Violence and aggression in the emergency department is under-reported and under-appreciated

Sandra K Richardson, Paula C Grainger, Michael W Ardagh, Russell Morrison

ABSTRACT

AIM: To examine levels of reporting of violence and aggression within a tertiary level emergency department in New Zealand, and to explore staff attitudes to violence and reporting.

METHOD: A one-month intensive, prospective audit of the emergency department's violence and aggression reporting was undertaken and compared with previously reported data.

RESULTS: There was a significant mismatch between the number of events identified during the campaign month and previously reported instances of violence and aggression. The findings identified that failure to report acts of violence was common.

CONCLUSIONS: Reports of violence and aggression in the emergency department underestimate the true incidence. Failure to report has potential impacts on organisational recognition of risk and the ability to develop appropriate policy responses.

Incidents of violent and aggressive behaviour are well recognised in healthcare, with the emergency department (ED) setting acknowledged as an area of particular risk.[1–3,16] Despite this, such incidents continue to increase.[4–5] Equally concerning is the apparent acceptance of this by clinicians with the expectation this is 'part of the job' and almost an apprenticeship into the 'real' nature of emergency medicine.[4,6–7] While the rhetoric is clear around official policies, with approaches such as 'zero tolerance' advocated, the practice reality often reveals a lack of willingness to report or follow through with complaints.[8,9] For staff working in ED, the culture is often one that encourages individual 'toughness', whether in a positive sense relating to resilience, or in a less constructive manner where it can lead to indifference and/or emotional burnout.[10–11]

The Australasian College for Emergency Medicine (ACEM) defines acts of violence as "physical assault, verbal abuse, threats and aggressive behaviours" and advocates for a 'zero tolerance' approach to violence.[14] ACEM recognises that such incidents are under-reported, and that EDs; "…have the highest incidence of violence in healthcare and up to 90% of emergency department staff have experienced some type of violence in their careers".[14] In New Zealand, the 2011 report on Workplace Violence[15] identified that the health sector had the highest rate of assaults and violence. This study noted that the rate of physical assault and attempted assault was 28.9% among employees in the health sector, while the rate of violence of all types was 55.3%. The greatest risk factors for violence included patients with alcohol and drug use, prejudice and/or harassment and mental instability/distress. Additional contributors were high workloads and time pressures, with the suggestion that work-related stress "*increases the perceived risk of violence in the workplace*".[15] Considerable work has been done looking at the impact of alcohol in relation to ED violence.[3,8,16] While there remains the need for additional focus in this

area, this study did not specifically consider the attributes or contributing factors related to the aggressor. There is an expectation, underpinned by national health and safety legislation, that healthcare organisations will provide a safe and secure environment for their workers, patients and members of the public. This is often expressed through implicit or explicit policies advocating a 'zero tolerance' for violence.[14–17] Achieving this in practice and moving from rhetoric to reality depends on a number of factors. One necessary element is the willingness of staff to report all incidents that breach accepted standards of behaviour.

Many of the existing reports of violence in EDs use retrospective survey methodology and rely on self-reporting and self-assessment of incident impact. Because of variation in measurement, the exact prevalence is difficult to determine. Variations are: use of different timeframes ranging from defined periods such as 'within the past three months', to 'whole of work life exposure', and different measurement tools. However, there is evidence that violence is prevalent within the ED setting in Australasia and other regions.[9,12,13,18] Hospitals in New Zealand routinely use a number of measures and reporting systems for incidents of violence or aggression in the workplace.

Members of the Senior Medical and Nursing Team (n=29) working in the study ED became aware of a discrepancy between the district health board measures of violence and aggression levels in the ED compared to the departmental perception. The board had expressed its understanding that violence levels had reduced, and that this was indicative of a falling level of risk. Their understanding arose from a fall in reported incidents via the Health and Safety reporting system, from a total of 78 in 2011 to 29 in 2013. Anecdotal perceptions were that levels of aggression and violence experienced by staff remained high and were probably increasing.

This study aimed to demonstrate the extent of the discrepancy between the organisational and departmental perceptions of violence and aggression, and to explore staff experiences of, and attitudes to, violence in the ED.

