

Violence in general practice

Perceptions of cause and implications for safety

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ABSTRACT

OBJECTIVE To explore GPs' opinions about the causes of occupational violence in general practice.

DESIGN A cross-sectional qualitative study.

SETTING Three urban divisions of general practice in New South Wales, Australia.

PARTICIPANTS A total of 172 GPs: 18 GPs participated in focus group discussions and a further 154 provided written responses.

METHOD Purposive sampling was used to recruit GPs to participate in focus groups. Discussions were audiotaped and transcribed; each transcript was separately coded by all members of the research team. Focus groups were conducted until thematic saturation was achieved. Further qualitative data were obtained by offering GPs the opportunity, during completion of a written questionnaire sent to all GPs practising in the 3 urban divisions, to provide additional comments regarding their experiences and perceptions of violence. A modified grounded-theory approach, employing thematic analysis of the focus group transcripts and written responses from the questionnaires, was used.

MAIN FINDINGS All focus group participants and 75% of questionnaire respondents had experienced episodes of violence during their general practice careers. Key themes that emerged in data analysis were used to construct a schema of participating GPs' perceptions of the causes of occupational violence. Elements in the schema include underlying causes, proximate causes, and GP vulnerability. Perhaps the most noteworthy findings within this structure were the emergent constructs—culture of fear, “naïve” practice culture, and GP vulnerability. To date these themes have not been evident in general practice literature on this topic.

CONCLUSION An understanding of GPs' perceptions regarding the causes of violence will be useful in planning general practice service provision and promoting GP safety.

EDITOR'S KEY POINTS

- Violence directed toward GPs is a serious problem. Previous studies have shown that GPs alter their patterns of practice in response to fears of violence and perceived threats. But what do GPs believe are the causes of the violent behaviour directed toward them?
- The Australian GP participants in this study identified a number of patient factors (particularly psychiatric illness and use of illicit drugs), societal factors (such as socioeconomic conditions and a culture of fear), proximate factors (such as patient frustration with accessing care), and factors relating to GP vulnerability that contributed to violence in their practices.
- Results of this and other such studies can play a role in designing and testing interventions to reduce the risk of violence for GPs and their staff.

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Violence en pratique générale

Perception des causes et implications pour la sécurité

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RÉSUMÉ

OBJECTIF Vérifier l'opinion des médecins de famille (MF) sur les causes de la violence dans le contexte de la pratique de la médecine générale.

TYPE D'ÉTUDE Étude qualitative transversale.

CONTEXTE Trois divisions urbaines de pratique générale en Nouvelle-Galles du Sud, Australie.

PARTICIPANTS Sur 172 MF, 18 ont participé à des groupes de discussion et 154 ont fourni des réponses écrites.

MÉTHODE Des MF ont été recrutés par échantillonnage raisonné pour participer à des groupes de discussion. Les discussions ont été enregistrées sur ruban magnétique et transcrites; chaque transcript a été codé séparément par tous les membres de l'équipe de recherche. Les groupes de discussion se sont poursuivies jusqu'à l'atteinte d'une saturation thématique. D'autres données qualitatives ont été obtenues en offrant à tous les MF exerçant dans 3 divisions urbaines la possibilité de fournir, dans un questionnaire écrit, des commentaires additionnels au sujet de leur expérience et de leur perception de la violence. On a utilisé une théorie ancrée modifiée utilisant une analyse thématique des transcrits des discussions et les réponses écrites au questionnaire.

PRINCIPALES OBSERVATIONS Tous les participants des groupes de discussion et 75% des répondants au questionnaire avaient connu des épisodes de violence durant leur carrière comme omnipraticiens. Les thèmes clés qui ressortaient de l'analyse des données ont servi à construire un schéma des perceptions des MF sur les causes de cette violence dans le contexte professionnel. Les éléments de ce schéma incluaient les causes sous-jacentes, les causes immédiates et la vulnérabilité du MF. Les observations peut-être les plus remarquables dans cette structure étaient les notions émergentes – culture de la peur, culture « naïve » de la pratique et vulnérabilité du MF. Jusqu'à présent, ces thèmes n'ont pas été clairement soulignés dans la littérature sur la médecine générale portant sur ce sujet.

CONCLUSION Il sera utile de comprendre ce que les MF pensent des causes de la violence afin de planifier des mesures de support aux omnipraticiens et d'améliorer la sécurité des MF.

