

Feed back of the parents and / or relatives witnessing a squint surgery of their ward in the operation theater

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The aim of the study was to know the response of the relatives attending the squint surgery of their ward. A trained secretary administered an eight item questionnaire by live / telephonic interview. Of the 44 attendees, two left the Operation Theater before completion of the surgery. Mean age of the patients was 7.2 years \pm 7.8 and that of the attendees was 36.1 years \pm 8.5. Forty patients had a surgery under general anesthesia and four under local anesthesia. Eleven (25%) attendees experienced an increase in anxiety. Thirty-six (82%) attendees reported increased transparency, 38 (86%) reported increased confidence, and 43 (98%) reported increased awareness. None found any disadvantage. Twenty-seven (61%) recommended this practice for all and 16 (36%) recommended the practice selectively. The internal validity of the questionnaire was fair (Cronbach's Alpha = 0.6). It was concluded that the presence of relatives in the Operation Theater during the surgery could bring in more transparency, accountability, confidence, awareness, and trust.

Key words: Eye surgery, operation theater, parental presence, squint surgery, witnessing a surgery

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Parental presence in the Operation Theater is recommended during induction of the anesthesia,^[1] at the time of emergence^[2] from the anesthesia, during resuscitation of the children,^[3] and during bed side surgical procedures in children.^[4] A PubMed search did not show a study reporting the feedback of the relatives who had attended the squint surgery of their wards in the operation theater. A survey^[5] and a systematic review^[6] has revealed: (1) the parents' desire and expectations to participate in their child's care and also shown how the nature of their participation has evolved; and (2) that the attitudes and activities of healthcare professionals are both barriers and facilitators to parent participation.

The present study was aimed at planning the Operation Theater practice, based on the feedback of the relatives who attended the squint surgery of their wards.

Materials and Methods

The feedback [Table 1] from the relative who attended the squint surgery was obtained by a trained secretary. The feedback was taken in their native language, preferably on the first follow-up visit, in the OPD (same evening or second postoperative day) or by a telephonic call at their convenient time, in their preferred language of communication. All the patients operated for squint in a six-month period were included.

Prior to the surgery, the parents were provided with a detailed explanation and printed brochure about the surgery, in their native language, by the surgeon. Caregivers were then given an option to choose to witness the surgery themselves or allow one of their relatives to attend the surgery. Relatives were informed that a medical doctor from the family or a relative with medical background would be a preferred choice. Adult patients chose to allow or disallow an attendant in the Operation Theater during the surgery.

The patient's relative was called in the Operation Theater just before the surgery began. The relative was dressed in a manner exactly similar to the other paramedical personnel in the operation theater, (but with different colored clothes).

The relative was greeted and repeatedly assured of the smooth progress of the surgery and the general well being of the patient. The standard protocol was followed in dealing with complications that occurred during surgery. In case of anesthesia-related problems, where major resuscitation attempts were required, the relative was requested to wait outside of the Operation Theater for the time being, to be called immediately once the patient was stabilized.

The relatives were escorted out by a nursing staff at the end of surgery or at anytime during the surgery if he / she was not

Table 1: The questionnaire and the percentage distribution of the responses

Name of the Patient:	
Age of the Patient:	Date of the surgery:
Relation of the Attendee:	Age: Sex:
Education:	
1. Duration of the Surgery in minutes:	
2. Preoperative anxiety about anesthesia:	
a) Mild, b) Moderate, c) Severe, d) Nil	
Response (n = 44): a) 13 (30%), b) 0 (0.0%), c) 4 (9%), d) 27 (61%)	
3. Preoperative anxiety about Surgery	
a) Mild, b) Moderate, c) Severe, d) Nil	
Response: a) 19 (43%), b) 0 (0.0%), c) 3 (7%), d) 22 (50%)	
4. Was there any change in the anxiety levels by coming to the operation theater?	
a) Increased, b) Decreased, c) No change	
Response: a) 11 (25%), b) 6 (14%), c) 27 (61%)	
5. If increased or decreased then what was the level of increase / decrease?	
a) Mild, b) Moderate, c) Severe	
6. Was it difficult to be in the Operation Theater and watch the surgery?	
a) Mild, b) Moderate, c) Severe, d) Not difficult	
Response: a) 15 (34%), b) 0 (0.0%), c) 3 (7%), d) 26 (59%)	
7. What are the advantages?	
Transparency, b) Confidence, c) Awareness, d) Others	
Response: a) 36 (82%), b) 38 (86%), c) 43 (98%), d) 0 (0.0%)	
8. What are the disadvantages?	
a) Increased anxiety, b) Aversion, c) Fault finding, d) None	
Response: a) 11 (25%), b) 15 (34%), c) 1 (2%), d) 17 (39%)	
9. Would you recommend this practice for future?	
a) Routinely to all, b) Selectively, c) Not at all	
Response: a) 27 (61%), b) 16 (36%), c) 1 (2%)	

comfortable. Only the attendees aged between 20 and 60 years, who were medically and psychologically fit (self reported), were allowed to attend the surgery.

The item response analysis was performed and the responses of different groups were compared using the Bartlett's test for each variable followed by the Box's M test for all variables together. Multivariate analysis was performed to ascertain the internal consistency of the questionnaire with Cronbach's Alpha. The study conformed to all the local laws and the declaration of Helsinki.

Results

We received the feedback from all the 44 patients' relatives who had witnessed squint surgery. The mean age of the patients was 7.2 years \pm 7.8 (1 – 42 years) and that of the attendee was 36.1 years \pm 8.5 (22 – 60 years). Forty patients had surgery under general anesthesia and four under local anesthesia. The average duration of a surgery (recalled by the attendees) was 28 minutes \pm 12.4 (10 – 60 minutes). With an average of seven minutes per operated muscle, the duration of a surgery was seldom more than 45 minutes.

