Knowledge of Medical Ethics and Law among 51 second year Medical School Students in the Kuala Lumpur.

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Abstract – this is a quantitative case study using a cross sectional design to determine the level of knowledge of medical ethics and law among 51 second year medical students in a private medical school in Kuala Lumpur. Information was collected through a survey using a self-developed questionnaire. The areas of law and medical ethics examined were tort (both intentional and negligence), informed consent and professionalism. Overall, all respondents had good knowledge of medical ethics and law. However, for the subcategory which focused on the elements of informed consent, the respondents were found lacking. Inferential statistics revealed no significant differences in the level of knowledge on medical ethics and law across gender and different age groups.

Key words – cross-sectional design, informed consent, intentional tort, negligence, professionalism, quantitative case study.

1 Introduction

1.1 Background of the study

There has been a rise in the number of medical negligence claims in Malaysia and the amount of compensation plaintiffs are awarded have increased dramatically. Countries like the United States, Australia and the United Kingdom are facing a 'malpractice crisis' [1][2]. Although there are no official statistics, there are clear indications that medical negligence claims are increasing in Malaysia with plaintiffs being awarded compensation that run into millions of ringgit. For example, the Kuala Lumpur High Court awarded RM5.4 million to a plaintiff who sued an obstetrician and gynaecologist and a hospital [3]. The MDM annual report in 2011 [4] noted that a high court awarded RM5.4 million for a brain-damaged child and this amount was not inclusive of legal cost and interest.

1.2 Purpose of the study

Medical students need to have sound knowledge in medical ethics and laws so that they can avoid medical negligence when they graduate and become practising doctors. This study examined the level of knowledge on medical ethics and law among a group of second year medical students in a private medical school in Malaysia's capital Kuala Lumpur.

1.3 Research Objectives

 To determine the overall level of knowledge on medical ethics and law among the group of medical students.

- To determine the level of knowledge of medical ethics and law in four categories; namely intentional tort, unintentional tort or negligence, informed consent and professionalism.
- To determine whether males and females have significantly different mean scores on knowledge of medical ethics and law.
- To determine whether 'individuals aged 20 and below' and 'individuals 21 years and above' have significantly different mean scores on knowledge of medical ethics and law.

1.4 Significance of the study

Stirrat, Johnston, Gillon and Boyd (2010) [5] mentioned that when practising medicine, the knowledge of medical ethics and law is just as important as an understanding in the medical sciences. To be able to practise good medicine, doctors need to consider ethical and legal issues when planning treatment or performing procedures on their patients. Teaching and learning about ethics and law can begin when students are in medical school by incorporating it as a subject into the medical school's curriculum. It has been shown in a study by Papadakis et al (2005) [6], medical students who exhibit unprofessional behaviour e.g., students who are lackadaisical in their studies and do not realise their weaknesses are more likely to face disciplinary action when they become medical practitioners.

2 LITERATURE REVIEW

2.1 Negligence

Everyone (whether an ordinary lay person or professional) is expected to conduct him/herself in a reasonable manner in the performance of activities. According to Pandit & Pandit (2009) [7], when a patient consults a doctor, the doctor owes certain duties to his / her patients including:-

- 1. duty of care in deciding whether to undertake the case.
- 2. duty of care in deciding what treatment to give and
- 3. duty of care in administration of treatment.

Duty of care emphasizes the importance of doctors practising safe medicine and doing their best for their patients even though there may be time when their efforts fail.

The breach of care concerns the standard of care. A doctor is negligent when he / she falls short of reasonable standard medical care. Shuaib and Shuaib (2009)[8] noted that the courts had previously shown a deferential attitude towards medical judgment. However this deferential attitude which is described by the phrase 'the doctor knows best' is slowly dissipating. Negligence used to be determined by fellow medical practitioners but now the courts can decide. This is the stand taken in the landmark case of Foo Fio Na V Dr. Soo Fook Mun and Anor (2007). The court viewed the Bolam's approach as being over-protective deferential to the medical profession. It is the court that determines the reasoning of doctors' conduct and not the profession. The Federal Court opined that the Rogers V Whitaker test would be a more appropriate and viable test of this millennium.

When there is a breach of the above duties, the patient can take legal action for negligence and recover damages usually monetary compensation from the doctor. Elango (2003) [9] mentioned that in order for the plaintiff to be successful in a malpractice suit, there are four elements which are necessary and these are:-

1. The doctor has a duty to treat or otherwise provide service to the plaintiff.

- The doctor breached that duty. There is deviation from the standard of care. This usually requires the introduction of medical experts' testimony to demonstrate that the doctor fell below the minimal acceptable standard of care.
- 3. This breach in the standard of care proximally caused the plaintiff harm.
- 4. Actual damages must be suffered by the plaintiff.

