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Assessing litigation risks in patient-doctor interactions at Helen Joseph hospital

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Assessing litigation risks in patient-doctor interactions at Helen Joseph hospital

Research Report

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University of Witwatersrand

Division of Orthopaedic Surgery

Helen Joseph Hospital

Orthopaedic Department

Assessing litigation risks in patient-doctor interactions at Helen Joseph hospital.

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Declaration

I, Stephen David Smith declare that this research report is my own work. It is being submitted for the degree of Master of Medicine in the branch of Orthopaedics, at the University of the Witwatersrand, Johannesburg. It has not been submitted before for any degree or examination at this or any other University.



.....

.....12.....day of ....September....., 2015

Dedication

For

My loving Wife, Dr Kim Barnard

Without whom this would never have been possible

Abstract

Introduction: Medical malpractice lawsuits continue to be filed at an alarming rate, with billions of dollars being paid out across the globe. Most of these claims, defendable or not, are settled out of court. These uncontrolled medical claims continue to push up the costs of medical liability insurance, which in turn pushes up the cost of health care. These pressures are felt most by the "high risk" specialties namely, Obstetrics and Gynaecology, Neurosurgery and Orthopaedics. South Africa has not escaped the wave of medico-legal lawsuits, and may be headed towards greater challenges than its first world counterparts. With the introduction of the new Consumer Protection Act, and having one of the world's most enlightened constitutions, makes the South African medical fraternity an easy target. Litigation involving South African orthopaedic surgeons suggests that the majority of claims filed are due to poor patient-doctor interaction, accounting for 13.35% of all claims.

Methodology: A prospective study conducted at Helen Joseph Hospital 2014. Using a tailored patient satisfaction questionnaire, post operative orthopaedic patients were able to give insight into their satisfaction regarding their personal patient-doctor interactions. Each question was correlated to an area of patient-doctor interaction, that in the past had led to litigation. This was used to asses which areas of patient-doctor interactions were lacking in a typical resource starved state hospital.

Results: Nearly 20% of patients are considering legal action at point of discharge, with no demographic data playing any significant role in this decision. All areas of patient-doctor interactions showed a significantly lower score, in those considering litigation versus those who were not. The two highest risk areas were related to doctor availability and consent taking. This study emphasizes the importance of proper communication between doctors and patients in preventing litigation, and the need for doctors to focus on improving their individual doctor-patient relationships.

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Prof Abdirashid Aden, MD(Som); FCS(SA)Ortho. Head of Department, Orthopaedics, Helen Joseph Hospital

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1.0 Introduction

“If you have suffered severely at the very hands of those medical doctors and hospitals who were meant to help you, our dedicated team at Munro, Flowers & Vermaak Attorneys are the very first people to call..." These words are taken from a radio advertisement that has been, and continues to air on major radio stations since 2009. Words that are all too familiar to the medical doctor practicing in the South African province of Gauteng. Why is a company able to thrive so well off one of the only professions that have taken an oath to do what is ethically correct?

1.1 Medical malpractice

1.1.1 Internationally

Medical malpractice can be defined as the mistreatment of a patient through ignorance, carelessness, neglect or even criminal intent (1). Despite the efforts of most doctors to prevent mistreatment of patients in any way, medico-legal lawsuits are still filed at an alarming rate. In the USA in 2012, $3.6 Billion was paid out for 12142 successful claims - amounting to a payout of a medico-legal suit every 43mins (2). The New England Journal of Medicine suggests that 75% of all "low risk" specialists and 100% of all "high risk" specialists will have at least one case of medical malpractice filed against them (2–4). In 2007 the AMA suggested that higher risk specialties, such as obstetrics, will have a claim rate of 90% before the age of 55 (5) , with these studies showing up to a 100% of all cases settled out of court. These out-of-court settlements continue to push expected payouts to unrealistic levels, with cases in 2006 exceeding £2.7 million. This puts continued pressure on both the tax payer and medical liability insurers which inevitably leads to an increase in

doctor and hospital fees (3,6–8). With increasing law suits and rising costs in personal malpractice insurance, many doctors were left without insurance which led to the development of California's Medical Injury Compensation Reform Act (MICRA). This act limits payouts and enforces a sliding scale for plaintiff and attorney fees. MICRA is often referred to as the gold standard in the medical liability arena (8). In many states and countries, uncontrolled medical settlements continue to grow with larger proportions of the settlement fees, up to 54%, being used to pay lawyers (3). Larger payouts allow lawyers to grow their client base, and make working with no upfront fees possible. In the UK, cases funded by this type of "conditional fee agreement" have increased from 5% to just under 50% in the past 8 years (7). This affords patients the opportunity to "take a chance" at no real cost to themselves.

1.1.2 South Africa

The diversity of South Africa, with its mixed first and third world population, has not protected medical doctors and hospital infrastructure from the onslaught of medico-legal law suits. South Africa may be facing a greater litigation storm than their first world counterparts. As our population increases its awareness of patient rights, under one of the world’s most enlightened constitutions, legal representation continues to increase its targeting of the public sector, threatening a very fragile and already over burdened health care system (9,10). South Africa faces an additional legal pressure since the introduction of the Consumer Protection Act in 2011. The Act allows a patient to hold any person along a distribution chain liable for death, injury or illness caused by an unsafe, hazardous or faulty product. This in essence means, that if a patient receives a faulty implant for example, anybody involved in the supply chain can be held solely or partially responsible, from the producer, importer, distributer, to the surgeon (11). Although liability can be shared among

those responsible, it puts doctors in a difficult position. Patients do not often have all the details and information regarding companies and suppliers of their "faulty product", hence this act allows lawyers and patients to target the doctor as they were the final link in the supply chain, and are the easiest to contact. Pepper and Slabbert give the example of a pacemaker that failed prematurely. Before the institution of the act, the plaintiff needed to prove that the failure occurred because of negligence in the manufacturing process. Now all that is necessary is to prove that due to the failure, the plaintiff suffered harm or loss, and can hence claim damages from anyone in the supply chain, leaving the surgeon the easiest target (9).

