**Epidemiology of Violence against doctors of India resorting to strike: A descriptive analysis from India**

**Abstract**

**Background:** Increasing violence and verbal abuse in the current stressed working environment with minimal facilities by the patients and their relatives is observed in recent decades. Long working hours, High patient doctor ratio, late reporting of the patients to the hospital and expectation of magical cure by the doctor are various factors which are contributing to frequent altercations. Occurrence and distribution of strikes due to vandalism on doctors in private and government hospitals across the country who resorted to strike was studied in view of recent trends, state wise distribution and types of injuries inflicted.

**Methods**: A descriptive analysis of reported data on vandalism on doctors from the Google search engine, all national and local news websites of last eleven years from January 2006 to May 2017.

**Results:** The number of cases reported was counted yearly which showed a remarkable increase in crime against doctors. Majority of cases have been reported in media from Delhi and Maharashtra in last eleven years. Out of 100 cases reported majority were witnessed in 2015 and 2016 (17 each) and followed by 2017 (14). Majority of males suffered grievous injury (52.1%) this distribution was statistically significant (p:0.001). The night shift contributed higher proportion of grievous injuries (52.9%) (p: 0.003).

**Conclusion:** The source of this intolerance towards health care providers stems from unlimited expectation (magic cure) from doctors on one hand and unjustified expectation and limited health education of patients and their caregivers (attendants and bystanders) led them to believe that medical science has a curative solution for all the health problems even in the resource rich settings.

**Keywords:** trend of strike, doctors, vandalism, physical, predictors

**Introduction**

Historically the doctor has played the three roles concurrently- ‘Healer’, ‘Teacher’ and ‘Preacher’ and enjoyed prestige in the community as second God or saviors of life. But slowly this image has been tarnished due to many factors including the profession itself. The craziness for easy money, commercial approach, earning fame at any cost, competitive attitudes, corruption, etc., vices has slowly engulfed this noble profession. This has led to distrust among the stakeholders and the common mass of people has equated this stressful profession with all other professions. As a downstream effect since few decades attack on treating physicians, is taking an epidemic form in third world countries like India. The seriousness of the attack in terms of brutality has also become alarmingly life threatening. Doctors on duty are being systematically attacked by the caregivers and bystanders on the plea of maltreatment of patients have increased in dangerous proportion to become a matter of concern. This has also resulted in temporary and mass interruption of duty by the doctors.1 Strike is a one of the nonviolent and legitimate form of protest in a democracy, which is done collectively in mass mostly to get one or more demands to be fulfilled. It is well known fact that the creamy layer of best students of the society chooses this profession and goes through a long period of training to become eligible for health care by regulatory body in India which is usually ten years or more after school leaving examinations. Today, the safety of doctors both in public and private sectors has become a big issue as there are increasing reports of vandalism and mishandling of doctors at the hands of angry attendants of patients following any death or alleged medical negligence. 2 The article deals with the trend of vandalism against health care providers from 2006 till 2017 at various health care facilities of India.

**Methods**

We comprehensively searched the Google search engine, all national and local news websites for the reported data of last eleven years on cases of vandalism from January 2006 through May 2017.  We also searched for related anecdotes from blogs and literature on Google scholar and National Library of Medicine's PubMed database. We used combinations of medical subject headings (MESH) and free text words that included search terms related to the outcomes i.e., strike by health care workers across India and the factors resorting to strike viz., assault/attack on doctors/ health care staff, violence/ bullying/ mobbing of health care staff and destruction of hospital. The filters included were English for the language category and humans for the study category. We identified news articles eligible for further review by performing an initial screen of identified titles, followed by a full-text review. Assault/attack has been defined as intentional behavior that harms another person physically, including sexual assault.

Physical violence is defined as the use of physical force against another person or group that results in physical, sexual or psychological harm. It includes among others, beating, kicking, slapping, stabbing, shooting, pushing, biting and pinching, whereas psychological violence includes verbal abuse, bullying/mobbing, harassment and threats. Bullying/mobbing has been defined as repeated and over time offensive behavior through vindictive, cruel or malicious attempts to humiliate or undermine an individual or groups of employees. 3 In this analysis verbal abuse has not been included as none of them are reported in media.

Strike was defined as per the definition given by Industrial Dispute Act, 1947as cessation of work by a body of doctors employed in health industry acting in combination, or a concerted refusal, or a refusal, under a common understanding of any number of persons who are or have been so employed to continue to work or accept employment. 4

The research was formulated in a phenomenological theoretical framework and data was collected in the following sequence:

1. Hospital names and cases of strikes reported from 2006 through May, 2017.
2. Total number of cases reported yearly
3. Reasons involved for these strikes especially the harmful attitudes towards doctors were included in this analysis
4. Types of injury encountered by doctors due to physical assault by relatives
5. Other demographic details related to outcome variables were also noted
6. The common variables in all the reported events were independent variable of the analysis like time of incidents, area of hospital where it occurred, gender of doctor, designation of doctor, type of hospital (public/private sector), etc.

