

Perspectives on Violence against Doctors

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ABSTRACT

Medical professionals are a worried lot. Patients are not only losing trust in doctors due to various factors, but they also are manhandling and suing them in case of bad outcomes. Hospitals being vandalized by patients, relatives and attendants have become all too common. Many doctors face verbal and physical abuse.

Paradoxically with advances in medical technology the doctor-patient relationship has suffered. This is due to machines replacing humans. Corporatization of medical care has led to a rapidly growing medical industry. Medical care has become similar to factory assembly line with depersonalization of both patient and doctor.

This review article describes what constitutes violence, the historical background, the situation in India and neighboring countries, the global scenario with special emphasis on the USA as a bellwether of global trends, the research evidence or rather the lack of it, the possible causes, the high risk specialties, profile of offenders and precipitating factors, the long term impact of violence on health professionals, and the issues which need better research with better methods.

Lastly it also gives an overview of what can be done in the short run to address the phenomenon of increasing violence, such as legislation, action on part of doctors such as improving their communication skills both verbal and nonverbal, and early identification of warning signs. Action on part of management should include good security, restriction of visitors, standard operating procedures, mock drills and insurance cover.

Keywords: Violence; workplace; doctors; trends.

INTRODUCTION

India is a land of paradoxes. In some quarters medical professionals are considered next to God¹ In others they encounter violence by irate patients and relatives.² Is it a recent phenomenon? Is it limited to India or is it a global occupational hazard? What are the causes? Do patients in corporate hospitals feel like products in a factory assembly-line? Are medical professionals too in corporate hospitals treated like workers on factory assembly-line, carrying out small jobs

repetitively and well but for very short periods?³ Is this leading to patients' perception of doctors being god of small things? Does this assembly line approach put a strain on the doctor-patient relationship? Is the violence in the medical workplace as a result of poor communication skills of present generation of doctors? Or is it related to increasing stress of modern living affecting both patients and doctors? Are we becoming an impatient and intolerant generation? Is the violence against doctors similar to violence seen as road rage? Are the expectations of patients and relatives driven to unrealistic levels due to glorification of medical technology by the media supported by few vain doctors seeking publicity? These are some of the issues this review addresses.

What constitutes violence?

Perspectives on what constitutes violence may differ depending on the context.⁴ What constitutes violence to one person may be of no consequence to another. This may limit comparison across cultures. Terms such as abuse, threats, assault, battery, combative and hostile are used interchangeably in the literature of violence.^{5, 6, 7} For generalization across cultures, it is important to define violence. Most studies have used the following definitions: violence is physical force used to damage, injure or destroy; while aggression is a forceful attacking behavior, destructively hostile to others.⁵

Historical perspective.

Violence against doctors, particularly surgeons, have occurred since ancient times.⁸ This may be due to heroic interventions of surgery where unfavorable outcomes were apparent in real time, compared to medicine where outcome in patients were "oft interred with their bones" to borrow a phrase from Shakespeare. In ancient Assyria if a surgeon caused death or blindness as a result of surgery his hands were cut off.^{9,10} Commensurate with drastic risks, the rewards were also high. While few physicians were bestowed sainthood in ancient Egypt, only a surgeon could attain godhood.^{11,12} The Code of Hammurabi contained the surgeon's role, rewards and punishments.⁸ Some protection to the treating doctor was offered by the code as long as the physician or surgeon followed the standard rules and regulations of their practice. Punishments for offenders, particularly for surgeons, were

severe. Such deterrents adversely affected the progress of surgery in these regions in ancient times. For example, in ancient Assyria, where deterrent punishments were harshest, surgeons tended to be conservative compared to surgeons in ancient India, Greece and Egypt.⁸ Hope history does not repeat itself. Present day unchecked violence against doctors has the potential to raise medical costs and slow down progress by encouraging defensive medicine.

The Indian Scenario

Sensational cases catch the public attention. They serve as index cases for looking back, looking around & looking forward. They force the policy makers and political leadership to tackle a problem before it becomes endemic failing to catch attention. An eminent cardiologist in Mumbai was murdered by a close relative of a patient who died under his treatment.¹³

Around the same time a political leader was admitted in a private hospital in Mumbai for fracture which was operated successfully but after a few hours of the operation he died of cardiopulmonary failure.¹⁴ His party supporters went on rampage destroying hospital property worth INR 10 crore. Staff and patients fled and a handful of policemen present looked the other way.¹⁴

Such sensational cases evoke strong responses from the medical community. It triggers introspection. However, after few knee jerk reactions it is back to business as usual.

