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EDITORIAL

Science and general practice

The role of medical research in the development of general practice

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In 1973 it was still believed by some that the structure of the general practitioner's profession – solving problems here and now – created a style of thinking that does not lend itself to the level of abstraction necessary for scientific research. The general practitioner may well have a personal identity, but not a scientific one. In the years that followed it became clear that it was possible to translate methodological research principles into a form which was accessible to and usable by the general practitioner. But how far this research contributes to developments in general practice, or even forms the driving force behind them, is open to discussion.

1956–1970

It became clear that the work undertaken by physicians outside the hospital was not a poor substitute of what was done in the clinic. It needed no more explaining that general practice existed and that curative medicine outside the hospital had its own name (general practice, family medicine and in Dutch huisartsgeneeskunde). Components of the general practitioner's work were described, mostly in isolation from each other, even though Fry, Hodgkin, and Oliemans in the Netherlands, attempted to draw up the daily routine of the general practitioner in quantitative terms. This was difficult since the diagnostic label that had to be attached to the ailments of the patient by the general practitioner educated within the walls of the hospital was almost entirely derived from clinical medicine and, in its ultimate form, from mortality statistics. Most general practitioners had no problems with that type of label, since their medical education was more physician- and disease-oriented, rather than patient-oriented.

General practitioners who did research were a rarity and they studied a motley variety of subjects. The recently established colleges of general practitioners (in the Netherlands and the United Kingdom) supported the collection of epidemiological data, but without clear, coherent philosophy about the daily work of the general practitioner. Psychosocial thinking gained a strong hold among the general practitioners: they wished to gain a better understanding of the patient's problems, rather than to assign a name to a disease. The social-psychological influence was great – it also affected the general practitioners' scientific thinking – and threatened to result in a neglect of their somatic tasks. After all, the medical model was out and the social model was in.

1970–1980

Within a relatively short time departments of general practice were founded in Northwest Europe: in the Netherlands all eight medical faculties instituted such a department. The youthful departments had their hands full with student education and the general practitioners' continuous medical education and, in the Netherlands with the development of a vocational training for general practitioners. What research there was, was often directed at the structure of the work (collaboration, ancillary staff) or at the emotional and relational aspects of the general practitioner's work. The scientific productivity of the general practitioner members of the departments declined and that of the psychologists and sociologists increased. A description of the goals of the general practitioner and his work in terms like 'personal', 'continuous' and 'comprehensive care for the patient, his surroundings and the whole practice population' also made a similar contribution. The discussion about whether general practice medical research should now be qualitative, in contrast to the quantitative clinical research, blocked the thinking process for some time, until it was discovered that quantitative thinking and the performance of research is no more the domain of physicians and reductionists than qualitative thinking and doing research is the domain of the social scientist and others who do the 'thinking' rather than the 'counting'.[1] All effective research will have phases of both qualitative development and the use of quantitative skills interwoven throughout its planning, its progress and its analysis, interpretation and dissemination.[2]

But it was important that, in this period the formulation of theories began to gain ground. It became clear that attention was being transferred from the disease to the

patient, based on the identification of such concepts as the iceberg phenomenon, family medicine, course-of-life medicine, anticipation, and the combined assessment of somatic and psychosocial aspects.

1980–1985

When the educational task had more or less crystallised, it became clear in the Netherlands that, if general practice wished to become accepted as a scientific discipline within the universities, rather than remaining simply a professional specialisation, it was vital to have better formulated and better grounded theories. This turnround came late in a period that the medical faculties began to experience drastic cut backs. Furthermore, in the Netherlands at least, it appeared that recognition within the medical schools (which was virtually the only chance of continuing to receive research money) was only assured if many more publications appeared in the English language, due to the citation index.

Theory formulation was supported in that period since the professional association of general practitioners made available a clear description of the general practitioner's function and tasks, which meant that the general practitioner's professional responsibilities became clear for the first time.[3] But, in order to study these tasks, and the central concepts named above, in the general practitioner's daily work, it was necessary to develop a descriptive framework for this purpose. The WONCA classification committee did pioneering work in this area, and they gradually progressed from the International Classification for Health Problems in Primary Care, via the Reason for Encounter, to the International Classification for Primary Care (ICPC).[4] With this it became possible, for the first time, to connect the reason for the patients' encounter both of one consultation, but also longitudinally, with the final conclusion reached by the general practitioner. This final conclusion is often attained after a number of intermediate steps during episodes with more encounters. Meanwhile they kept in touch with what was going on around the ICD, both in the hospital as well as in government circles. The great difference, however, is that the general practice system offers a clearly patient-oriented frame of reference, while the ICD is directed towards diseases.

After 1985

After 1985 there arose an interest in the quality of the general practitioner's work, especially for the effect of the general practitioner's interventions. This was no longer concerned with the chances of survival, but with the quality of life as experienced by the patient. This concept, which is difficult to measure, gained practical form, partly due to the efforts of the WONCA research group, in research into the functioning of the patient during and as a result of the general practitioner's interventions. The functional status was determined with the WONCA-COOP charts, which are now in use throughout the world, even for common complaints.[5] Developments in this area are by no means complete, but it may be expected that, in time, this work will supply good research instruments with which to determine the outcome of general practice medical treatments, as well as questions that put the general practitioner in a better position to assess the patient's general condition than is possible with a mere 'How do you do?'.

Besides that there has, in recent years, been an important development in the area of the research methodology in general practice. While the European General Practice Research Workshop (EGPRW) survived only with difficulty throughout the first ten years of its existence, leaning as it did on individual physicians, a turnround has now occurred. The stronger research groups from the European general practitioner world have started to participate, and multinational research into essential aspects of the work of the general practitioner has been initiated. But here, too, there is considerably less finance available for primary care research than there is for international hospital based research.