Methods

The setting was the ED of a major New Zealand tertiary level teaching hospital. The ED sees in excess of 90,000 presentations per annum, of all ages and all specialities. To identify the extent of the problem, a focused, prospective audit of the incidence of violence and aggression, as identified by ED staff, took place during May 2014. It took the form of a one-month campaign, "*May—it's not ok*", encouraging staff to report all relevant events. May was chosen to complement the annual ED and national quality improvement programmes, increasing the likelihood of staff participation by not conflicting with any other departmental initiatives. By setting a single-month duration, it could be repeated on a regular basis in the future, maintaining seasonal consistency.

The local options for seeking ethical approval deemed this study as an audit of existing practice, with no use of patient-identifiable data. As such, formal ethics approval was not available. Approval was given by the ED nursing and medical clinical managers and support was obtained from the hospital's quality department.

Data collection

Standard reporting practice at the time of the audit was via a paper form completed by the staff witnessing or experiencing the incident, known colloquially as an 'incident form'. This would then be given to the shift manager who followed up within the department and then sent the paper form to the Quality Facilitator of Risk, for entry into the hospital database. If an injury was sustained, a second form would be completed and sent to Health and Safety. Whenever Security were involved, their staff completed their own incident reporting form, the content of which was entered into their own database.

The audit tool was a paper form designed for ease of completion. It was used in parallel with the standard paper reporting process described above. The audit form asked for demographic details of the staff member (professional group and sex), length of time the reporting individual had been at work prior to the event (to gauge staff fatigue levels), date and time; incident

Table 1: Potential participants.

Potential participants	Total	Nursing staff	Medical staff	Clerical staff	Hospital assistants
Number	N=234	n=120	n=64	n=35	n=15
Gender		92% female	45% female	97% female	80% female

location and incident description. The incident description requested a category using set options, which included: verbal abuse, verbal threat, physical threat, physical assault and sexual assault. Incidents could be linked to multiple categories. Free text allowed qualitative data to be generated for better understanding of the event. These categories related to those used in the standard formal reporting document to enable comparisons. Because this study was focusing on staff reporting and perceptions, descriptors of the perpetrators were not collected.

Core senior staff acted as champions for the process, encouraging colleagues to respond to the campaign. These champions were members of the senior nursing and medical teams who volunteered to support the programme by ensuring that staff were reminded at the start of each shift to report all violence or aggression incidents. No specific education was provided to these staff members other than an outline of the audit process. These staff also checked that there were sufficient audit forms available and collected them each day.

Data were collected by the staff members experiencing the incidents. Completed forms were put into bright orange boxes in every treatment area. An advertising campaign via handover messages, a prominent noticeboard and a departmental newsletter article was conducted prior to and during the month.

Data analysis

The formal reporting of incidents by staff via the pre-existing reporting format was compared to other departmental records of violence, including health and safety documentation, clinical shift reports and matching of anonymised ED security reports of incidents.

Simple descriptive statistical analysis was applied to the numerical data. Data were presented graphically in relation to times of the day and days of the week, and percentages used to illustrate narrative reporting. Not all of the forms were fully completed, with elements of data missing, for example the time of day or location. All available data were used, and where a smaller data set was present this is indicated within the findings.

Qualitative data were categorised according to the standard reporting codes and analysed using deductive thematic analysis. The narrative responses were typically brief, on average one sentence and only presented core factual elements. Using the pre-existing categories was deemed more useful than creating new categories, although it was identified that further information could be generated in future audits. The free text descriptions of each incident were reviewed, placed under the participant selected headings, and reviewed by two researchers to assess for relevance to the category. No descriptions were identified as not matching the selected category, although in four cases an additional category of verbal abuse was identified from the textual description and added.

Results

General findings

There were 7,896 patient presentations during the audit month. One hundred and seven forms were completed. Although the participants were aware that the audit was supplementary data gathering, and were encouraged to complete standard reporting forms, no standard reports were submitted.

Potential participants were the 234 ED staff, these being nursing, medical, clerical and hospital assistants as described in Table 1. The actual respondent numbers and demographics are summarised in Table 2, with the majority of respondents being nurses and female.

Table 2: Actual participants.

Actual participants	Total	Nursing staff	Medical staff	Clerical staff	Hospital assistants
Number	N=107	n=88; 82%	n=14; 13%	n=3; 3%	n=2; 2%
Gender	86% female	90% female	57% female	100% female	100% female

Table 3: Study findings.