The lack of claim restrictions and payout caps have left South African malpractice insurers with substantial bills. The Medical Protection Society (MPS) reported that between 2011 and 2012 the values of claims paid were increasing exponentially, when compared to those over the past 10 years. Claims of over R1 million had increased by approximately 550%, while claims of over R5 million had increased by 900%, with payouts due to medical negligence increasing by 132% since 2010 (10,12). In the same period from 2011 to 2012 the HPCSA received over 2400 complaints against medical doctors (12).

Many have speculated that due to the change in laws and the new Consumer Protection Act, claims from the road accident fund are now less lucrative than before. This together with continued advertisement by law firms with a "No win, No fees" policy, means we are not likely to see a decrease in the escalation of payouts any time soon (12,13). The second problem is that the overburdened, understaffed, and poorly equipped state hospitals are

often unable to provide what is deemed to be the "gold standard of care", forcing many doctors to work out of their scope of practice, making them easy targets (13).

1.2 Consequences of litigation in South Africa

Doctors should be the extreme advocate of patients' rights and health. However, more and more doctors are turning away from this to practice "defensive medicine" - first protect yourself before you can help the patient. An international survey of 3000 doctors revealed that 73% of them practice defensively, 41% refuse to treat certain conditions, and 61% admit to conducting more investigations than are warranted or necessary (14).

An increase in medical malpractice claims affects everybody reliant on any health care system. Continued claims push up insurance premiums, leading to increased medical and surgical fees, affecting the affordability of private medical care. These increases will filter down to medical aid costs, forcing many people to turn to state care. High risks specialists in low patient volume areas (like some rural settings), may stop providing specialized services or even move their practice altogether in order to afford the increasing insurances fees. The increase in defensive practices will again put pressure on those paying for private services, due to the increase in possibly unnecessary investigations. The cost of insurance is well known among medical students and training doctors, which leads many to reconsider training for high risk specialties. All these factors lead to fewer doctors providing specialized skills, higher private fees, and a decrease in services in rural environments. This will lead to a vicious cycle - increased patient load, increased health cost and ultimately an increase in litigation cases. Litigation will remove funds from the

health care system which will lead to an inability to provide adequate health care, which will result in more litigation (9,10,12).

1.3 Litigation in orthopaedics

General Orthopaedics is ranked third on the list of high risk specialties, with only spinal/neurosurgeons and obstetricians ranking higher.

An analysis of the South African MPS data base from 2000 to 2010 showed a 20% increase in malpractice suits when comparing the years 2000 - 2005, and 2005 - 2010. Neurological damage was noted as the most frequent reason for litigation. Cases were divided into broad topics and then subdivided within these categories. The top three categories regarding litigation were spinal surgery (11,6%), Unsatisfactory results (10,5%) and Communication (6,9%). Other significant areas included billing, missed diagnosis and negligence perceived by the patient (15). It was interesting to note that many claims were made due to patient's perception of the doctor or the procedure and not from true mistakes or negligence itself.

The following 4 categories make up 13.35% of all claims, namely: communication, negligence perceived by the patient, consent, and breach of confidence. These categories make up a higher percentage than that of spinal surgery. The interesting thing about this is that all these categories for litigation are based on professionalism, and the doctor's ability to communicate effectively with his/her patients.

Unfortunately morbidities and mortalities are a part of any orthopaedic practice, it is impossible for any doctor to claim an untarnished record. Every complication however, does not have to end in litigation. Patient communication is paramount in preventing litigation, and courses across the world have been set up to help doctors in this area (15–17).

What is happening in the South African state sector, when it comes to communication? An overburdened system where patient load outstrips resources and staff, where patients are often seen by numerous doctors, and often consented by the most junior, who has little or no knowledge of the procedure that is to follow. Are we maintaining any form of stable patient doctor relationships, or are we just buying time waiting for the proverbial "litigation storm" to begin?

2.0 Study aims and objectives

2.1 Aim

The aims of the study were to assess the level of satisfaction that post-operative orthopaedic patients had, in regards to patient doctor interactions. Results were then correlated to known complaints that led to litigation.

2.1.1 Objectives of Study

- To assess post operative orthopaedic patients, and their level of satisfaction with their doctors.
- To establish the relationship between patient satisfaction and age, gender, educational level, and type of surgery (elective/emergency)
- Determine the number of doctors patients perceived to be involved in their treatment, and relate this to demographics, and patient satisfaction
- To determine the percentage of patients who may be considering legal action, and if there are any demographic variables, that may be associated with possible litigation
- To correlate patient satisfaction to known complaints that have led to litigation due to compromised patient doctor interactions

3.0 Methodology

3.1 Research Question

What is the level of satisfaction of post operative orthopaedic patients, and how does it correlate to a hospitals' risk for future litigation?

3.2 Study design

This was a cross sectional prospective study.

3.3 Study site and population

The study was conducted in the Orthopaedic Department at Helen Joseph Hospital. All post-operative orthopaedic patients fulfilling the inclusion criterion and exclusion criteria, between June 2014 and August 2014 completed a questionnaire.

3.3.1 Inclusion Criterion

1. All post operative patients in the Orthopaedic Department at Helen Joseph Hospital

3.3.2 Exclusion Criteria

1. Any patient where the lead researcher had been part of the patient's surgical procedures
2. Any patient who was perceived to have a poor comprehension of the trial
3. Any patient where consent couldn't or wouldn't be signed
4. All patients under the age of 18

3.3.3 Sample size needed

A web-based calculator was used to determine the sample size needed. (18)

A confidence level of 99%, a confidence interval of 10 and a percentage of 50% was used to calculate the sample size needed for an expected population of 490 patients. This was calculated based on 35 procedures per week over a three month period. The sample size needed for this specific population was 124 participants.

A calculation was also done for an infinite population with the same parameters. The sample number needed in this scenario was 166 participants.

