

EDITORIAL:

RESEARCH OUTPUT AND PUBLICATIONS

In recent times, a number of meetings on medical research have been organised with participation from professionals drawn from various sectors and institutions. This is a healthy reflection of their concern as well as interest in medical research. Often many suggestions and recommendations are made at the conclusion of these meetings. The recurrence of similar suggestions and recommendations at these meetings is a manifestation that much remains to be done.

Medical research is the quest for knowledge and when performed in a disciplined and with a constructive course of critical enquiry, will result in information which can increase our understanding of health and disease. Cognisant of this belief, the Malaysian Government has recently emphasised the importance of research and development, and increased budgetary allocation has been provided for in 1986. One may reiterate that it is the research investments in rubber and oil palm that has made Malaysia a leader in these two industries, emphasising once again the importance of basic and applied research.

A measure of the output of research is the number of reports published in the scientific literature. With this aim in mind a review of the pattern and trends in the types of papers in the *Medical Journal of Malaysia* (which is listed in the *Index Medicus*) was done for the period 1955 – 1985 (volumes 10 – 40). The publications were classified and analysed according to: type of study – case reports, investigations, reviews; disciplines involved – medicine (including dermatology and psychiatry), surgery (including

orthopaedics, ophthalmology and otorhinolaryngology), obstetrics and gynaecology (including family planning), paediatrics, paraclinical sciences (pathology, microbiology, parasitology and pharmacology), pre-clinical sciences (anatomy, biochemistry and physiology), public health and others (anaesthesiology, radiology, medical education, etc); authors – single, multiple (same discipline), multiple (interdisciplinary); institutions where studies were conducted – Universities (University of Malaya, Universiti Kebangsaan Malaysia, Universiti Sains Malaysia), Ministry of Health, the Institute for Medical Research, the National Tuberculosis Centre, the Sungei Buloh Leprosarium, the Chemistry Department, general hospitals, district hospitals, private hospitals and practitioners and overseas institutions (including Singapore).

There was a total of 1,622 papers and the results of analysis of these papers are summarised in Figs. 1–4. Single author papers declined, whilst multiple author and inter-disciplinary papers increased. The number of case reports and investigations showed an increase, whilst the number of reviews declined. Papers from medical and surgical specialities increased whilst those from paediatrics and the para-clinical sciences decreased, especially from the early 70's.

It is not surprising that the University of Malaya's Medical Centre has made the most contributions, being the earliest medical faculty to be established and endowed with staff and facilities for research. The other two newer medical

