



Doctors' knowledge and practice of surgical informed consent of elective cases in
St. Paul's Hospital Millennium Medical College

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List of abbreviations

ENT-Ear, nose and throat

KAP-knowledge, attitude and Practice

OMFS surgery -oral and maxillofacial

SPHMMC-St. Paul's Hospital Millennium Medical College

SIC-surgical informed consent

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Abstract

Background; Surgical Informed Consent (SIC) is a comprehensive process that involves a competent patient, a clearly communicating doctor, and transfer of focused information about the planned surgical procedure. Information-sharing is core to the informed consent process.

Objective; the aim of this study is to explore doctors' knowledge and practice of surgical informed consent in SPHMMC.

Methods; Descriptive cross-sectional study was conducted. Self-administered questionnaires were distributed to collect data. Data was cleaned, coded and analyzed using SPSS 21.0

Results: 37.9% of doctors answered more than 75% of knowledge questions which make them knowledgeable and only 37.4% of them disclose more than 75% of information to the patient before operation (good practice). 81.3%, 71.4% and 61.1% of respondents know that therapeutic options including surgical operation, potential benefits of the operation and risks associated with chosen operation respectively are in current practice of SIC. But only 74.6%, 70% and 61.5% of them disclose therapeutic options including surgical operation, potential benefits of the operation and risks associated with chosen operation before operation respectively.

86.8% of respondents said Operating surgeon is appropriate to take SIC but 74.7% of them said nurses took SIC in different units. 40.7% of doctors spent less than five minutes to take SIC and 3.3% of them spent minimum of 30 minutes. Time constraint (80.2%) and Language barrier (40.7%) are the two major challenges for not taking SIC by surgeon.

76.4% of participant doctors are not satisfied with available written surgical informed consent format. Ward based communication skill teaching on consent taking (71.4%), using different format (form) for pediatrics and mentally incapable patients (62.6%) and common surgical procedure based format were suggested ideas to improve SIC.

Conclusions; Doctors don't have good knowledge on content of SIC and didn't disclose adequate information to patients before operation. They spend less time with patient while taking SIC. Doctors are not satisfied with available SIC format in SPHMMC

Recommendations; Each department should incorporate SIC taking into practical teaching process, doctors should get enough time to disclose adequate information to patient, SIC format should be changed and different format should be prepared for pediatrics and mentally incapable patients and different SIC format should be prepared depend on common surgical procedure.

Key words; SIC, knowledge and practice

1. Introduction

1.1 Background

The Surgical Informed Consent (SIC) is a comprehensive process that involves a competent patient, a clearly communicating doctor, and transfer of focused information about the planned surgical procedure. The basic components of SIC thus include preconditions, information, and voluntary willingness. The preconditions for a valid SIC include the patient's competence and voluntariness for the procedure in question. The information provided must be adequate and comprehensible (13).

The information provided should particularly include medical facts about the patient's condition, details of the proposed procedures, the potential risks and benefits of the procedure and the alternatives to the proposed procedure including the natural course of non-treatment.

All this information must be disclosed by the operating surgeon himself to the patient to help him arrive at informed decision-making about his treatment. A well-defined care plan incorporating the surgeon's advice should be discussed and it must be ensured that the patient understands all this information [13].

1.2 Statement of problem

Informed consent is a legal doctrine in medical practice, derived from the ethical principle of respect for autonomy. Generally, for consent to be considered valid or truly informed, five key requirements must be fulfilled. These would be:

- (a) Information disclosure: provision of adequate information,
- b) Competence: capacity to understand that information,
- (c) Voluntariness: decision making in the absence of coercion or deception
- (d) Comprehension: understanding of information provided
- (e) Consent: agreement to the proposed treatment or procedure

Information-sharing is core to the informed consent process, but one study done in Nigeria in 2005 shows 54.9% agreed that sufficient information is not provided to patients while obtaining their consent for surgical procedures. When patients decline to give consent for surgery, 84.3% of them thought that poor communication between surgeons and patients may be contributory. Even though information is important for consent process doctors spent only 5-10 minutes on consent. They identified taking a course in bioethics during surgical training and compulsory communication skills course as some ways to improve communication between surgeons and patients.

