

## **Research in Pediatric Practice: An Untapped Arena!**

The current status of medical research in India is in an abysmal state. There is dearth of good quality publications particularly in reputed indexed international journals.

With crash commercialization of health sector and entry of big corporate houses in health care facilities, the quality medical research has suffered badly and lost its preeminence. The thrust is now on to provide the best possible health infrastructure catering to the patient comfort with hardly any thought spared on the need of investing in research—an expenditure deemed non-profitable by many business houses.

### **The reasons for poor state of medical research in India**

The first and foremost is the complete lack of what can be dubbed as 'research culture' in the country that encompasses possessing an aptitude for original research, encouragement and support by the state, acknowledgement of quality research work, adequate incentives and job opportunities for those entering this arena, and a proper infrastructure to carry out quality research work. There is paucity of good medical institutions encouraging medical research, lack of research opportunities and scholar jobs, and lack of independent research avenues. Further, there are only very few independent bodies sponsoring, facilitating and supervising research activities in the country.

### **The urgent need to invest in medical research**

Considering an absolute dearth of indigenous data on many communicable and non-communicable ailments in India, there is an urgent need to promote and facilitate research activities in the health sector. We still have to bank upon the data provided by western agencies and institutions to chalk out our own strategies. In contrast, many other Asian countries like South Korea, Japan and China, have

invested considerably in developing an efficient research and development facilities.

### **Why encourage research in private practice?**

Private practitioners constitute the major chunk of health care providers in our country. However, this resource is still vastly untapped and uninvolved as far as research in health is concerned. There is a growing feeling that this potentially resourceful sector can be persuaded, motivated and trained to become part of quality research projects while still continuing to discharge their routine duties. Private practitioners should contribute in a more positive way to build a pool of robust data pertaining to many health ills faced by our citizens.

### **How practitioners can contribute in research?**

There are ample opportunities to involve in research while still performing private practice. Pediatric Research in Office Setting (PROS) is a well-established project in some countries; for example, American Academy of Pediatrics (AAP) is having a vast network of PROS coordinators since 1986. PROS in USA consist of more than 2000 pediatric practitioners from around 800 practices in 49 states. Unfortunately, in India no such project exists so far. It is imperative for IAP to initiate this project by modifying the guidelines available from AAP.

By creating a network of PROS coordinators in the country, we can not only gather invaluable data on many pediatric ailments but the project can be used further to improve the health of children and enhance primary care practice by conducting national collaborative practice-based research.

### **The benefits of PROS**

This initiative can be mutually beneficial to both the pediatric society and the practitioner fraternity. Those deciding to join PROS will benefit from their academic and professional enhancement—in form of improved skills and inculcating the habit of doing practice in an 'evidence-based' manner. This will also satisfy their pursuit of academic excellence.

Further, this project may also provide opportunity for the practitioners to get their own concerns analyzed and researched in a scientific way.

### **Pre-requisites to join PROS**

Apart from possessing an attitude and penchant to venture in to research work, proper record keeping and facility to retrieve data on demand, facility to analyze and synthesize the pooled data, and in the last some basic degree of training in research methodology with some proficiency in writing research papers for publication are the few other requirements to undertake research projects. Constitution of an "institutionalized ethical committee (IEC)" to supervise research work particularly if it involves human volunteers is also mandatory.

### **What types of research is feasible in practice?**

Even without any existing infrastructure and existing project on research in pediatric practice, broadly three types of projects are feasible:

1. Individual research work- where interesting case reports, unusual manifestations of common illnesses, appearance of a new disease in the community, in house morbidity-mortality data on common pediatric ailments, etc can be published.

2. National collaborative research project- Where one can become a part of a large collaborative network of an institution/agency like 'Measles NetIndia' project of NIV, ICMR funded research projects, *etc.*

3. Collaborative ventures with researchers - Practitioner and researcher work together to generate research question, design study materials and project, obtain research funding, collect study data, analyze collected data, and publish results.

### **What could be the study projects?**

Studies can be initiated to unearth data on existing diseases, their incidence/prevalence rates in the area, types of microbial strains prevailing in a geographic region, study of healthy individual to

generate data on normal variations/parameters like prevalence of hypertension in school children and adolescents, normal PEFr in healthy adolescents, onset of secondary sexual characteristics in young girls and boys, immunization status of children in private practice, rates of breast feeding, supplemental feeding practice, seasonal variation of tuberculin positivity, incidence and prevalence of bacteria causing pediatric meningitis, microbiological spectrum and sensitivity pattern of neonatal sepsis in NICU, efficacy of different protocols on morbidity/mortality status of different pediatric ailments, study of epidemics due to known/unknown diseases, outcomes of preterm babies on types of feeding schedules, impact of ventilation strategies on the outcome of ventilated babies, types of surfactant used and outcome of preemies with HMD, *etc.* The list is endless; these are just few examples of randomly thought research options.

### **Conclusion**

It is surprising that despite presence of a vast pool of pediatric practitioners, despite presence of a highly efficient organization of pediatricians, and despite presence of a well-organized model like PROS by AAP, no attempt has ever been made to exploit this network to contribute to hugely neglected area of pediatric research. Implementation of PROS will not only improve the status of child health in the country but also provoke the practitioners to carry out their duties in a scientific and evidence-based way. IAP is definitely going to give a serious thought on how to implement a model similar to PROS in US in our country too.

Establishment of a separate department of medical research by Government of India is a welcome step and time is right in our country to focus on this untapped arena- research in pediatric practice.

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