ORIGINAL ARTICLE

The Perception of Doctor Bullying by Patients and Relatives at Malaysian Emergency Departments in Regional Referral Hospitals

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ABSTRACT

INTRODUCTION: Bullying can occur in terms of physical, verbal, mental, sexual, and/or litigation. The main objective of this study was to determine the prevalence of Emergency Department (ED) doctors being bullied by patients and/or relatives, the types of bullying faced and the Post-Traumatic Stress Disorder (PTSD) it may have caused them. **MATERIALS AND METHODS**: This was a cross-sectional study conducted in all 14 Malaysian state-tertiary government EDs. EDs were chosen as they encountered the maximum number of patients in hospitals. Data was obtained electronically among doctors randomized in each hospital. A validated questionnaire (POPAS-NZ) was used to determine the act of bullying and the impact of the most distressing event (IES-R scale) to detect PTSD. **RESULTS:** In total, 316 doctors participated in this study and the majority (98.7%) experienced some kind of bullying (98.1% faced verbal abuse). Among those bullied, 83.7% of doctors reported verbal abuse to be the most distressing event. Most of the preparators of the distressing incident were by accompanying relatives of patients (62.1%). Sexual abuse caused PTSD of concern- high enough to suppress the immune system. The final factors that were deemed to be significant to the mental abuse were age (p=0.03) and gender (p≤0.001). Ladies had 2.69 times the odds (AOR 95% CI:1.57;4.60) to be mentally abused compared to men. Ladies had 5.50 times the odds (AOR 95% CI:1.88;16.11) to be sexually abused compared to men. **CONCLUSION:** Most doctors who worked in the ED faced bullying- commonest being verbal abuse. Sexual abuse caused the most distressing PTSD

Keywords
Bullying of doctors, Post-Traumatic Stress Disorder, Abuse, Emergency Department, Malaysia

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INTRODUCTION

Doctors were once known to be respected among public at large. However, times have changed and so has the public perception and respect for doctors. Nowadays, doctors have reported being subjected to bullying and abuse by the public during their consultations on duty, especially in frequently utilized departments like the Emergency Department (ED). Much has been reported on this in the United Kingdom and New Zealand by their National Health Systems but there is very little on this topic in Malaysia, as it might be brushed off as being a common issue.[1-3] A study done in Malaysia in 2018 at a major regional referral centre reported that 29.4% of staff faced bullying (especially among the nurses).[4] Workplace violence was reported to be at 71.3%.[4]. This study, however, defined verbal/physical abuse separately from bullying.[4]

Bullying is defined as an act by persons who use strength or influence to intimidate and harm those who are weaker.[5]

The definition (taken from a study by Swain *et al* done in New Zealand) of bullying by patients/relatives were as follows:[3]

Physical abuse - having faced either physical aggression, destructive behaviour, attempted assault, or assault. Physical aggression is defined as a patient throwing objects, slamming doors, kicking, or gesturing without damaging persons or property. Destructive behaviour is defined as when a patient breaks or smashes objects, kicks or striks out toward them, and causing damage to possessions and property but involving the body of a person. An attempted assault is defined when a patient breaks or smashes, kicks, or striks out toward a doctor but not physically hitting or harming them. An assault is defined as a patient hitting, punching, kicking, pulling, or pinching the doctor without causing physical injury.

Verbal abuse - having to face verbal anger or a verbal threat. Verbal anger is defined as a patient being loud, angry, and insulting but not being perceived as a personal threat. A verbal threat is defined when a patient is loud, angry, insulting, and being perceived as a personal threat.

Mental abuse - having faced humiliation or stalking. Humiliation is defined as throwing personal insults, name-calling, or gestures perceived as decreasing the self-esteem of doctors or as humiliating. Stalking is defined as when a patient one believes has monitored, followed, or stalked a doctor.

Sexual abuse - having faced sexual harassment or sexual assault. Sexual harassment is defined as a patient speaking, looking, or gesturing in a manner that a doctor perceives as making an unwanted sexual advance and the definition of sexual assault is when a patient physically touches or assaults in a manner a doctor perceives as unwanted and of a sexual nature.