In cases where the doctor's negligence resulted in death of their patients, the law views it as criminal and they will be charged in a criminal court [10].

2.2 Tort

Torts are actions or omissions that cause harm or injury to another person. According to Law Science & Public Health (1993)[11], intentional torts are intentional actions that result in harm to the plaintiff. The harm may not be intended but the act is intentional. Most intentional torts are crimes. The classic intentional tort in medical practice is forcing unwanted medical care on patients. The patient can sue for battery. The other intentional torts in medical practice are false imprisonment and lack of consent. Sorrel (2010) [12] noted that doctors and hospitals cannot detain patients against their wishes and they have a right to refuse treatment. There may be some exceptions in special cases e.g., where patients pose a danger to themselves and others, are mentally incompetent or have reduced decision-making capabilities due to alcohol or drug intoxication.

2.3 Informed consent

Consent is an area of both concern and contention among health care professionals. In a study by Tengku Zainudin, Che Ngah, Abdul Rahman and Mohd. Shariff (2012)[13], a valid consent is required to protect doctors from claims of assault and battery by the patients and claims of unauthorised treatment. Some of the guidelines issued by the Malaysian Medical Council (2016)[14] on informed consent are that medical practitioners must inform the patient in a manner that the patient can understand about the condition, investigation options, treatment options, benefits, all material risks, possible adverse effects or complications, residual effects if any and the likely result if treatment is not undertaken. This is to enable the patient to make his/her own decisions whether to undergo the

proposed procedure, surgery, treatment or examination.

2.4 Legal doctrines which pertain to the medical profession.

2.4.1 Captain of the ship doctrine [15].

Under most circumstances, a doctor is not liable for negligence of hospital employees and staff who are not employed by them. However, there are 2 instances where a doctor can be held liable for non-employee negligence:-

- The doctor discovers that the nonemployee is negligent but fails to check or prevent damages that could happen because of the non-employee's negligent act.
- 2. The non-employee is under the physician's direct supervision or control such that a master and servant relationship exists e.g., surgeon operating in hospital assisted by hospital-employed nurses.

The plaintiff can sue the surgeon directly and hospitals may be less inclined to settle cases of their own staff's negligence.

2.4.2 Respondeat superior

Respondeat superior (literally "let the master answer") makes doctors legally responsible for the actions of their employees as long as the employee is acting within the scope of his/her employment. Doctors who employ unqualified staff may not be covered by their indemnity insurance when there are malpractice suits [9]. The Malaysian Medical Council warns doctors against hiring unqualified individuals to do locum work in their clinics. Doctors who are found guilty can be reprimanded or suspended from practising [16].

2.4.3 Res Ipsa Loquitur

In the article by Thornton (2002)[17], the doctrine of Res Ipsa Loquitur says that negligence can be inferred in situations in which there is no direct evidence of negligence or wrong doing. It is a rule of evidence and instruction on it are presented as follows, "you may infer negligence by a party but are not compelled to do so if you find that

 the character of the occurrence is such that it would ordinarily not happen in the absence of negligence and 2. the instrumentality causing the occurrence was under the control of the party at the time of the negligence."

Examples include surgical instruments or supplies left inside patients' bodies or operating on the wrong side of the body.

2.5 Professionalism

The last area is on professionalism. Unprofessional conduct by medical practitioners can be unethical or criminal in nature. They include exorbitant fees, falsification of medical records, assisting fraudulent activities, breach patient-doctor confidentiality, forming emotional relationship with relatives of current patients, advertising and making false claims, convicted of criminal offence and the over-prescribing and selling of psychotropic drugs.

3 METHODOLOGY

3.1 Type of research

This was a quantitative case study using a cross-sectional design.

3.2 Sampling procedure and sample size

Sampling procedure used was purposive sampling technique. The prospective respondents were selected based on their willingness to participate in this study. The targeted sample size was 50 participants out of a total of about 200 second year medical students. According to Tongco (2007)[18], purposive sampling can be used in quantitative research. The inherent bias of the method contributes to its efficiency. The researcher decides what needs to be known and sets out to find the people who can provide the information based on their experience and knowledge.

3.3 Consent and ethical considerations

Participation in this research was voluntary. Prospective respondents were all given a short explanation on the purpose of the research and to seek verbal consent. Confidentiality was assured. There are no identification marks on the questionnaire. No names of the respondents were to be written on the questionnaire and the name of the institution was kept anonymous. Participants can withdraw from the survey anytime if they feel they do not wish to continue.