Study findings			
Total patient presentations May 2014			7,896
Completed Violence and Aggression audit report forms May 2014			107
Submitted standard incident forms May 2014			0
Security service reports May 2014			21
Reports by day of the week (N=107)		**Reports by time of day (N=92)**	
Monday	n=13 (12%)	0001–0400	n=24 (26%)
Tuesday	n=10 (9%)	0401–0800	n=20(22%)
Wednesday	n=6 (6%)	0801–1200	n=10 (11%)
Thursday	n=12 (11%)	1201–1600	n=12 (13%)
Friday	n=27 (25%)	1601–2000	n=12 (13%)
Saturday	n=31 (29%)	2001–0000	n=13 (14%)
Sunday	n=8 (8%)		
Reports by location of incident (N=78)		**Length of time since shift commenced (N=56)**	
Waiting room	n=8 (10%)		
Triage	n=6 (8%)		
Ambulatory	n=5 (6%)	Range	30mins–10hrs
Workup	n=5 (6%)	Mean	4.6 hours
Emergency observation	n=9 (12%)	Median	4.5 hours
Monitored/resuscitation	n=42 (52%)	Mode	7.5 hours (n=4)
Telephone call	n=3 (4%)		
Type of violence and aggression reported (N=160)			
Verbal abuse	n=98 (61%)		
Verbal threat	n=22 (14%)		
Physical threat	n=21 (13%)		
Physical assault	n=19 (12%)		

Data was collected regarding day of the week, time and location where each incident occurred. The most common day for occurrences was Saturday (n=31; 29%), time of event was recorded on 92 reports; with 52 events occurring between 2200–0600 (57%), and the most common location being the monitored/resuscitation area (37% of the 72 completed reports) (see Table 3). During this study month the majority of patients were seen in the resuscitation area (3,220) and ambulatory areas (2,941). Afterhours the resuscitation area was busier than other areas. This workload distribution might explain in part why the resuscitation area was the most severely affected area. A further factor contributing to this was that multiple reports were generated in relation to two incidents, where several staff were affected; something more likely to occur in this area.

Study findings

Verbal abuse and verbal threat (n=98)

This was both generalised and targeted at individuals, with common features including swearing and use of offensive language; screaming and shouting; aggressive and threatening verbal expressions and inappropriate sexual content. An example from this category included the following: "*Verbal abuse started immediately—very strong language directed to myself calling me a "f**king ho and ugly bitch." This verbal abuse continued till patient was collected by police and tx* [transferred] *to their custody at 1845* (1hr 45 later)". While staff were the most common targets of abusive behaviour, other patients were also affected, as evidenced in the following comment: "*Pt* [patient] *being loud and abusive in WR* [waiting room]

while waiting for assessment—made another pt awaiting assessment cry". Examples of verbal threat (n=22) included: *"Pt* [patient] *swearing and verbally aggressive—threatening to "kill us all" …"*.

Physical assault and threat

Physical assault (n=19) and physical threats (n=19) involved aggressive, agitated and combative behaviour, typically involving attempts to hit the staff member and linked to intoxication or cognitive impairment associated with acute illness or disease progression. The physical assaults described included spitting, scratching, punching, hitting, kicking and pinching, with two suggestive of risk of blood and body fluid exposure. Examples from this category included: *"Pt with dementia lashing out"; "verbally abused and hit in face"; "pinched on breast"; "pills spat in face"; "water tipped over myself also"*.

Comparison to previous data

The data were compared to previous data from the standard health and safety reporting forms. All the incidents described in the audit data met the hospital's criteria for formal reporting. Given this, all 107 events should have been reported within that single month. This is in marked contrast to the total of 29 reports originating from the ED for the entire 2013 year.

Other records of potential violent incidents from May and June 2013 (the year prior to this study) were examined to identify whether the 2013 data had also been under-representative of the true incidence of violence and aggression (as suggested by the May 2014 findings). While there were no incident forms submitted during those months, security service data identified that assistance from security services for management of violent situations had occurred in both May (n=23) and June (n=44). This implies that standard reporting of the situations should have occurred. Given that many incidents of violence and aggression occur within the ED that do not require intervention from security; it is reasonable to assume that the actual incidence of events was higher than each of these recorded numbers. Thus, many events may well have occurred but were not formally recorded using the standard reporting systems.

