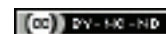


Patient's Attitude towards Resident Involvement in the Surgical Management of Cataract in a Teaching Hospital in Dakshina Kannada- A Prospective Study

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ABSTRACT

Introduction: Cataract surgery is one of the most frequent surgeries performed by the ophthalmologist. Surgical teaching can be in conflict between the doctor-patient contract. However good surgeons evolve only after being imparted with adequate surgical skill through hands on surgical training. Scarce data is available in India regarding the patient perception of resident involvement in cataract surgery.

Aim: To evaluate the patient attitude regarding the involvement of residents in their cataract surgery in a teaching hospital.

Materials and Methods: A prospective study was conducted on patients undergoing elective cataract surgery in a teaching hospital. The questionnaire was administered to 140 consenting patients from September 2013 to January 2016. Ten questionnaires were incomplete. Hence, 130 questionnaires were used for analysis. The questionnaire consisted of demographic data and nine questions including multiple choice questions and likert-type 5 point responses which primarily intended to find out their awareness regarding the involvement, qualification and attitude of patients towards involvement of residents in the surgical management with and without prior

permission. Responses of patients were graded using a 5-point Likert-type scale. The data was analysed using SPSS-version 19 and descriptive statistics mainly in the form of percentages was used.

Results: The results revealed that 60 (46%) agreed that being a patient in a teaching hospital implied that trainee eye specialists will be involved in all aspects of management. The number of participants who were unlikely to seek treatment elsewhere even if they found out that a postgraduate was likely to assist or perform the surgery was 50 (38.4%). A large number of them 50 (38.4%) felt that it was very important to be asked permission in advance before a postgraduate performed or assisted in cataract surgery. If they found that resident had performed the whole surgery on them without prior permission 40 (30.7%) would not be upset at all.

Conclusion: Most of the patients seeking treatment in a teaching hospital were aware of the fact that postgraduate residents play a role in the surgical management. Few would be upset if they hadn't been informed regarding the same. However, many patients preferred to be informed regarding the involvement of residents during their surgery.

Keywords: Disclosure, Informed consent, Medical education, Patient satisfaction, Patient perception

INTRODUCTION

In this era of growing awareness of patients regarding their rights and the increasing demand for better skill levels in trainee ophthalmologists, striking a right balance can be challenging. Cataract is the most common cause of blindness and cataract surgery is one of the most common surgeries which is performed [1]. In order to have skilled eye surgeons, quality training must be imparted to the residents during training. During the process of informed consent before an elective process, all details regarding the diagnosis, the surgical procedure and prognosis is explained to the patient. However, disclosure issues are usually not adequately dealt with mostly due to fear of losing patients [2]. Both the Royal college of ophthalmologists and the American Academy of Ophthalmology advise that the patient should be told about the involvement of residents, the extent of their participation under supervision and also their qualification [3,4]. To develop a reasonably good level of skill the resident would require sufficient hands-on training on real patients besides wet lab training. Getting patients agree to be operated on by trainees might not be an easy task especially in educated and well off patients. Not informing patients about the involvement of residents in their surgery would amount to breach of trust by the doctor towards the patients as well as disrespecting patient's autonomy. By trying to understand the patient perspectives of resident involvement we aim to increase patient participation by shared decisions where they are aware of resident role and willing

consent to it, thereby giving an impetus to skill development of the residents. Such disclosure is usually not routinely practised in teaching hospitals especially in developing countries. When patients are informed of the participation of residents in their surgery, only a small number will consent to have their surgery performed by a trainee [5]. Hence, surgical teaching seems to be in conflict with the contract between surgeon and patient. Finding from a study even suggest that patients would prefer to be informed about the details of the trainee involved in their care which might also significantly affect their willingness to consent [6]. The amount, timing and phrasing of the disclosure is both important yet difficult to decide. A study by Siddiqui Z et al., bring out issues related to patient autonomy, informed choices and the commonly practised paternalistic attitude of doctors in India [7]. This study therefore aimed to evaluate the patient's perception regarding the involvement of residents in their cataract surgery in a teaching hospital.