A more rational approach would be to study the trends of violence against health professionals in India and the multiple factors associated with it. These determinants are poor access to health care, scant public health resources, poor quality of service, falling standards of medical accountability due to poor self regulation, poor communication skills, unrealistic expectations on part of patients and relatives due to high profile promotion of costly medical technology, political hooliganism, corporatization in medical care with its profit motive, and so on.

Trends in India and neighboring countries

India and its neighbors, a region known for deification of doctors, is increasingly witnessing acts of violence directed towards the profession. Doctors in India, China, Pakistan, Bangladesh, Nepal and Sri Lanka increasingly fear violence at work.¹⁵ This is in spite of the pacifying philosophies and religions such as Hinduism, Christianity, Buddhism, Islam laced with Sufism in the region, and more recently the preaching of ahimsa by Mahatma Gandhi in India, who nevertheless faced a violent death – paradoxes seem to be the norm!

Over the years the reverence to healers in the oriental and Asian countries is being usurped by increasing hostility and distrust towards the medical profession. According to a

study almost 75% of doctors in India have experienced some form of hostility in their career.¹⁵ The reasons for these disturbing trends are many. Most of these countries are rapidly developing economies raising the aspirations of the people to expect medical miracles at affordable costs. Modern medical care is expensive. No country even developed ones can afford state of the art medical care for all its citizens.

While medical costs are increasing due to technological advances, the Indian health budget has continued to be meager. As a result, there is poor infrastructure and human resource crunch in government hospitals. The poor quality public health system cannot meet all the medical needs of our large population. People are forced to seek medical services from private hospitals and clinics sometimes at exorbitant costs which they can ill afford. The private health sector providing the bulk of medical services are isolated, disorganized and vulnerable to violence.¹⁶

Violence against doctors in other countries in the region is also a growing menace. The violence against doctors in China during the past decades has caught world attention due to the viciousness, scale and the frequency of the attacks.^{17, 18} A study from China reports low job satisfaction among doctors, and concerns about personal security due to increasing trends in aggression by patients and their relatives. Majority, 87% did not want their children to join the profession and out of them 9% expressed concern because of increasing violence in the medical workplace.¹⁹ Neighboring Bangladesh and Pakistan are also facing the emerging threat of violence against medical professionals. While an editorial reports sporadic cases of violence faced by medical professional in Bangladesh,²⁰ studies from Pakistan reveal that 74% – 76% of doctors have experienced workplace violence of varying degrees.^{21, 22} Fear and violence in the workplace force many Nepalese medical professionals to leave the country.²³

Global scenario

Even the land of Jesus has not spared the healers. Seventy percent of doctors and 90% of paramedical staff in Israel, reported violence in the workplace, mostly verbal abuse.²⁴ UK and USA considered among the forerunners of modern medicine, are facing the menace of violence in the medical workplace since decades. A review of workplace violence in the UK begins with an account of sensational stabbing of a Scottish general practitioner.²⁵ While conceding that such extreme cases are rare, the paper states that incidents of violence against physicians are increasing matching the violence in society as a whole. Studies in UK indicate that such trends have the potential to affect the attitudes of doctors to their work.^{26, 27, 28} Most cases of violence in the UK have been anecdotal and brought to notice by the media. Proper estimates are difficult because of varying definitions of what

constitutes violence and underreporting. The largest study of violence among general practitioners found that 63% had experienced verbal or physical abuse in the preceding 12 months.²⁹ However, there are wide countrywide variations, making extrapolation from isolated studies difficult.²⁵

A review in the *New England Journal of Medicine* on workplace violence against doctors in the USA, two decades later, echoes similar views.³⁰

Situation in the USA ... the writing on the wall.

