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The contributions of family medicine research

Cindy L K Lam 林露娟

Family medicine, previously called general practice, is the oldest discipline in medicine but the rapid development in medical technology and medical specialization after the Second World War had demeaned the role of family medicine in health care and medical research in the sixties and seventies. At that time a famous American Ethicist, Ernest Gruenberg, already warned the medical profession that it would need to face "the failures of success" from the advances in medical science.¹ Modern life-saving technologies have ironically perpetuated sick lives more than healthy ones. High-tech secondary and tertiary care has become so costly that it has to be rationed. Most health services in the 21st Century will need to be provided in primary care, which is complicated by an increasing emphasis on patient autonomy.

Health care must be evidence-based in order to be effective. Direct extrapolation of research results from the hospital or laboratory to autonomous patients in primary care is inappropriate and may even be dangerous. Predictive values of clinical features and diagnostic tests found in the hospital setting can change markedly in the primary care setting because of a change in disease prevalence. For example, the positive predictive value of plasma beta natriuretic peptide (BNP) for congestive heart failure has been found to be 95% in patients with known congestive heart failure in secondary care but it drops to only 35% among asymptomatic patients in primary care.² As Mant *et al* have pointed out, there is an urgent need for more research in primary care to provide evidence on effective care in that setting.³

Family medicine is the discipline that specialises in the provision of comprehensive and quality primary care. As a scientific discipline, it has its defined domains, its own research methods, and a body of knowledge acquired through research.⁴ The literature and number of journals on family medicine research have expanded steadily over the last thirty years to gradually build a scientific foundation for primary care. Pioneers like Fry have described the presentations and natural history of common illnesses.⁵ Many have tried to unfold the complex interaction between physical, psychological, social and behavioural factors in illnesses.^{2,6,7} The research on the doctor-patient relationship has saved a lot of "heartsink" in primary care doctors.^{8,9} The research on patient-centred care by Stewart and others has changed medical care from the paternalistic to the partnership approach.¹⁰ Some research findings have

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revolutionised traditional medical practice leading to the saving of resources and reduction of iatrogenic harm. Notable examples are the work by Del Mar and Glasziou's team in the indication of antibiotics in the treatment of acute otitis media,¹¹ and the cost-effectiveness of investigations for microscopic haematuria.¹²

The complex nature of the discipline and the community context of family medicine have required the adoption of a large variety of research methods. Apart from traditional medical research methodologies such as randomized controlled trials, observational studies or case controlled studies, methods of questionnaire surveys, psychometric tests, qualitative interviews and participatory research have also been adapted from the fields of psychology, anthropology and social science to medicine. A mixture of methods, e.g. qualitative exploration of the patient's illness experience and quantitative assessment of specific symptoms and outcomes of the particular illness, are commonly used in the same study to enrich the understanding of the problem.¹³

Family medicine research has also created a new paradigm of studying doctors. The study on the cognitive process of how primary care doctors make diagnoses in the limited time of a consultation has conceptualized the hypothetical deductive method of clinical problem solving, which has contributed much to current developments in medical education. New intervention methods such as clinical audit, critical appraisal training, and computer-assisted decision making have been tested as means of changing doctors' clinical behaviour for better quality of care.

There is growing concern that huge amount of money invested in biomedical research has resulted in very little, if any, benefits in people's health because research findings are not being translated to routine clinical practice.¹⁴ Medical science can have the greatest impact on the population's health if it can be delivered in primary care, which is accessible and available to all. The input from family medicine researchers can enable biomedical research to be more relevant and applicable. The broadness of family medicine provides opportunities for collaborative research with almost all medical disciplines and many non-medical disciplines such as social science, psychology, and education.

In conclusion, family medicine research has focused on the improvement of the health of the person rather than just the disease, it has tried to use a system approach to determine the most effective and efficient way of applying medical

science, and it has enlightened us on the art of medical practice. Some mainstream academics may still question the value of family medicine research but the paradigm is changing. The time will come when family medicine research will be valued for what it is and become an integral part of all medical research, just as Professor Ian McWhinney¹⁵ has predicted:

"...our value to medicine lies in the differences (from other medical disciplines) and eventually the academic mainstream will become more like us than vice versa."

The questions facing primary health care are many and the amount of work that needs to be done is enormous, family medicine must expand its research capacity through training and networking of family doctors. Medical research is an investment for better health of the population and more effective services in the future. Many good family medicine research has come from countries where dedicated funding for primary health care research are available such as the United Kingdom, United States and Australia. The progress has been very slow in Hong Kong where funding for primary health care research is scarce. There is a need for more investment in family medicine research in Hong Kong if we want to make an impact on the health of our people. ■

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