3.4 Data collection

Data was collected via an anonymous questionnaire designed for this study.

3.4.1 Designing the questionnaire

A questionnaire was designed using two existing validated questionnaires to assess a patient's level of satisfaction. (19,20) Questions from each questionnaire were tabulated based on their ability to correlate to the reasons given by East and Snyckers for litigation.(15) (Table 3.1)

For each area of litigation, at least one negative and one positive question was selected for the questionnaire. (see appendix E) Additional questions were created to address areas that the validated questionnaires did not. All newly created questions had both negative and positive questions, and followed the same style as those used from the validated questionnaires. All questions used a Likert scale from 1 to 5, representing 'strongly agree' to 'strongly disagree'.

Table 3.1: Identifies which questions, from both the Grogan *et al*. and Marshal and Hays Questionnaires, are related to areas of previous litigation as published by East & Snyckers (full list of Questions from each paper see Appendix C & D)

Litigation risk as published by East & Snyckers	**Grogan *et al.* Questionnaire**	**Marshall and Hays Questionnaire**
Communication problems		
• Rude/Brusque/Sarcastic	5,6,7,12,16,17,18	10,13,11,12
• General Poor communication	1,2,10,11,13,14,16,18	1,10,11,13
• Attitude problems	1,5,6,7,15,16,17,19	10,11,13
• Unprofessional	15,16,17	13
• Rude to other staff		
• Racist		
• Unavailable	2,3,6,12,14,16,18,19	12,15
• Drunk		
Negligence		
• Gross negligence	8,9,19	4,6,14
• Performed unnecessary operation		
• Incompetent	3	1,4,6,14
• Unhappy with the surgery		
• Poorly examined	3,4,9	
• No post operative information	11	
Breach of confidence		
Consent	10,18	1

In addition to the questions directly related to reasons for litigation, additional information was gathered concerning patient demographics. This information included:

- Age
- Gender
- Level of education
- Elective or emergency surgery
- Number of doctors the patient perceived to have been involved in their treatment
- General satisfaction questions
- Patient's feelings about seeking legal counsel

None of the information collected contained any patient identifiers.

3.4.2 Randomizing the questions

The order in which questions were posed was randomly assigned using the randomizer integrated in Microsoft Excel. This was further checked to ensure that the related positive and negative of each question did not follow directly from one another. (see Appendix B)

3.5 Validity of questionnaire

Professor Geoffrey Candy (Department of General Surgery, University of the Witwatersrand) and Professor Abdirashid Aden (Department of Orthopaedic Surgery, University of the Witwatersrand) reviewed the protocol and questionnaire before distribution. The questionnaire was deemed valid to be able to answer the objectives of the study.

3.5.1 Distribution of Questionnaire

All Orthopaedic post-operative patients ready for discharge, were given the consent form and questionnaire by the principle researcher. Patients agreeing to participate were given the opportunity to clarify any questions they had before completing the questionnaire. A translator was provided for those in need or who requested one. Patients were then left to complete the questionnaire. Once completed, the questionnaire was placed into a sealed box. In order to ensure the anonymity of the study participants, the sealed box was only opened and questionnaires removed at the end of each month.

3.5.2 Safeguarding the validity of the trial

Only the principle investigator and head of department had knowledge of the details of the trial - with no treating doctors being aware of the trial. This was done in order to prevent doctors from modifying their behaviour to achieve better outcomes, and in turn skewing the results.

Patients where the lead investigator was part of the surgery were excluded from the trial so as to prevent fear from repercussions for answers given.

3.6 Ethical clearance

3.6.1 Permission

Ethical clearance was obtained from the Ethics Committee for Research on Human Subjects (Medical) of the University of Witwatersrand Number M140370. (Appendix F: Ethical clearance certificate)

3.7 Confidentiality

There was no risk to patient confidentiality as no identifiable information was captured. All information regarding the captured data and patients' answers was kept confidential. The lead investigator is the only person who had access to any of the information provided by the patient.

3.8 Data processing and statistical analysis

3.8.1 Data capture

Each questionnaire was assigned a study number. Study data were collected and managed using REDCap (Research Electronic Data Capture) electronic data capture tools hosted at the University of the Witwatersrand. REDCap is a secure, web-based application designed to support data capture for research studies. (21)

3.8.2 Data processing and statistical analysis

3.8.2.1 Conversion of questionnaire answers to a usable scoring system

For each question asked there was a possibility of a score ranging from 1 to 5. Score 1 and 2 indicating agreement with the statement, 4 and 5 disagreement and 3 indicating a neutral response. The data were converted as indicated in Table 3.2. This conversion allowed for analysis of positive and negative questions together, and enabled a total satisfaction score to be calculated, with a range from -20 to 20. Integrated formulas within Microsoft excel 2007 were used to do the conversions.

Table 3.2: Conversion of question responses to score used for analysis

	Final score given
Positive questions • 1 or 2 • 3 • 4 or 5	 1 0 -1
Negative questions • 1 or 2 • 3 • 4 or 5	 -1 0 1

3.8.2.2 Statistical analysis

Normal distribution of variables were checked using the Shapiro-Wilk test. Normally distributed continuous variables were described using means and standard deviations. When continuous variables were not normally distributed, median and ranges were alternatively used. Frequencies and percentages were calculated for categorical variables.

Analysis of categorical variables were done using a Pearson Chi-square test and Student t-test or One Way Analysis of Variants (ANOVA) for continuous variables.

All statistical tests were carried out in STATISTICA Version 12 and/or SPSS version 20.

4.0 Results

One hundred and seventy three questionnaires were offered to post operative orthopaedic patients at Helen Joseph Hospital, from June 2014 to August 2014. Of these, 151 (87.28%) questionnaires were used for analysis. Twenty-two of the questionnaires were excluded, 18 (10.4%) of which were incomplete while four (2.31%) patients refused to take part in the trial.