As bellwether of global trends a detailed situational analysis of violence against doctors in USA may be the writing on the wall for the global medical community. Besides violence in the medical workplace, overall violence in the USA, due to lax gun laws keep making headlines.³¹

As with most reports of violence against doctors this review also starts with an eye catching incident of the murder of a surgeon by the son of a deceased patient.³⁰ Similar to the earlier review from UK, this one from USA also reaffirms that violence against doctors is increasing. To better define workplace violence in the medical setting four types of workplace violence has been suggested: firstly, attacker has no association with the health facility or the physician, for e.g. armed robbery; secondly, the assailant is in a doctor-patient relationship, e.g. intoxicated patient attacks the doctor; thirdly, a fired and disgruntled subordinate attacks the doctor; and lastly, violence due to personal enmity, for e.g. ex-husband attacks ex-wife at place of work.³⁰

Though in the present discussion we are concerned with the second category of violence, i.e. doctor-patient relationship gone extremely bad, inconsistencies in available data, even in a developed country like USA, make generalizations difficult. Statistics collected from different agencies on workplace violence do not match. Similarly, research studies on violence against doctors produce disparate results, mostly as a consequence of inconsistency in defining violence. Verbal abuse, threats, physical harm, battery and mental harm are interpreted differently by different workers adversely affecting repeatability of results.³²⁻³⁶ No two studies have ever used the same instrument to measure workplace violence, and all had elements of selection and recall bias.³² Because of such limitations the burden of workplace violence in the medical setting cannot be estimated with accuracy. Gross estimates from USA indicate that type II workplace violence comprised 75% of severe assaults and 93% of all assaults against employees.³⁷ Among violence leading to fatalities, 25% occur at the workplace.³⁸ Out of approximately 24, 000 workplace violence annually, between 2011 and 2013 in the USA, 75% occurred in the medical care setting.³⁹ Sickness absenteeism among health care workers in the USA are four times more due to workplace violence compared to other types of injury.⁴⁰

High risk specialties

Medical personnel working in psychiatry departments are at higher risk for violence compared to other settings.⁴¹⁻⁴⁶ Rates are even higher than in emergency medicine departments with one study revealing that 40% of psychiatrists had faced physical assault in the workplace.⁴⁶ Verbal assault experienced by mental health workers can reach almost 100%, particularly in highly charged settings, such as forensic psychiatry, with one study stating that 99% was the annual incidence of such hostility.⁴⁷

Physicians working in emergency departments are the next high risk group after mental health professionals. About 25% of emergency medicine physicians faced physical assault in the past 12 months as brought out in few studies.^{41, 47, 48} Mostly patients were the perpetrators (89%), followed by family members (9%), and friends (2%).⁴⁸ Besides physical assault, other types of violence such as verbal threats (faced by 75%), confrontations (5%), and stalking (2%) were common hazards among those working in emergency departments.⁴⁹

Other specialties also face risk of violence at the workplace. In a study among pediatric residents about 33% revealed they had experienced violence at the workplace, and 71% mentioned they had not received any training to handle such situations.⁵⁰

Profile of offenders & Factors precipitating violence in medical workplace

Profiling can enable us to be prepared and establish safeguards to prevent the assault. Perpetrators are often suffering from altered mental status due to delirium, dementia, substance abuse, or mental illness.³⁰ However, such profiling of traits has poor predictability and potential to promote discrimination.

Studies have brought out long waiting time, crowding, poor food quality, "given bad news," low socioeconomic status, carrying weapons, and hooliganism as possible risk factors.^{30, 51} An isolated study has pointed out previous history of violent behavior against medical professional is a risk factor for future violence.⁵² No association has been established between demographic data either in attackers or the victims.^{53, 54} Nevertheless, prisoners reporting to hospital are a special risk group, as 29% of gun battles in emergency department have been associated with prisoner patients with 11% associated with attempts to escape.⁵⁵

Long term impact of violence on health professionals.

A number of studies have brought out the adverse impact of violence on health professionals.⁵⁶⁻⁶³ These are increase in sickness absenteeism, burnout, and lack of job satisfaction, decreased work output, and insecurity among

health care professionals. Apprehension of violence at work may lead some to carry weapons such as knives or firearms making the workplace more dangerous.

Research Gaps and Challenges.

Incidents of extreme violence at hospital and health centers catch the media attention making headlines and forgotten after some time. Even serious research has been confined to counting and quantification, which itself is a challenge, given the different perceptions of what constitutes violence in different cultures. Besides there is gross underreporting both by individuals and hospital managements.

