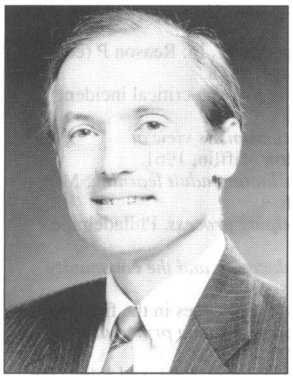
When something is good, more of the same is not always better

N C H STOTT



Introduction

WILLIAM PICKLES was a natural scientist whose life as a family doctor in Yorkshire provided the context in which this highly observant man could study the people in this community. The generalizability of many of his observations is not in dispute, despite the absence of a nationally representative sample, because the truths he identified were context generated but not context dependent. His clinical observations were investigated by small scale epidemiological techniques to produce integrated qualitative and quantitative research. This combination of research methods is slowly becoming a hallmark of our discipline: a clinical story that kindles a systematic study of process, outcome or aetiology.

Pickles is a man of history, but also a man of today because his work and writings continue to expose those who cling to the pendulum of change in the belief that moving busily to and fro is equivalent to progress. His humanity and common sense were illustrated when he welcomed liberation from billing his poor patients with the introduction of the British National Health Service:

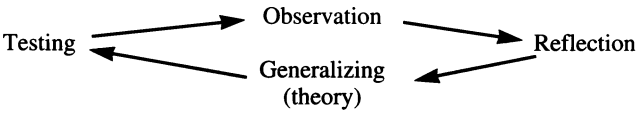
> 'I cannot express too strongly my feelings of delight and relief when I threw aside daybook and ledger.'[1]

Forty years later a general practitioner described the era after the introduction of the NHS as 'the age of innocence in general practice'[2] — the state had chosen to remove the barrier of poverty that had previously limited access to medical care. Loss of innocence is perceived by the same author as occurring in the 1990s[2] as the political pendulum swings back to limit professional independence and confront family doctors with some of the fiscal penalties that Pickles relinquished with glee in the 1950s. I wonder whether Pickles weeps or laughs at our profession's short lived irritation with government interference in our discipline and our pragmatic adoption of the label 'business man' rather than 'scientist with care of humanity at heart'.

If these comments generate some tension, I am glad, because every true discipline thrives on tension. Tension between opposing views is the stuff of politics and tension between opposing evidence allows scientific progress. Familiar debates concern the issue of opportunistic versus systematic screening,[3] whether blood pressure in the community is distributed bimodally or normally[4] and the wave versus particle theories in physics.[5] In the blood pressure debate one theory proved to be correct, but both have proved to be correct in the other two examples. So even apparently opposing theories can, sometimes, be shown to be mutually compatible.

The point at which a theory becomes a theorem seems to be dependent on three factors: the vigour and rigour of opposing theorists; the benefits that arise from application of a favoured theory; and an intellectual milieu that allows scientific controversy to flourish rather than be suppressed. An interesting national example for the 1990s is the collapse of confidence in economic theory. Economists depend on the past to forecast the future. Hence, at a time of major structural change in the world there is no sound basis for the prediction of the behaviour of world markets.

William Pickles, like other true scientists, also tried to explain observed phenomena. He observed epidemics and deduced incubation times. He then constructed a theory which he tested, or he published his observations for others to test experimentally. His was the true learning cycle of:



There is no room for dogma in this scientific cycle which, unlike the audit cycle, does not start with a preconceived standard. This rigorous process sometimes leads to clear cut laws, for example those of Newtonian physics, but it may lead to uncertainty if the basic concepts are too simplistic. Good science is not always successful but it is always honest.

Themes

Successive Pickles lecturers over the past quarter century have created a fascinating distillation of ideas and reactions to our discipline in this eponymous lecture. In the first Pickles lecture, in 1968, Pat Byrne provided a solid and characteristic defence of the generalist in a specializing society.[6] One year later John Horder warned of the dangers of generalist fragmentation[7] and this theme was revisited by many Pickles lecturers over the next decade. However, from the middle 1970s words such as standard setting, priorities, audit and quality assurance began to be heard on the lips of Pickles lecturers.

The Pickles lectures have been characterized by two major themes running through the series. The first is concern about the reductionist nature of the traditional scientific process which divides people into smaller and smaller parts to achieve better understanding of functions despite much evidence that the whole is greater than the sum of the parts. This theme is defended by general systems theory[8] and other integrating constructs that improve coherence of understanding and reduce mind–body dualism. The concept is rooted in a deep respect for the value of each person and acceptance that individual diversity is a strength rather than a weakness. The second theme is about control and

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standards in the day-to-day work of the family doctor. This theme is concerned with the control of outputs and regulating processes. It uses no theoretical constructs, it adopts the language of accountancy and it regards diversity as a product of uncontrolled professional licence rather than an ecological reality.