4.1 Patient demographics

Patient demographics are illustrated in Table 4.1. There is a higher predominance of male (70.20%) to female patients (29.80%). The emergency cases comprised 67.55% of patients. Patients were fairly evenly distributed across educational levels with 52.98% of patients having a pre-matric education and 47.02% with post-matric qualifications.

Patient ages ranged from 18 - 78 years with a median age of 40 years.

Table 4.1: Patient demographics

	N (%)
Total completed questionnaires	151 (100%)
Gender • Male • Female	 106 (70.20%) 45 (29.80%)
Type of Surgery • Emergency • Elective	 102 (67.55%) 49 (32.45%)
Education Level • Never finished Matric • Passed Matric • Tertiary Education	 80 (52.98%) 41 (27.15) 30 (19.87%)
Age	40 (18 - 78)*

* Median (range)

4.2 Patient perception regarding number of treating doctors

The patients' perception of how many doctors were involved in their treatment varied greatly, with a median value of 5 doctors (range: 1-25).

All patients undergoing operations in the orthopaedic department at Helen Joseph hospital will generally have between zero to two consultants, one to two registrars and one to three interns actively involved in their treatment. Therefore, there should be between two and seven possible doctors actively involved with any one patient's management. Neither the patients age, nor type of surgery had a significant effect on the patients perception of the number of treating doctors involved in their treatment, with p values of p= 0.10 (one way ANOVA) and p= 0.15 (t-test) respectively. While both gender and level of education showed a significant difference in the number of perceived doctors involved in their treatment, both males and patients without a matric certificate, perceived a higher number of doctors to be treating them. (Table 4.2)

Table 4.2: Statistical analysis of patient demographics versus the number of perceived treating doctors

	Perceived number of treating doctors mean (± Std Dev)	P Values (type of test)
Gender • Male • Female	 6.43 (±4.20) 8.16 (±5.34)	0.036 (T - test)
Education • No Matric Certificate • Matric Certificate • Tertiary Education	 9.44 (±4.91) 4.66 (±2.30) 3.70 (±1.75)	0.000# (one way ANOVA)
Type of Surgery • Elective • Emergency	 7.04 (±4.90) 6.92 (±4.11)	0.036 (T - test)
Age • 18 - 29 • 30 - 39 • 40 - 49 • 50 - 59 • > 60	 7.14 (±5.31) 5.68 (±3.39) 8.24 (±4.48) 6.10 (±5.36) 8.06 (±4.65)	 0.10 (one way ANOVA)

Post hoc testing using t-tests showed that there was a significant difference between those patients without a matric certificate and those with both a Matric certificate or Tertiary education. No Matric vs. Matric p = 0.000, No Matric vs. Tertiary p = 0.000 and Matric vs. Tertiary p = 0.06

4.3 Patient satisfaction

As mentioned, overall patient satisfaction was scored between -20 and 20. Patient satisfaction ranged from -13 to 20 with a median value of 12.

None of the demographic data captured showed any significant relationship to the overall patient satisfaction score. (Table 4.3)

Table 4.3: Statistical analysis of patient demographics versus overall satisfaction score

	Overall Patient Satisfaction score mean (± Std Dev)	P Values (Statistical analysis used)
Gender • Male • Female	 10.83 (±6.30) 12.29 (±6.52)	0.200 (T - test)
Education • No Matric Certificate • Matric Certificate • Tertiary Education	 10.64 (±6.61) 12.24 (±5.55) 11.83 (±6.83)	0.376 (one way ANOVA)
Type of Surgery • Elective • Emergency	 10.41 (±6.70) 11.75 (±6.22)	0.230 (T - test)
Age • 18 - 29 • 30 - 39 • 40 - 49 • 50 - 59 • > 60	 13.03 (±4.80) 11.15 (±6.37) 9.71 (±8.10) 13.35 (±4.00) 9.44 (±6.31)	0.072 (one way ANOVA)
Perceived number of doctors • 1 - 5 • 6 - 10 • 11 - 15 • > 15	 10.24 (±6.61) 12.47 (±5.92) 12.29 (±6.79) 12.78 (±4.74)	0.210 (one way ANOVA)

4.4 Litigation risks

Whether or not patients would consider discussing the way in which they were treated by their doctors with a lawyer, was dealt with by the last questions of the questionnaire. Patients who agreed or strongly agreed were consider a high risk for future litigation (n=29, 19.20%), patients who disagreed or strongly disagreed were considered low risk (n=117, 77.48%), while those who were uncertain were considered to have an indeterminate risk for future litigation (n=5, 3.31%).

Patients that marked uncertain for the litigation question were excluded from the statistical analysis as it was not possible to make accurate assumptions regarding their risk for litigation.

Patient data was grouped into those that would consider discussing their treatment with a lawyer (high risk) and those that would not (low risk). This was then compared across patient demographics, number of perceived doctors and overall patient satisfaction scores. A t-test was used to compare the means of high and low risk for litigation patients, according to age, overall satisfaction level, and number of perceived doctors. Patients with a lower perceived number of treating doctors as well as patients with a lower satisfaction score, had a significantly higher risk for litigation ($p= 0.010$ and $p= 0.000$ respectively). Age played no role in risk of litigation $p= 0.751$. (Table 4.4)

The Pearson Chi-squared test was used to compare litigation risk against gender, education and type of surgery done. None of these factors played a role in risk for litigation, with p values of $p = 0.098$, $p = 0.503$ and $p = 0.992$ respectively.