Information should be given to patient by doctor, who has the knowledge about the procedure to be done, but from observation in our hospital, it was given by nurses and interns who had less knowledge related to surgical procedure and also they didn't ensure whether patients understand information delivered related to the proposed procedure.

There is also increasing medico legal issue in our country, most of them are due to poor communication rather than true error and inconsistency in SIC format in different hospital while doing same procedure in the same country.

1.3 Significance of study

Most previous studies exploring the consent process for surgical procedures have focused on patient perspectives and conclude that current consent processes are often inadequate as patients often have limited understanding of the process, are frightened or disempowered by the process, or feel that they have either not understood or not been told relevant information about their treatment (4,14).

There has been no exploration of the consent process from the doctors' knowledge and practice in developing countries. To the best of my knowledge, there have been no studies conducted in our country that focus on doctors' knowledge and practice of informed consent for surgical procedures.

Therefore it set out to explore the process by which doctors achieve informed consent for elective surgical procedures such as how doctors communicate risk and medico legal issues, barriers doctors face in gaining informed consent for surgical procedures; and how the current informed consent process can be improved.

Besides to this it can also be used as reference for others who are interested to conduct similar studies.

2. Literature review

Informed consent for a surgical procedure is a process by which patients grant permission for doctors to perform an invasive procedure with knowledge of the possible risks and benefits. The informed consent process requires good communication between patient and doctor, and relies on a professional commitment to good practice. The process is usually formally documented by the reading and signing by both patient and clinician of a 'consent form'. Informed consent is considered to be a legal and ethical requirement in many countries if a surgical procedure is to be undertaken. The consent process serves to inform and protect the patient and also the clinician since it demonstrates the patient has been informed.

In the UK, the General Medical Council (GMC), British Medical Association and the Department of Health have provided advice on what information should be shared with patients prior to them consenting to surgery. Information should indicate why surgery is required, the perceived benefits and risks, and all options of available treatment, including the option not to receive active treatment (1).

In April 2014 the Welsh Government updated their standard consent forms with the intention that the forms would be easier to use and provide greater assurance that clinicians are meeting required standards for informed consent(2).

Information-sharing is core to the informed consent process. To do this effectively, doctors must first assess patients' information needs. Doctors may struggle with underestimating, or overestimating, amounts of information they give, and confuse patients with medical terminology. Organizational problems also appear to complicate the consent process. Guidance recommends that consent be gained at least on the day before surgery, however the consent process is often completed just hours before the patient is taken to theatre. Many doctors view the consent process as a 'perfunctory chore'; standardized consent forms may make the discussion feel repetitive, reducing doctors' regard for patients' concerns

According to one study done in Nigeria in 2005 to assess the surgeons' opinions and practice of informed consent, 54.9% agreed that sufficient information is not provided to patients while obtaining their consent for surgical procedures(3).

They listed medico legal reasons (70.6%), informing patients about benefits, Risks and alternatives (64.7%) and hospital policy (50.0%) as some reasons for obtaining consent for surgical procedures. When patients decline to give consent for surgery, 84.3% of them thought

that poor communication between surgeons and patients may be contributory. They identified taking a course in bioethics during surgical training and compulsory communication skills course as some ways to improve communication between surgeons and patients (3).

Qualitative interview study of 20 doctors, working across six surgical specialties in UK, reveals that last-minute consenting for non-emergency surgery is not uncommon, and responsibilities of gaining informed consent for surgical procedures often falls to junior doctors who have never undertaken the procedure. While GMC policy states that where it is impractical for a senior clinician to take consent, responsibility of consent can be assigned to someone who is suitably trained and qualified, the policy also states that the person taking consent must have sufficient knowledge of the procedure. However, data indicates that junior doctors do not always feel competent in their consenting abilities and feel pressure to consent for procedures for which they are unfamiliar (11).

A survey of doctors' practices in South Africa in University of Cape Town between July and November 1992 shows, most doctors (79%) felt it was their responsibility to ensure that patients and parents were fully informed about diagnostic and therapeutic interventions.

Many (62%) supported a patient-centered standard for determining the type and amount of information to disclose. Doctors disclose most of the legally required information except for information about alternative forms of treatment and remote serious risks.

