

Strengthening Child Health Research Capacity in Pakistan

Pages with reference to book, From 1 To 2

Shamim A. Qazi (The Children's Hospital, Pakistan Institute of Medical Sciences, G-8/3, Islamabad.)

Patricia Hibberd, Jonathon Simon (Applied Diarrhoeal Disease Research Project, Harvard Institute of International Development, 1 Eliot Street, Cambridge, MA 02138, USA.)

Ghaffar Billoo (Medical Faculty, University of Karachi and Head of Paediatric Medicine, Dow Medical College, Karachi.)

According to the UNICEF State of the World's Children 1996 report, 137 children out of every 1000 born will die before their fifth birthday. Though the under-five mortality rate has declined from 221 deaths per 1000 live births during the period 1960 to 1993, managing childhood illnesses remain as a major challenge for the medical practitioners of Pakistan¹. With an estimated 22 million children less than five years of age and 60 million under age 16, paediatrics and adolescent health is a major component of medical care provided in both the public and private sector facilities. Child survival activities, including immunization, integrated case management of the major childhood killers (diarrhoea, pneumonia and malaria) and nutrition support for the estimated 40% of preschool age children who are underweight², draw a substantial portion of the health sector resources. Child survival activities also command a substantial component of the international donor community's financial and technical resources.

The solutions to these major problems need to be found within Pakistan. Though external knowledge and technology may be useful, the key to addressing local problems is the strengthening of national capacities in clinical care, prevention activities and applied health research. Given the size of the paediatric population and the extent of child health problems, it is a special pleasure to work with the Journal of Pakistan Medical Association (JPMA) to produce two special issues highlighting child health research. The two issues represent the research efforts of a diverse group of Pakistani scientists from all areas of the country, drawn together into a research network by the Applied Diarrhoeal Disease Research (ADDR) Project of Harvard University. The sixteen articles presented in this issue (and the companion special issue to follow) are the single largest collection of research work to date by Pakistani scientists on the common paediatric ailments of diarrhoea, pneumonia and malnutrition. The JPMA and the research scientists believe the information generated from this multiple year research effort will serve to improve the health of the children, if it is given the broadest distribution among the medical community of Pakistan.

This special issue highlights the research work on diarrhoea and inappropriate prescribing practices.

Two of the pieces^{3,4} were important attempts to evaluate the impact of disease specific training on diarrhoea case management practices. These studies were the first to evaluate Diarrhoea Training Units (DTUs) that were set up in the early 1980's. The papers show some variability between the experiences of the Rawalpindi and Karachi groups and raise important questions concerning the efficiency and efficacy of national training programmes on single disease entities. The papers also provide a framework for evaluating other programmes such as the impact of the Village Health Worker Programme and the WHO/UNICEF initiative on Integrated Management of Childhood Illness (IMCI).

One of the themes of the ADDR Project effort in Pakistan was investigation of locally available, culturally acceptable, low cost foods and fluids to improve facility and household-based case management of diarrhoea. Dowdo in the Northern Areas⁵, sabodonna in Sindh⁶ and Khitchri in Karachi⁷ were all effective in improving diarrhoea case management at a fraction of the cost of standard hospital therapy. Children tolerated the food/fluid therapy well and appeared to have experienced shorter episodes of diarrhoea and a more rapid nutritional recovery. Bhutta also discusses

the importance of lactose intolerance in managing cases of persistent diarrhoea⁷.

The third section in the special issue highlights the studies supported by the ADDR Project on professional practices. Clinicians in Multan, Lahore and Karachi, both GPs and specialists, appear to be prescribing pharmaceuticals for either respiratory illness or diarrhoea inappropriately. The prescribing practices described are expensive for the patients and do not improve clinical outcomes. The costs to the health system are immense and interventions to promote more appropriate prescribing practices should be a focus of future research efforts.

Child health research in Pakistan has made great progress in the past ten years. External partners have provided some of the financial and technical resources, but in the long-term, domestic sources of financial and professional support are required. The ADDR Project, along with UNICEF, WHO, BOSTID and CIDA, has tried to contribute to strengthening the institutional and technical base for applied child health research.