MATERIALS AND METHODS

The study was a prospective questionnaire based survey which was conducted during resident training programme in Department of Ophthalmology, in a tertiary care hospital of coastal Karnataka, India. The study period was from September 2013 to January 2016. Institutional ethics committee clearance was obtained for the same (YUEC protocol no. 1023/075). After obtaining the informed consent, a total of 140 participants were included in the study. They

were above 18 years of age and admitted for cataract surgery. Patients were excluded if they were too ill, refused to participate, or had altered mental status. Assuming a prevalence of cataract surgery coverage rate to be 70%, [8,9] for 90% power of study and 95% Confidence interval, using the formula:

Sample size = Z^2pq/d^2 , where p=prevalence, q=1-d, d=level of precision, Z=1.96 for 95% C.I, the sample size was calculated to be 165. Although the calculated sample was 165, we managed to screen only 152 patients in the stipulated time of the study.

The questionnaire was administered by interview method to all the consenting subjects by three staff nurses and four medical interns after the patients were admitted and worked up for cataract surgery in Kannada and Malayalam, the local language which the patients, nurses and medical interns were fluent in. Interviews were conducted on all days of the week and at varied times. The entire interview process was scripted for consistency and took an average of 10-15 minutes. The questionnaire was formulated after reviewing literature on surgical training of residents, patient attitudes and informed consent [5,6,10] and modified based on our experience with our patients. A nine question survey was developed, its face validity was established by two ophthalmologists and pilot tested on a subset of 15 patients among the intended population and tested for internal consistency and Cronbach's Alpha (CA) was obtained to be 0.5. The questionnaire consisted of demographic data regarding age, occupation, education, 4 multiple choice questions and 5 point Likert and likert-like responses to elicit information regarding the awareness of presence, qualification and involvement of residents in surgical management of patients. The questionnaire attempted to study the attitude of patients in scenarios that were experienced commonly namely where residents just observed, assisted, performed parts or whole of the procedure and instances where they might or might not be informed about resident involvement prior to surgery. For the purpose of this study, modified likert-type five point scale was used for some questions. To assure that the participants understood the term resident or specialist trainee in ophthalmology, the interviewers first described medical education and the process of training of doctors. Since, cataract surgery was commonly performed in the department of ophthalmology by the residents, questions were framed keeping that in mind.

STATISTICAL ANALYSIS

The data was analysed using SPSS-version 19 and descriptive statistics mainly in the form of percentages was used.

RESULTS

A total of 152 patients were screened for the study at tertiary care hospital in Ophthalmology department. Out of which, 12 refused to participate. Interviews were administered to 140 adult patients out of which 10 questionnaires were not completed and hence, not analysed. Only 130 responses were analysed.

There were 64 males and 66 females. Most participants were either illiterate 55 (42.3%) or had high school education 40 (30.7%) [Table/Fig-1]. The questionnaire with the responses is given in [Table/Fig-2].

Gender N (%)	Mean age N (SD)	Literacy N (%)	Occupation N (%)
Male 64 (49.2)	58.1 (12.7)	Illiterate 55 (42.3)	Manual Labourer -30 (2.3)
		Class-IV 23 (17.6)	House wife -53 (40.7)
Female 66 (50.8)	62.7 (10.7)	Class V-X 40 (30.7)	Beedi worker-20 (15.3)
		Preuniversity 9 (6.9)	Business -7 (5.3)
		Degree/diploma 3 (2.3)	Clerk -6 (4.6)
			Others -14 (10.7)

[Table/Fig-1]: Demographic characteristics of subjects.

