollis LP. Bully university? The cost of workplace bullying and employee disengagement in American higher education. *SAGE Open* 2015; 5: 2158244015589997. doi:10.1177/2158244015589997
- Kahn WA. Psychological conditions of personal engagement and disengagement at work. *Acad Manage J* 1990; 33: 692–724. doi:10.2307/256287