

## Capacity building through multi-disciplinary research: a report from Sri Lanka

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Sri Lanka is an island situated close to the southern tip of the Indian subcontinent with a land area of about 65 000 km<sup>2</sup>. The population in 2001 was 18.5 million. It has an interesting genetic diversity, its five main populations revealing both European and Asian origins. Although Sri Lanka is a developing country, it has strengths that other developing countries do not have, mainly in health and education. However, Sri Lanka lacks a research culture and has inadequacies in its research capabilities; hence, capacity building is essential. Based on our research findings, we plan to achieve this by working with professionals, statutory services, policy-makers and the public. Our model is international collaboration based on our own research agenda. Such partnerships can produce high-quality research, with greater influence on national policy and practice (Costello & Zumla, 2000).

### WORK PERFORMED AND ONGOING

Our research group has been actively involved in cross-cultural research in Sri Lanka with collaborations, mainly with the UK, for the past 5 years. All these projects were initiated through the supervision and support of the Section of Epidemiology at the Institute of Psychiatry, King's College, University of London. Professor Anthony Mann, Professor Martin Prince and Dr Matthew Hotopf have provided overall supervision and guidance.

#### Medically unexplained symptoms

We have developed and tested a culturally appropriate intervention for medically unexplained symptoms, the success of which was demonstrated for the first time by a trial of the efficacy of cognitive-behavioural therapy (CBT) for patients with such symptoms in a developing-world hospital (Sumathipala *et al*, 2000a, 2001a).

A psychological treatment package was designed by modifying the existing CBT model for medically unexplained symptoms. Following the success of the feasibility study in 1997, the Wellcome Trust awarded us another grant for a period of 3 years for an extended study, which began in 1999. In this investigation six primary care physicians provide the intervention, and an economist is involved in cost-effectiveness analysis. The above research has made another innovation, the use of a qualitative method – a nominal group (expert panel) to translate, adapt and develop consensus for research instruments for the first time (Sumathipala & Murray, 2000). This work has been further extended through twin research (Sumathipala *et al*, 2000b).

#### Sri Lankan twin registry

The Sri Lankan twin registry is the first such register in the developing world (Sumathipala *et al*, 2000c). Over the past 5 years we have made significant progress, achieving an impact on the international twin research community (Sumathipala *et al*, 2001b, 2002, 2003). We have secured a grant from the Wellcome Trust under the international collaborative research initiative scheme. Two projects are under way for higher degrees by two MSc students: one on the antenatal and postnatal complication of twin pregnancies, and the other on the cognitive development of twins from birth to the age of 3 years. Another postgraduate student has undertaken a doctoral study on genetic and environmental influences on smoking.

#### Multiple births

The revised Declaration of Helsinki emphasises that 'research is justified only if the population to be studied stand to benefit'. In view of this, a sister organisation of the twin registry, the Multiple Birth Foundation, was formed to organise research on the

children of multiple births and their families. Its objectives are to raise awareness of the unique issues faced by these children and their families, and to build services to cater for their needs by working with professionals, statutory services and policy-makers.

### Development of bioethical guidelines

Establishing the twin register and genetic research demanded development of ethical guidelines as a priority because the field of bioethics is at an early stage of development in Sri Lanka (Simpson, 2001). Our guidelines were drawn from the principles of international collaboration for mutually beneficial research, based on an agenda set by the developing world, capacity building in the developing world through research projects, the appointment of a third-party ombudsman to ensure freely given informed consent, protection of national ownership to prevent undue commercial exploitation of research, and the importance of a statutory framework robust enough to protect public interest but sufficiently balanced to allow new developments. These ethical guidelines were widely distributed for discussion with the aim of establishing a consensus (Sumathipala & Siribaddana, 2003).

### NEW INITIATIVES

#### Twin studies

A proposal for a twin study on osteoporosis has been submitted for funding. A grant has already been secured for a population-based twin study, with a comparison group of singletons, looking at common mental disorders, alcohol misuse and suicidal ideation. Capacity building and the establishment of a genetic laboratory is also incorporated in this. A major contribution from this study will arise from the recruitment of a singleton sample that will allow direct comparison of prevalence rates of distribution of risk factors between twin and non-twin samples. This large non-twin sample will allow generalisation of the findings to the population (2000 twin pairs and 1000 singletons). These collaborative projects involve Matthew Hotopf, Peter McGuffin, Andrej Marusic, Pak Sham and David Ball from the UK, and Jakkko Kaapprio from Finland.

## Global divide in research publications

With Vikram Patel from the London School of Hygiene and Tropical Medicine in the UK and the Sangath Centre in India, we have studied the global divide in research publications (Patel & Sumathipala, 2001).

## Curriculum development in bioethics

Our objective is to build capacity at an individual, institutional and national level for bioethics. We have secured a grant to develop an intensive course in bioethics, sensitive to local sociocultural needs. We will also establish a resource support centre on bioethics and promote research and education in this subject.

## Suicide studies

We have begun the first-ever study in Sri Lanka to quantify the prevalence of suicidal ideation in the community, and to test an intervention aimed at preventing attempts and completions.

## Science and research journals

The Forum for Research and Development is an embryonic organisation to promote a research culture in Sri Lanka. We plan to launch a research journal and a popular science journal in all three national languages for students.

## CONCLUSIONS

Developing countries should create a strong national research infrastructure so that they can influence national, regional and global health agendas, and lobby for equitable allocation of resources. Investment in research capacity would need to be made for the middle to long term, and it should be better coordinated and strategically deployed, should be programme based rather than project based, and should make a more serious commitment to building local, national and regional institutions. Autonomous research institutions attract funding and reduce administrative burden.

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We invite the involvement of researchers throughout the world in mutually beneficial collaborations. Our model for collaboration and multi-disciplinary team efforts has worked well in Sri Lanka.

## Our team

Athula Sumathipala is a psychiatrist. His interests are medically unexplained symptoms, CBT and bioethics. His position in a centre of excellence in the UK, at the Institute of Psychiatry, was crucial for most initiations and networking. Sisira Siribaddana is an endocrinologist with interests in obesity, diabetes, osteoporosis and bioethics. Nihal Abeyasingha is an epidemiologist with an interest in communicable disease and epidemiology. Devaka Fernando is a professor of medicine with an interest in diabetes and non-communicable disease epidemiology. Rohana Dayaratne is a physician with interests in clinical and molecular genetics. Narada Warnasuriya is a professor of paediatrics with an interest in malnutrition and in social and developmental paediatrics. Deepthi De Silva is a clinical geneticist with an interest in Mendelian traits. Raveen Hanwella is a psychiatrist with an interest in medical education and bioethics. Sudath Samaraweera is a community physician with an interest in suicide and statistics. Suwin Hewege is a medical student with an interest in medically unexplained symptoms. Ruwan Deshabandu is a psychiatry trainee and a science journalist.

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