Litigation - a patient believed to have harassed a doctor by making untrue or inaccurate (without any basis just to worry them) complaints about them to their supervisors, the university, the hospital, or other authorities.

We found numerous papers discussing about doctor facing abuse, but very few specific to the perpetrators. Abed M *et al* (2016) studied workplace violence suffered by medical staff in Barbados and patients was the main culprits for violence towards doctors.[6] MS Talas *et al* reported that 85.2% of staff working in the ED were exposed to at least one kind of violence in the past 12 months.[7] The prevalence of abuse suffered by ED doctors was mostly caused by patients, and some also on top of suffering bullying from fellow doctors or nurses.[8, 9] A study done by Susan Phillips *et al* who studied bullying among doctors in Canada reported that doctors were also facing another type of bullying, i.e. in the form of sexual abuse (harassment) by patients.[10] Sexual harassment faced by doctors had impacted their work performance and willingness to go to work.[10,11] Litigation is a new form of bullying that doctors face.[12] Doctors sometimes face litigation from other colleagues, but there are times when patients are convinced that putting a doctor through litigation for trivial matters is the best way to set the record straight, if they are unhappy with the doctor.[12]

McNamara *et al* reported that among 1774 residents of the American Board of Emergency Medicine members surveyed, 98% of the respondents experienced at least one type of abuse.[13] Unal Ayranchi had conducted a similar study within the ED and reported that most of the staff had suffered from emotional abuse (69.5%), followed by specific threats(53.2%), and physical assault(8.5%).[14]

The objective of this study was to determine the prevalence of ED doctors being bullied by patients and/ or accompanying relatives and the type of bullying faced. We also intended to study Post Traumatic Stress Disorder (PTSD) due to the bullying faced by the doctors.

METHODOLOGY

This was a cross-sectional study that was conducted in all EDs of 14 major state-tertiary government hospitals throughout Malaysia. The EDs were chosen as it was the place deemed to have the maximum number of patient encounters (especially those with first acute ailment encounters) The target population for this study were doctors working in the ED for more than 9 months (9 months was chosen as the arbitrary cut-off point as it would have given the doctors enough exposure to the setting to have been deemed as adequately exposed to the work settings). Data collection for this study was done online and the researchers obtained the help of the 14

state Clinical Research Centres (CRCs). A validated questionnaire (POPAS-NZ) was used to collect data on bullying and another for the psychological impact of the event (IESR) to detect Post-Traumatic Stress Disorder (PTSD). Before the conduct of the study, a pre-test of the POPAS-NZ was done among 5 doctors to look for the suitability of language in the questionnaire.

First, the CRC manager of each state was contacted via email for consent and approval of participation for this study. They appointed a corresponding person (study co-ordinator/SC) to receive and communicate with the researchers throughout the study. The SCs obtained a list of all doctors within the hospital and assigned them to a non-specific number. A list of randomized numbers by the researchers (including additional numbers to facilitate drop -outs/non consent) were then given to the SCs to select doctors to participate in the study.SCs then they were approached the doctors to participate in the study. All doctors fulfilling the inclusion criteria and who consented were included in this study. Those interested to participate were given an online link to the questionnaire. This selection process steps were continued until the desired sample size for each site was obtained. Data was then analyzed using SPSS v20.

Sample size calculation

The sample size for this study was calculated using sample size calculator for prevalence studies.[15] From the study by Coverdale *et al* (2001), we know 50% of residents were somewhat suffering from abuse. We estimated a proportion of 40% of Medical Officers (MO) and 10% of specialists suffering from some kind of abuse.[1] By setting the confidence interval at 95%, the total MOs and specialists needed for this study are 220 and 58 respectively (278 total).