Lecturers in this series have dealt with topics concerning structure, function, education, assessment and teamwork in our discipline but most have returned in one way or another to one of these two dominant themes, the first of which is concerned with understanding the natural world, the second being most concerned with change, the management of change and standardization.

In the 1980s change was thrust forward as a desirable and irresistible force for the greater good. Science kindles change through discovery and technology. However, modern management also seems to view change as a weapon or a goal in itself, presumably because many vested interests lie in continuous rapid change: it means more training, more manufacturing, more buying, more managing and more service industries. Stability in the business world is equivalent to stagnation.

In contrast, large sectors of our population long for stability and security — children are best raised in stable communities, parents want stable incomes and job security, the elderly dislike major upheavals in their lives, and crime rates are lower in stable communities.[9] As family physicians we must therefore concede a paradox in the world of the 1990s. Change has always been with us but the new pace of change is being engineered by those in political and economic power despite societies' biological need for stability. Change may be exciting but it can also be extremely stressful, even to the medical profession.[10]

In the late 1980s the British government attempted to force our discipline to become focused on the needs of the population rather than the individual. The 1990 contract for general practitioners set out a few specific objectives such as availability, preventive medicine and information for patients. It did not define the true functions of the generalist clinician or adopt the internationally agreed definition of the general practitioner.[11] The first state defined targets related to population coverage of specific items, for example immunization and cervical cytology, fiscal issues such as fundholding and purchasing information, and standard setting in the form of audit. The patient was defined as a consumer of health service resources rather than as a producer of health,[12] and the general practitioner was described as the gatekeeper to the NHS.[13] The analogy is helpful if it means one entry point from generalist to specialist care. But this is not necessarily true in a pleuralist market environment.

In the Hippocratic tradition each person has primacy and doctors who swear allegiance to this tradition or the Geneva convention have earned the respect of their patients for centuries despite occasional errors of clinical judgement or personal behaviour. Indeed, doctors who fall foul of their patients are much more likely to have shown contempt for the value of an individual as a person than to have been technically negligent.[14] The centre piece of family medicine is what happens in the one-to-one consultation. Population health is always a secondary dimension.[15]

Recent government policy documents provide a different emphasis. *Health of the nation* placed great emphasis on 'health gain' and 'resource effectiveness': both are utilitarian concepts which are measured primarily in population terms.[16] Welsh Office strategy also included the concept of 'people centred',[17] but this represents consumerism in the health service rather than any deeper value system. The population approach is appropriate for public health medicine but it cannot be allowed to dominate clinical practice without loss of professional credibility with the public. It therefore comes as no surprise that some laymen are asking whether medicine is a profession that has lost its way to become an agent of the state, after reneging on its higher order value system.[18]

The first 25 years of academic development in our own discipline contributed much to our understanding of the use and abuse of the doctor–patient relationship and the therapeutic value of feeling understood and valued.[19–26] This emphasis was overshadowed by the technical precision and generalizability of biomedical advances. Our discipline also contributed much to small scale epidemiology[27] and to the integration of qualitative with quantitative research.[28,29]

An error in the early years was to focus too much on process and insufficiently on clinical outcome. This must, however, be seen in the context of the 1960s and 1970s when basic descriptive or aetiological research was exciting and important.[27] Times have changed and it is widely held that more generic outcome measures that reflect the quality of integrated general practice care are badly needed. Disease specific outcomes are plentiful but generic markers are still rare. This is curious because the pioneers in our discipline are almost all remembered for their ability to integrate clinical care and critical observation with research. Their conceptual model seemed to keep the patient and family central, but their world was less complicated by utilitarian strategic planning than that of the 1990s.

Theories and models

A conceptual model is available to assist our understanding of the interconnections between our generalist clinical discipline and the many specialists in biomedicine and population medicine. A model should be an aid to the reconstruction of natural events in a way that reveals what was hidden. Thus, general systems theory, the theory of interconnections has become increasingly important in our literature.[30–33] General systems theory permits reconstruction of nature to aid understanding, but it does not permit precision in prediction. It is a rugged model that describes the inter-relationships and interdependence between different biological levels in society. It highlights the fact that most clinical decisions and assessments are for individuals so individual values become important diversifying variables. At this level the value of the individual is greater than the needs of either the population or that individual's tissues. Neither biomedicine nor population medicine can be sufficient in isolation from this value system.