The most common reasons for not obtaining informed consent were the doctors' tendency to 'tell' patients or parents what they intend doing and their belief that patients/parents expect doctors to know what is medically best for them. Language barrier, inadequate communication skills and lack of time were surprisingly, seldom viewed as obstacles to the obtaining of informed consent. Findings were independent of discipline (medical or surgical) and doctors' status (consultant or registrar) (8).

A survey of the current practice of the informed consent process in general surgery in the Netherlands done in 2010 shows Knowledge on SIC was limited as only 55% was familiar with all three basic elements ('assessment of preconditions', 'provision of information' and 'stage of consent'). Residents' performance was inferior compared to surgeons regarding most aspects of daily practice of SIC. One in 6 surgeons (17%) had faced a SIC-related complaint in the previous five years possibly illustrating suboptimal SICS implementation in daily surgical practice (

Cross-sectional survey study done in India 2015 also explains majority of respondents answered correctly when asked about the fundamental principles of obtaining a valid consent (correct response rate varying from 97.4% to 83.4%). However there was marked disparity between level of knowledge and actual practice with regards to informed consent. Study provides valuable insight into how doctors approach informed consent during their practice. It seems that doctors meet many, but not all, of the legal requirements for informed consent (7).

In 2013 research done in South Africa to evaluate the quality of informed consent and contemporary clinical practices by medical doctors which involves broad specialties analyses different components informed consent.

Majority of doctors provided information on 'diagnoses (96.4%)', 89.3% provided information on the 'benefits of treatment', 81% provided information on 'treatment options', 88.7% recommended a specific treatment. About 83.3% gave information on 'risk of refusing treatment, the benefits of the procedure to a patient (97%)', while 95% explained the risk of the procedure to patients.

When asked whose duty it was to obtain consent from patients in practice, 66.3% (110) doctors correctly answered that it was responsibility of the 'doctor performing the procedure or treating the patient'. About 6.1% (10) doctors said 'nurses', were responsible, 44.6% (74) said 'junior doctors' were responsible, while 10.8% (18) thought it was the responsibility of 'any available healthcare professional and 3.6% (6) doctors did not know.

Challenges to informed consent practice include language difficulties (87.5%), 'time constraints (86.9%)', followed by 'work load' 85%, lack of education 84.5%, and lack of administrative support e.g. interpreters, 82% of doctors. The least important constraints identified were 'cultural barriers (79.8%)', while medical paternalism (doctor knows best)' was ranked last by 78% of doctors.

Doctors spent 5-10 minutes on consent, disclosed most information required to patients, however knowledge of essential local laws was inadequate (9).

In 2009 another study done in Croatia to assess the Knowledge and Practices of Obtaining Informed Consent for Medical Procedures among Specialist Physicians also discloses Only about a half of the respondents knew that the procedure of obtaining informed consent was prescribed by the law, More than a half of the respondents reported that they provided only the information they considered necessary for the patient to make the decision on consent, Most of the respondents (60%) reported that they spent about 10 minutes with the patient talking about the procedure and consent process (7)

An audit of the knowledge and attitudes of doctors towards Surgical Informed Consent (SIC) which was published 2014 showed, junior doctors performed poorer compared to the seniors. Instead of the SIC being obtained by the operating surgeon (2.2%) himself, majority of the respondents delegated its responsibility to the staff nurse (68.9%) or junior doctors (29%). The night before surgery (84%) was stated as the most frequently employed time for obtaining the SIC and 93% of them do not ensure patients understanding of provided information (12).

3. Objective

3.1 General objective

To explore doctor's knowledge and practice of informed surgical consent of elective cases in St. Paul's Millennium Medical College.

3.2 Specific objectives

To assess knowledge of doctors on surgical informed consent of elective cases in SPHMMC

To explore practice of surgical informed consent by doctors for elective cases in SPHMMC

To explore measures that will improve surgical informed consent in elective cases in SPHMMC

4. Methodology

4.1 Study area and period

St' Paul's Hospital Millennium Medical College is one of the medical colleges found in the country. It is located in the capital city of the country, Addis Ababa. The College has different departments, which has started teaching post graduate program in different fields.

The study was conducted from April 1-30, 2018 GC.

4.2 Study design

Descriptive cross-sectional study was conducted.

4.3 Source population

All Specialists and residents available in all departments which perform elective operation were source populations.

4.4 Study population

Sampled specialists and residents were study populations.