3.4 Instrument

The questionnaire used to collect data was named 'Knowledge of medical ethics and law (2nd year medical students)'. It was selfdeveloped by the researcher for this study. The questionnaire consisted of 35 items. The first three items served to gather demographic information namely age, gender, and whether students had taken classes in medical ethics. Questions 4 to 35 served to gather information on three areas of law and medical ethics which were tort, informed consent and professionalism. The area of tort was further divided into intentional tort and unintentional tort or negligence. The various forms of intentional tort covered were assault and battery, false imprisonment and no consent. Negligence or unintentional tort looked at duty of care and breach of care. Items 4 to 35 were presented in the true-false format. One point was awarded for the correct answer and a zero point for wrong answers. If the questions were not answered or if both true-false options were marked, zero points were accorded. Questionnaires with missing and / or missing demographic information was not be used in the analysis. The maximum score for the knowledge on medical ethics and law was 32 and the minimum was zero. The cut-off score was 16 (50%). Scores above 16 indicated sound knowledge of medical ethics and law and scores below 16 indicated poor knowledge of medical ethics and law. The demographic information was used as variables in the study and was related to objectives.

3.5 Data Collection

questionnaires were handed out to participants before class started on the appointed day and were returned to the researcher when class ended for the day. To reduce wastage of the questionnaires and to ensure a fair return rate, only prospective participants were given a copy of the questionnaire. The participants could complete the questionnaire at their own pace as there was no time limit imposed. The participants were asked to tick their choice of answers in pen and to answer all questions. Participants were asked to ensure anonymity and not put any markings on the questionnaires that could indicate who they were or where they number of returned from. The questionnaires was 52.

3.6 Data Analysis

Data from the questionnaires were analysed using SPSS version 21. One questionnaire was discarded due to the respondent answering true-false alternately. The data from 51 respondents

were analysed using descriptive and inferential statistics.

4 FINDINGS AND DISCUSSION

Respondents were divided into two age groups - '20 years and below' and '21 years and above'. Nine participants (17.6%) were in the '20 years and below group' and 42 respondents (82.4%) were in the '21 years and above' group. Forty respondents (78.4%) were females and eleven respondents (21.6%) were males. Fifty (98%) of respondents had attended medical ethics class whereas one respondent (2%) had not attended medical ethics class.

Overall, the mean score for knowledge in medical ethics and law of all 51 respondents was 23.39 with a SD of 3.23 indicating that the respondents have good knowledge in medical ethics and law. In terms of gender, mean score of male respondents was 21.91 with a SD of 4.41 whereas the mean score of female respondents was 23.80 with a SD of 2.75. Based on the age group, the mean score of those in the 20 years and below category was 22.11 with a SD of 4.01 and for the 21 years and above group, the mean score was 23.67 with a SD of 3.02.

For knowledge of medical ethics and law related to intentional tort, there were four questions. The mean was 3.27 (SD = 1.02). The majority of the students understood that patients who are adults and competent have rights and can choose what they want and make their own decisions. In the study by Entwistle, Carter, Cribb and McCaffery (2010)[19], personal autonomy healthcare focuses on situations where decisions need to be made about healthcare interventions. The principle of respecting autonomy is most often associated with the idea that patients should be allowed or enabled to make their own decisions. The idea is that patients should be given options and are allowed to make voluntary choices about life changing health interventions. The other aspect is to enable patients to make decision through providing support, information better understanding on healthcare interventions. In the former, patients may be competent but may lack confidence in making decisions for themselves and may feel abandoned by the doctor. In the latter, in providing information to enable patients to make better decisions, personal biases of the medical practitioner may result in information being given which may sway patients in favour of recommended procedures. In addition it may distract patients from choosing other better and safer options. The current school of thought emphasises offering options and allowing patients to make their own decisions rather than on enabling informed decision-making.

For knowledge on medical ethics and law related to negligence, there were 12 questions. The mean was 9.55 (SD = 1.38). Most respondents understood the concept of duty of care and breach of care which emphasizes practising safe medicine in a safe environment and maintaining a good standard of care. Medicine is constantly evolving. Using antiquated and outdated techniques makes doctors vulnerable to criticism. Having the right facilities and necessary help at hand is a prerequisite of adequate care. Any shortfall may jeopardise patients' well-being and make doctors targets for lawsuits [20]. Based on the archaic "Captain of the ship" doctrine. Present day patient care involves solving problems that goes beyond the skills and training of a single provider. According to Norman (n.d)[21], patient care involves interdisciplinary teamwork. However, physicians are more used to a practice environment where decisions are made by the doctor and carried out by other professionals. This legal doctrine has been rarely used. However, recent lawsuits against some surgeons for the action of other operating theatre staff have been successful. Medical students should have a clear understanding that as future doctors, the greater authority or expertise asserted in performing an act, the greater an individual's legal responsibility becomes.

