EDITORIAL VIEW

Producing a research culture in anesthesiology and intensive care in the SAARC region

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Research is a scientific tool with a systematic approach to seek new knowledge with an open mind. It may establish novel facts or else help solve new or existing problems. Its hall mark is accurate documentation leading to discovery, and interpretation. Researchers emerge because they are motivated to find new knowledge for a variety of reasons such a personal benefit, promotions, incentives or else because that is what he/she does for living. Rarely may it be your passion driven by curiosity. There aren't many Galileo's or Einstein's in the world to follow suit.

Research and innovation is paramount for a country's development. Without this, we can never expect a realistic progress in the SAARC region. In today's competitive world, promoting research productivity within a profession or region cannot be done on personal passion alone.

Anaesthesia as a subject itself started with research on its effectiveness in clinical practice. A lot of work has been done in centuries in the development of anaesthesia and intensive care areas. But when talking about the real research in the subject it is a very difficult task to carryout practically. Many efforts have been made in making the habit of doing research in this field. The basic level of research has been taught during the MD Anaesthesiology residency training in the form of thesis work. The training in the research methodology is also being done during the course in the form of the mandatory course in some institutes. We have many local, national, regional and world level seminars and conferences as the forum for the presentation of the research materials in the form of papers. In spite of all these, when talking about the real research paper presentation we are lacking in this subcontinent. This is a matter of great worry to those who are really interested in the progress of the subject.

We rely on data from the west and sometimes this foreign domination in setting research priorities and project management in developing countries have negative consequences , which outweighs the apparent benefits of research findings. Improvement of health in our part of the world requires data involving our own population.

The deterioration in academic infrastructure in many developing countries needs to be revised as a part of any research investment. Research funded through national academics and university institutions improve the chances of finding being translated into national policy and practice.

Living in the developing countries, we do face a number of obstacles in enhancing research, like poor expertise of existing faculty and healthcare professionals in research methodology, lack of governance and above all a lack of set national priorities for health, education and research. We also lack in the available healthcare facilities and a good infrastructure for research capacity building.

In order to develop the research culture in our society, we need to critically review our situation and do a needs

assessment and plan according to our needs. We cannot run away from the fact that the medical practice is changing and the change is so profound, that it can be called a paradigm shift. The foundation of this paradigm shift lies in the developments in clinical research. This shift requires concentrated efforts and major emphasis on capacity building in the field of research according to our needs.

We cannot excuse ourselves just by declaring that we are a poor nation and we do not have enough money and resources to have quality research, or our doctors are overworked and therefore cannot perform research. One does not have to be a big researcher to do research; every one of us can start research by collecting data in our area of interest to show evidence from our work experience. We can also start by doing audits in our clinical area to reflect our practice, which can help us in improving our patient care. More the clinical work, more is the opportunity to collect huge data from our population.

One of the authors (GRB) had an opportunity to carry out a research work under Rockefeller Foundation on 'The analysis of record and outcome of anaesthesia for the children undergoing paediatric surgery in Kanti Children's Hospital' some time back. Carrying out the research in our setup was not easy and the analysis of the results was extremely difficult. We established one research grant fund under Society of Anaesthesiologists of Nepal (SAN). We could grant the fund for only one candidate in last five years and the final report has yet to be published. This is only one example of the status of the research work in the subcontinent.

In Sri Lanka, 99% of the anesthetists and intensivists are employed by the Ministry of Health and their research achievements play no role in recruitment, salary increment, promotion, transfer or placement in better positions. Thus, for most doctors, until recent times, a commitment for research was rather a 'personal' one at own cost both in time and money. During the later part of 2011, the Government of Sri Lanka offered a bonus of a 25% salary in return for one published original paper annually for doctors. Since then, the surge seen in the interest for research is phenomenal. This scenario is no different in other countries of the SAARC region where research activity remains largely a personal sacrifice. Thus, to promote research, we need to inculcate motivation offering incentives. Research recognition is the best method. Provision of prizes, fellowships, studentships, travel grants all fall into this category. The way forward would be to utilize the available resources, work on capacity building in research by external and internal funding. We need to inculcate research culture in the next generation by incorporating research in both undergraduate and postgraduate curricula. We need to have research symposium, workshops, and training sessions for faculty, medical practitioners and postgraduate trainees.