Table 4.4: Statistical analysis of patient demographics versus overall satisfaction score

	High Risk for litigation	Low Risk for litigation	t-test p value
Age: (mean ± Std Dev)	41.07 (±15.20)	40.12 (±14.19)	0.751
Number of perceived doctors: (mean ± Std Dev)	5.03 (±2.99)	7.44 (±4.77)	0.010
Overall satisfaction score: (mean ± Std Dev)	3.66 (±7.12)	13.35 (±4.52)	0.000

4.5 Areas of previous litigation in regards to satisfaction levels

The satisfaction questionnaire allowed for correlation to previously documented causes for litigation. Each question related to a specific area of possible litigation, with every patient being given a score for each area of litigation by adding the relevant questions together. The means of these scores were compared against those that would consider legal action (high risk) and those that would not (low risk). All areas of possible litigation showed significantly lower scores in those who would consider litigation versus those who wouldn't. (Table 4.5)

Table 4.5: High and low risk patients compared to areas of previous litigation

	High Risk for litigation	Low Risk for litigation	t-test p value
Communication Problems			
• General Poor communication • Rude/Brusque/Sarcastic • Attitude Problems	1.07 (±1.94)	2.72 (±0.80)	0.000
• Unprofessional	0.93 (±1.31)	1.44 (±0.89)	0.012
• Unavailable	-0.48 (±1.62)	0.9 (±1.27)	0.000
• Racist	0.65 (±1.59)	1.78 (±0.64)	0.000
Negligence			
• Gross Negligence • Incompetent • Performed unnecessary operation • Poorly Examined	1.03 (±1.80)	3.26 (±1.46)	0.000
Consent	-0.14 (±1.27)	0.80 (±1.11)	0.000
Breach of confidence	0.21 (±0.82)	1.18 (±1.06)	0.000

Every patient-doctor interaction that was tested proved to be a high risk area for possible future litigation. To determine which area was at highest risk for litigation, a different risk analysis was done. Patients were divided into high, intermediate or low risk groups instead of analysing those who indicated they would consider legal action as a whole. Those patients that answered negatively for every question that was related to an area of possible litigation, could be considered a high risk patient to litigate for that specific reason, while those that answered only positively are unlikely to litigate for that reason. Those patients with mixed answers were classified as intermediate risk. (Table 4.6)

Table 4.6: High and low risk patients compared to areas of previous litigation

	High Risk areas litigation N (%)	Low Risk areas litigation N (%)	Indeterminate Risk areas N (%)
Communication Problems			
• General Poor communication • Rude/Brusque/Sarcastic • Attitude Problems	3 (1.99)	113 (74.83)	35 (23.18)
• Unprofessional	3 (1.99)	102 (67.55)	46 (30.46)
• Unavailable	25 (16.56)	66 (43.71)	60 (39.74)
• Racist	6 (3.97)	122 (80.80)	23 (15.23)
Negligence			
• Gross Negligence • Incompetent • Performed unnecessary operation • Poorly Examined	0 (0.00)	30 (19.87)	121 (80.13)
Consent	12 (7.95)	50 (33.11)	89 (58.94)
Breach of confidence	2 (1.32)	73 (48.34)	76 (50.33)

Thirty one patients had a maximum negative score in at least one area of litigation. Of these, 16 (51.61%) indicated they would consider approaching a lawyer. Of these 11 patients had more than two areas with a maximum negative rating (maximum of 3 areas). There was a single patient who had 3 areas with a maximum negative rating, who chose uncertain when answering the question regarding speaking to a lawyer.

Patients who scored maximum negative values in more than two areas were significantly more likely to consider approaching a lawyer (p= 0.003, Pearsons Chi-squared test). These possible combinations are seen in Table 4.7.

Table 4.7: Possible combinations of litigation areas, from patients scoring maximum negative values in 2 or more areas

	N (%)
2 Areas	
• Unavailable & Consent	2 (14.28)
• Unavailable & Racist	4 (28.58)
• Consent & breech of confidence	2 (14.28)
3 Areas	
• Unavailable, Consent & Unprofessionalism	3 (21.43)
• Unavailable, Racist & Communication problems	3 (21.43)

5.0 Discussion

Medical malpractice suits both in South Africa and abroad, continue to be filed at an alarming rate. Increasing settlement payouts and lost cases continue to push up malpractice insurance, which in-turn increases both doctor and hospital fees. State hospitals in South Africa face an additional burden from litigation, due to severe shortages of both professional staff and equipment. This often means patients are seen and initially managed by the most junior doctors, leaving important communication tasks such as consent, complications and possible treatment options to said junior, who is often not equipped to supply the proper information. After initial admission, patients at larger academic hospitals will often be seen by numerous doctors throughout their hospital stay, which may make it difficult for a patient to identify properly with his/her doctors, or to even know who his/her doctors were. This study looked at how these complex factors affected a patient's satisfaction, specifically with regards to their patient-doctor interactions. This was then correlated back to different areas of patient-doctor interactions that have, in the past, led to litigation.

The demographics obtained from the study were in keeping with what is expected in a state orthopaedic department in South Africa. There was a larger proportion of young males undergoing emergency procedures, which is typical of the high trauma levels and manual labour related injuries seen in South Africa.

The overall level of satisfaction of patients ranged from a very low score, -13 (32% satisfaction score) to a perfect 20 (100%), with a median score of 12 (80% satisfaction score). None of the patient demographics had a significant effect on their overall

satisfaction with their doctors. This indicates that regardless of the patients' age, gender, educational level, or type of surgery they underwent, all patients within the study had similar expectation with regards to how they interacted with their treating doctors.

In state practice there are numerous medical personnel that are involved in various aspects of a patient's care. Numerous individuals from multidisciplinary teams including consultants, registrars, medical officers, interns, students, nursing staff, occupational therapists and physiotherapists see patients. As numerous people form part of the treatment team, it may be very difficult for patients to accurately identify or form a relationship with their treating doctors. This is further compounded by the fact that there is a very high patient to doctor ratio within state practise, meaning that there may be limited time within which to adequately develop a comprehensive patient-doctor relationship.

This study showed that there was a large variation in the number of doctors that patients' perceived to be involved in their treatment, ranging from 1 to 25. The major contributor in this study to the variation of perceived treating doctors was educational level. Patients with a higher education identified a significantly lower number of treating doctors. Patients who did not complete Matric/grade 12 had an average perception of 9.44 doctors, which was higher than the likely number of actual treating doctors . This suggested that patients with a higher educational level were better able to identify who their treating doctors were. It was also significant that men identified a smaller number of doctors than females.

