

The Challenges of Combining Clinical Work with Research in Bhutan: A Changing Status Quo

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Health research is imperative for continuously improving care, this is unquestionable. Knowing that research is costly and time consuming, can a country use the research findings from another country or does every country have to produce their own data? With the amount of studies published every day, it is essential for policy-makers and clinicians to have the knowledge and skills to identify reliable data that translates into evidence-based policies and practice. It is important to acknowledge when the findings identified by previous research can be applicable to another setting or population so that redundant re- search is avoided. Having said that, local data are needed for multiple purposes. To monitor progress made at a national level based on health indicators, to determine the burden of diseases and identify their characteristics, and to better describe local problems so that tailored solutions can be offered are some examples of why reliable local data are needed. 'Because local health problems often require local solutions, each country should be a producer as well as a consumer of research' reminded the WHO in 2013 [1]. However, most research is led by high- income countries and many low- and middle-income countries (LMIC) lack health research capacity. Strengthening local health research capacity in LMIC seems therefore critical for addressing health challenges locally and globally. But this is nothing new. As early as 1990, the Commission on Health Research for Development recommended the rapid expansion of country-specific health research and stated that strengthening research capacity in LMIC is 'one of the most powerful, cost-effective, and sustainable means of advancing health and development' [2]. Since then, there has been increasing calls for actions to foster health research capacity in LMIC. Although there has been some progress, many LMIC still lack sufficient health research capacity to undertake local research and to collect reliable local data to finally translate findings into policy [3]. How is Bhutan doing in this regard?

Bhutan is a landlocked country in the Eastern Himalayas, bordered by two giants, India and China. It is internationally known as the 'Land of the Thunder Dragon', or the country which established the concept of Gross National Happiness. It is currently classified as a lower-middle income country and the last census in 2017 registered a population of 735 553 [4, 5]. Universal health care is provided since the 1970s, with 'free access to basic public health services in both modern and traditional medicines' as per the Constitution of Bhutan [6]. The country has developed an efficient health system to reach the most remote areas, constituted by national, regional and district hospitals, basic health units and outreach clinics. Since the first fully graduated Bhutanese doctor returned to Bhutan in 1954, this country has made great strides in providing health care services to its people. The first and only University of Medical Sciences in the country was inaugurated in 2014, partly to solve the shortage of specialist doctors, which remains a concern. It currently offers postgraduate residency training in several specialties. Did the health research expand as fast as the development of health care services?

Although publications may not reflect the exact number of research projects conducted in the country, it gives a rough approximation. A Pubmed enquiry with the search term 'Bhutan' on 22nd of February 2019, identified 744 publications. By selecting the 'observational study' and 'clinical trial' filters, the number of publications was reduced to four and two respectively, of which half were actually not conducted in Bhutan. The Bhutan Health Journal (BHJ) was launched in 2015 and is published biannually [7]. Most of the studies published in the BHJ are conducted by Bhutanese researchers addressing local health topics. Although limited, the amount and nature of publications in the seven numbers of this journal reflect a much more positive condition of the research conducted in Bhutan. Most of the research are cross-sectional studies and case reports. Most of the authors are part of national institutions such as the Ministry of Health and the University of Medical Sciences. Aware of the importance of research, the new curriculum for the postgraduate residency programme requires the students to design and conduct a research project. Although they face challenges, mainly when designing their project and analysing the data, the work produced by the first two batches is promising. While initiatives are taken to develop research capacity, the amount of research led by working clinicians is limited. What could be the main reasons explaining the limited research in Bhutan?

Conducting research is challenging. It requires the awareness that research is essential, and the knowledge of methodological and analytical skills. Although there are few experts in this area in Bhutan, most of the clinicians lack the necessary proficiencies when it comes to research methodology and critical appraisal. They could probably learn these skills easily. But priorities are elsewhere—clinical work. At the national referral hospital in Thimphu, doctors see up to over a hundred patients daily. Sixty to seventy children every day from Monday to Saturday is the average for a paediatrician in this hospital. Meetings, medical visits to friends and relatives once the outpatient department is closed, and oncall duties involving nights, Sundays and government holidays are added to this workload. In the last few years, the responsibility and time involved for teaching postgraduate doctors and medical students has been added to the list. Where to find the motivation for starting a research project with this busy agenda? Furthermore, research requires funding, which can become considerable depending on the project. Leading research also requires leadership competencies and collaboration with other health workers. For example, a research project that involves collecting blood samples on eligible patients presenting to the outpatient department will probably require the support of the health workers in this outpatient department if the main investigator is also doing clinical work and cannot dedicate full time to research. Thus, health workers will be asked to identify participants eligible for the study and either inform the main investigator for recruitment or carry on with the recruitment process themselves. This could include providing study information, seeking consent, and collecting blood sample as well as some basic demographic data. In the context of work

overload, poor awareness of the benefits of conducting research, and limited or no funding for rewarding such tasks, this collaboration can be extremely challenging. However, correct data and sample collection are crucial to obtain reliable findings.

The health system in Bhutan has grown remarkably in the last few years. Although progress has also been made in the field of health research, there is still room for improvement. Leading research is still uncommon among clinicians. The main challenges preventing expansion of local research are the lack of awareness that research is needed, the lack of motivation, poor knowledge and methodological skills, and clinical work overload.

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