What is needed on priority is evidence base for interventions which can work to reduce violence against health care professionals.³⁰ The last systematic review on the issue is almost two decades old.⁶⁴ This critical review identified 137 studies which tested intervention strategies to reduce workplace violence. Out of these studies, 41 suggested specific interventions but none yielded high level evidence for any of these methods. Some which suggested benefit had weak or flawed study designs.⁶⁴ A more recent narrative review confined to nurses yielded equally disappointing results.⁶⁵ Though studies showed that nurses developed confidence and awareness about risk factors after the training this did not translate into lowered incidence of violence in their workplace.⁶⁵ There is no evidence that existing training and protocols have any impact of violence directed against health care professionals.

Are we facing formidable changes and challenges leading to a web of causation which are not amenable to conventional research methods? Perhaps so. Quantitative methods in isolation may be inadequate to address the growing mistrust leading to fragility of the doctor-patient relationship. We have to supplement quantitative methods with qualitative research which again will limit generalization across cultures and countries. We are unlikely to find a simple one-size-fits-all solution to address the menace of violence against health professionals.³⁰

Major research themes which need exploration by mixed methods approach

The following themes which might be leading to erosion of trust leading to increased hostility and violence directed against the health profession need to be addressed.

Firstly, there is privatization of the health sector at a very rapid pace, leading to great inequity in access to quality health services.⁶⁶ There is growing asymmetry between the public and private health care systems. This has been perpetuated by a laissez-faire attitude to medical care (i.e. greater privatization). Enter the corporate hospitals. Our society has long been accustomed to socialist system of

functioning, however inefficient, and corporatization of health care, with its profit motive and high costs, tends to erode the trust of even well to do patients. The association of lack of trust and hostility need to be explored by mixed methods approach or purely qualitative approach. A study on this theme undertaken in Australia, suitably adapted in our setting, may provide some leads.⁶⁷

Poor communication skills also need to be explored as a determinant of poor doctor-patient relationship which may predispose to violence. According to a leading medical malpractice lawyer, the risk of being sued for malpractice does not depend on how many mistakes a doctor makes. There are records of highly skilled doctors getting sued a lot and doctors who make a lot of mistakes never getting sued.⁶⁸ Illustrating this point is a case of a woman who sued the internist for missing a metastases in spite of the fact that the radiologist was at fault, as she hated the internist as he never took time to talk to her and look at her as a whole person.⁶⁸ The same dynamics need to be explored to study the determinants of violence in the health care setting.

With medical care becoming an industry run by corporate, doctors and patients alike may be thrown into a factory assembly line ambience, shunted from one facility to the next and passing through a battery of tests and doctors. Doctor patient communication and rapport are negligent in this assembly line atmosphere. There is anecdotal report of one corporate hospital where the orthopedic surgeon known for his expertise in knee replacement sees only the patient's knee, that too for the first time, after he enters the operation theatre for the procedure. The pre-operative workup and post-operative follow up is done by his assistants. The highly skilled operating surgeon mechanically operates without any personal communication with the patient.

Sadly, with advances in medical technology the human touch and understanding is lacking. The expectations of patients may reach unrealistic levels as benefits of medical technology are oversold by the media, doctors and corporate hospitals who seek publicity. The downside is that in the cases of complications tempers run high. In such a charged atmosphere good doctor patient communication, which is at all time low, can avoid a crisis.

The future of doctor patient communication looks bleaker. Recently, the Health Minister of Uttar Pradesh, a state known for its poor performance in the health sector, proudly announced that 500 Primary Health Centers in the State will be manned by robots in a phased manner to look after the medical care needs of the population.⁶⁹ Way to avoid doctors getting bashed up by patients and relatives!!

What provokes violence over trivial issues? Increasing impulsivity as a behavioral phenotype has been speculated to

predispose to violence over petty issues.⁶⁹ Impulsive murderers were found to be more mentally impaired in terms of intelligence and other cognitive functions. They also frequently have history of alcohol or drug abuse and under influence of these during violent acts.⁷⁰ The same dynamics may be responsible for violent acts committed as road rage. This needs to be investigated. The increasing stress levels in both doctors and patients, acting as trigger for such phenotypes, need to be studied as a determinant of workplace violence.

What needs to be done to prevent violence in health care establishments?

Research for evidence to support measures which work will take time. In a complex issue such as medical workplace violence, evidence gathering may not be feasible in the short run, if at all by conventional quantitative means. In the interim some basic actions to ensure safety in the medical workplace is needed.