4.5 Inclusion and exclusion criteria

All consultants and residents currently performing elective procedures in each departments were included in the study. While those not available during the study period because of annual leave, maternity leave and social problems were excluded from the study.

4.6 Sample size and sampling procedure

Sample size is calculated using single population proportion formula and prevalence of 50% is taken with 95% confidence interval and 5% marginal error.

$$N = \frac{z^2 P(1 - P)}{d^2}$$

Where d=allowable error of 5%, CI=confidence interval at 95%, n- is the minimum possible sample size

$$\text{Hence, } N_1 = \frac{(1.96)^2 * 0.5(1-0.5)}{(0.05)^2} \quad N_1 = 384$$

The total number of doctors in the departments are 326; therefore the correction formula was used since the total numbers of doctors are less than 10,000.

That is:

$n = N1 / (1 + N1/N) = 384 / (1 + 384/326) = 176$. By adding 10% non-response rate, the total calculated sample size was **194**.

Sampling procedure: To get the required sample size, first all the consultants and residents will be proportionally allocated to all departments performing elective surgery procedure. Hence, $194/326=0.6$ Finally Simple random sampling technique was used to draw participants from each department

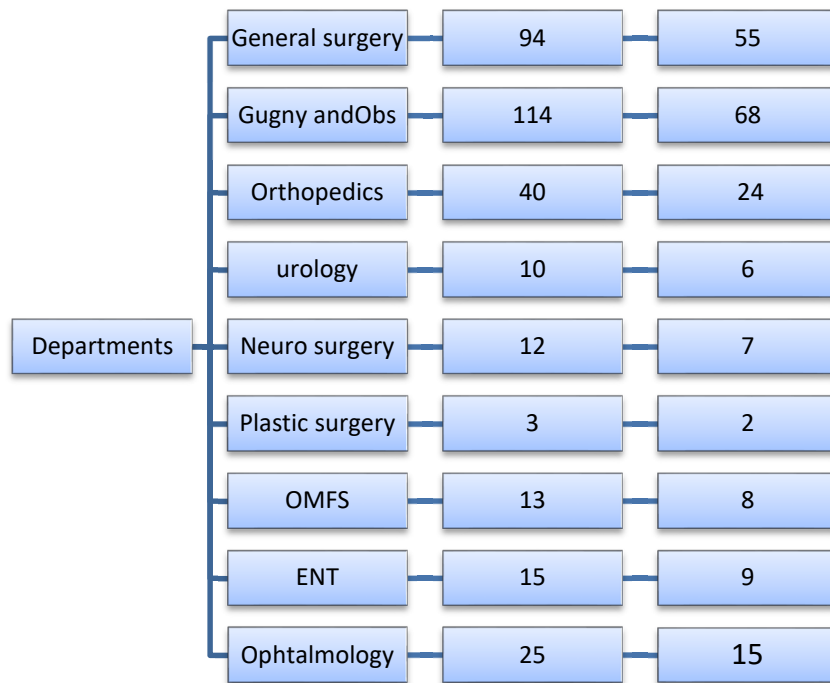


Fig.1. Diagrammatic Presentation of Sampling techniques

4.7 Variables

Dependent: Attitude, knowledge, practice,

Independent: Age, sex, specialty type, work experience, level of education.

4.8Operational Definitions

Surgical Informed consent - is a process by which patients grant permission for doctors to perform an invasive procedure with knowledge of the possible risks and benefits

Knowledgeable;-doctor who answer more than seventy five percent of knowledge question regarding SIC.

Good practice- doctor who disclose more than seventy five percent of SIC information to patient before procedure.

Bad practice- doctor who disclose less than seventy five percent of SIC information to patient before procedure

Consultant - doctor who complete his postgraduate study with different medical specialty.

Resident- doctor who is on postgraduate training in different medical specialty

Junior doctor- doctor who graduate with medical doctor and didn't start any medical specialty

4.9Data Collection Methods and Procedure

Data collection methods: semi-structured questionnaires were used to collect primary data from all study subjects.

Data collection procedures;English versions of the questioners were used as data collection tool. A formal letter indicating the aims and study process was written by SPMMC to request the Facility's permission. After the permission was obtained, data collection was made.

Data Quality control;Two data collectors were trained on the importance of keeping confidentiality. Also collected data was checked for its completeness and clarity.