Since 1988, the ADDR Project has worked collaboratively with Pakistani scientists to accomplish two interrelated goals--- first, to use scientific research to address priority child health problems of interest to the national health programme and policy personnel and secondly, to strengthen national capacity to conduct applied research to solve future problems. Forty-one research studies were supported in seventeen institutions. Research teams participated in intensive short courses on research study design, data analysis techniques and manuscript/policy report preparation. All investigators received ongoing technical support at various phases of the research effort, including technical and editorial assistance in the preparation of manuscripts for these special issues. We believe the effort, represented by the papers published in these two issues, reflects a burgeoning interest among scientists in Pakistan to improve child health using results from well designed studies and to make research an important focus of the national health programme effort.

The ADDR Project takes pride in its contribution to research capacity strengthening efforts with the Pakistani scientists involved in child survival research issues. The project was effective in stimulating some young scientists to work closely with their professors on research and in initiating a scientific dialogue between researchers and policy planners through a series of meetings between the two groups. However, certain constraints and limitations could have been addressed more effectively. Specifically, the Project was unable to address career advancement issues and create sustainable professional incentives for researchers. After a decade of substantial external investments, few physicians or social scientists have been able to build careers as research scientists. The majority of the collaborating institutions did not have an administrative infrastructure in place to deal with external research finances or ethical and scientific review of research protocols. Interdisciplinary or multi-disciplinary research was difficult to initiate and needs further encouragement. Many researchers need sustained assistance in proposal development, data analysis, manuscript preparation and dissemination of results. These are the areas that demand additional investments from the national institutions like the medical colleges, the Pakistan Medical Research Council and international donors. The Government of Pakistan itself spends less than 0.2% of GNP on science and technology, so domestic resources for research are severely limited and far lower than other countries in the region⁸. The papers published in these two issues clearly demonstrate that the research community is committed to the goals of conducting important research to improve child health in Pakistan.

Finally, we would like to dedicate this issue to the late Dr. Abdul Ghafoor, a researcher of international repute, former Executive Director of the National Institute of Health in Islamabad and a great supporter of strengthening national research capacity in Pakistan. Dr. Ghafoor was a great supporter of the ADDR Project efforts. He had a vision and a strong belief in the potential role of a strong and dynamic scientific community contributing to addressing the priority health needs of the country. He was an advocate for improved science among both the donor community and his scientific colleagues. His premature death was a great blow to the scientific community in Pakistan. We regret that he was unable

to live to see the fruits of his efforts in these issues. We can think of no greater tribute than to dedicate this issue in his honour and memory.

References

1. UNICEF The State of the World's Children. New York, Oxford University Press, 1996,p.80.
2. de-Onis, M., Monteiro, C., Akre, J. et al. The worldwide magnitude of protein energy malnutrition: An overview from the WHO global database on child growth. Bull. WHO., 1993;71 :703-712.
3. Kundi, Z.M., Ahmad, I. and Anjum, M. Evaluation of Diarrhoea Management of Health Professionals trained at the diarrhoea training unit of Rawalpindi General Hospital. J.Pak.Med.Assoc., 1997;47:3-6.
4. Isano, Z., Ibrahim, S. Evaluation of doctors trained at Training Unit of National Institute of Child Health_ Karachi. J.Pak.Med.Assoc., 1997;47:7-11.
5. Jan, A., Rafi, M., Mustafa, S. et al. Evaluation of Dowdo (Wheat Milk Gruel) in children with acute diarrhoea. J.Pak.Med.Assoc., 1997;47: 12-16.
6. Ibrahim, S., Isani, Z., Raza, J. Sagodanabased verses Rice based oral rehydration solution in the management of acute diarrhoea in Pakistani children. J.Psk.Med.Assoc., 1997,47:16-19.
7. Bhutta, Z.A., Nizami, SQ., Isani, Z. Lactose intolerance in persistent diarrhoea during childhood. The role of a traditional rice-lentil (khitchri) and yogurt diet in nutritional management. J.Pak.Med.Assoc., 1997,47:20-24.
8. Health Research in Pakistan: Action plan for the 90s. Health section, Ministry of Planning and Development, Islamabad and Department of Community Health Sciences, Aga Khan University. Karachi, Islamabad, Karachi, Aga Khan University. 1991. p,34.