Legislation

It has been suggested that any complaint filed from the patient's side should be declared null and void if evidence in support of violence by the patient, relatives or attendants is available.⁷¹ This should be in addition to the provisions for deterrents in the Prohibition of Violence against Medicare Persons and Medicare Institutions Act 2009, and relevant sections of the Indian Penal Code (IPC). Change in the IPC with such acts of violence a cognizable offence with speedy and stringent punishment may also help.

Action on part of health professionals to prevent workplace violence

Doctors should not oversell the miracles of modern medicine. Neither should they overreach themselves by doing procedures beyond their capabilities.⁷¹ Proper and valid informed consent for all invasive procedures is absolutely essential. The process of informed consent if done properly can also provide an opportunity to enhance doctor patient communication and rapport. Proper documentations of all patient contacts and procedures should be maintained – one should remember the aphorism – in God we trust, others must provide data (document). Remember for the perpetrators of violence or litigation, doctor is not perceived as God! He or she should maintain data and documents of all procedures and patient interactions.

Good communication skills both verbal and non-verbal can prevent any conflict including workplace violence.

Doctors and paramedics particularly those working in emergency departments and intensive care units should be alert to warning signs such as “Staring” “Anxiety” “Mumbling” and “Pacing” on part of patients which can be a premonition

of sinister events.⁷¹

Extra visitors and attendants should not have easy access to the patient outside visiting hours. Good security system with CCTV cameras can help in curbing assaults.

Standard Operating Procedures and mock drills to deal with violence should be made available at all medical establishments.⁷¹ There should be an insurance policy covering both individual health professionals and establishment from acts of assault and vandalism.

Conclusion

Though violence against the health care professionals particularly surgeons have been recorded since ancient times, the present spate of violence in the country is disturbing. While other countries both in the East such as China and the West such as USA have been facing violence against doctors and paramedics for decades, in the Indian subcontinent, it appears to be a recent phenomenon.

The causes are many and interactions between them complex and culture specific therefore not amenable to conventional research methods and generalizations. Reliable data about violent incidents are also not easy to collect. There is gross underreporting. Perception of violence also differs across cultures. Only the extremely violent or sensational cases come to public attention spurred on by the media.

Action to curb this menace has to be taken across many sectors such as the judiciary, legislature, and the police. In addition, the situation calls for introspection by the medical profession.

There is erosion of trust between doctors and patients. Paradoxically this has been spurred by advances in medical technology and corporatization of medical care. The family physician of a bygone era with less curative skills enjoyed immense trust and respect. The modern doctor in big hospitals works in an assembly line ambience which does not augur well for the doctor patient relationship.

Part of the violence in the health care workplace is also a result of spill over from an increasingly violent society. Violence in society reflects the increasing stress levels and impulsive behavior to settle scores instantly.

The present violent society is a call for the Indian doctor to assume the role of the social physician with good communication skills and leadership qualities. Compassion and empathy towards patients and their relatives and development of skills to identify warning signs of violence should be encouraged.