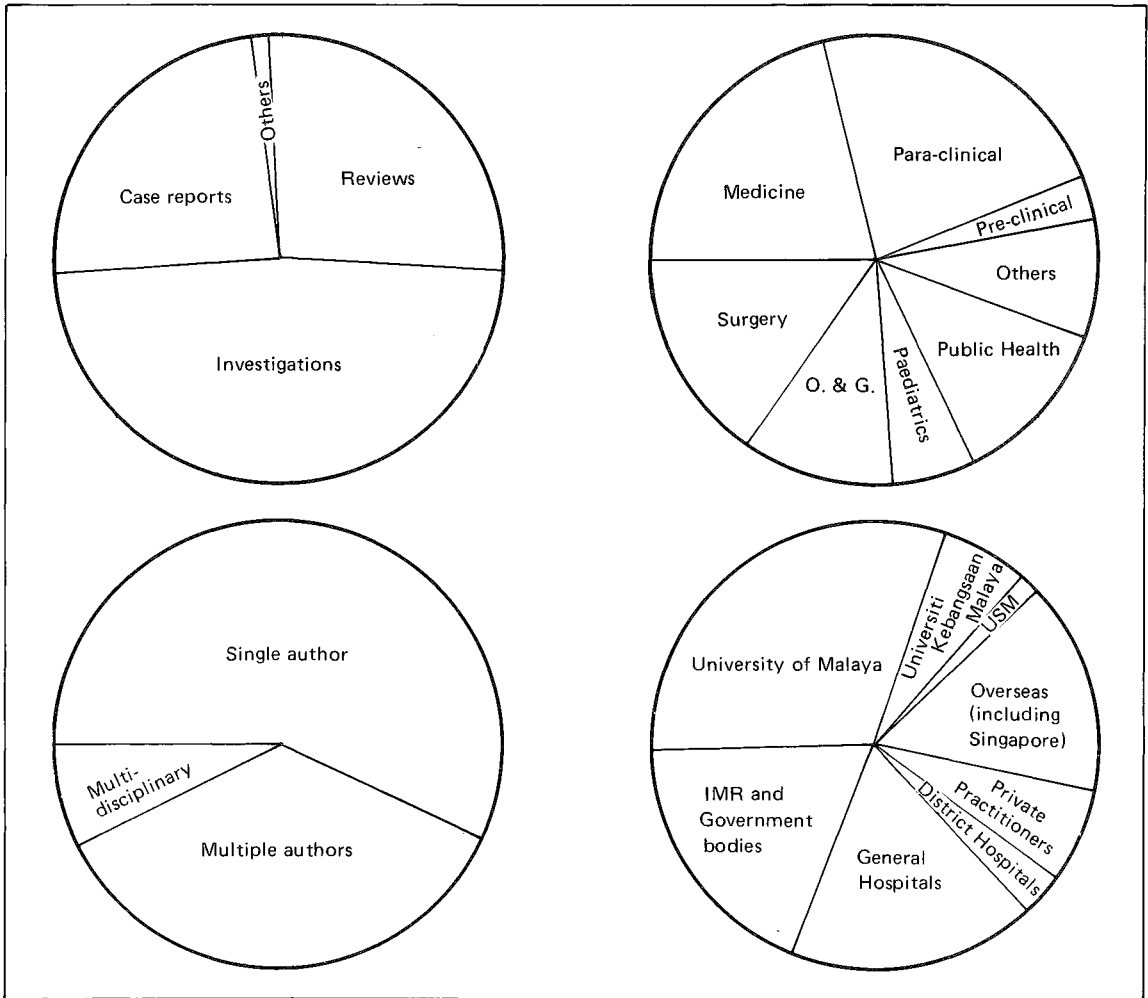


Fig. 1 Publications in the *Medical Journal of Malaysia* (1955-1985): A-Type of publications; B-Authorship of publications; C-Distribution of publications by disciplines; D-Distribution of publications by institutions; total number of papers = 1,622.

faculties are gradually making contributions. However there has been a steady decline in the contributions made from the general hospitals, the Institute for Medical Research and overseas' institutions, particularly from the 1970's.

The general decline in the number of contributions from general hospitals and the Institute for Medical Research is a cause for concern. Although it is quite possible that many papers from the Institute for Medical Research are published in other journals, this may not be true for the general hospitals.

The changing trend may also not truly reflect the actual research output from various local institutions, as it is possible that authors may report their findings in other journals, both locally or overseas. However, it is most likely that the majority of reports from local authors, particularly those with a clinical bias are published in the *Medical Journal of Malaysia*.

The decline in contributions from the general hospitals may be due to many factors, including the service load, which has always been heavy. Other factors may include a lack of exposure or