POINTS DE REPÈRE DU RÉDACTEUR

- La violence contre les MF est un problème sérieux, et les études antérieures ont montré que les MF modifient leur profil de pratique par crainte de violence et de menaces éventuelles. Mais qu'est-ce qui, selon les MF, est responsable de cette violence à leur endroit?
- Les MF australiens qui participaient à cette étude ont identifié un certain nombre de facteurs liés aux patients (notamment les maladies psychiatriques et la consommation de drogues illicites), des facteurs sociétaux (tels que les conditions socioéconomiques et une culture de la peur), des causes immédiates (comme la frustration du patient concernant l'accessibilité aux soins) et des facteurs liés à la vulnérabilité du MF qui contribuent tous à la violence au travail.
- Les résultats d'études comme celle-là peuvent jouer un rôle pour concevoir et tester des interventions visant à réduire le risque de violence envers les MF et leur personnel.

Cet article a fait l'objet d'une révision par des pairs.
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Workplace violence is increasingly recognized as a serious problem in general practice,^{1,2} including Canadian general practice.^{3,4} Studies have shown that FPs and GPs in the United Kingdom and Australia have restricted their practices and their provision of care to patients in response to experiences of violence and perceptions of risk.⁵⁻⁹ A factor underlying these responses is GPs' perceptions of the causes of violence in general practice. These perceptions have not been the subject of previous research but should be considered during the formulation of flexible organizational responses to threats of violence so that those responses will be appropriate for the culture of general practice.

This issue is of considerable public health importance. The prevalence of violence directed against GPs has not been established in Canada, but such violence is common in countries with comparable primary medical care systems: New Zealand, the United Kingdom, and Australia.^{8,10-12} A 1-year prevalence of occupational violence of 64% was found in the same Australian regions where the current study was performed.¹³ This has important implications for practitioner safety. Further, GPs' changes to practice in response to perceptions of threat and danger have been found to include restriction of services to patients (including the restriction of services to demographic groups or locations and restriction of clinically important aspects of practice such as home visits and after-hours care) and inappropriate patterns of prescribing.^{6,9,14}

This paper examines GPs' perceptions regarding the causes of occupational violence in their practices. It draws upon a qualitative study of violence in Australian general practice. Earlier papers from this study have addressed the issues of GPs' restriction of practice as a response to fears of violence and perceptions of threat,⁶ along with GPs' risk stratification processes.⁵ The findings presented in this paper underpin those aspects of restriction of practice and risk stratification.

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METHODS

Data were collected from September 2003 to November 2004 and consisted of focus group interviews and qualitative questionnaire responses. Four focus group interviews with a total of 18 GP participants were conducted, and thematic saturation was achieved. Participants were purposively sampled through 3 urban divisions of general practice (geographically based organizational units in Australian general practice) to recruit male and female GPs, established doctors and those relatively new to general practice, and GPs practising within different socioeconomic patient catchments. The focus groups were conducted by J.A. and P.M. and employed a modified grounded-theory approach, with discussions being informant-led as much as possible and themes being added or deleted as data collection progressed. We chose a grounded-theory approach to enable us to view "events, action, norms, values, etc. from the perspective of the people who [were] being studied."¹⁵ In this way, we were able to explore GPs' perceptions and beliefs about the origins of violence in general practice. Discussions were audiotaped and transcribed. Data analysis was cumulative and concurrent throughout the data collection period. Each transcript was separately coded by all members of the research team. Differences in researcher perspective were fed back into the analysis to cross-check emerging codes and themes and develop an overall interpretation of the data.

Further qualitative data were obtained by offering GPs the opportunity, during completion of a written questionnaire,¹³ to provide additional comments regarding their experiences and perceptions of violence. The questionnaires were sent to all GPs practising in the 3 urban divisions. Of the 528 subjects who completed the survey (49% response rate), 154 also offered qualitative responses. Age and sex of these respondents¹³ reflected the national GP population.¹³ These responses were coded and analyzed in the same manner as the focus group transcripts.

Ethics approval was received from the Human Research Ethics Committee of the University of Newcastle.

RESULTS

All focus group participants and 75% of questionnaire respondents had experienced episodes of violence during their general practice careers. Although participants represented a heterogeneous group of practitioners (see **Table 1** for participant demographics), during the interviews and upon analysis of the qualitative questionnaire responses coherent themes emerged in the GPs' perceptions of the causes of occupational violence.

Table 1. Demographics of focus group participants:
N = 18.