REFERENCES

1. TNN. Doctors are next to God says Mary Kom. TNN Jan 25, 2014. Available at: <https://timesofindia.indiatimes.com/city/guwahati/Doctors-are-next-to-God-says-Mary-Kom/articleshow/29343073.cms> (accessed 06 April 018).
2. Bengali S. After string of attacks, doctors seek protection from angry families. Los Angeles Times, Aug 26, 2015. Available at: <http://www.latimes.com/world/asia/la-fg-india-doctor-attacks-20150826-story.html> (accessed 06 April 2016).
3. Smith G. Should doctors be like workers on factory assembly line? KevinMD.com March 16, 2011. Available at: <https://www.kevinmd.com/blog/2011/03/doctors-workers-factory-assembly-lines.html> (last accessed 11-04-2018).
4. Morrison J L, Lantos J D, Levinson W. Aggression and violence directed towards physicians. *Journal of General Internal Medicine* 1998; 13: 556 – 561.
5. Paola F, Malik T, Qureshi A. Violence against physicians. *J Gen Intern Med* 1994; 9: 503 – 6.
6. American Psychiatric Association. Task Force Report on Clinician Safety. Washington DC. American Psychiatric Press 1992.
7. Rice M M, More G P. Management of the violent patient: therapeutic and legal considerations. *Emerg Med Clin North Am* 1991; 9: 13 – 30.
8. Ali A, Johna SD. Crime and Punishment in Ancient Surgery: An Examination of Assyrian and Egyptian Physicians. *J Anc Dis Prev Rem* 2015; 3: 119. doi:10.4172/2329-8731.1000119
9. Oppenheim AL. A caesarian section in the second millennium B.C. *Journal of the History of Medicine and Allied Sciences* 1960; 15: 292-294.
10. Sullivan R. The identity and work of the ancient Egyptian surgeon. *Journal of the Royal Society of Medicine* 1996; 89: 467-473.
11. DeBakey ME. A Surgical Perspective. *Annals of Surgery* 1991; 213:499-531.
12. Martins E Silva J. Medicine in Ancient Mesopotamia. *Acta Med Port.* 2009 Nov-Dec;22(6):841-54.
13. Bal A. A doctor's murder. *Issues in Medical Ethics* 2001; 9: 1: 39 – 40.
14. Nagral S. Doctors and Violence. *Indian Journal of Medical Ethics* 2001; 9: 4: 107
15. Ambesh P. Violence against doctors in the Indian subcontinent a rising bane. *Indian Heart Journal* 2016; 68: 5: 749 – 50.
16. Nagpal N. Incidents of violence against doctors in India: can these be prevented? *The National Medical Journal of India* 2017; 30: 2: 97 – 100.
17. Anonymous. Chinese doctors are under threat. *Lancet* 2010; 376:657.
18. Anonymous. Violence against doctors: Why China? Why now? What next? *Lancet* 2014;383:1013
19. Wu D, Wang Y, Lam KF, et al. Health system reforms, violence against doctors and job satisfaction in the medical profession: a cross-sectional survey in Zhejiang Province, Eastern China. *BMJ Open* 2014;4: e006431. doi:10.1136/bmjopen-2014-006431
20. Rasul C H. Violence towards doctors. *Bangladesh Medical Journal* 2012; 43: 1 & 2: 1 – 2.
21. Mirza NM, Amjad AI, Bhatti AB, tuz Zahra Mirza F, Shaikh KS, Kiani J, et al. Violence and abuse faced by junior physicians in the emergency department from patients and their caretakers: A nationwide study from Pakistan. *J Emerg Med* 2012;42:727–33. doi: 10.1016/j.jemermed.2011.01.029.
22. Imran N, Pervez MH, Farooq R, Asghar AR. Aggression and violence towards medical doctors and nurses in a public health care facility in Lahore, Pakistan: A preliminary investigation. *Khyber Med Univ J* 2013;5:179–84.
23. IRIN news. Rude Health – fear and violence in Nepal's medical system. Kathmandu 21 March 2014. Available at: <http://www.irinnews.org/report/99818/rude-health-fear-and-violence-nepal%E2%80%99s-medical-system> (last accessed 12 April 2018).
24. Derazon H, Nissimian S, Yosefy C, Peled R, Hay E. Violence in the emergency department [Hebrew]. *Harefuah* 1999;137:95–101.
25. Hobbs F D R. Aggression against doctors: a review. *Journal of the Royal Society of Medicine* 1996; 89: 69 – 72.
26. Schnieden V, Maguire J. A Report on Violence at Work and its Impact on the Medical Profession Within Hospitals and the Community. London: BMA, September 1993
27. Hobbs FDR. General practitioners' changes to practice due to aggression at work. *FamPract* 1994;11:75-9
28. Hobbs FDR. Fear of aggression at work among general practitioners who have suffered a previous episode of aggression. *Br J Gen Pract* 1994;44:390-4
29. Hobbs FDR. Violence in general practice: a survey of general practitioners' views. *BMJ* 1991;302:329-32