The quantitative data which was categorical in nature hence presented in form of frequency or proportions. The test of significance applied on categorical variables was chi square with 5 percent as a cut off for level of significance. For continuous variables like duration of strike and number of people involved in attack on doctors were presented as median and inter quartile range. Due to non normal distribution of these variables the non parametric test (Kruskal Wallis) was applied.

**Results**

Hospitals were line listed to create a database of the cases of attacks especially destruction against hospital and doctors by the caregivers of patients to prioritize the outrage faced by doctors at different levels and also to raise questions on the stringency of laws which are still fragile in preventing the modesty of a doctor. The search engines initially identified 340 reports of vandalism and a total of 298 were screened by inclusion criteria. Based on the search conducted for different states of the country 100 cases of vandalism resorting to strike for 11 years were finally included for analysis.

The state wise list of reported cases of attack against doctors till May, 2017 is tabulated for ready reference of the prospective readers. (Table 1) Majority of cases have been reported in media from Delhi and Maharashtra in last eleven years. Out of 100 cases reported majority were witnessed in 2015 and 2016 (17 each) and followed by 2017 (14). (Figure 1) The maximum number of such cases was from public sector as compared to private sector. A higher number of cases have been reported from Government hospitals of Delhi and Uttar Pradesh (UP); however Maharashtra and Rajasthan reported more number from private sector. The south Indian states reported an almost equal number of cases both from private and public sector. Overall majority of cases were reported from North and West part of India.

The numbers of cases reported were counted yearly which clearly showed a remarkable increase in strike by doctors. The trend of vandalism cases resorting to strike in Figure 1 shows peaking of cases in 2007 and 2011. After 2013 the cases have been on rise.

The institutes and centers of the country reporting highest number of vandalism cases against doctors have been listed in descending order in Table 2. The three hospitals which topped were from the capital state of the country; one of which was the apex institutes of the country. Other institutes which had frequent history of attack on doctors were from Maharashtra, Punjab and Bihar.

Cases of vandalism resorting to strike were analyzed to identify the predictors of type of injury occurring among doctors from the available data in Table 3. In among 6.0% cases there was no reporting about type of injury suffered from the above mentioned data sources. Majority of the attacks were on males (73.0%), resident doctors (72.0%) and in public sector hospitals (51.0%). More than half (51.0%) of the incidents were reported in the night shift and 45.0% in the emergency ward. The type of injury in all the cases was reported as grievous (41.0%) and simple (51.0%). Majority of males suffered grievous injury (52.1%) as compared to females on whom simple injury was mostly reported (80.0%) and this distribution was statistically significant (p:0.001). The time of attack had a significant pattern of type of injury. The night shift contributed higher proportion of grievous injuries (52.9%) (p: 0.003). Majority of cases were reported in months of March, April and September. Two deaths were also reported one each in May and August. (Table 3)

**Discussion**

The current analysis reported data on attack on doctors and the trend over eleven years shows that the incidents have increased and majority has been reported from government hospitals of Delhi and UP. The numbers of such destructive cases are on rise after 2013. The number of cases in majority of North Indian states has been from public sector in contrast to South Indian states. Among the probable reasons the important ones are overworked junior doctor or health care staff with continuous 36 hour duty leading to increase in irritation and stress, non specialist junior doctors on duty are more dedicated in preparation for their entrance tests rather than patient care, shortage of faculty and staff in public sector as they find private sector luring in terms of money and duty hours. Even shortage of basic medicines in public sector hospitals (especially those on the National List of Essential Medication) forces doctors to ask patients to buy medicines from outside, which adds up to the suspicion of patients and their attendants. Another is lack of working equipment in hospitals which results in referral of patients elsewhere, and adds up to the suspicion of doctors being hand-in-glove with laboratories, when actually they are helpless. 5 Similarly the perceived reasons and risk factors of workplace violence quoted by doctors of India, Israel and Greece were long waiting hours of patients in public sector, dissatisfaction with behavior of nursing staff, delayed medical provision, drug addiction by attendants of patients, overcrowded hospitals, shortage of medicines and poor working condition of doctors. 6-9

China’s ministry of health statistics in the number issued by them on violence attacks on doctors and medical staff increased from about 10,000 in 2005 to more than 17,000 in 2010.10 A study by Hongzing Yu et al., from China have reasoned that this violence are due to poor quality of services, increased awareness of patients about their rights and their willingness to knock the doors of courts to seek justice. 11 According to a study conducted in Pakistan almost 77% of physicians have faced either verbal or physical abuse. Another study from public sector healthcare facility in Lahore and Saudi Arab reported that 74% and 67.4% of respondents were victims of violence during the preceding twelve months respectively with verbal abuse being the most common.12-14 A national survey in Australia revealed that 58% of General Practitioners; more with lesser years of experience had experienced verbal abuse and 18% experienced property damage.15