CHARACTERISTIC	N (%)
Sex	
• Male	7 (38.9)
• Female	11 (61.1)
Practice	
• Solo	6 (33.3)
• Group	12 (66.7)
Location	
• Capital city, high SES area	3 (16.7)
• Capital city, low SES area	4 (22.2)
• Large regional city	6 (33.3)
• Small regional city	5 (27.8)

SES—socioeconomic status.

A schema consistent with classification of causes as underlying causes, proximate causes, and GP vulnerability was constructed in response to these emergent themes and is presented here (Table 2).

Underlying causes of violence

These can be seen at an individual patient level or at a societal level.

Individual patient causes

Psychiatric disease: Psychiatric disease was consistently identified as the underlying cause of many of the most dangerous, most violent behaviours. “Psychiatric patients who may have a thinking disorder ... if they’re at all paranoid, you may be the object of their fits.” (Focus group [FG] 4, participant number [PN] 17, male)

Use of illicit drugs and alcohol: Illicit drug use was the factor most strongly felt to underlie violence against GPs. The perception was that violence occurring in this context might not be as physically dangerous as that occurring in the context of psychiatric illness, but that it was considerably more common. A perceived increase in the incidence of violence against GPs was felt to be largely owing to an increase in illicit drug use in the community. One participant felt that it was “very much to do with the rise in the drug culture ... I think that’s probably one big change that there’s

an increase in drug use.” (FG 2, PN 10, female) Another claimed that “ALL our violence is caused by denying druggies.” (Questionnaire Respondent [QR] 114)

Sexual motivations: Although uncommon, sexually motivated threatening behaviour or sexual harassment featured in the experiences of several respondents, with females perceived as being particularly at risk. “[Sometimes] there’s sort of covert sexual perversion stuff happening and [female GPs would] be very wary and wanted that person to be seen only by male doctors.” (FG 4, PN 17, male)

Physical illness: Patients’ physical illnesses were also identified as a cause of violence, although often these were instances of delirium induced by the illness or by dementia. Therefore there might be overlap of this classification with that of psychiatric disease. “[V]iolence [is] usually of a verbal nature, or occasional attempted physical aggression, by geriatric psychotic dementia patients that reside in a nursing home.” (QR 134)

Patient personality: Some patients were recognized as being constitutionally prone to violence without having a defined psychiatric condition. “Some people are just angry people who just fly into a rage for other reasons.” (FG 1, PN 1, female)

Societal causes. Societal causes were seen as underlying increasing levels of violence in society generally, which subsequently overflowed into general practice. Additionally, an accompanying change in the perceived status and societal role of GPs was seen as rendering them more liable to violence. “In general I believe that violence is a community problem and depends on upbringing and social circumstances.” (QR 71)

Poverty, unemployment, and social dislocation: These were thought to be the important societal factors that contribute to a climate of frustration, resentment, and nihilism that finds expression in verbal abuse and physical assault directed toward GPs and other front-line medical service providers such as ambulance officers. “[T]here’s also, I think, unfortunately an increase in the level of poverty and that also breeds desperation and a feeling of [being] disadvantaged and angry with society.” (FG 2, PN 6, female)

Table 2. Schema for GPs’ perceptions of the causes of occupational violence in general practice

Underlying causes

Individual patient causes

- Psychiatric disease
- Use of illicit drugs
- Sexual motivations
- Physical illness
- Patient personality

Societal causes

- Poverty and social dislocation
- Population density
- Respect for authority
- “Bowling for Columbine” effect and the culture of fear

Proximate causes

Frustration accessing care

- Waiting times
- Denial of access to care or medical services

Failure to discourage or circumvent violence (on the part of the doctor or practice)

- “Naïve” practice culture
- Deficient interpersonal skills

General practitioner vulnerability

Provision of information to third parties

- Legal matters
- Licensing authorities

Duty to service all patients

Respect for authority: This was a complex area. A loss of respect for GPs was felt to be both a reflection of a wider societal disrespect for authority and also profession specific. Lack of discipline in children's upbringing was seen to be a root cause of a general lack of appropriate respect for authority. Patients were seen as having a greater sense of entitlement than in the past, and any frustration of that entitlement was seen as potentially leading to violence. "Well you can see these kids growing up in the future and what respect will they have [for] the rest of society? It all started by lack of discipline, I think, and sort of some mis-rearing from childhood." (FG 1, PN 2, male) One questionnaire respondent noted, "There is generally a contempt expressed towards the medical profession, the fact that 'you just have to do it—it is my right as a customer & medicare card holder.'" (QR 184)