Discussion

This study shows that the perception that ED had low levels of violence was incorrect and the perception was due to low levels of reporting. This gives rise to concern and questions as to why staff would fail to report incidents, and how this might be addressed. This is congruent with the national and international literature which identifies that staff are often reluctant to report such events.[4,5,8,9,20,21] While this study was designed to identify the presence, rather than elicit specific rationale for failing to report, suggested reasons from the literature[4,9,20–22] for this include:

- Acceptance of verbal abuse and aggression as a normal part of the ED workplace environment
- Concern of reporting reflecting poorly on the abilities of the staff involved
- Empathy regarding the patient/accompanying persons' reasons for anger or aggression (whether due to an organic cause or circumstances)
- Insufficient time to record events in a timely and appropriate manner due to workload pressures

Anecdotal feedback from staff was supportive of these, in particular that the absence of a serious physical injury negated the need to report and that the effort required to do so outweighed any potential benefit. These are barriers to achieving a realistic assessment of the degree and nature of violence and aggression within an ED environment, making it difficult to develop targeted responses.

Implications of reluctance to report

In keeping with the barriers to reporting suggested in the literature, ED staff in this study reported the need for management to recognise the impact of high workloads, and the low priority staff had traditionally assigned this process—typically reporting only if there were physical injuries, or if the perpetrator was felt to have been acting in a deliberately inappropriate way.

Normalisation and appearances of coping ability

The most commonly cited rationale for not reporting violent incidents in the ED setting remains the perception that this is simply part of the job.[8,9] The presence of

such behaviour becomes an expectation of the role; in some ways, it becomes a rite of passage to have experienced workplace violence. Staff conversations become almost competitive in describing extremes of exposure to, and experiences of, violence, rather than expressing concern and intention to report. This normalisation of violence has led to increased rationalisation and acceptance of behaviours, resulting in reduced overall awareness, as violence simply blends into the background of a busy ED. ED staff often use 'black humour', a well-known technique for managing otherwise intolerable situations,[23] but the tendency to trivialise potentially dangerous situations can further minimise their significance.[24]

Understanding of clinical or situational contributors

Other reasons for failing to report include an awareness of the patient's condition and possible impaired responsibility for their actions. While the concept of assigning levels of 'blame' to a perpetrator's actions is not part of any formalised process, many staff appear to (subconsciously) decide that if a patient is 'acting out' as a result of their condition (for example dementia, confusion, delirium) and are perceived to have no control or understanding of their actions, then such behaviour should be 'excused'. There appears to be a culture of 'no blame' associated with certain types of violence and aggression,[8,9,25] and an associated perception that reporting such incidents is somehow harmful or disrespectful to the patient. Again, the risk of such responses is that it not only hides the true extent of any problem but also serves to excuse, and by default validate the behaviour as well as the individual.

The exception to this is in relation to situations where the person is seen as acting out for reasons related to a condition that is self-created—most typically as a result of intoxication from alcohol or drugs. However, this study did not collect data on the individuals who were responsible for the acts of aggression, focusing solely on the perceptions of the staff. It was determined that future iterations of the audit would look at ways to collect a wider range of information, while still seeking to keep the audit form as simple and time limiting as possible.

No change expected

Other factors associated with a failure to report include the belief that reporting will not result in any significant change or improvement[12,22] and may be seen as indication of weakness or poor management of the situation.[29] Where there is no or minimal follow up or where outcome reporting is delayed, there is little incentive for staff to complete the processes associated with reporting.

Dissatisfaction and disillusionment with organisational responses and a sense that reported offenders are not held to account is also suggested as a barrier to staff compliance.[17,26] Associated with this is the concern that only certain types of incident are valued, and that there is no benefit from reporting in the absence of a physical injury or near-miss threatening situation. This sense of prioritisation is evident in the literature, for example where verbal abuse is typically dismissed as unimportant.[8,9] This fails to recognise the impact that verbal abuse, either alone or in combination with other forms of aggression, has on staff retention, satisfaction and workplace culture. A culture where verbal abuse is tolerated has the potential to impact on factors such as the quality of patient care delivered, emotional distress and compassion fatigue among staff.[28] Martin et al[29] reviewed a range of literature examining the impact of verbal aggression and noted that stress from repeated experiences was associated with *"...complaints such as depression, panic disorder, and post-traumatic stress disorder, but also could be related to physical ailments such as hypertension..."* and that *"... verbal abuse is one of the strongest factors that contributes to dissatisfaction and high rates of attrition in nurses"*.