Despite the significant difference in the number of perceived treating doctors among different educational groups, the number of perceived treating doctors had no significance regarding a patients' overall satisfaction.

Doctors with lower patient satisfaction scores have been shown to have higher litigation rates (22). Within the questionnaire patients indicated whether they would consider discussing how they were treated by their doctor with a lawyer. Patients who would consider having a discussion with a lawyer were classed as high risk for litigation. This study illustrated that at a typical state hospital, just under 20% of patients at discharge were already considering possible legal action.

This study confirmed that these high risk patients have a significantly lower patient satisfaction score when compared to the lower risk patients. The other factor that plays a significant role among high risk patients, is the number of perceived treating doctors. High risk patients perceived lower numbers of treating doctors when compared to low risk for litigation patients. The average number of perceived treating doctors in the high risk group was 5.03 while the average in the low risk group was 7.44.

As mentioned, all patients in the study appeared to have the same overall expectations with regards their patient-doctor interactions. Within the low risk for litigation group, patient expectations were spread across a larger number of perceived doctors, whereas in the high risk for litigation group these expectations were met by fewer perceived doctors. Although there was no significance with regards to the number of perceived treating doctors and the

patients' satisfaction level, it was interesting to find that those patients who perceived a lower number of treating doctors were more likely to litigate when compared to those patients who perceived higher numbers.

As no specific demographics are able to help identify the types of patients that would fall into either the high or low risk for litigation groups, it is important for doctors in state practice to provide as comprehensive a patient-doctor interaction as possible.

Patients expect the same interaction regardless of their demographics, and it appears that for patients to be satisfied they must have all their needs met irrespective if one or ten doctors have treated them. State hospitals have the advantage of being able to share the load of patient expectations between many doctors.

Each question in the questionnaire relates to a specific area of known litigation regarding patient-doctor interactions. When overall scores for each area of possible litigation between the two risk groups were compared, this study showed that for every category high risk for litigation patients had a significantly lower score than that of the low risk patients. This indicated that each area of patient-doctor interaction was a high risk area for litigation in patients considering legal counsel.

When the redundancy of positive and negative questions for each area of litigation was taken into account, it was assumed that a true high risk area for litigation patient would be

that patient who had a maximum negative score, while a true low risk for litigation patient would have a maximum positive score. The scores falling between these two points could be considered intermediate risk. These groupings show that the two areas of highest risk for litigation were due to consent taking and the unavailability of doctors. Although these areas showed the highest frequency for negative responses, patients with combinations of high risk areas were significantly more likely to seek legal counsel. The additional areas combined with either unavailability or consent issues included: racism, unprofessionalism, breech of confidence, and general poor communication.

Although the above mentioned areas appear to have the highest risk for litigation. All areas should still be considered high risk, as patients that had areas of intermediate risks still indicated a desire to seek legal advice, throughout the spectrum of litigation areas tested.

5.1 Limitation of study

There was a possibility, that despite the anonymity of the trial, some patients would not have responded to the questionnaire truthfully due to fears of possible victimization by their treating doctors.

Although the patients interviewed may have felt similar to those who have pursued litigation in the past, it did not mean that the interviewed patients would pursue the same course of action.

As there was no identifying information captured throughout the trial, it is not possible to trace complaints, or litigation occurring over the trial period to any specific questionnaire. Therefore it cannot be determined what percentage of those wanting to pursue legal action actually do litigate. A dissatisfied patient will not always seek out litigation, therefore an exact correlation cannot be drawn, but the risk is always there.

6.0 Conclusion and recommendations

Problems in patient-doctor interactions at Helen Joseph Hospital are leading to high levels of dissatisfaction among patients, with nearly 20% of post operative orthopaedic patients considering legal action at the time of discharge.

The most common known areas of litigation due to patient-doctor interactions were found to be highly significant in patients wanting to seek legal action. The two areas showing lowest satisfaction were: consent taking and the unavailability of doctors. The study showed no area of patient-doctor interactions to be low risk for possible litigation.

The study showed that there was no relationship between a patient's demographics, and their overall satisfaction. Findings however do suggest that there might be a slight protective element to having numerous doctors treat and interact with a patient, in regards to possible future litigation - although its protective value was only dependent on how many doctors the patient actually perceived to be treating him/her, and may have no relevance to the actual number of treating doctors.

In conclusion, there are no specific demographics or identifiers that can be used to help identify patients that may be considered a high risk for litigation. Those patients considering litigation have highlighted the fact that, doctors in a typical academic hospital are failing in all the common areas known to be high risk for possible litigation in respect to patient-doctor interactions. The areas identified as the biggest problem were availability and consent taking.

This study shows the importance of patient-doctor interaction in preventing possible litigation in an orthopaedic department in a typical state setting. The training to help improve these skills are available for those interested in acquiring them. On this basis I would recommend that departments promotes such courses, or run their own communication seminars to help promote better patient-doctor interactions and alleviate the possible risk for future litigation.

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Appendix A : Consent Form

Informed Consent Form & Information Letter

Department of Orthopaedics

University of the Witwatersrand

Assessing patient-doctor communication, and how patients have perceived their experience.

Good day, may name is Stephen Smith, and I work as a surgeon in the Department of Orthopaedics. As part of my training I am doing research on patients that have had an operation at Helen Joseph Hospital.

I am inviting you to participate in this research, by answering a few questions. It should take about 10 minutes of your time. The questions are about the feelings and experiences you have had with the doctors that have treated you during this admission.

The reason for this study is to assess levels of information and communication received from your treating doctor , during your time in hospital.

All personal details, such as your name and hospital number, will not be captured with your questionnaire. This will protect your confidentiality from all your treating doctors, and at no point will your answers be shared with any of your treating doctors.

Your participation is completely voluntary. Refusal will involve no penalty or loss of benefits to which you are otherwise entitled.

Hopefully, with your participation, results from this research can improve the way we as doctors interact with our patients.