Data Processing and analysis:The collected data was manually cleaned and coded before enter to software SPSS version 21.0 Frequency and percentages were computed to present the descriptive findings. Associations between variables were computed using Chi-square. A p-value <0.05 was considered as cut-off point for statistical significance.

4.10 Ethical Consideration

Ethical clearance was obtained from the Institutional review board of the Medical College. After the purpose of the study was discussed, verbal consent was obtained from the study participants before collecting data.

4.11 Plan for Result Dissemination

The final report will be presented for the Hospital. Findings of the study will be submitted to SPMMC. Also the results will be disseminated through Publication in local or international journal if selected.

4.12 Limitation of study:-Since it is a single institution study generalization may be difficult and needs more study.

5. Results

One hundred eighty two questionnaires returned which makes 94% response rate for this study. 70.3% of respondents are less than 30yrs and only 4.4% of them are greater than 50 years. 93.4% of them are male and the rest 6.6% are females. 86.6% of respondents are residents and the rest are consultants. 35.2 %, 29.7% and 12.6% respondents are obstetrics and gynecology, general surgery and orthopedics respectively. (table1)

Table 1; Socio-demography of study participants in SPHMMC, April, 2018, AA

Variables	Variable Category	Frequency	Percent
Age	<=30	128	70.3
	31-40	36	19.8
	41-50	10	5.5
	51-60	8	4.4
	Total	182	100.0
Sex	Male	170	93.4
	Female	12	6.6
	Total	182	100.0
Status	Consultant	24	13.2
	Resident	158	86.8
	Total	182	100.0
Duration of practice for consultant	<=5 years	8	33.3
	5-10 years	10	41.6
	>=10years	6	25.1
	Total	24	100.0
Duration of practice for resident	<=2 years	86	54.4
	>=3 years	72	45.6
	Total	158	100.0
Specialty	Obstetrics and gynecology	64	35.2
	General surgery	54	29.7
	Orthopedics	23	12.6
	Ophthalmology	7	3.8
	ENT	8	4.4
	MFS	8	4.4
	Neuro surgery	13	7.1
	Urology	5	2.7
	Total	182	100.0

5.1 Awareness

When asked about the components of information that should be disclosed to patients before undergoing any kind of surgical procedure, 81.3%, 71.4% and 61.1% of respondents know that therapeutic options including surgical operation, potential benefits of the operation and risks associated with chosen operation respectively are in current practice of SIC. Only 40.7% of respondents know that special procedures to prevent or reduce risks and 47.3% of them know frequency of occurrence of major operative risks should be disclosed to patients. (table2)

Respondents are asked on who is appropriate to take SIC and 86.8% of doctors believe that operating surgeons should take informed surgical consent while 5.5%, 3.3% and 1.1% of them referred to residents, nurses and medical interns as appropriate to take SIC respectively. (Fig 1)

Table 2 Doctors' knowledge of SIC in SPHMMC, April, 2018, AA

Awareness variable	Frequency	Percent
Therapeutic options including surgical operation	148	81.3
Potential benefits of the operation	130	71.4
Risks associated with chosen operation	124	68.1
Detailed explanation of diagnosis	100	54.9
Specific information about anesthesia	96	52.7
Available alternative surgical procedures	92	50.5
Frequency of occurrence of major operative risks	86	47.3
Special procedures to prevent or reduce risks	74	40.7

5.2 Practice

Doctors participated in this study disclose information to patient before operation in such ways that, 74.6% of them therapeutic options including surgical operation. 70% and 61.5% of them disclose potential benefits of the operation and risks associated with chosen operation respectively. Only 36.3%, 35.2% of them disclose frequency of occurrence of major operative risks and special procedures to prevent or reduce risks in orders. (Table3)

The study results disclose that doctors start SIC process the night before surgery (40.7%) and 33% of them start in clinic or OPD. Operating surgeon, resident, nurse and medical interns can take SIC, but most of the time nurses (54.9), medical interns (19.8%), resident (17.6%) and operating surgeon (5.5%) took SIC. Most of the respondents (65.9%) took SIC sometimes and only 11% of them took SIC always by themselves (table4)

Doctors spent less time with patients on conversation when taking SIC, 47.3% of them spent 15-30 minutes and 3.3% of them spent minimum of 30 minutes with patients during conversation to disclose information for SIC (table6). 60.4% of them ensure patients understanding of delivered information from their participation during conversation and 8.8% do not ensure.