Subsequent developments in the study site

Given that audit is cyclical and intended to influence practice, the "*May—it's not ok*" campaign has been re-run since its initial introduction. It has provided an opportunity for discussion around the implications of failing to report, and a forum for feeding back to staff the possible outcomes of this, including the board level misinterpretation of incidence rates.

The significance of risk recognition and evidence generation, utilising mechanisms that are meaningful to those not directly involved in a situation or setting were able to be emphasised. In addition, further practical steps have been taken.

These include the establishment of a permanent working group to monitor issues of violence and aggression in the ED, a review of existing ED responses and how these could be strengthened, and planning for future initiatives. While there is not sufficient room to expand on these here, a further article describing these and comparing the subsequent patterns of staff reporting and further data generated is being developed.

Limitations

Education about the definitions of aggression, particularly coding of verbal abuse, was not given. This was because the participants' current perceptions were being sought. However, it is possible that individuals categorised events differently.

Poor reporting was demonstrated. The normal reporting format was a paper form, with a second partner form if an injury was sustained. This study did not examine reasons for poor reporting and it is possible that the mechanism for reporting is a disincentive to report, over and above the reasons discussed. If so, that barrier to reporting would have a greater local relevance and less generalisability. Further targeted data collection is required to understand the reason for staff reluctance to report incidents.

This was an initial process, to determine the extent of staff perception of violence within the department—as such, and in order to encourage participation, a limited data collection process was used. This meant that data related to other aspects, such as the aggressor, were not collected. This was identified as an area to consider and more comprehensive data collection was undertaken in subsequent audits.

Conclusion

The findings of this study confirmed that violence and aggression continue to be an issue within the target ED, and in line with other reported studies, failure to report is a significant factor. What may not be recognised, however, is that this has the potential to influence an organisation's culture and understanding and therefore policy development; the potential is for lack of recognition of the true extent of risk to staff and public. What is equally important is the need to develop strategies to address the concerns of staff around the relevance and utility of reporting systems. Without staff 'buy in' the true nature of the problem remains hidden and the impact in terms of staff morale, attrition and reduced quality of care is unrecognised or misattributed.

There are no simple answers to managing violence and aggression. The first step, however, is to identify a realistic baseline, identifying whether existing systems for measuring risk are accurately capturing the reality of ED work and are user-friendly. A simple, targeted timeframe allows for a focused response and a greater likelihood of compliance. If this compliance illustrates a dissonance with routine capture of data, it suggests the need for more focused research and greater exploration of the underlying issues.

Competing interests:
Nil.

Author information:
Sandra K Richardson, Nurse Researcher, Emergency Department, Christchurch Hospital, Canterbury District Health Board, Christchurch; Senior Lecturer, Centre for Postgraduate Nursing Studies, University of Otago; Paula C Grainger, Nurse Coordinator Clinical Projects, Emergency Department, Christchurch Hospital, Canterbury District Health Board, Christchurch; Michael W Ardagh, Professor of Emergency Medicine, University of Otago, Christchurch; Emergency Medicine Physician, Emergency Department, Christchurch Hospital, Canterbury District Health Board, Christchurch;
Russell Morrison, Injury Management Co-ordinator, Canterbury District Health Board, Christchurch.

Corresponding author:
Dr Sandra Richardson, Emergency Department, Christchurch Hospital, Canterbury District Health Board, Riccarton Ave, Christchurch 8022.
sandra.richardson@cdhb.health.nz

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REFERENCES:

