

Report

From implementation to learning: the importance of a two-way dialogue between practice and science in healthcare

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Introduction by the managing editor

This report was written on a request from the Minister of Health, Welfare and Sport, in response to the need to bridge the gap between scientific research and the implementation of the results of this research into the practice of health care. The report concludes that the care process should be a two-way dialogue between science and practice, and signals the need for more research into everyday practice, while this research might benefit from insights from other branches of the sciences.

The executive summary below was derived integrally from the website of the Health Council of the Netherlands. The full text of the report is available in PDF (135 kB) at their website: <http://www.gr.nl/> (Report: 20 July 2000).

Executive summary

From implementation to learning: The importance of a two-way dialogue between practice and science in healthcare.

Stimulating the scientific underpinning of medical practice and the care process has taken, for some time now, a prominent place on the agenda of the Dutch government. Much is expected from medical technology assessment (MTA), these days often referred to as health technology assessment (HTA). In line with this view implementing MTA results, increasingly established in the form of practice guidelines, is generally seen as the means to promote quality in health care. However, the implementation of these guidelines in everyday practice is either insufficient or too slow. This results in the “gap between research and practice”, to which The Minister of Health, Welfare and Sport refers in her Progress Report on Medical Technology Assessment issued on 14 February 1996. She requested the Health Council of the Netherlands to

prepare a report indicating fruitful approaches to bridge this gap.

The Committee notices that the phrasing of The Ministers request for advice indeed reflects current policy ideas on MTA: scientific medical knowledge is primarily associated with the outcomes from patient related research and guidelines are the best vehicle to introduce these new insights into daily practice. Without diminishing the value of MTA and guideline development, the Committee concludes that this point of view has certain limitations. The Committee chooses as its point of reference the optimization of patient care. It argues that guidelines based on MTA results doubtlessly provide an important contribution to the quality of the care process, but that other important issues are also involved. The Committee broadens the analysis of the implementation problem and distinguishes between the scientific aspect, professional knowledge and competence and social developments. In particular, the increasing interconnectedness of care practices and patients increased understanding of medical issues and their desire to be involved in determining what constitutes good care. This approach is in tune with recent arguments in the literature concerning the need to broaden the analysis of the implementation problem by using knowledge from fields outside medicine, such as the social sciences and management science.

Medical professionals, in comparison with other healthcare professionals, have made the greatest advancements in developing practice guidelines and implementation has been systematically studied. The general picture that emerges shows a range of scenarios: some doctors follow recommendations faithfully, some do so in part or from time to time, whereas others scarcely follow guidelines at all. Implementation of guidelines by general practitioners in The Netherlands gives reason to be optimistic, especially when it concerns recommendations to not perform certain interventions. The implementation of specialist guidelines has scarcely received any systematic study in the Netherlands

Only a limited number of studies have investigated whether or not the implementation of guidelines actually benefits patients. These reveal a mixed picture as well: positive effects cannot always be determined.

The most important conclusion that follows from this diversity of research data, is that various aspects can be distinguished in the process from developing guidelines to their implementation. Each has its own limiting and facilitating factors. Successful implementation, therefore, always requires a strategic and efficient mix of targeted activities that are specific to these aspects. As content, context and goals of care provision vary considerably, the mix applied will need to be specific to the situation in hand. A simple and uniform panacea is not, therefore, available. Recent arguments to broaden the theoretical basis in search of fruitful implementation strategies reflect this notion.

Continuing medical education (CME)—or as it currently often is referred to continual professional development (CPD)—can to a large extent support the implementation of medical scientific insights. The same message here: a mixture of activities will provide the greatest chance of success. Interactive modalities enabling professionals to use their experience, are especially effective. The Committee also draws attention to evidence-based medicine (EBM). EBM has a far wider meaning than in the early 1980s when it first came into use. It is currently understood to incorporate clinical epidemiological data, meaningful deliberations of professionals such as pathophysiological knowledge and clinical experience, together with patient preferences.