Table3; Information disclosed to patients by doctors when obtaining consent for surgical operations April 2018, AA

	Frequency	percent
Therapeutic options including surgical operation	136	74.6
Potential benefits of the operation	128	70
Risks associated with chosen operation	112	61.5
Detailed explanation of diagnosis	93	51.1
Specific information about anesthesia	91	50
Available alternative surgical procedures	88	48.4
Frequency of occurrence of major operative risks	66	36.3
Special procedures to prevent or reduce risks	64	35.2

Table 4 ; Practice of SIC in SPHMMC, April 2018, AA

	Variables	frequency	Percent
Who is appropriate person to take SIC	Operating Surgeon	158	86.8
	Resident	10	5.5
	Staff nurse	6	3.3
	Available Medical Personnel	4	2.2
	General practitioner	2	1.1
	Medical intern	2	1.1
Who obtain SIC in SPHMMC	Staff nurse	136	74.7
	Resident	134	73.6
	Medical intern	76	41.8
	Operating surgeon	40	22
	Available medical personnel	14	7.7
	General practitioner	6	3.3
Time doctors' spent with patient to take SIC	15-30 minutes	86	47.3
	Less than 5 minutes	74	40.7
	5-15 minutes	16	8.8
	>=30 minutes	6	3.3
Patients who decline consenting for surgery	Abide by patient's wish	120	65.9
	Discharge against medical advice	102	56
	Refer to hospital ethics committee	30	16.5
	Withdraw from treating the patient	22	12.1
	Take consent from relatives	14	7.7

For patients who decline consenting for surgery, 66% of doctors said that they should be abided by patients wish, 56% of them opted for discharge against medical advice and 7.7% of them opt to take consent from relatives (table4).

Majorities (80.2%) of participant doctors refer to time constraint or work load as the major challenge for not taking SIC. Language barrier, medical paternalism and cultural barriers are also reasons in decreasing orders for not taking SIC by operating surgeon (table5).

Table 5; Major challenges of doctors for not taking SIC in SPHMMC, April 2018, AA

	Frequency	Percent
Time constraint or Work load	146	80.2
Language barriers	74	40.7
Medical paternalism (doctor knows best)	50	27.5
Cultural barriers	40	22.0
Lack of knowledge on surgical informed consent	36	19.8

Majority of participant doctors are not satisfied with available written surgical informed consent, only 23.6% of them are satisfied. Their response for not satisfied in available formats for SIC are the following in decreasing in orders; risks associated with chosen operation (85.5%), procedures to prevent or reduce risks (82.6%), available alternative surgical procedures (81.2%), therapeutic options including surgical operation (80%), explanation of diagnosis (79.7%), potential benefits of the operation (69.6%) and place to sign for surgeon (63.8%) are not included in the format (table8).

To improve the SIC process most of respondents, 71.4% of them suggested ward based communication skills teaching on consent taking, 62.6% of them believe that using different format (form) for pediatrics and mentally incapable patients and common surgical based format will help (table9).

Table 6; response of respondents for not satisfied with available SIC format in SPHMMC, April 2018, AA

	Frequency	Percent
Risks associated with chosen operation	118	85.5
Procedures to prevent or reduce risks	114	82.6
Available alternative surgical procedures	112	81.2
Therapeutic options including surgical operation	112	80.0
Explanation of diagnosis	110	79.7
Potential benefits of the operation	96	69.6
Place to sign for surgeon	88	63.8

Table 7; Respondents' recommendation to improve SIC in SPHMMC, April 2018, AA

	Frequency	Percent
Ward based communication skills teaching on consent taking.	130	71.4
Using different format(form) for pediatrics and mentally incapable patients	114	62.6
Incorporate into resident(post graduate) teaching program	104	57.1
Common surgical procedure based	10	5.5

6. Discussions

In this study 37.9% of doctors answered more than 75% of knowledge questions which make them knowledgeable and only 37.4% of them disclose more than 75% of information to the patient before operation.