30. Philips J P. Workplace violence against health care workers in the United States. *N Engl J Med* 2016; 374: 1661 – 9.
31. Taylor J L, Rew L. A systematic review of the literature: workplace violence in the emergency department. *J ClinNurs* 2011; 20: 1072 – 85.
32. Leach – Kemon K. Visualizing Gun Deaths: Comparing the US to the rest of the world. *Humanosphere*, 13 June 2016. Available at: <http://www.humanosphere.org/science/2016/06/visualizing-gun-deaths-comparing-u-s-rest-world/> (last accessed 14 April 2018)
33. Lau J B, Magarey J. Review of research methods used to investigate violence in the emergency department. *AccidEmergNurs* 2006; 14: 111 – 6.
34. Ruser J W. Examining evidence on whether BLS undercounts workplace injuries and illnesses. *Monthly Labor Review*. August 2008: 30– 32. (<http://www.bls.gov/opub/mlr/2008/08/art2fullpdf>) (last accessed 14 April 2018).
35. Hahn S, Zeller A, Needham I, Kok G, Dassen T, Halfens R J. Patient and visitor violence in general hospitals: a systematic review of the literature. *Aggress Violent Behav* 2008; 13: 431 – 41.
36. Pompeii L, Dement J, Schoenfisch A, Lavery A, Souder M, Smith C, et al. Perpetrator, worker and workplace characteristics associated with patient and visitor perpetrated violence (type II) on hospital workers: a review of the literature and existing occupational injury data. *J Safety Res* 2013; 44: 57 – 64.
37. Vellani K H. The 2014 IHSSF crime survey. *J HealthcProt Manage* 2014; 30: 28 – 35.
38. Harrell E. Workplace violence, 1993 – 2009. Washington DC: Department of:Justice, Bureau of Justice Statistics, National Crime Victimization Survey, 2011 (<http://www.bjs.gov/content/pub/pdf/wv09.pdf>) (last accessed 14 April 2018)
39. Occupational safety and health administration. Guidelines for preventing workplace violence for health care social service workers (OSHA, 3148- 01R). Washington DC: OSHA, 2015 (<http://www.osha.gov/Publications/osha3148.pdf>) (last accessed 14 April 2018)
40. Census of fatal occupational injuries (CFOI) – current and revised data. Washington DC. Bureau of Labor Statistics, 2014 (<http://www.bls.gov/iif/oshcfoi1.htm>) (accessed 14 April 2018)
41. Kowalenko T, Gates D, Gillespie G L, Succop P, Mentzel T K. Prospective study of violence against ED workers. *Am J Emerg Med* 2013; 31: 197 – 205.
42. Hoskins A. Occupational injuries, illnesses, and fatalities among nursing, psychiatric, and home health aides, 1995 – 2004. Washington DC: Bureau of Labor Statistics, June 30 (<http://www.bls.gov/opub/mlr/cwc/occupational-injuries-illnesses-and-fatalities-among-nursing-psychiatric-and-home-health-aides-1995-2004.pdf>) (accessed 14 April 2018)
43. Gerberich S G, Church T R, McGovern P M, Hansen H E, Nachreiner N M, Geisser M S, et al. An epidemiological study of the magnitude and consequences of work related violence: the Minnesota Nurses Study. *Occup Environ Med* 2004; 61: 495 – 503.
44. BLS. Nonfatal occupational injuries and illnesses requiring days away from work., 2010. Washington DC: Bureau of Labor and Statistics, Department of Labor, 2011.
45. Gerberich S G, Church T R, McGovern P M, Hansen H, Nachreiner N M, Geisser M S, et al. Risk factors for work-related assaults on nurses. *Epidemiology* 2005; 16: 704 – 9.
46. Privitera M, Weisman R, Cerulli C, Tu X, Groman A. Violence toward mental health staff and safety in the work environment. *Occup Med (Lond)* 2005; 55: 480 – 6.
47. Pompeii LA, Schoenfisch A L, Lipscomb H J, Dement J M, Smith C D, Udadyaya M. Physical assault, physical threat, and verbal abuse perpetrated against hospital workers by patients or visitors in six U S Hospitals. *Am J Ind Med* 2015; 58: 1194 – 204.
48. Kowalenko T, Walters B L, Khare R K, Compton S. Workplace violence: a survey of emergency physicians in the state of Michigan. *Ann Emerg Med* 2005; 46: 142 – 7.
49. Behman M Tillotson R D, Davis S M, Hobbs G R. Violence in the emergency department: a national survey of emergency medicine residents and attending physicians. *J Emerg Med* 2011; 40: 565 – 79.
50. Judy K, Veselik J. Workplace violence: a survey of paediatric residents. *Occup Med (Lond)* 2009; 59: 472 – 5.
51. Gacki-Smith J, Juarez A M, Boyett L, Homeyer C, Robinson L, MacLean S L. Violence against nurses working in US emergency departments. *J NursAdm* 2009; 39: 340 – 9.
52. McPhaul K M, Lipscomb J A. Workplace violence in health care: recognized but not regulated. *Online J Issues Nurs* 2004; 9: 7.
53. Hartley D, Doman B, Hendricks S A, Jenkins E L. Non-fatal workplace violence injuries in the United States 2003 – 2004: A follow back study. *Work* 2012; 42: 125 – 35.