1. Nelson R. Tackling violence against health-care workers. Lancet. 2014; 383:1373–1374.
2. Kowalenko T, Cunningham R, Sachs C, et al. Workplace violence in emergency medicine: current knowledge and future directions. Journal of Emergency Medicine. 2012; 43:523–531.
3. Swain N, Gale C, Greenwood R. Patient aggression experienced by staff in a New Zealand Public hospital setting. NZMJ 127:10–18.
4. Stene J, Larson E, Levy M. et al. Workplace violence in the Emergency Department: Giving Staff the tools and support to report. Perm J. 2015; 19:e113–e117.
5. Stirling G, Higgens JE, Cooke MW. Violence in A&E departments: a systematic review of the literature. Accident and Emergency Nursing 2001; 9:77–85.
6. Ray MM. The Dark Side of the Job: Violence in the Emergency Department. Journal of Emergency Nursing. 2007; 33:257–261.
7. Phillips JP. A safe space: Violence toward emergency department providers isn't just part of the job. ACEP Now 2016; http://www.acepnow.com/violence-toward-emergency-department-providers-isnt-just-part-job/ accessed 20/02/2018.
8. Kennedy M. Violence in emergency departments: Under-reported, unconstrained, and unconscionable. MJA 2005; 183:362–5.
9. Hogarth KM, Beattie J, Morphet J. Nurses' attitudes towards the reporting of violence in the emergency department. AENJ 2016; 19:75–81.
10. Speroni KG, Fitch T, Dawson E, et al. Incidence and cost of nurse workplace violence perpetrated by hospital patients or patient visitors.
11. Wolf LA, Delao AM, Perhats C. Nothing Changes, Nobody Cares: Understanding the Experience of Emergency Nurses Physically or Verbally Assaulted While Providing Care. Journal of Emergency Nursing. 2014; 40:305–310.
12. Morphet J, Griffiths D, Plummer V, et al. At the cross roads of violence and aggression in the emergency department: perspectives of Australian emergency nurses. Australian Health Review. 2014; 38:194–201.
13. Pich J, Hazelton M, Sundin D, et al. Patient-related violence against emergency department nurses. Nursing & Health Sciences. 2010; 12:268–274.
14. ACEM Policy on violence in Emergency Departments. 2011. Document no.P32. http://www.acem.org.au/getattachment/7b0819a6-93cc-4d89-8fe8-22c6ea307a22/Policy-on-Violence-in-Emergency-Departments.aspx accessed 20/02/2018
15. Bentley T, Forsyth D, Tappin D, et al. Report on the 2011 New Zealand workplace violence survey. Palmerston North: Healthy Work Group, School of Management, Massey University; 2011.
16. Egerton-Warburton D, Gosbell A, Wadsworth A, et al. Perceptions of Australasian emergency department staff of the

impact of alcohol-related presentations. Medical Journal of Australia 2016; 204:155.

17. ACEP. Emergency department violence: an overview and compilation of resources. 2011. www.acep.org/content.aspx?id=81782 accessed 02/06/2016.
18. Emergency Nurses Association. Position statement: Violence in the emergency care setting. 2009. Author.
19. Esposito P, Canton AD. Clinical audit, a valuable tool to improve quality of care: General methodology and applications in nephrology. World J Nephrol 2014; 3:249–255.
20. Copeland D, Henry M. Workplace violence and perceptions of safety among emergency department staff members: experiences, expectations, tolerance, reporting, and recommendations. Journal of Trauma Nursing 2017; 24:66–77.
21. Kvas A, Seljak J. Unreported workplace violence in nursing. International Nursing Review 2014; 61:344–351.
22. Knowles E, Mason SM, Moriarty F. "I'm going to learn how to run quick": exploring violence directed towards staff in the Emergency Department. Emergency Medicine Journal. 2012; 30(11):926–931 6p. doi:10.1136/emermed-2012-201329
23. Watson K. Gallows humor in medicine. The Hastings Center Report. 2011; 41(5):37–45.
24. Piemonte NM. Last laughs: Gallows humor and medical education. J Med Humanit 2015; 36:375–390.
25. Luck L, Jackson D, Usher K. Innocent or culpable? Meanings that emergency department nurses ascribe to individual acts of violence. Journal of Clinical Nursing 2008; 17(8):1071–1078.
26. Martinez AJS. Managing Workplace violence with evidence-based interventions. A literature review. Journal of Psychosocial Nursing and Mental Health Services, 201; 54(9):31–36.
27. Gacki-Smith J, Juarez AM, Boyett L, Homeyer C, Robinson L, MacLean SL. Violence Against Nurses Working in US Emergency Departments. Journal of Nursing Administration, 2009; 39(7/8):340–349.
28. Gates DM, Gillespie GL, Succop P. Violence Against Nurses and its Impact on Stress and Productivity. Nursing Economics 2011; 29(2):59–66.
29. Martin A, Gray C, Adam A. Nurses' Responses to Workplace Verbal Abuse: A Scenario Study of the Impact of Situational and Individual Factor. Research and Practice in Human Resource Management 2007; 15(2):41–61.