Professional organizations in anesthesiology and intensive care in the SAARC countries should strongly lobby to initiate governments, private institutions, chief executives, directors to recognize research at their work places as the first step. This is the only way a larger community be promoted to engage in research. Thereafter, provision of opportunities shall be the next step. In fact, the demand that will follow for funding and training will anyway drive governments and other voluntary and professional organizations to create courses in research methodology, initiate new funding methods and provide means of dissemination of the new knowledge.

Why do research if we are not taking advantage of its findings? That is why we need an evidence-based medical practice culture in anesthesia and intensive care integrating best evidence from research with clinical expertise, patient preferences, and existing resources into the decision making process and deliver health care on an individualized basis. To practice evidence-based anesthesia and intensive care, doctors need effective strategies for extracting relevant information from the many publications that are currently available, effectively evaluate the use of it for clinical decision making linked to improved patient outcomes.

Evidence-based medicine or evidence-based practice aims to apply the best available evidence gained from the scientific method to clinical decision making. It seeks to assess the strength of evidence of the risks and benefits of treatments (including lack of treatment) and diagnostic tests.

The anesthesia and intensive care professional organizations, executives, directors of units and institutes should promote a culture of evidence based practice. A good yardstick to measure their commitment would be the availability of, and adherence to protocols and guideline for each and every step of their practice. This will not only display a commitment for evidence based practice but also reflect implementation of research findings at work. This will ensure that we ultimately put our research to good practice and also net its benefits.

How much of our anesthesia or intensive care is based on evidence? Does the 10g pre-operative hemoglobin influence patient outcomes postoperatively? Does the use of 50% oxygen in caesarian operations influence outcomes of the mother or the baby? But we still practice these and hold people who do not do so to ransom in examinations, evaluations, appraisals etc.

Sustenance of a research culture in a country needs the training and involvement of students in research. We have to make them understand that developing countries bear 90% of the global disease burden, but only 10% of all health research funding is used to address these diseases. This popularly referred 10/90 gap is partly our own creation. We in the developing countries often excuse ourselves stating 'it is very difficult to carry out research in this part of the world due to practical reasons'. As a matter of fact it means 'it's of no use to me personally'. Thus, the number of researchers and research publications from South Asia are lower as compared to the developed countries. Student research projects are also a rarity in this part of the world in contrast to the developed world.

As such, there exists a need to bolster the research capacity in developing countries through motivation followed by international and national collaboration. Today, various governmental bodies, in partnership with organizations like the World Health Organization, Canadian Coalition for Global Health and Commission on Health Research for Development, are working to address this global health research inequity, and it is our duty in the developing world to take up this opportunity through our own commitment.

It is high time that we promote the young upcoming anesthesiologists in the field of anesthesiology and intensive care by creating the post of research associates in each teaching institute and central level institute with backing of the research laboratory with research grants. There should be grants from all local, national, regional and world level societies for research in this field. Since 'Anesthesia, Pain & Intensive Care' has shown keen interest in promoting research, it will be worthwhile to provide a forum in this journal, a separate dedicated section on research including research in anesthesiology. The best research paper will be awarded every year among the research papers published in the journal. Finally I wish the APICARE will be able to establish a research fund for this subcontinent, which will one day, become a respectable research fund. I will be the happiest man to be a part of it if APICARE is able to establish this fund (GRB).

We would conclude by saying that the needs of healthcare in SAARC countries, just like many other developing countries are different from the developed world and both our healthcare and research related to healthcare are severely constrained by limited financial support and human resources .We need to improve our research infrastructure which unfortunately is the least developed domain in the subcontinental healthcare systems. This can be done by evaluating our national needs and capacity building by training existing medical practitioners and preparing our youth by incorporating medical research in under and post graduate curricula.

We need to bring a change within our selves by thinking like a researcher so that we can seek a research question and start with an existing problem and end with a solution to the problem.

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