Tools and Techniques for data collection

Socio-demographic information of doctors collected was age, gender, ethnicity, years of working experience, university graduated from, heights, and weights. Assessment of the type of bullying faced by doctors was measured by using a validated questionnaire named the Perceptions of Prevalence of Aggression Scale- New Zealand scale (POPAS-NZ) consisting of 12 items assessing the type of bullying faced in the last 1 year. Modification and validation were done by Gale *et al* with a Cronbach alpha of 0.91.[2]

The psychological impact of the bullying incident was measured using the Revised Impact of Event Scale (IES-R). The IES-R is a 22-item self-administered validated questionnaire that assesses subjective distress caused by a major traumatic event. It measures the effect of daily and acute stress faced due to the traumatic event from a possible 88-point total.[16] Scores of 24 or more indicated "PTSD to be a clinical concern",33 or more "Probable PTSD" and 37 or more "PTSD high enough to affect the immune system's function. For this study, scores above 24 were deemed as having some form of PTSD.

Ethical considerations

Ethical approval to conduct the study was obtained from the National Medical Research and Ethics Committee (MREC) of the Ministry of Health of Malaysia via the National Medical Research Registry (NMRR)- NMRR-16-2181-33217 (IIR).

Data analysis

All continuous data were tested for normality and subsequently reported in Mean and Standard Deviations. The categorical data were reported as whole numbers and percentages. For the analysis, any doctor who experienced any form of bullying was deemed to have been bullied. The binary logistic regression looked at the "bullying" outcome against the "non-bullied". All factors that were $p \leq 0.3$ in the univariate analysis were included in the multivariate regression. Those factors in the multivariate regressional analysis that were $p<0.05$ were considered significant factors.

RESULTS

Socio-demographic data of participants

All the 14 hospitals approached by us agreed to

participate. A total of 316 doctors (252 Medical Officers (MO) and 64 specialists) participated. The mean age of MOs was 29.83(SD 3.42) years while the specialist was 37.47(3.01) years. The gender of specialists who participated in this study was equal in numbers and the MOs were mostly ladies(62.7%). Most of the specialists had worked in the ED for a mean of 5.70 (SD 3.96) years and for the MOs- 2.48(SD 2.67). The majority of specialists graduated from Malaysian universities(93.8%) and more than half (53.6%) of MOs graduated from overseas universities. The detailed demography of participants is described in Table 1.

Table 1: Socio-demographic data of participants

Characteristics		Total *n=316 (%)*	Specialists *n=64 (%)*	Medical Officers
Age *(mean±SD)*		31.38 (4.53)	37.47(3.01)	29.83 (3.42)
Gender	*Male*	126 (39.9)	32 (50.0)	94 (37.3)
	Female	190 (60.1)	32 (50.0)	158 (62.7)
Race	*Malay*	200 (63.3)	47 (73.4)	153 (60.7)
	Chinese	63 (19.9)	12 (18.8)	51 (20.2)
	Indians	47 (14.9)	4 (6.3)	43 (17.1)
Duration of working in ED *(mean±SD)*		3.13 (3.24)	5.70 (3.96)	2.48 (2.67)
Height (m) *(mean±SD)*		1.64 (0.08)	1.64 (0.09)	1.64 (0.08)
Weight (kg) *(mean±SD)*		65.36 (14.13)	66.66 (11.65)	65.03 (14.69)
BMI (kg/m²)	*(mean±SD)*	24.29(4.62)	24.9 (3.53)	24.2(4.85)
	Underweight (<18.5)	23 (7.3)	0 (0)	23 (9.1)
	Normal (18.5-22.9)	112 (35.4)	21 (32.8)	91 (36.1)
	Overweight (23.0-27.4)	110 (34.8)	30 (46.9)	80 (31.7)
	Class 1 Obese (27.5-34.9)	64 (20.3)	12 (18.8)	52 (20.6)
	Class 2 Obese (35.0-39.9)	4 (1.3)	1 (1.6)	3 (1.2)
University graduated in	*Malaysian Uni*	177 (56.0)	60 (93.8)	117 (46.4)
	Non-Malaysian Uni	139 (44.0)	4 (6.3)	135 (53.6)

Frequency of MOs and specialists who faced bullying

This study showed that the majority- 312 (98.7%, 95%CI: 96.5-99.6%) of doctors experienced some kind of bullying whilst working in the ED. A total of 98.4% (95%CI: 90.4-99.9%) of specialist and 98.9%(95%CI: 96.4-99.7%) of MOs reported that they faced bullying.

