Commentary: Tug of war between manual small-incision cataract surgery and phacoemulsification – A conflict or an agreement

A knowledge, attitude, and practices (KAP) survey is always a reliable modality of assessment of a particular disease, practice pattern, or surgical procedure. It is a qualitative and quantitative (pre-designed standardized questionnaire) assessment of information. KAP surveys are an eye-opener to unanswered questions and reveal mis-conceptions and mis-understandings about a particular pathology.[1] A KAP survey registers different opinions and is based on declarative statements. Cataract surgery is the most common surgical procedure performed by ophthalmologists. The most common cataract surgical procedures in our country are phaco-emulsification and manual small-incision cataract surgery (MSICS). The other options available are femtosecond laser-assisted cataract surgery (FLACS), extra-capsular cataract extraction (ECCE), and intra-capsular cataract extraction (ICCE). ECCE and ICCE are comparatively obsolete these days.[2] Some surgeons are solely performing phaco-emulsification, some are performing MSICS, and some are performing both, intending to give a perfect post-operative outcome. Phaco-emulsification has its own merits of no to minimum astigmatism, early post-operative recovery, and implantation of square-edged foldable intra-ocular lenses (IOLs), which reduces posterior capsular opacification. MSICS has its own advantage, being cost-effective, affordable, and less time-consuming and protecting the corneal endothelium in hard cataract and shallow anterior chamber cases.[3] However, there is always a tug of war between the preference of one surgery over the other. A KAP analysis regarding the preferred practice patterns and surgery of choice in our country was lacking, and the authors in the current study have brought out some really interesting analyses.

Rossi *et al*.[4] performed a global cataract surgery survey on practice patterns related to pre-operative, intra-operative, and post-operative care of cataract patients, surgical settings, and personnel allocation. A total of 209 ophthalmologists responded to the survey. There were 38% from government hospitals, 36% from the private sector, and 26% from academic sites, and the overall surgical volume was between 241,700 and 410,500 cataracts per year. A good correlation was seen between the institute and surgical volume. Similarly, Desai *et al*.[5] conducted a cataract surgery survey in over 100 hospitals in the UK to assess the clinical details of the outcomes of approximately 18,000 cataract surgery patients. The survey results showed that 85% achieved a visual acuity of 6/12 or better, whereas only 65% of patients with pre-existing ocular co-morbidity achieved a visual acuity of 6/12 or better. This number increased to 92% and 77% at the final refraction, respectively. The authors reported that the major risk factors affecting a good visual outcome were age, diabetes, stroke, other ocular diseases, type of surgery, and grade of the surgeon. This survey paved the way for more extensive research and analysis for factors affecting good visual outcomes after cataract surgery. A similar survey was performed in Nigeria[6] regarding the techniques of cataract surgery practiced by ophthalmologists there. Out of 90 ophthalmologists, a response rate of 93% was obtained. The most commonly practiced surgery was ECCE/IOL (73.8%) and SICS/IOL (29.8%). Only 2.4% of ophthalmologists performed phaco-emulsification, and approximately one-fourth of them performed intra-capsular cataract extraction without IOL implantation. Day care surgery was practiced only by 20% of ophthalmologists. The most common IOL used was PMMA (94%), 50% used biometry for IOL power calculation, and only 10% of ophthalmologists used Nd YAG laser. The results highlighted the need for surgical upgradation in Nigeria for providing better patient outcomes.

In the current study,[7] the authors conducted an anonymized survey assessing India's cataract surgery practice patterns. This is probably the first state of the national survey on cataract surgery in India. An approximately equal number of surgeons were working in metropolitan cities and towns. Out of 153 surgeons, only 4 were practicing in rural areas, probably because of a lack of facilities for surgeries in rural areas and less number of specialists practicing in rural areas. Approximately 70% were comprehensive ophthalmologists practicing as anterior segment surgeons. The most interesting result of the survey was that only 10% were using phaco-emulsification and MSICS as the lone treatment modality, and approximately 75% were using either of the techniques. However, contrastingly, 70% preferred phaco-emulsification as the prime modality of treatment. A total of 44% of respondents felt that phaco-emulsification was better than MSICS, and 38% felt that outcomes were comparable. A total of 71.24% of surgeons were willing to impart training to fellow ophthalmologists, whereas 8.49% were not interested in training. This KAP analysis answered many unanswered questions regarding cataract practice patterns and revealed a hitherto part of cataract surgery. Cataract surgery should not become technology- or machine dependent as in a developing country like ours as a large chunk of the population cannot afford phacoemulsification or FLACS. The National Accreditation Board for Hospitals and Healthcare Providers (NABH) accreditation of the private hospitals has made it less cumbersome for patients to afford the latest technology-based IOL, such as Symphony, Vivity, Eyhance, and so on.[8] The results of this survey are very informative and interesting. In future, a similar large-scale study is needed to fill in the gaps. A more detailed and classified KAP questionnaire will further validate and add value to future studies. As high-volume cataract surgeons, we also support both techniques based on the indication and merit of the case, and surgeons must be flexible to adapt to different techniques for the betterment of the community as a whole.

Consent for Publication

The article does not involve any data from subjects. Hence exempted from prior patient consent.

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References

1. Raina S. Assessment of knowledge, attitude, and practice in health care delivery. N Am J Med Sci 2013;5:249-50.
2. Gogate P. Comparison of various techniques for cataract surgery, their efficacy, safety, and cost. Oman J Ophthalmol 2010;3:105-6.
3. Gurnani B, Kaur K. Phacoemulsification. In: StatPearls. Treasure Island (FL): StatPearls Publishing; 2022.
4. Rossi T, Romano MR, Iannetta D, Romano V, Gualdi L, D'Agostino I, *et al*. Cataract surgery practice patterns worldwide: A survey. BMJ Open Ophthalmol 2021;6:e000464. doi: 10.1136/bmjophth-2020-000464.
5. Desai P, Minassian DC, Reidy A. National cataract surgery survey 1997-8: A report of the results of the clinical outcomes. Br J Ophthalmol 1999;83:1336-40.
6. Nwosu SNN. Survey of cataract surgical techniques in Nigeria. Niger J Ophthalmol 2011;19:9-11.
7. Bali J, Bali O, Sahu A, Boramani J, Senthil T, Deori N. State of the nation survey on cataract surgery in India. Indian J Ophthalmol 2022;70:3812-7.
8. Gyani GJ, Krishnamurthy B. The National Accreditation Board for Hospital and Health Care Providers accreditation programme in India. World Hosp Health Serv 2014;50:9-12.

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