Should you wish to participate in the trial please complete the attached questionnaire and place it in the box provided

If you do not wish to participate place the uncompleted questionnaire in the box provided.

The questionnaires will only be removed from the box at the end of the week, preventing anybody from being able to trace your questionnaire to you.

Appendix B : Questionnaire

Please tick the appropriate box

Gender: ☐ Male ☐ Female Surgery: ☐ Elective ☐ Emergency

Age: _____

Education: ☐ Never finished Matric ☐ Passed Matric ☐ Tertiary education

How many doctors do you feel have been involved in your treatment: ____

The following statements are things people say about medical care. Please read each one carefully.

Indicate how strongly you AGREE or DISAGREE with the following statements

Circle One Number in Each Line

		Strongly Agree	Agree	Uncertain	Disagree	Strongly Disagree
						
1	Even when the doctor is busy, I am examined properly.....	1	2	3	4	5
2	The doctors always gives me every chance to talk about my problems...	1	2	3	4	5
3	The doctors always take care to keep my information private.....	1	2	3	4	5
4	Sometimes the doctors make me wonder if the surgery is needed.....	1	2	3	4	5
5	The medical care I have been receiving is just about perfect.....	1	2	3	4	5
6	Doctors treat me the same as every other patient.....	1	2	3	4	5
7	The doctors treat me in a very friendly and courteous manner.....	1	2	3	4	5
8	I sometimes feel I have not been given enough information by the doctors.....	1	2	3	4	5
9	I am dissatisfied with some things about the medical care I receive	1	2	3	4	5
10	The doctors make me feel that I am wasting their time.....	1	2	3	4	5

Circle One Number in Each Line

		Strongly Agree	Agree	Uncertain	Disagree	Strongly Disagree
						
11	Doctors usually spend plenty of time with me.....	1	2	3	4	5
12	Doctors are careful to check for everything when treating and examining me.....	1	2	3	4	5
13	I have some doubts about the ability of the doctors who treat me.....	1	2	3	4	5
14	Doctors sometimes ignore what I tell them.....	1	2	3	4	5
15	Doctors treat me differently because of my race.....	1	2	3	4	5
16	Doctors speak freely about me in front of other people and patients...	1	2	3	4	5
17	Doctors sometimes hurry too much when they treat me.....	1	2	3	4	5
18	The doctors are very understanding.....	1	2	3	4	5
19	The doctors do everything needed to arrive at a diagnosis.....	1	2	3	4	5
20	Doctors are good at explaining the reasons for needing surgery.....	1	2	3	4	5
21	I would consider discussing my doctors treatment with a lawyer.....	1	2	3	4	5

Research code : ____

(Questionnaire is modified from 2 validated questionnaires: Marshall & Hays; and Grogan *et al.*)

Appendix C: Doctor related questions from Grogan et al. questionnaire

1. The doctor always puts me at ease
2. The doctor always gives me every chance to talk about all my problems
3. Even when the doctor is busy I am examined properly
4. The doctor is very careful to check everything when examining me
5. The doctor is very understanding
6. The doctor is always interested
7. The doctor shows a genuine interest in my problems
8. The doctor does enough tests to find out what is wrong
9. The doctor does everything needed to arrive at a diagnosis
10. The doctor clearly explains what is wrong before giving any treatment
11. The doctor fully explains how the illness will affect my future health
12. I do not feel rushed when I am with a doctor
13. The doctor always asks about how my illness affects everyday life
14. sometimes feel I have not been given enough information by the doctor
15. I do not feel confident discussing my problems with the doctor
16. Sometimes the doctor makes me feel I am wasting his/her time
17. The doctor seems to want to get rid of me as soon as possible
18. The doctor does not tell me enough about the treatment
19. The doctor knows when tests are necessary
20. The doctor sometimes fails to appreciate how ill I am

Questions 1 -14 are positive questions, while Questions 15-20 are negative

Appendix D: Relevant questions from Marshall and Hays questionnaire

General satisfaction

3. The medical care I have been receiving is just about perfect

17. I am dissatisfied with some things about the medical care I recieve

Technical Quality

4. sometimes doctors make me wonder if their diagnosis is correct

6. When I go for medical care they are careful to check everything when treating me

14. I have some doubts about the ability of the doctors who treat me

Interpersonal Manner

10. Doctors act too businesslike and impersonal towards me

11. My doctors treat me in a very friendly and courteous manner

Communication

1. Doctors are good about explaining the reason for my medical treatment

13. Doctors Sometimes ignore what I tell them

Time Spent with Doctor

12. Those who provide my medical care sometimes hurry to much when they treat me

15. Doctors usually spend plenty of time with me

Appendix E: Questions chosen to correlate to litigation complaints

	Positive Question Chosen	Negative Question Chosen
General Satisfaction	1. The medical care I have been receiving is just about perfect	2. I am dissatisfied with some things about the medical care I receive
Communication Problems		
• General Poor communication • Rude/Brusque/Sarcastic • Attitude Problems	3. The doctors always gives me every chance to talk about my problems 4. The doctor treats me in a very friendly and courteous manner	5. The doctors make me feel that I am wasting their time
• Unprofessional	6. The doctors are very understanding	7. Doctors sometimes ignore what I tell them
• Unavailable	8. Doctors usually spend plenty of time with me	9. Doctors sometimes hurry too much when they treat me
• Racist	10. Doctors treat me the same as every other patient [b]	11. Doctors treat me differently because of my race [b]
Negligence		
• Gross Negligence • Incompetent • Performed unnecessary operation • Poorly Examined	12. Doctors are careful to check for everything when treating and examining me 13. The doctor does everything needed to arrive at a diagnosis 14. Even when the doctor is busy, I am examined properly	15. Sometimes the doctor makes me wonder if the surgery is needed [a] 16. I have some doubts about the ability of the doctors who treat me
Consent	17. Doctors are good about explaining the reasons for needing surgery [a]	18. I Sometimes feel I have not been given enough information by the doctors
Breach of confidence	19. The doctors always take care to keep my information private [b]	20. Doctors speak freely about me in front of other people and patients [b]

a: Words from original questionnaires modified slight to reflect surgery rather than general treatment

b: new questions designed for this questionnaire

*Certain reasons for litigation given by Snyker, did not correlate well with any of the verified questions. Their contribution to litigation within their individual categories was small enough to ignore for this study; they include rude to other staff; been drunk; and not receiving a post operative visit. Patients satisfaction with the procedure was not included as this is not relevant to patient doctor interactions.