54. Gates D, Gillespie G, Kowalenko T, Succop P, Sanker M, Farra S. Occupational and demographic factors associated with violence in the emergency department. *AdvEmergNurs J* 2011; 33: 303 – 13.
55. Kelen G D, Catlett C L, Kubit J G, Hsieh Y H. Hospital-based shootings in the United States: 2000 to 2011. *Ann Emerg Med* 2012; 60: (6): 790 – 8. e1.
56. Hanson G C, Perrin N A, Moss H, Laharnar N, Glass N. Workplace violence against homecare workers and its relationship with workers health outcomes: a cross sectional study. *BMC Public Health* 2015; 15: 11
57. Gates D M, Ross C S, McQueen L. Violence against emergency department workers. *J Emerg Med* 2006; 31: 331 – 7.
58. May D D, Grubbs L M. The extent, nature and precipitating factors of nurse assault among three group of registered nurses in a regional medical center. *J EmergNurs* 2002; 28: 11 – 7.
59. Findorff M J, McGovern P M, Wall M M, Gerberich S G. Reporting violence to a health care employer: a cross-sectional study. *AAOHN J* 2005; 53: 399 – 406.
60. Kansagra S M, Rao S R, Sullivan A F, Gordon J A, Magid D J, Kaushal R, et al. A survey of workplace violence across 65 U S emergency departments. *AcadEmerg Med* 2008; 15: 1268 – 74.
61. Campbell J C, Messing J T, Kub J, Agnew J, Fitzgerald S, Fowler B, et al. Workplace violence: prevalence and risk factors in the Safe at Work Study. *J Occup Environ Med* 2011; 53: 82 – 9.
62. Canton A N, Sherman M F, Magda L A, Westra L J, Pearson J M, Raveis V H, et al. Violence, job satisfaction, and employment intentions among home health care registered nurses. *Home Healthc Nurse* 2009; 27: 364 – 73.
63. Nachreiner N M, Gerberich S G, Ryan A D, McGovern P M. Minnesota Nurses' Study: perceptions of violence and the work environment. *Ind Health* 2007; 45: 672 – 8.
64. Runyan C W, Zakocs R C, Zwering C. Administrative and behavioral interventions for workplace violence prevention. *Am J Prev Med* 2000; 18: Suppl: 116 – 27.
65. Heckemann B, Zeller A, Hahn S, Dassen T, Schols J M, Halfens R J. The effect of aggression management training programmes for nursing staff and students working in an acute hospital setting: a narrative review of current literature. *Nurse Educ Today* 2015; 35: 212 – 9.
66. Bhattacharjee A, Mohan D. India's healthcare system is becoming more and more unequal. *The Wire Health* 12 June 2017. Available at <https://thewire.in/health/india-healthcare-system-inequality> (accessed 04 April 14, 2018)
67. Ward P R, Rokkas P, Cenko C, Pulvirenti M, Dean N, Carney S, et al. A qualitative study of patient (dis)trust in public and private hospitals: the importance of choice and pragmatic acceptance for trust considerations in South Australia. *BMC Health Services Research* 2015; 15: 297. DOI 10.1186/s12913-015-0967-0
68. Gladwell M. *Blink. The power of thinking without thinking.* London. Penguin Books. 2005; p 40.
69. Pioneer News Service. DrDolittle promises to be there at PHC for all the medical checkup. *The Pioneer*. Saturday 14 April 15, 2018, Lucknow. Available at: <http://www.dailypioneer.com/state-editions/lucknow/dr-dolittle-promises-to-be-there-at-phc-for-all-the-medical-check-up.html> (accessed 15 April 2018)
70. Hanlon R E, Brook M, Stratton J, Jensen M, Rubin L H. Neuropsychological and intellectual differences between types of murderers. *Criminal Justice and Behavior* 2013; 40: 8: 933 – 948. <https://doi.org/10.1177/0093854813479779>
71. Nagpal N. Incidents of violence against doctors in India: Can these be prevented? *The National Medical Journal of India* 2017; 30: 2: 97 – 99.

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