For knowledge on medical ethics and law related to informed consent, there were 6 questions. The mean was 3.08 (SD=0.82). The respondents did not do well in the area of informed consent and lacked understanding of it. Based on the Malaysian Medical Council guidelines (2016) [14], consent must be specific for a procedure. 'Blanket consent' on admission of a patient either as an outpatient or inpatient is not allowed. The Malaysian Medical Council follows guidelines of the Private Healthcare Facilities and services (Private Hospital and other Private Healthcare Facilities) Regulation 2006 Section 47(3) which states that 'Consent obtained or caused to be obtained under this regulation shall be in writing."

According to Kelly (2012)[22], a proper informed consent process has two advantages which are:-

- 1. It can prevent patients from seeking lawsuits in the first place by establishing realistic expectations that outcomes might include rare but possible complications.
- 2. It could reduce the likelihood of a plaintiff's lawyer accepting a case by providing consent documents that are thorough and specific to the patient and for the procedure. This shows that the patients understood the risks, had adequate opportunities to ask questions, had their questions answered and doubts clarified and accepted the possibilities of potential complications.

Medical students should be very clear about the guidelines for informed consent. This would ensure that the consent they take from their future patients is a valid informed consent that can withstand scrutiny and reduce the risk of malpractice lawsuits.

For knowledge on medical ethics and law related to professionalism, there were 10 questions. The mean was 7.49 (SD = 1.70). most respondents were aware they needed to show a high degree of professionalism. In a study by Mueller (2008)[23], for good standing in the medical profession, individuals must sow professionalism. Medical practitioners have power differentials over their patients and therefore have a fiduciary duty to their patients. Doctors have specialised knowledge and skills that their patients do not have. When patients are ill or injured, they put their trust on doctors when they seek help. Society expects doctors to be competent altruistic, transparent, honest, accountable and foster public good.

Professionalism is associated with improved medical outcomes namely better patient satisfaction and trust, improved patient's adherence to treatment, increase chances that the patient will continue consulting the doctor, fewer complaints and reduced patient litigation. Unprofessional conduct is frequently being reported and doctors sanctioned. Although most doctors conduct themselves professionally, the publicity generated by the unprofessional conduct of a few doctors has reduced the trust that the public had for the medical profession. Lum (2015) [24] reported that a doctor in Singapore was sentence to 10 months jail for

molesting his patient. Quoting the judge, "He violated the dignity of the complainant on more than one occasion and in the conduct of his noble and professional duty. He clearly abused the trust that the complainant had placed in him as her doctor." Responsibilities of maintaining professionalism in medicine begins in medical schools.

The sample was normally distributed and parametric tests were used for inferential statistics. Independent sample t-test was done for the different categories of gender and age groups. There was no statistically significant difference in the level of knowledge on medical ethics and law between male and female respondents and between the '20 years and below' and the '21 years and above' groups.

5 CONCLUSION

In the article by Jahn Kassim (2004)[25], the number of malpractice lawsuits have reached crisis proportions in the USA and probably also in the UK. Although there is no malpractice crisis in Malaysia, the number of negligence claims and size of awards have increased, According to Ganesh (2009), the increase in medical litigation is due to global consumerism, abundant and easy access to information through the internet and the changed manner of the medical profession to that of a business model. Courts are also emphasizing more on patient rights to know and offering patients choices. The patient-doctor relationship is viewed more as a business proposition. The commercialization of medicine which depersonalizes the doctor-patient relationship together with an increase in the public's awareness of their rights would likely lead to more negligence claims and litigations in Malaysia in time to come. Lately, Malaysian courts have made large monetary awards to plaintiffs. A case in the Star newspaper [26] provides a glimpse on the possible future trend of medical malpractice lawsuits in Malaysia. In this case, the court awarded a teenager who became paralysed following surgery RM6 million. The court's decision demonstrate the judicial trend towards emphasising patient's rights to have been informed about the material risk of the surgery in order for the patient to make an informed decision. The publicity could attract potential plaintiffs and lawyers who are ever willing to assist patients and their families to bring legal action against doctors. The media highlighting doctors involved in unprofessional

activities which are often criminal and facing jail sentences has caused the public to lose trust in doctors. Ganesh (2009)[27] mentioned that although most lawsuits against doctors were unsuccessful, their reputations would however be ruined.

Medical students should be fully aware that they are entering a profession which comes with a lot of responsibilities and deviations from the standard of care can bring dire consequences. Incorporating medical ethics and law in the curriculum of Malaysian medical schools is important because doctors are already practising in an increasingly litigious environment where the number of malpractice lawsuits are increasing and awards to plaintiffs is going into millions of ringgit. According to Hau (2003)[28], this is in line with what is already being done in developed countries like the United States of America, Canada, the United Kingdom, Australia and New Zealand.

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