Type of bullying faced by doctors

Table 2 below shows the type of bullying faced by all doctors, stratified according to the job description of MOs and specialists. Most of the doctors faced verbal abuse (98.1%), followed by physical abuse (69.6%), mental abuse (62.3%), litigation (45.3%) and sexual abuse (10.4%). Full details of the results are displayed in Table 2.

Table 2: Breakdown of those suffering from bullying according to types and specifics of bullying

Types of bullying		Total *N= 316(%)*	Specialists *N=64 (%)*	Medical Officers *N= 252 (%)*
Verbal	*Verbal anger*	310 (98.1)	62 (96.9)	248 (98.8)
	Verbal threat			
	Physical aggression			
	Destructive behaviour			
Physical	*Attempted assault*	220 (69.6)	44 (68.8)	176 (69.8)
	Assault			
	Injury			
	Humiliation			
Mental	*Stalking*	197 (62.3)	35 (54.7)	162 (64.3)
Sexual	*Sexual assault*	33 (10.4)	4 (6.3)	29 (11.5)
	Sexual harassment			
Litigations	*Faced litigations*	143 (45.3)	19 (29.7)	124 (49.2)

**participants were allowed to select more than one option of the type of bullying suffered*

Perpetrator of most distressing incident

The perpetrator of the most distressing incident were the accompanying relatives (62.1%) as reported by 67.9% of specialists and 60.7% of the MOs. Patients were deemed perpetrators in 13.1% of the most distressing incident that doctors reported (10.7% of specialist and 13.7% of MOs reported this). From the total, 24.8% of doctors reported that both the patients and accompanying relatives were perpetrators in a most distressing incident reported (21.4% of specialist and 25.6% of MOs reported this). Full details are listed in Table 3

Table 3: Perpetrator for the most distressing event

Perpetrator of most distressing incident	Total *N=290* n (%, 95% CI)*	Specialists *n=56 n (%)*	Medical Officers *n=234 n (%)*
Patients	38 (13.1, 95%CI: 9.6; 17.7)	6 (10.7)	32 (13.7)
Accompanying Relatives	180 (62.1, 95%CI: 56.2; 67.7)	38 (67.9)	142 (60.7)
Both	72 (24.8, 95%CI: 20.0; 30.3)	12 (21.4)	60 (25.6)

**26 doctors did not report the perpetrator- 22 doctors (15 MOs and 7 Specialists) were bullied but did not report the perpetrator & 4 (3 MOs and 1 Specialist) were not bullied and did not report*

Type of bullying for the most distressing incident with the IES-R interpretation

Among the 312 doctors who reported bullying, verbal abuse (83.7%) was reported to be the most distressing event, followed by mental (5.8%) and litigations (5.8%), physical abuse (4.5%) and sexual abuse (0.3%). Among the entire group, PTSD was a clinical concern for one doctor

(MO) who suffered sexual abuse. From the breakdown of job descriptions, PTSD was a clinical concern among 6.3% of specialist when it came to clinical litigations. For the MOs group, PTSD was a clinical concern when it came to mental abuse (6.8%) and PTSD was high enough to suppress immune system was for sexual abuse (Table 4).

Regression analysis for types of bullying faced with demographic details

Verbal and Physical Abuse

A binary regression analysis conducted showed that there were no final significant factors associated with the outcome of verbal and physical abuse.

Mental abuse

A binary regression analysis was conducted looking at the demographic factors with the outcome of mental abuse. Age, gender, race, state, duration of working and BMI were univariate factors that were significant to be included into the multivariate regression. The final factors that were deemed to be significant to the outcome was age (p=0.031) and gender (p≤0.001). Ladies had 2.69 times odds(AOR 95% CI: 1.57; 4.60) to be bullied compared to men. A model of goodness-of-fit was conducted with the final variables, with the Nagelkerke R^2 =0.098 and the Hosmer-Lemeshow's test resulting in the p=0.17 which meant that the model was an acceptable fit.