DISCUSSION

A fairly large number of participants (61.5%) in this study seemed to be aware that a teaching hospital has specialist trainees. A large number of them (73%) were also aware that the trainees were medical doctors who already had their medical degree. However, (36.9%) claimed to know that the specialist trainees would perform parts of the surgery. The awareness regarding the presence and involvement of eye specialist trainees in a teaching hospital was high among the participants of this study. In a similar study conducted in India by Siddiqui Z et al., the study settings were somewhat similar although the number of illiterates were

		Yes N (%)	No N (%)	Don't know N (%)		
1.	Are you aware that our teaching hospital has trainees for becoming eye specialists?	80 (61.5)	15 (11.5)	35 (26.9)		
2	Are you aware that they have a medical degree, that they are doctors?	95 (73.0)	15 (11.5)	20 (15.3)		
3	Did you know the specialist trainee may likely be in the operating room during your surgery?	68 (52.3)	25 (19.2)	37 (28.4)		
4	Are you aware that trainee eye specialists may perform parts of the operation under the guidance of the staff surgeon?	48 (36.9)	50 (38.4)	32 (26.6)		
		Strongly agree N (%)	Agree N (%)	Strongly disagree N (%)	Disagree N (%)	Unsure N (%)
5	How much do you agree or disagree that being a patient in a teaching hospital implies that that trainee eye specialists will be involved in all aspects of management?	31 (23.8)	60 (46.1)	20 (15.3)	4 (03.0)	15 (11.5)
		Very likely	Likely	Very unlikely	Unlikely	Unsure
6	If asked in advance, how likely would you be to agree to have a trainee eye specialists to assist or perform your cataract surgery?	52 (40)	34 (26.1)	17 (61.5)	22 (13.0)	5 (3.8)
		Very important	Important	Most unimportant	Unimportant	Unsure
7	How important is it to be asked permission in advance for a postgraduate to perform/assist cataract	50 (38.4)	27 (20.7)	3 (2.3)	35 (26.9)	15 (11.5)
		Very likely	Likely	Very unlikely	Unlikely	Unsure
8	How likely would you be to seek treatment elsewhere at a place where postgraduates are not involved if you found out that a postgraduate would assist or perform your cataract surgery?	20 (15.3)	25 (19.2)	20 (15.3)	50 (38.4)	15 (11.5)
		Very upset	Upset	Not at all upset	Not upset	Unsure
9	If your permission had not been asked for, how upset would you be if you found out that the trainee					
	Was in the operating room during your surgery?	5 (3.8)	35 (26.9)	35 (26.9)	45 (34.6)	10 (7.6)
	Performed parts of surgery under supervision	5 (3.8)	35 (26.9)	40 (30.7)	40 (30.7)	10 (7.6)
	Performed whole surgery under supervision	30 (23.0)	25 (19.2)	40 (30.7)	30 (23.0)	5 (3.8)

[Table/Fig-2]: The questionnaire with the responses.

lesser (25%) in their study compared with present study (42%), the awareness about the qualification of the resident and their involvement in surgical management was higher in present study. In their study, 15% would seek treatment elsewhere if they got to know of resident involvement before hand, while in present study almost 50 (38.4%) were unlikely to seek treatment elsewhere even if they got to know of resident involvement before hand. They studied additional perceptions regarding financial incentives to patients for allowing residents to perform surgery where 66% felt that they need not be incentivised. Only 15% feared a refusal or deficiency in care on rejecting resident involvement. Overall, the study shows a favourable response of patients towards resident involvement as seen in present study too where a large number of participants 60 (46.1%) agreed that in a teaching hospital trainees would be involved in various aspects of management [7]. The perception in many developing countries, especially in India where a large number of financially and educationally disadvantaged people exist, it is an untold understanding that government hospitals or teaching hospitals offer free or subsidised cost of treatment and involve trainees in patient care. Not unexpectedly a fairly high percentage of participants (40%) would very likely consent to a trainee assisting or performing surgery. The socio-demography of patients attending a teaching hospitals is unlike that of private hospitals. They would opt for hospitals that offered subsidised/free treatment and come with a preset mindset that trainees may actively be involved in patient care. It was noteworthy that almost 38.4% felt it was very important to be asked in advance regarding the involvement of a specialist trainee in their care. As perhaps discussed earlier, the acceptance of the fact that teaching hospital would involve trainee participation, almost 54% said that they would unlikely or most unlikely seek treatment elsewhere if informed in advance about the same. Even without their prior permission if the postgraduate resident had assisted or performed their surgeries, more than 50% of the participants would not be upset to any degree.