8.0 Appendix F: Ethical clearance certificate

R14/49 Dr Stephen David Smith

HUMAN RESEARCH ETHICS COMMITTEE (MEDICAL)

CLEARANCE CERTIFICATE NO. M140370

NAME: (Principal Investigator)	Dr Stephen David Smith
DEPARTMENT:	Orthopaedics Helen Joseph Hospital
PROJECT TITLE:	Assessing Litigation Risks in Patient-Doctor Interactions at Helen Joseph Hospital
DATE CONSIDERED:	28/03/2014
DECISION:	Approved unconditionally
CONDITIONS:	
SUPERVISOR:	Dr A Aden
APPROVED BY:	Professor P Cleaton-Jones, Chairperson, HREC (Medical)
DATE OF APPROVAL:	09/05/2014

This clearance certificate is valid for 5 years from date of approval. Extension may be applied for.

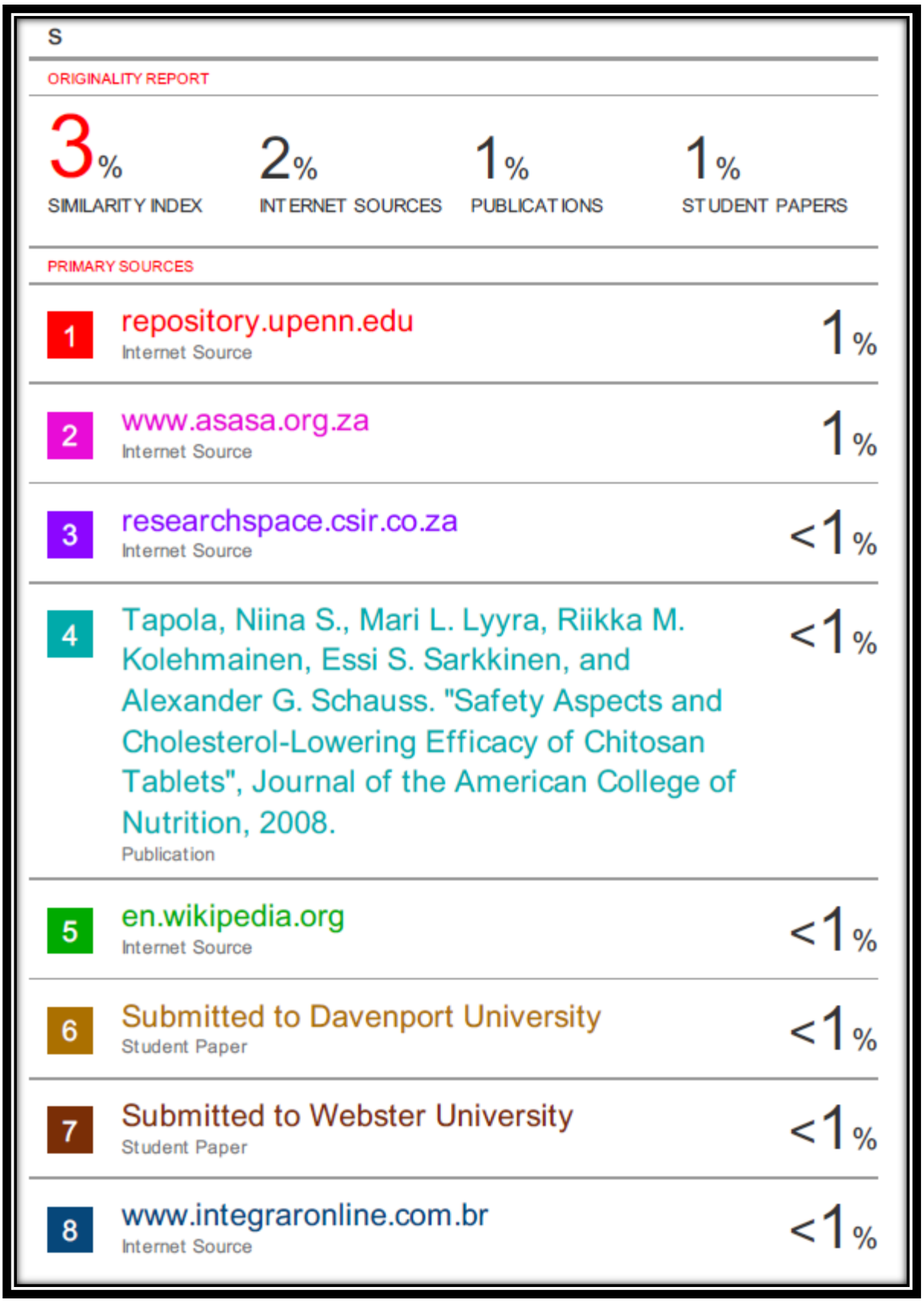
DECLARATION OF INVESTIGATORS

To be completed in duplicate and **ONE COPY** returned to the Secretary in Room 10004, 10th floor, Senate House, University.
I/we fully understand the conditions under which I am/we are authorized to carry out the above-mentioned research and I/we undertake to ensure compliance with these conditions. Should any departure be contemplated, from the research protocol as approved, I/we undertake to resubmit the application to the Committee. **I agree to submit a yearly progress report**.

Principal Investigator Signature _____ Date _____

PLEASE QUOTE THE PROTOCOL NUMBER IN ALL ENQUIRIES

9.0 Appendix G: Turnitin report



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