Sexual abuse

A binary regression analysis was conducted. Age, gender and duration of working in the Emergency Department were factors that were univariately affecting the outcome. They were included in the multivariate analysis and gender (p=0.002) was the significant factor that affected the outcome of sexually abuse doctors. Ladies had 5.50 times odds (AOR 95% CI: 1.88; 16.11) to be sexually abused compared to their male colleagues. The model of goodness fit only resulted in the Nagelkerke R^2=0.108 and Hosmer-Lemeshow's test yielded p=0.28 which meant the model was an acceptable fit.

Litigation abuse

A binary logistic regression was performed. The factors of age, race, state, duration of working in the ED, BMI and University graduated in where significant factors when a univariate analysis was conducted. The multivariate regression performed showed that the state (p=0.045) were significant factors- the highest state was Pahang (AOR=5.62, 95%CI: 1.15-27.38, p=0.033) and the lowest being Perlis (AOR:0.55, 95%CI:0.09-3.50, p=0.531) when compared to the state of Johor. The model of goodness fit only resulted in the Nagelkerke R^2 = 0.179 and Hosmer-Lemeshow's test yielded p=0.75 which meant the model was an acceptable fit.

DISCUSSION

A study done in 2018 (among staff from a single centre regional referral hospital in Malaysia) concerning workplace violence reported that 71.3% of staff faced workplace violence. From the total, 70.6% reported being verbally abused, 29.4% reporting about beng bullied, 11.0% reported being physically abused and 6.6% received sexual harassment.[4] The findings differ from our study perhaps due to the fact that we conducted a study with sampling from many different hospitals and only

Table 4: The most distressing incident type of bullying and the IES-R interpretation of it

Types of bullying	Total *N=312(%)*	IESR mean (SD)[a]	IESR class	Specialist *N=63 (%)*	IESR mean (SD)[b]	IESR class	Medical Officers *N=249 (%)*	IESR mean (SD)[c]	IESR class
Verbal	261 (83.7%)	16.48 (13.36)	No signs of PTSD	57 (90.5%)	13.06[d] (11.60)	No signs of PTSD	204 (81.9%)	17.41[e] (13.68)	No signs of PTSD
Physical	14 (4.5%)	17.36 (11.73)	No signs of PTSD	1 (1.6%)	2.00	No signs of PTSD	13 (5.2%)	18.54 (11.31)	No signs of PTSD
Mental	18 (5.8)	23.41 (23.65)	No signs of PTSD	1 (1.6%)	12.00	No signs of PTSD	17 (6.8%)	24.13[f] (24.24)	**PTSD is a clinical concern**
Sexual	1 (0.3)	63.00	**PTSD is high to supress immune system**	0	0	No signs of PTSD	1 (0.4%)	63.00	**PTSD is high to supress immune system**
Litigations	18 (5.8)	21.82 (17.48)	No signs of PTSD	4 (6.3)	25.75 (20.87)	**PTSD is a clinical concern**	14 (5.6%)	20.62[f] (17.09)	No signs of PTSD

focussing on doctors. Perhaps the prevalence of bullying amongst other staff within these sampled hospitals might be higher than the reported prevalence amongst doctors. Though our Malaysian guidelines by DOSH on Workplace Violence was established in 2001, it has not focussed on the healthcare aspect like taking into account the abuse from public and patients.[17] The DOSH guidelines (though very extensive) focusses on internal office workplace violence.[17]

Comparing the results in this study with those done in the Asian countries, a study in the year 2015 conducted amongst doctors in Pakistan reported that 16% of doctors faced verbal abuse, 15% faced threats,3% racial harassment, and 2% were bullied in miscellaneous ways by patients.[18] Another study conducted in India reported that the common precursors of the 70% of bullying reported against doctors are due to patient dissatisfaction and low impulse control as well as poor administration, miscommunication, infrastructural issues and the negative medial portrayal of doctors.[19] A study done in New Zealand (2009) amongst 242 participants reported that 63.22% of doctors faced verbal abuse and 5.7% had reported PTSD from the bullying suffered.[2] In another study in 2014 in New Zealand,227 healthcare workers sampled reported that 93% faced verbal anger, 65% physical aggression and 38% physical assault.[3]