Such destructive acts have led to death in many cases and the proportions of grievous injury have increased over ten years. Probably it could be due to intoxication of patient or patients’ relatives with alcohol; attacks might also have been aggravated by stress due to poor communication, financial loss and longer waiting time. Also there are very high expectations about quality of care and a hope for complete and quick improvement. Due to rise of ‘consumerism’ in health care, the obligation of physicians to recommend interventions based on evidence of benefit and harm is challenged by patients who have the expectations of a consumer. 16-18 Hence even if the health care providers might have been over-worked and burnt out, it is expected they should behave empathetically with delivery of best possible clinical insight in the infrastructure and logistics available on the spot. The breakdown in the trust in the doctor patient relationship is also attributed to menace of corruption, overcharging for services and the so-called referral system, in which referring doctors get a cut on tests they prescribe. 19

There is evident increase in number of cases in metropolitans of Delhi and Maharashtra. The two metropolitan cities in the two states are different from the rest of the country in that they cater majority of migrant population from nearby states. Migration has been proved not only to lead to stress, but also anxiety and depression for immigrants. 20-23 This further can be a probable reason of agitated behavior of attendants of these migrant patients. Two descriptive studies in public sector tertiary care centers of Delhi reported 40-47 percent doctors experienced violence in last 12 months.6,7 The finding supported our study in terms of males experiencing more violence, during night shifts and more than three fourth in emergency area. Emergency department has been recognized as violence prone environment due to anxiety and stress of relatives of critically ill patients.24-27 In India there is increased concern about the safety of doctors during night shift and weekends due to paucity of consultants for second opinion and consequently increased workload. This is evident from our analysis too, that more than half of such cases occur in night shift and among resident doctor on duty. A previous study also showed that doctors especially females were more dissatisfied on a night shift than working on day shift. 28Kumar et al.,6 reported females experiencing more violence that too majority from Obstetrics and Gynecology department and Anand et al.,7 reported that residents of Medicine department were the most affected lot. Above two studies were single centric public sector based, they reported data department wise whereas our analysis was based on reports from media which resorted to strike and hence resident doctors of public and private sector were the prime victims in majority of cases. The single centric descriptive studies have also reported the verbal violence in majority which was not included in our analysis as these are less likely to be reported with police or media and do not resort to strike. 6,7, 29-31

As a result of increasing violence against doctors and destruction in hospital campuses by patients and their relatives, few state governments have passed state Acts for the safe guard of treating first contact physicians e.g. Maharashtra, Haryana, Punjab, Delhi, UP, Tamil Nadu and Karnataka, but it has not been implemented even in those states effectively due to resistance from administration. Impact of such act and its implementation is a future area of detailed research. Strike is a one of the nonviolent and legitimate form of protest in a democracy, which is done collectively in mass mostly to get one or more demands to be fulfilled. 32Physician in India either in private or public sector are undergoing alarmingly increasing number of strikes in last few decades.In our analysis with only 38% of the cases resorting to strike the mean duration remained to be 2.7 days, with a maximum of ten days. However emergency services have never been deterred during the times of strike. When the health care providers are forced to go for strike in desperation, even then they need to ensure that no one in critical condition suffers due to strike to prevent isolation from common mass in general.

The soft approach to people who target hospitals and health workers encourages potential assailants. This is high time for our government to formulate more effective health policy to address workplace violence in the health sector.

The potential source of bias in our study was the data source and this was the limiting factor also. Many cases have been missed due to non-reporting or reporting in the news channels which are not available on web. Inclusion of search engines available on web was also one of the limitations of our study because of which many cases may have been missed. Also missing information in regard to various parameters predicting the potential attacks led to exclusion of those cases in the study. Moreover we presented the tip of the iceberg in our analysis in form of physical violence which are reported and resort to strike. Also we discussed the health care providers’ perspectives; the patients’ perspectives need to be explored.

To conclude whatever be the cause of violence the impact is grievous. The loss of property or life clearly questions the current modalities and laws created for the protection of health sector from patients and their relatives. Cases of verbal abuse and minor altercations are not counted in these counts. The soft approach to people who target hospitals and health workers encourages potential assailants. Many times it has been noted that political leaders do not play positive role to save the persons engaged in this noble profession from the wrath of irresponsible caregivers, bystanders or even unrelated hooligans as noted on national as well as local levels. Public should be educated to seek for legal action for professional misconduct on the part of doctor, if any.

Last but not the least, if these types of relentless attack on this health care profession is unchecked by the policy makers, political leaders, regulatory bodies and administrative authorities, then brilliant students will be scare to opt for this profession and the needs of the people in health care will be disregarded by the backbenchers of the school.

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