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EDITORIAL VIEW

Collaborative research for South Asia

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ABSTRACT

The South Asian region face common challenges in health issues which differ somewhat from those of the developed world. We lack large scale medical, surgical and anesthetic data which could be compiled to enable us to develop our own guidelines and protocols in keeping with our expertise, finances and resources. The need is to identify the key issues, train and capacity build researchers, obtain funding and enhance the regulatory agencies. Collaborative research within the region could be the way forward.

Key words: Research; South Asia; Statistics; Epidemiology; Demographic data

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INTRODUCTION

South Asia, the most densely populated region, is home to 24.89% of the world's people.[1] On the WHO world health system rankings of 190 countries in 2016, we were placed 76th (Sri Lanka), 88th (Bangladesh), 112th (India), 122nd (Pakistan), 124th (Bhutan), 147th (Maldives), 150th (Nepal), and 173rd (Afghanistan), in comparison to Singapore 6th, UK 18th, Australia 32nd and USA 37th. The indicators used were life expectancy, system performance and inequalities in health, social, economic, system responsiveness and finances. Ethics and social support were included as well as poverty, corruption and the "medical black market". The WHO agenda for sustainable development by 2030 highlighted equity, human rights, financing research and the use of technology for monitoring and evaluation. This gives us a broad outline and solid foundation on which to direct our research to assess our weaknesses and share our strengths within the region.

We have similar patterns of an aging population, communicable and non-communicable diseases, surgical disease and trauma. We also have similar social, cultural, economic and political issues.[2] There are unmet needs in remote areas and inequitable access to surgical and anesthetic care in urban and rural populations.[3]

We are aware and have access to health related statistics published by the WHO and medical associations and attempt to follow international guidelines and protocols published by the developed countries. However these may not always suit our patients and resources and there is a dire need for collaboration between our countries to solve our particular problems.

Health research is largely divided into three types. Research in basic sciences aims to understand the pathophysiology of disease and molecular level interactions and interventions. Public health research studies epidemiological data and methodology and approaches to improve health. Clinical research is required to identify causes and outcome of disease states and efficacy of management. Evidence from all three types of research is required to improve the health of individuals and the populations.

In our particular field, we lack large scale anesthetic and surgical outcome related data for the region. Hence, we are unable to formulate guidelines and protocols applicable to our populations. Collaboration across the region, and working together to achieve a common goal, is crucial.[2] We need to agree on a shared vision and mission, with influential leadership and team building, to stimulate and coordinate the development of research and dissemination of knowledge, focused on practical guidelines to impact patient safety and cost-benefit.

AREAS OF STUDY

The areas of study could be outcome data, post-surgical and anesthetic in relation to pre-operative patient characteristics (age, gender, co-morbidities and nutritional status). These would enable formulation of pre-operative optimization guidance for a better surgical and anesthetic outcome. Data on ease of access to surgical and anesthetic care would guide governments in policy matters. The quantity and quality of the available facilities, both physical (operation theatre facilities, anesthetic and monitoring equipment, high dependency and intensive care) and suitably qualified and trained personnel (surgical, anesthetic, nursing etc.) would enable countries to have a regional guidance on standard requirements. It would be useful to share knowledge on surgical procedures and anesthetic techniques used for the various surgical populations and disease states. Further areas that need data are application of anesthetic and surgical safety standards, education and the training provided to the personnel, and availability of funding for research, training, advanced technology and services.

IMPLEMENTATION

Initially, a broad review of the published literature to identify the main challenges and gaps in research and knowledge base should be undertaken. Epidemiological and demographic data taking into account our aging populations, increasing life expectancy, multi-morbidities, and paucity of finances and resources should be prioritized. There is a need to obtain funding, both local and with regional collaborations, and train research personnel and build their capacity. First we need to train the lead researchers and the support personnel. Then we should formulate our research questions, write the proposals and submit for ethical clearance. Collecting the data would be the biggest challenge. The resources available (paper based, web based) would vary within a country and between countries. The best way would be to use an online portal like Google allowing easy collection and compilation, so that analysis could be done at a main center in each country. Finally the regional data should be collated, discussed and published.

BARRIERS

Estimates of health publications from the South Asian countries are substantially lower than from other countries.[2] Health research from the region needs improvement and there is a paucity of large systematic data. Funding for health research is deficient and the proportion from the Gross Domestic Product (GDP) reserved for health and health research is way below that of a high income country. Though National Research agencies in some countries have tried to obtain and provide funding, the implementation has not matched the requirements. The demand for health research by politicians and the public is nonexistent. Government and research leaders need to think on these aspects for long term benefits. Presence of infrastructure and the human research resource is also at very low level in South Asia. We lack initiative to recruit and train high quality research personnel.

Furthermore, collaboration for research among countries in the region is minimal, although there has been a collaboration with developed countries. The Economist in 2015 reported that out of all collaborative research involving South Asia only 2.2% was at regional level.[2]

WAY FORWARD

Working towards obtaining research funding, to be shared by the governments and industry, is necessary if we are to embark on these projects. South Asia must invest in capacity building and collaboration between different sectors and the regional countries. Governance of all collaborative research is important. We would need a group of senior cadre to obtain funding, manage finances, ethics oversight, manage the projects, communicate with external resources and ensure monitoring, evaluation and sustainability. Let us have a goal (2025) to produce our own data, protocols and guidelines for better surgical and anesthetic outcomes.

CONCLUSION

The exchange of ideas, exploitation of each other's strengths and resources, building strong co-worker ties will help to set achievable goals and sustainable

choices within the context of ethics and equity. The use of social media for an imaging network and co-authorship and co-funding for multi-center trials will produce a valuable evidence base for ensuring practical guidelines.

Will the SAARC Society of Anesthesiologists[4] spearhead this collaboration in research for the region?

Conflict of interest: Nil

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