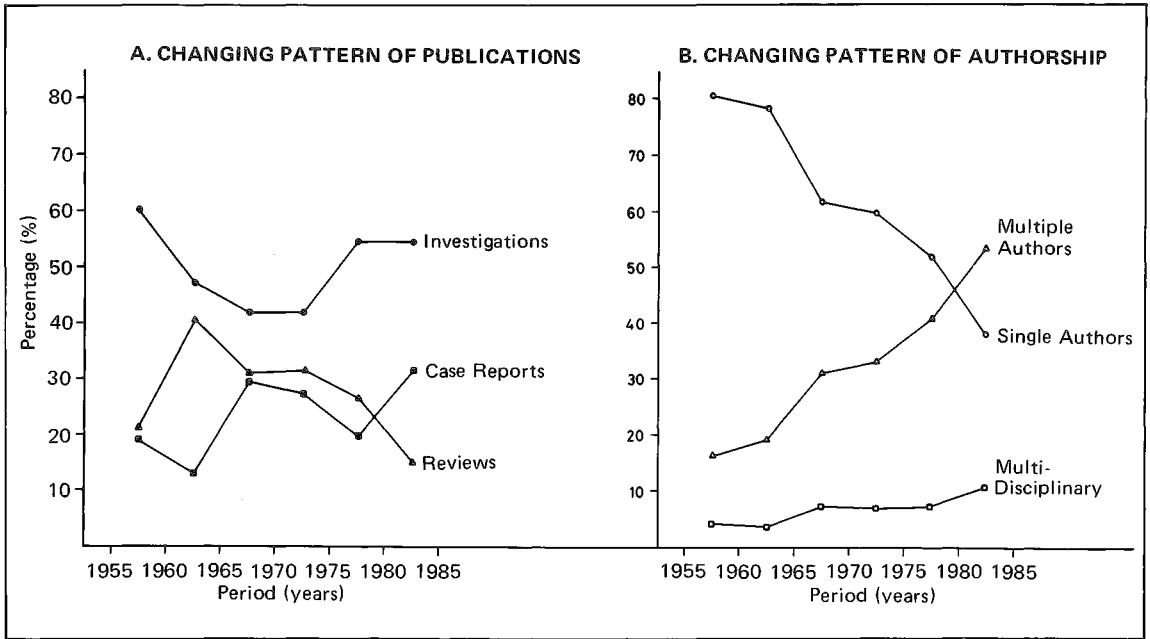


Fig. 2 Publications in the *Medical Journal of Malaysia*: A-Changing pattern of publications; B-changing pattern of authorship.

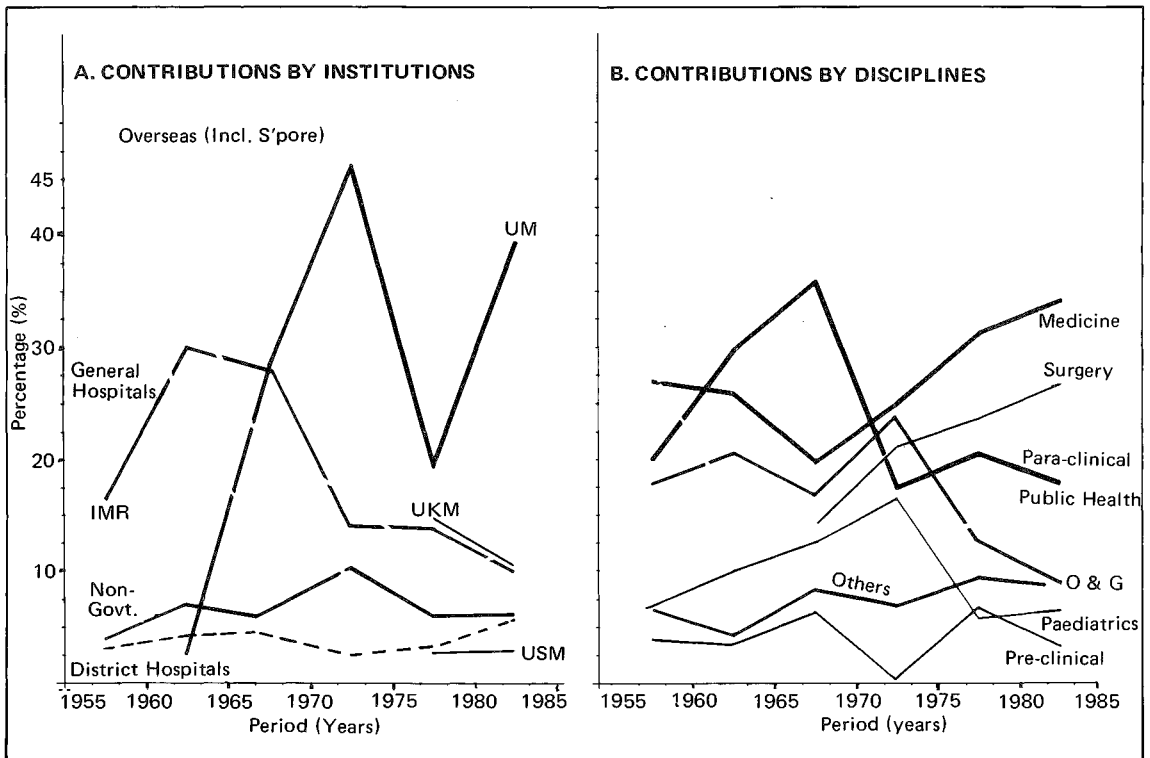


Fig. 3 Publications in the *Medical Journal of Malaysia*: A-contributions by institutions; B-contributions by disciplines.