Furthermore, societal institutions and mores were no longer seen as supportive of GPs or capable of exerting authority in the area of violence. "Violence is affecting all of our society including GPs Violent people seem less afraid of police and courts. Soft wimpy magistrates are one of the biggest contributions to this social destruction." (QR 82) Another respondent felt that "GPs are not supported and [are] unprotected and have no right to stand for their rights when it comes to violence." (QR 115)

"Bowling for Columbine" effect and the culture of fear: A proposed societal culture of fearfulness and of escalating threat and violence that spills over into general practice was characterized by one group as the *Bowling for Columbine effect* (referring to the documentary film of that name). By this term they meant a spiral of fear and suspicion leading to preemptive defensiveness, to confrontation, and ultimately to a greater risk of violence. It was felt that GP measures to address perceived risks of violence might be confrontational and deleterious to the doctor-patient relationship, and thus might actually raise the risk of violence (although, possibly, physically protecting the GP in the event of violence occurring).

The interesting part about all of this is the culture of fear, and you know "Bowling for Columbine" is a fabulous example, has anybody seen that movie? How do you maintain the safety without encouraging and enhancing that culture of fear? (FG 2, PN 7, female)

An example cited by this doctor was the local GP cooperative, which employed security guards at their after-hours clinics. "It's pretty full-on having this guy there standing there with his belt and all these things and everything on. Now, I just don't know how much that promotes that kind of bad behaviour, because it is intimidating." (FG 2, PN 7, female) The implications of this culture of fear for general practice were acknowledged. "The problem then becomes how to how to deal

with a more violent culture without ... being paralyzed by fear." (FG 2, PN 8, female)

Population density: An interesting observation by one GP was that a factor in urban general practice violence might be increasing population density. "[My suburb] is about 5 times more densely populated than it was 30 years ago A lot more people, so just more of everything, more crime and violence." (FG 1, PN 4, male)

Proximate causes of violence

Proximate causes are immediate precipitants of violent episodes—factors that result in violence in a particular general practice setting at a particular time. These fall into 2 broad categories: patient frustrations with accessing care and doctor or practice failure to discourage or circumvent violence.

Frustration with accessing care. This entails having to wait beyond what patients consider a reasonable period to access medical care or being denied access to care altogether.

Waiting times: Violence precipitated by waiting times was for the most part directed toward the practice staff rather than practitioners. "Patients are more demanding, often rude if kept waiting ... receptionists have to cope with this aggressive behaviour more than the doctor." (QR 45) Another respondent noted that "Often patients have no idea as to why [they're] kept waiting—this makes them angry & if front reception staff [are] not trained to deal with anger, anger can escalate to violence." (QR 148)

Denial of access to care: This was perceived to be a common cause of aggression and violence, particularly in areas with large populations of illicit drug users or in practices with large transient patient populations. The denial of access to care was especially prominent in multiphysician practices and often related to doctors not wanting to see patients who had acquired a reputation for demanding or manipulative drug-seeking behaviour. "[Receptionists] book them in but then no one wants to see them and they end up waiting there for hours and hours and ... we are left with an angry person." (FG 1, PN 2, male)

In other areas the aggression was seen as a means of obtaining appropriate care—almost a legitimate response by patients to their situation. "It wasn't unusual to get aggression from patients, especially aboriginal ones ... But, they're probably used to not being taken seriously and that aggression was their way of trying to get past the gatekeeper." (FG 4, PN 15, male)

Failure to discourage or circumvent violence. The participants acknowledged that factors within the practice topography or the consultation itself could be responsible for a failure to discourage violent behaviour or to circumvent the escalation of identifiably problematic situations into aggression and violence.

DISCUSSION

“Naïve” practice culture: Failure of practice procedures or physical layout of the office to accommodate violence risk minimization measures was seen as a de facto cause of violence. “As a Registrar, [I was] left to do weekend and after-hours work alone and unaccompanied—completely vulnerable to attack.” (QR 26) For one GP, “The culture of the practice is very naïve ... my awareness of personal space and of preventative measures is higher than that of the practice culture.” (FG 2, PN 8, female)

Deficient interpersonal skills: Any deficiency in the interpersonal skills of GPs could be seen as a precipitant of violence in certain circumstances, including interaction with psychiatrically disturbed patients. One female participant thought that “Men’s interpersonal coping styles, especially with other men, tend to lead to physical violence more quickly than women.” (FG 2, PN 8, female) Another participant pointed out that “if you question the delusion that is immovable by logic ... that can make them angry.” (FG 1, PN 3, male)

General practitioner vulnerability

Another emerging theme was the singular vulnerability of GPs to violence. Participants thought that they were at substantial risk of occupational violence and believed that aspects of their professional role rendered them vulnerable. The first role perceived to be a source of risk was that involving legal or licensing matters—the provision to third parties of information or certification relating to matters beyond direct patient care.