For this study, 74.6% of doctors inform therapeutic options including surgical operation. 70% and 61.5% of them disclose Potential benefits of the operation and risks associated with chosen operation respectively. Only 36.3%, 35.2 % of them disclose frequency of occurrence of major operative risks and special procedures to prevent or reduce risks in orders. On the other hand study done in South Africa in 2013 shows majority of doctors provided information on 'diagnoses (96.4%), 81% provided information on 'treatment options', benefits of the procedure to a patient (97%), while 95% explained the risk of the procedure to patients.

This study results disclose that doctors start SIC process the night before surgery (40.7%) and 33% of them start in clinic or OPD. Operating surgeon, resident, nurse and medical interns can take SIC, but most of the time nurses (54.9), medical interns (19.8%), resident (17.6%) and operating surgeon (5.5%) took SIC. Most of the respondents (65.9%) took SIC sometimes and only 11% of them took SIC always by themselves.

In this study 86.8% of doctors believe that operating surgeons should take informed consent while 3.3% of them said nurse appropriate person to take informed consent, South African study showed 66.3% of doctors correctly answered operating surgeon and 6.1% said nurses.

Majority (80.2%) of participant doctors said time constraint or work load is the major challenge for not taking SIC, and language barrier(40.7%), medical paternalism(27.5%) , cultural barriers(22%) and lack of knowledge(19.8%) are also reasons in decreasing orders for not taking SIC by operating surgeon, they spent less time with patients on conversation when taking SIC, 47.3% of them spent 15-30 minutes and 3.3% of them spent minimum of 30 minutes with patients during conversation to disclose information for SIC. In contrary other African study identified language barrier(87.5%) as major challenge, 'work load' 85%, lack of education 84.5%, 'cultural barriers (79.8%), while medical paternalism (doctor knows best)' was ranked last by 78% of doctors. Same to this study, in South African study also doctors spent only 5-10 minutes with patients.

According to this study majority of participant doctors are not satisfied with available written surgical informed consent and only 23.6% of them are satisfied. Their response for not satisfied in available formats for SIC are the following in decreasing in orders; risks associated with chosen operation (85.5%), procedures to prevent or reduce risks (82.6%), available alternative surgical procedures (81.2%), therapeutic options including surgical operation (80%), explanation of diagnosis (79.7%), potential benefits of the operation (69.6%) and place to sign for surgeon (63.8%) are not included in the format. Similar to this study, several cases based on faulty forms resulted in successful claims: no documented alternatives, risks, or informed consent form at all. Hence, a non-standardized way of informing a patient of the risks or complications inherently results in a vulnerable position for the surgeon (Review of Surgical Informed Consent: Past, Present, and Future published on world journal of surgery 2010) (13)

Doctors in this study suggested SIC process in our hospital need improvement. Ward based communication skills teaching on consent taking, using different format (form) for pediatrics and mentally incapable patients and common surgical procedure based format will improve the process. similarly Review of Surgical Informed Consent: Past, Present, and Future in 2010 explains Strengthening the surgeon's education on SIC might look like an easy way to optimize the SIC process rather than training doctors, or specialized nurses, aimed at improving their skills in the SIC process is time consuming and SIC should therefore ideally be performed using an integrated interactive computer program (13)

Even though there is no significant difference in level of knowledge between consultants and residents, consultants disclose adequate information to patient before operation than residents. But there is no significant association between duration of practice and level of knowledge of doctors and degree of disclosure of different information to patients. (table8)

Table 8; cross tabulation of status of participant to level of information disclosed

	Disclose less than 75% of information's	Disclose more than 75% of information's	p-value
Consultant	10(41.6%)	14(58.4%)	.023
Resident	104(65.8%)	54(34.2%)	

Conclusions

Doctors don't have good awareness on content of SIC and they didn't disclose adequate information to patients before operation.

Most of the doctors start SIC the night before surgery.

Time constraint and language barrier are major challenge to obtain SIC by surgeon.

Doctors spend less time with patient while taking SIC.

Doctors are not satisfied with available SIC format in SPHMMC.

Recommendations

Depending on the result of this study SPHMMC, different departments (those doing surgery) and doctors will be advised the followings;

Each department should incorporate SIC taking into practical teaching program.

SIC format should be changed and different format should be prepared for pediatrics and mentally incapable patient. Different SIC format should be prepared depend on common surgical procedure.

Employing language interpreter.

Doctors should have enough time to disclose adequate information to patient.

Doctors should learn different languages commonly spoken in the community.

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