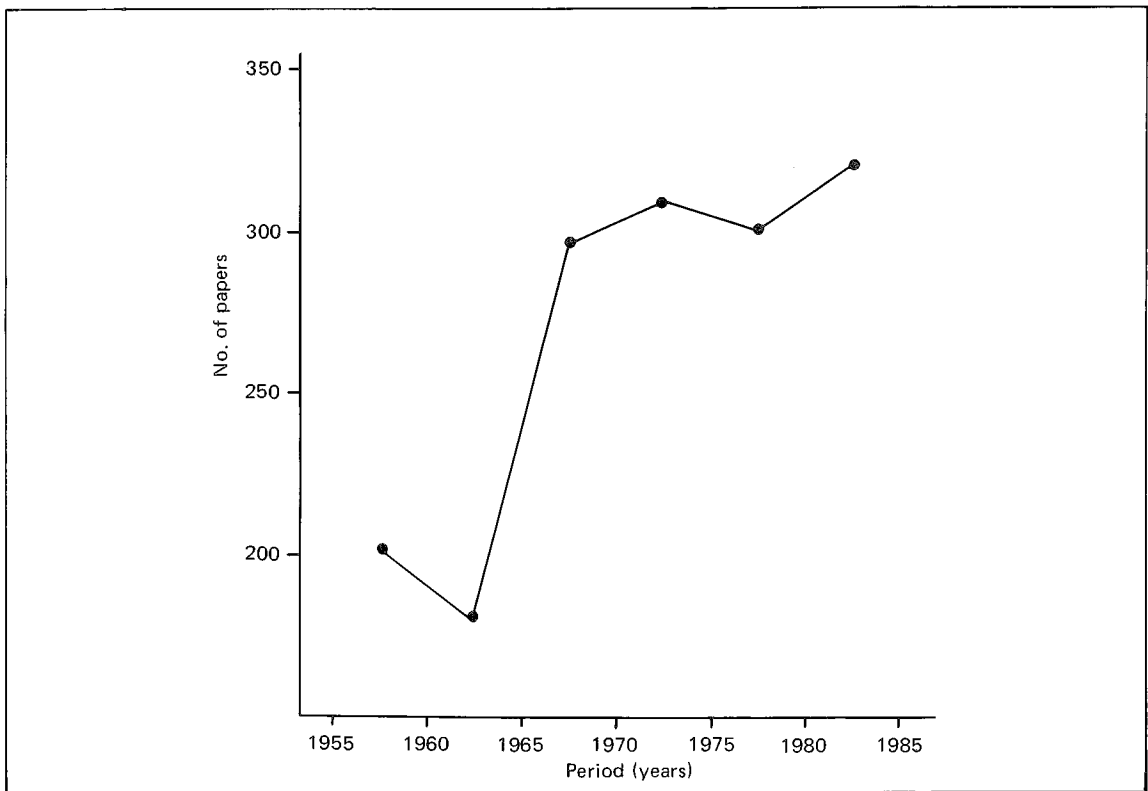


Fig. 4 Number of papers published in the *Medical Journal of Malaysia*.

training in research, poor motivation and a general deficiency of the spirit of scientific enquiry amongst specialists and heads of units in these hospitals over the last two decades. Should this be true, it is indeed a cause for serious concern as it reflects poor prognosis for medical research in this country. If specialists and heads of units in government hospitals are not capable of undertaking any type of research themselves, it is very likely that they would also be unable to advise and motivate their younger colleagues to pursue research effectively. This may mean that despite the Government's recent emphasis on research and development, we may not be able to undertake effective applied research into local problems in this country.

Effect disease control depends not only on drugs and vaccines, but also on an accurate knowledge of the distribution of the disease, the factors

which predispose to their occurrence and the efficiency of specific control measures. This calls for research in the disease as they occur in different populations and settings. Research, like any other endeavour, has to be learnt under proper guidance and leadership which means dedication and hard work, and often cannot be accomplished by adherence to normal working hours. The acquisition of higher professional qualifications, or the emplacement in an academic or research institution does not automatically make one an effective research worker. So it becomes essential that local postgraduate programmes should have a research component in their curriculum, and should also ensure that trainees are exposed to the basics of clinical research at an early stage so as to instil the importance of research in their professional practice.

It is important that the ability to undertake

effective research be given consideration for all appointments and promotions, particularly in academic and research institutions and desirably in government hospitals. The more senior appointments should preferably be filled by those with proven experience in research, as only then would it be possible to encourage the continuation of the learning process not only in medical practice but also in clinical research. The importance of appropriate leadership by those in responsible positions needs no reiteration, as the onus is on them to provide a supportive and conducive environment for progress in research, professional advancement and success. Considerations other than academic excellence, professional abilities and proven research experience for appointments

as heads of units or specialists, would only lead to a general decline in all aspects of health services. It is important to prevent attrition, apathy and complacency.

Critical scientific enquiry is a most challenging and rewarding enterprise which needs the support of both the profession and society, as the strength and vitality of the practice of medicine in future in this country will depend on the quality of our medical research.

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