[General practitioners are] enormously vulnerable because we all will do in [turn in] the odd druggie or we’ll have a person we refuse a driving licence to, or somebody who’s family law case goes wrong who are really out for you. (FG 2, PN 10, female)

A further area of vulnerability was that the GP, by definition, works in the community and has responsibility for patients’ global and ongoing care. It was felt that GPs could not insulate themselves from the violent aspects of their community or abrogate their professional responsibility to even their violent patients. “The buck stops with us as the practitioners. You can’t get around that.” (FG 4, PN 17, male) A questionnaire respondent noted, “It is medico-legally difficult to discharge an abusive patient from your practice—especially if they do have ongoing health needs. Where does one’s duty of care end in the face of potential violence/threats?” (QR 153)

Complexity within the schema

There are areas of overlap in this schema—for instance illicit drug use is a characteristic of the individual patient but might reflect wider societal forces—and complexity and interrelationship of perceived causes and clustering of causes (such as poverty, psychiatric illness, and drug abuse) seems to be common.

While there are, to our knowledge, no previous studies of GPs’ views on the causes of violence in their workplaces, our findings can be examined in the light of studies on the demographics and circumstances of violence in general practice. The opinions of GPs in our study—that illicit drug use, psychiatric illness, socioeconomic disadvantage, and impeded access to medical care are important causes of patients expressing violence—are consistent with empiric evidence of the circumstances of episodes of violence.^{7,16} The most noteworthy aspects of our findings, however, are the constructs that have not been evident in the previous general practice literature. Thus, the culture of fear or Bowling for Columbine effect, “naïve” practice culture, GPs’ interpersonal skills, and GP vulnerability are themes that require further comment.

The surprising context of naïve practice culture is that GPs are not naïve in the sense of thinking themselves immune to violence. On the contrary, this study has shown them to be acutely aware of their occupational risk. Rather, their responses to this risk can be seen as naïve in that they are ad hoc and uncoordinated.⁶ It is likely this reflects the lack of a unifying organizational structure of general practice, which could facilitate a structured program to reduce the risk to GPs, in countries like Australia. Even in the (more structured) British National Health Service (NHS) “the vast majority of GPs are not NHS employees but self-employed doctors ... contracted to supply primary medical care services to NHS patients [and] bureaucratized risk-management procedures are typically less developed than in hospitals.”⁷

The climate of fear scenario is intuitively plausible and is consistent with the social theory of *risk society*, which is a society that is organized in response to heightened perceptions of risk.¹⁷ The implementation of overt, threatening measures to deter violence—such as security guards or barricades between staff and patients—might fatally impair doctor-patient trust and antagonize therapeutic relationships, with the resulting mutual suspicion and misunderstanding spiraling into violence.

The identification of practitioner skill deficits in managing potentially violent situations did not denote a self-identification of globally deficient interpersonal skills. It was, in fact, a recognition that cues to potential violence can be subtle and that the management of the angry, the aggrieved, or the psychiatrically ill is an exceedingly demanding task.

Previous findings from this study have documented GPs’ retreat from provision of services, such as home visits, after-hours care, and the care of patients who use illicit drugs,⁶ and that GPs perceive these scenarios to be “high risk.”⁵ Our findings suggest that such assessments of risk and subsequent restrictions of practice might be

predicated on GPs' perceptions of the underlying causes of violence. Thus, programs that encourage GPs into wider provision of after-hours care (a current policy priority in Australia)¹⁸ or substance-abuse and dependency programs will likely need to be cognizant of GPs' views of factors involved in the etiology of violence.

More broadly, the findings of this study might be useful in framing measures and policies directed at improving the occupational safety of GPs, while maintaining provision of services to patients (especially the most marginalized patients), so that such measures are congruent with general practice culture and, thus, acceptable to practitioners.

Limitations

This study was conducted in 3 urban regions of 1 Australian state. The findings might not be generalizable, in particular to primary health care systems in other countries or to rural regions.