The level of education of the attendees varied; undergraduates (27%), graduates (14%), postgraduates (39%), and medical doctors (20%). The count and percentage distribution of responses [Table 1] from the attendees revealed no statistically significant differences in the responses for different education

levels, relation (parents / not parents [uncle / aunt / grandparent / husband / family-friend]), age of the attendees (aged below / above 40 years), and the duration of the surgery (0 – 20 minutes, 20 – 40 minutes, and 40 – 60 minutes). An increased level of transparency and confidence was reported by the younger attendees (< 40 years) [$P = 0.06$] and attendees of older children (> 5 years) [$P = 0.01$].

Eleven (25%) attendees experienced an increase in anxiety levels. However, all of them recommended the practice. Six attendees advised to offer this practice to all the relatives and five attendees advised to offer this selectively. The increase in the anxiety level was mild in eight and severe in three. In six (14%) relatives there was a mild decrease in the anxiety level.

The internal validity of the questionnaire was fair (Cronbach's Alpha = 0.6).

Discussion

In this study, we found that the practice of the relatives attending the surgery adds transparency to healthcare delivery. It increases the families' confidence in the treating surgeon and the healthcare facility and increases the awareness about squint surgery and Operation Theater practices.

All these come at a cost of increase in perioperative anxiety and a sense of aversion, while watching the surgery. Nevertheless, a large majority of the attendees recommended this practice to be offered to all, and nearly a third of the relatives advised it to be offered selectively to those who can understand the surgery and / or psychologically bear the impact of watching a relative being operated on. At present, we leave the decision at the discretion of the family members after appropriate counseling.

Table 2: The advantages of relative attending the surgery

1. Increased transparency:
 - a. The relatives would know that the surgeon that they had opted for performed all the steps of the surgery, from the beginning to the end.
 - b. The surgery went on well in its entirety. There is no scope for imagination.
 - c. Even if a complication occurred, necessary corrective steps were taken.
 - d. The same technique of surgery was used as was promised preoperatively.
 - e. Chances of operating on the wrong eye are reduced as the relative can point that out especially if they are present at the time of preparation of the surgical field.
2. Increased confidence:
 - a. To some extent this happens due to the increased transparency itself.
 - b. An experienced surgeon can showcase his / her surgical skills.
 - c. It is a first-hand demonstration of a surgical team working in unison.
3. Increased awareness:
 - a. It gives information about how a squint surgery is performed.
 - b. The attendee's awareness about the ocular anatomy, Operation Theater etiquettes, and practice increases.

Table 3: The disadvantages of parents / relatives attending the surgery

1. Increased responsibilities:
 - a. A layman coming to the Operation Theater would need
 - i. Monitoring so that he / she does not enter a sterile area or restricted area of the Operation Theater.
 - ii. To be escorted to and fro.
 - iii. Additional clothes and footwear.
 - iv. The responsibility of his / her physical and psychological well-being lies with the Operation Theater staff.
 - b. In the presence of the relative, the Operation Theater etiquettes need to be followed more strictly.
2. Inability to fully cover an untoward incident and an instrument malfunction.
3. Inability to hand over the surgeries to junior colleagues or resident doctors.
4. A relative's presence may be intimidating to the surgeon or other health personnel who are novices or not used to it.
5. There is a theoretical increase in the microbial load in the operation theater.

Out of a total of 50 surgeries performed during the study period, the relatives of six patients had refused to attend the surgery for the following reasons: (1) inability to comprehend the surgery, (2) inability to take the psychological impact, and / or (3) they believed the surgeon would do the best 'job' if they were not present during the surgery. Of the 44 who attended the surgery, two attendees left while the surgery was in progress. One relative complained of claustrophobia and another felt very anxious and 'sick'. The size of Operation Theater was 170 square feet.

The advantages and disadvantages of the relatives attending the surgery could be many [Tables 2 and 3]. They may increase the families' receptiveness and comprehension about the instructions given by the surgeon on postoperative care and further treatment. If the patient needs more surgeries, the genuineness of the initial attempt at surgical correction, witnessed by the relative, avoids development of distrust in the surgeon. Further studies are required to assess the benefits of this practice in improving the patient-parent-doctor relationship and reduction in the number of malpractice litigations.

Paice *et al.*^[5] surveyed 307 respondents, while there were concerns of the health professionals. In the present study we found that medical doctors were more conservative and skeptical about the practice of a relative in the Operation Theater than the non-medical attendees. However, this result was statistically not significant due to a small sample. Future studies are required to know the perspectives of the health personnel about this practice.

Live relay of the cataract surgery is practiced at many centers. Parental presence in the Operation Theater is not a novel idea. In obstetric set ups, husband's presence is encouraged in the labor room or during a Cesarean Section.^[7] Interventional radiologists, cardiologists, cardiac surgeons, and orthopedic (arthroscopic) surgeons give digital records of the procedure to the patients and / or allow the relatives to attend the procedures.^[8,9] There are studies reporting a positive effect of patients watching live arthroscopic surgeries.^[10]

We believe, that the practice of the parental presence in the Operation Theater during the squint surgery of their ward may not be practiced universally in all the set ups, but it is worth considering in the Operation Theaters, where the staff is well trained, surgical load is not tremendous, and the surgeons do not have the responsibility to transfer the skills. Focusing on parental satisfaction and building more trust in the parents by giving them an access to the operation theater / allowing them to watch the surgery in the viewing chamber can be a small, but significant step toward bringing in more transparency, accountability, confidence, awareness, and trust in the medical fraternity.

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