In 1995, a study in Canada amongst 186 doctors reported that 92.9% of them faced sexual harassment from either ~~a~~ patients or fellow physicians, 66.6% suffered psychological abuse by patients, 19.6% reported a physical assault mainly by male patients or their family members.[11] In a 2009 Canadian study, 204 psychiatry residents reported 86% were threatened, 71% were physically intimidated, 58% reported unwanted advances,25% were physically assaulted, 12% reported inappropriate touching and 8% were stalked- all commonly faced in the ED.[20] A 2001 study done in the United States of America amongst training physicians~~, it~~ reported that 67% of doctors were verbally abused, 54% physically intimidated, 21% suffered sexual harassment (females more than males) and the most common distressing event was a verbal threat (38%) whilst 23% attributed it to a physical assault not amounting to needing medical attention.[1] A smaller scale study done in 2007 (also in the USA) amongst 61 physicians in primary care reported that 85% of physicians were verbally abused (to which 41% admitted into opting to use security personnel to remove patients/relatives from their consultation) and 1.6% of them suffered from PTSD.[21] Among 204 psychiatry residents in the US (2012) - 86% reported to have been physically threatened, 71% physically intimidated, 58% received unwanted advances and 25% were physically assaulted- though incidences were common in an in-patient setting.[22] A similar study to this research was conducted in the United Kingdom (2002) and it reported that 84% of doctors were victims of a bully incident where race (not being white) and females were deemed to be significant factors.[23] In a paper done amongst Barbados doctors, 7% reported to have suffered from sexual abuse, 3% physical violence, 3% racial violence and when a regressional analysis was done, the factors of being females was strongly attributed to being bullied. In another 2017 paper published in Greece, a study sampling 1374 doctors reported that 50% of doctors faced verbal abuse, 38% threatening behaviour and 20% sexual harassment with women being 3 times more likely to be victims of sexual harassment.[24]

Regarding issues regarding bullying of doctors by patients from studies done in reviewing why doctors were bullied, it was reported that many doctors take it as a norm and refused to report an incident (time-wasting).[2, 20, 21, 23, 25, 26] Thus, the prevalence that is known to administrators and stake holders might differ from the ones that are reported in published data. Although a study done amongst surgical residents surveyed bullying amongst doctors with their perpetrators being other doctors- these events led to stress, depression and anxiety.[12, 27] Amongst the worries about bullying is that it might lead to more medic-legal litigations in the future.[8, 19, 27, 28]

Regarding reasons for patients bullying doctors,
Tal Carmi-Iluz *et al* (2005) who conducted a similar study in Israel reported that the highest cause of violence among physicians was due to long waiting periods and unhappiness with the treatment given.[26] The conditions in the ED which predisposes to violence by the patient and relatives include long duration of waiting, overcrowded environment, high stress environment with overwhelming

fear and anxiety of the unexpected adverse outcomes, 24-hour accessibility and lack of trained staff (Julie Stene *et al*, 2005).

This study would be one of the pioneer research projects looking at bullying amongst doctors by patients in all major government funded Emergency Departments in Malaysia. We identified the bullying faced by doctors along with the psychological impact of that bullying with validated questionnaires and a sufficient stratified sample size.

LIMITATIONS OF THE STUDY

The online questionnaire cannot eliminate the possibility of duplication of questionnaire answered by each respondent, although this was reduced with an email log in to prevent a person from answering twice. This study did not collect data on the gender of the perpetrator of most distressing incident which would have told us more. Though the limitations, the researchers felt that it did not compromise on the objectives and analysis of this research.

CONCLUSIONS

Almost all doctors who are working in Malaysian emergency departments faced bullying. The most rampant bullying faced by doctors was verbal abuse.

Clinicians and policy makers should realise the magnitude of bullying in Malaysia among doctors and the consequences to their mental health and overall wellbeing. Support for these victims is much needed. It might also be useful to study other healthcare workers especially allied healthworkers who might experience bullying (perhaps at greater levels). It will also be useful to identify the reasons why our doctors arebeing bullied (despite the restructuring of our healthcare system especially in the emergency departments). An OSHA guidelines specific for the hospitals settings might be a good way to start with the recognition and procedural handling of bullying in the emergency departments. Victims of bullying should also come forward to report without having to fear any sort of reprimand.

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