Directions for future research

Replication of this study in other primary care settings will establish national or regional variations in GPs' perceptions of the causes of violence. Further, it is imperative to use the results from this and other such studies to design and test interventions to reduce the risk of violence for GPs and their staff.

Conclusion

There is considerable complexity in GPs' perceptions of the causes of violence in their workplaces, and a clustering of causes in the circumstances of particular instances of violence will often be found; however, this study has demonstrated a coherent schema of GP perceptions.

We propose that an appreciation of GP perceptions regarding the causes of violence will be of use in the planning of GP service provision and in promoting GP safety. ✿

Contributors

Drs Magin, Adams, and Ireland and Ms Heaney conceived the project. Drs Magin and Adams and Ms Heaney were responsible for data collection. All authors contributed to the analysis and the writing of the paper.

Competing interests

None declared

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References

1. Royal Australian College of General Practitioners. *Safety for general practitioners and their practice teams*. South Melbourne, Australia: Royal Australian College of General Practitioners; 2006. Available from: www.racgp.org.au/gpissues/safety. Accessed 2008 Jul 29.
2. British Medical Association Health and Policy Economic Research Unit. *Violence at work: the experience of UK doctors*. London, Engl: British Medical Association; 2003. Available from: www.bma.org.uk/ap.nsf/Content/violence. Accessed 2008 Jul 29.
3. Walsh A. Our white coats are not armour. Protecting physicians in the doctor-patient relationship. *Can Fam Physician* 2005;51:1604-5 (Eng), 1609-11 (Fr).
4. Manca DP. Woman physician stalked. Personal reflection and suggested approach. *Can Fam Physician* 2005;51:1640-5.
5. Magin P, Adams J, Joy E, Ireland M, Heaney S, Darab S. General practitioners' assessment of risk of violence in their practice: results from a qualitative study. *J Eval Clin Pract* 2008;14(3):385-90.
6. Magin P, Adams J, Ireland M, Joy E, Heaney S, Darab S. The response of general practitioners to the threat of violence in their practices: results from a qualitative study. *Fam Pract* 2006;23(3):273-8.
7. Elston MA, Gabe J, Denney D, Lee R, O'Bieme M. Violence against doctors: a medical(ised) problem? The case of National Health Service general practitioners. *Sociol Health Illn* 2002;24(5):575-98.
8. Gale C, Arroll B, Coverdale J. Aggressive acts by patients against general practitioners in New Zealand: one-year prevalence. *N Z Med J* 2006;119(1237):U2050.
9. Hobbs FD. General practitioners' changes to practice due to aggression at work. *Fam Pract* 1994;11(1):75-9.
10. Alexander C, Fraser J. Occupational violence in an Australian healthcare setting: implications for managers. *J Healthc Manag* 2004;49(6):377-90.
11. Hobbs FD. Violence in general practice: a survey of general practitioners' views. *BMJ* 1991;302(6772):329-32.
12. Tolhurst H, Baker L, Murray G, Bell P, Sutton A, Dean S. Rural general practitioner experience of work-related violence in Australia. *Aust J Rural Health* 2003;11(5):231-6.
13. Magin PJ, Adams J, Sibbritt DW, Joy E, Ireland MC. Experiences of occupational violence in Australian urban general practice: a cross-sectional study of GPs. *Med J Aust* 2005;183(7):352-6.
14. Tolhurst H, Talbot J, Baker L, Bell P, Murray G, Sutton A, et al. Rural general practitioner apprehension about work related violence in Australia. *Aust J Rural Health* 2003;11(5):237-41.
15. Bryman A. *Quantity and quality in social research*. London, Engl: Routledge; 1988. p. 61.
16. British Medical Association Health and Policy Economic Research Unit. *Violence at work: the experience of GPs in Northern Ireland*. London, Engl: British Medical Association; 2003. Available from: [www.bma.org.uk/ap.nsf/AttachmentsByTitle/PDFviolenceNI/\\$FILE/ViolenceNI.pdf](http://www.bma.org.uk/ap.nsf/AttachmentsByTitle/PDFviolenceNI/$FILE/ViolenceNI.pdf). Accessed 2008 Jul 29.
17. Beck U. *Risk society: towards a new modernity*. New Delhi, India: Sage; 1992.
18. Department of Health and Ageing. *General practice in Australia: 2004*. Canberra, Australia: Department of Health and Ageing; 2005. Available from: www6.health.gov.au/internet/main/publishing.nsf/Content/pcd-publications-gpinoz2004. Accessed 2008 Jul 29.