While the research methodology was initially borrowed from psychological and sociological research groups, there is now more attention being paid to the peculiarities of general practice medical research, often participated in by dozens of individual physicians and their patients. The much more emphatic selection which occurs when patients are recruited by their general practitioners – restrained by the long-term relationship which is built up between general practitioner and patient – is now acknowledged and accepted.

Finally, this period saw the development of standards, guidelines and protocols. These standards played a major role in state of the art documentation for the general practitioner, as well in realising that there are areas in general practice where further scientific research was urgently required. A logical consequence was that the development of research into the quality of care within general practice became possible and was initiated. A global inventory in 1990 found that about 1/3 of the Dutch research projects related to the quality of care in the health care sector took place in the area of general practice.

Future

Now that the instruments and the methodology have become more sophisticated, the focus of the coming de-

cade will have to be upon such central concepts of general practice as the gatekeeper function, comprehensive medicine, defensive medicine, prevention of somatization, co-morbidity etc.
This is possible, in part, because a reasonable insight has been acquired into the incidence, prevalence and course of symptoms, disorders, and diseases which are – practically – only seen in general practice and which only sporadically result in a need for referral.[6-8] In this area further attention will certainly have to be be paid to the preclinical phase of complaints and disorders in order to gain some understanding of which patient visits or does not visit the general practitioner with a given complaint, and why.

The sorts of knowledge that are not yet sufficiently available to primary care practitioners include the patient's experience of the illness, his relationship with the family, the natural history of common problems, the accuracy of diagnostic tests in the primary care setting, the patient's ideas and beliefs about health problems and therapy, the health care system, and the effect of interventions on conditions of interest to general practitioners. Even with real physical problems, attention has to be paid to the patient's ideas, perceptions, expectations and illness behaviour to insure that the physician performs adequately.[9]

Only then we will be able to better investigate how the general practitioner's selection and referral process occurs; a process which varies considerably from physician to physician. There can then be a considerable expansion of the research into the quality of the general practitioner's work; research which received its first impetus from the WONCA working group on Quality Assurance.[10]

Nationally, the work performed thus far has led, for the first time, to the recognition of general practice research in the report of the subcommittee on health care research of the Royal Netherlands Academy of Sciences (KNAW) in 1991.[11] This report stated that the fundamental principles of general practice research were: general, broad (low threshold) accessibility and continuity (personal as well as factual). Six fields were described in which research is being performed at the general practice institutes of Dutch universities:
- the presentation of problems;
- the interventions of the general practitioner;
- the doctor–patient relationship;
- family medicine;
- the practice population;
- the benefit of medical treatment.

The three main types of research that are relevant here are:
- patient-related, episode-orientated research;
- research related to the quality of the general practitioner's interventions;
- research into the methodology of general practice research.

The first point was further elaborated by the Council of Dutch Professors in General Practice in 1986. They stated that research is necessary into:
- How often does a certain health problem occur in the population and how often is medical help requested?
- What characterises the people with this health problem?
- How is this health care problem presented (moment, complaint, commencement, seriousness)?
- What is the development of the complaints and the requests for help over time?
- At what moment in the episode does intervention occur, on the basis of which request for help, and based on which diagnostic/prognostic interpretation by the physician?
- What are the criteria for predicting the course?
- What possibilities are there for favourably influencing the course?

An important development in research policy in the Dutch university departments of general practice was that a discussion with the scientific committees of the medical schools and the KNAW lead to a clear choice of lines of research and programmes per institute, which were to complement each other, rather than the motley assortment offered by the research projects up to 1985. This is partly why there has been a sharp increase in the number of PhDs granted in the Netherlands to general practitioners on the basis of a well-argued general practice thesis.

Europe

Research in these areas is still far too fragmented in Europe, even in those countries in which general practice has been established for some time. The influence on the role and function of the European general practitioner is not clear. A great influence is detectable on the training of new general practitioners. The research results are being incorporated in the vocational training and are thus being passed on to the new generation.

If this research is to acquire a higher profile outside the Netherlands, the United Kingdom and Scandinavia, and if it is to be continued so that it can also be translated according to local standards, then measures will be necessary to introduce a scientific basis into every course for general practitioners. Apart from that, there will have to be more facilities for the training of a nucleus of key persons, either research-oriented, as was started in the Netherlands some years ago, or else more oriented towards advanced general scientific and clinical education, which has made a cautious start in the United Kingdom and the Netherlands. Only in this way, and by means of

financial and structural measures, can sufficient career possibilities be offered to the general practitioner scientist. Only then may we expect that scientific research will make a fundamental contribution to the development of general practice medicine. This in no way diminishes the admiration for everything that has hitherto been achieved, often under difficult circumstances.

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A special honor

Henk Lamberts, MD, PhD, former member of the editorial board of Huisarts en Wetenschap, has recently been elected to Foreign Associate membership in the Institute of Medicine of the United States National Academy of Sciences. The Institute of Medicine is concerned with the protection and advancement of the health professions and sciences, the promotion of research and development pertinent to health, and the improvement of health care. This highly prestigious institute compares to the Committee of Medicine of the Royal Dutch Academy of Sciences (KNAW).

Members are elected by the incumbent membership on the basis of professional achievement, and of demonstrated interest, concern and involvement with problems which affect the health of the public. It is a special honor and a confirmation for Dutch general practice that one of its most prominent professors is now one of them.