According to the Committee, the broadening of the analysis of the implementation problem provides a much clearer picture of everyday practice. The Committee discusses several recent theoretical insights concerning professional knowledge and competence. These insights provide useful viewpoints for a subtle examination of guideline implementation. Generally speaking, professional knowledge and competence are characterized by the skilful application of scientific knowledge to concrete situations or put another way: being able to translate from the generic to the specific. In the case of medical professionals this translation process effectively boils down to integrating epidemiological information (whether or not it is incorporated in guidelines), patient-specific data (including expressed preferences) and a host of organizational preconditions. It therefore concerns heterogeneous data, which the professional must consider in an ordered manner, classify and integrate into the basis for his clinical decision. Where available, codified knowledge, such as that established in guidelines, can be helpful; the professional will also often use practical experi-

ence as a source of information. Finding the best possible basis for the clinical decisions in hand, remains the key issue. Here the Committee is talking about “the learning professional”. It is vital that “the learning professionals” also systematically establish and evaluate their own practice data, so as to build up a reservoir of practical knowledge, which compliments the external knowledge from patient-related epidemiological research. Medical information technology could make a valuable contribution here.

Following on from this, the Committee draws attention to two important social developments, which are typical of contemporary society and have a considerable influence on the care process. These are the development towards larger organized care networks, due to the increasing interconnectedness of care practices and the more vocal and better informed concerns of patients. In view of this background, the implementation of medical-scientific insights takes on a slightly different perspective.

The Committee establishes that the context in which professionals within the healthcare sector currently work, is characterized by an increasing involvement in networks. Within such networks, doctors not only represent the interests of their own patients, but are also “actors amidst other actors” whereby they are confronted with a diversity of interests. Professional knowledge and competence naturally remain the basis for practice, yet social skills and co-operating with other disciplines are also issues. Due to this development, the process aspect of care provision is increasingly affecting the content—and thus also the quality—of the care provision. Furthermore, management and organizational concepts are also important in healthcare. Assuming that the professionals in healthcare are by and large similar to professionals in other knowledge intensive organizations, the Committee draws attention to a concept that is currently under consideration in the commercial sector, namely, the learning organization. The central premise in this concept is that everyone in an organization, each at their own level, has knowledge, which benefits the organization as a whole. A core task of the organization’s leadership is to facilitate the production, spread and application of this knowledge, by creating a climate in which the mobilized knowledge is systematically used, whereas old habits and methods of work are brought up for discussion and new forms of work are taught. This concept, therefore, fits in well with the basic aims of EBM. Continual learning must and may be required of professionals, but they must also be given the opportunities and the means to realize this.

Optimizing the care process, the central theme of this report, cannot be realized without the input of patients.

The latest ideas about guideline development, the so-called third generation guidelines, are clearly developing in this direction. However, the Committee observes that the question as to how patients can best be involved in developing guidelines, or put another way how they can best express and realize their preferences, remains far from answered. Little has been done in this large and difficult research area.

Research into factors which limit and facilitate implementation has produced many valuable insights and has also highlighted a number of gaps as indicated in the report “Effective Implementation: Theories and Strategies” issued by The Netherlands Health Research and Development Council (ZON). The Committee subscribes to the recommendations contained in the aforementioned report. In its own report, the Committee has expressed, in a number of ways, that the optimization of the care process is a two-way dialogue between science and practice. Changes to the context in which new insights—whether or not they are in the form of guidelines—must be applied, affects

their application. The Committee has further elaborated on several aspects of these changes and indicates the need for more research into everyday practice. Insights from the social sciences, education and management science may, in the Committee’s opinion, be helpful. The value of these insights for care practice has, however, yet to be established.

Research efforts should be directed towards forming theories regarding these insights. The Committee is also of the opinion that more attention must be paid to research into the realization of patient preferences. A point which must be considered is the extent to which patients can be better involved in the formulation of research questions and at an earlier stage.

Making concrete suggestions with respect to research that needs to be carried out, falls outside of the Health Council’s remit. The Committee advises the Minister of Health, Welfare and Sport to request the Health Research Council to deliberate the direction in which research needs to develop and the manner in which this could be organized.