In the Canadian study, the participating consultants felt that revealing the involvement of residents in the surgical management of patients, would result in loss of patients and have a negative impact on the surgical training of the residents. There were a few consultants who had a paternalistic attitude and felt that they knew what was best for the patients than the patients themselves. The training programme for residents should therefore be a fine balance where patient's autonomy is respected and at the same time surgical training does not get affected [5]. A study by Wisner DM et al., on attitude of cataract patients towards resident involvement in cataract surgery found that majority of (83%) patients agreed to resident assisting surgeries and almost 49% agreed to residents performing their entire surgery [10].

In the APORT study series which included patients who underwent both cataract as well as other ophthalmic surgeries, reportedly felt less comfortable with resident participation and the exact reasons for the same were not described [11]. In a study by Moodie JJ et al., in UK which included 180 patients who had undergone cataract surgery in one eye, (70%) accepted that trainee surgeons should operate as part of their training and 57% said they would be happy to be operated upon by a supervised surgical trainee. 79% were ready to wait longer for their surgery if a consultant were to operate. 80% of participants even wanted to know the details of the operating surgeon. Such an attitude could affect the basic surgical training of residents and there was a chance that they might not be able to complete the minimum number of prescribed cases recommended for residency training [6]. In a study in Scotland, it was agreeable with many patients for resident trainees to operate upon on them under supervision as they felt that trainees needed to learn surgical skill too [12]. In the developed countries the patient are aware and conscious of their rights, autonomy and confidentiality/privacy issues. Due to low literacy rates the awareness of rights

and privacy issues may be low in present study population and one of the factors why resident involvement to any degree was not a major concern among them.

Honing of surgical skills has happened by practising on patients for centuries without properly disclosing the involvement of the trainees. Surgical skills need to be practised on human beings besides wet lab training, hence the training must be safe and structured. Despite the faith entrusted by patients in doctors, they are still obligated to impart proper surgical skill to their residents. The study highlights that good communication between the faculty and the patient regarding role and responsibility of teaching hospitals towards academic and skill training, the ethical and supervised involvement of residents in surgical management and commitment of doctors as well as hospital towards ethical and legal rights of the patient would go a long way in seeking their cooperation for resident involvement and such a disclosure would help doctors fulfill their role towards the society and towards academic commitment [13].

Limitation(s)

The validity of the likert-like scale may be compromised due to social desirability where the participants may lie to put themselves in positive light. The study is highly subjective in nature. The actual response in real life situation may be different as compared to the hypothetical scenarios posed here and needs to be studied too. The demographic characteristics of patients attending a teaching hospital are different from those attending private hospitals and cannot be extrapolated to the community. If patients have had an earlier pleasant experience of resident involvement in teaching hospital, they might favour their involvement. The number of participants screened were lesser than the calculated sample size which might affect the power of the study.

CONCLUSION(S)

The awareness regarding the presence, involvement and basic qualification of postgraduates trainees in a teaching hospital was high among the participants of this study. Most of them in principle agreed to have residents assist or perform surgeries under supervision. Most would not be upset to any degree if they found out that residents performed parts or whole of the surgery without prior permission. Many seemed to want to be informed regarding the role of residents in their surgical management. A careful supervision of the postgraduate during surgical procedures and a disclosure of their role to the patient in a palatable manner would help the doctors fulfill their responsibility both towards academics and the society. When policies are being planned to improve the informed consent process, the resultant increase in refusal rates or unwillingness to consent by the patients and its consequent negative impact on surgical training must be borne in mind unless communication process is appropriately improved.

Further studies on this subject is needed with larger number of participants, more variables under the study with a more detailed psychological assessment. Studies are also needed to study the patient perception in emergency situations as well as in other ophthalmic procedures.

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