It is not by chance that at least six Pickles lecturers have referred directly or indirectly to the general systems theory construct, and it continues to challenge us at a time when national health strategies are aimed at the population rather than the individual.[16] If general medical practitioners let go of their responsibility and accountability to the individual they become utilitarian public health doctors. If they retreat from the individual to focus on the cellular and molecular they lose the generalist role and become biological scientists.

The generalist role has always been to make inquisitive clinical observations, to tolerate more uncertainly than the specialist,[14] to understand local probabilities, and to be health advocates for the patient in context.[33] The constant need is for personal, primary, continuing, accessible care.[34] At its best this provides a wide range of sensitive clinical competences which inhibit a fragmented (or a dualistic) approach to the patient. At its worst it can be screening or symptom swatting with expensive tools applied in an idiosyncratic way with scant regard for individuals, their health status, their real problems or even the national priorities.

Good general practice is easily contaminated by short cuts, by limited competency, fatigue or burn-out. It does however produce better outcomes,[21-23] and our greatest need in the 1990s is to develop more generic measures of clinical outcome. The British

are, however, in the midst of the biggest uncontrolled experiment into health service structure and function in the world. We can either try to ride this tide of change by pragmatic judgement and opportunism, or we can test what is happening against existing models and theoretical constructs to try to provide fresh understanding about the value of the principles we have developed for our discipline.

It is, however, an unfortunate truth that many general practitioners are reluctant model builders. Any attempt to portray reality with abstract symbols is seldom well received. Yet even the growth of the primary health care team can be portrayed as an algebraic progression that clarifies and reveals key issues (Figure 1). This model demonstrates rising complexity over time, the loss of easy informal communication, the increasing population of attached staff, the dilution of general medical practitioners and the rise in influence of external managements. Less immediately obvious is the fact that all team members are treated in the formula as if they are added and of equal weight. The model represents one end of a spectrum of types of primary care team. At one end of the spectrum the team consists of generalist clinicians with appropriate delegation of tasks to others (type I). At the other end of the spectrum is a managed conglomerate of people with special skills organized like a polyclinic of specialists. In the former, generalist clinicians (medical and nursing) are trained to provide the flexibility needed to respond in the frontlines of care to greatly varying demands. In contrast, the second type (Figure 1) becomes less flexible as it grows because any role substitution to meet a need is limited by a narrower range of skills in each staff member. The integration of care, cure and health promotion in the former can only be an agenda for the multidisciplinary team in the latter.

These concepts can be conveyed in diagrammatic form beginning with an old consultation framework[15] that was designed to encourage the generalist clinician (medical or nursing) to adopt a more comprehensive and disciplined approach to their daily work (Figure 2a). The impact of external forces in the new NHS structure is then portrayed sequentially in Figures 2b–d. Each stage can be viewed as expanding or fragmenting the tasks of the generalist clinician. If the intention is expansion then more generalists will be needed to carry out the tasks properly as the flexible core of clinical generalists is strengthened (medical and nursing). If managed fragmentation is the intention then the fragments provide an expanded mandate for team progression of the kind shown in Figure 1 and new team members simply adopt their quasi-specialist roles in increasing numbers. This is a model commonly exported from specialist centres[35] but found wanting in places as diverse as Bangladesh[36] and Sweden.[37]

A lack of evaluation into the likely costs and opportunity costs of a rapid expansion of the tasks for each British primary care team means that the actual outcome of the progressions in Figures 1 and 2 is uncertain. The pressure from consumerism, national target setting and accounting practices certainly creates strains for any generalists who were striving before 1990 to provide comprehensive and integrated primary health care.[10] The strain is likely to be less if the team becomes less medical, more pluralistic and managerially led with no vision to protect any remaining generalist clinicians from sub-specialization. The United States of America and Sweden have, however, been down this road already and they are anxious to restore the family physician for many good reasons.[37,38] It is thus important that the likely consequences of the UK experiment are brought clearly into focus.

I have used the integrating framework of Stott and Davis[15] to illustrate events since 1990 because the construct has achieved high face validity in many parts of the world over the past 15 years.[39,40] What now intrigues me is whether the diagrammatic conceptualization of the impact of current legislation on this model will resonate with what is happening elsewhere in the world and encourage more questioning of the consequences of fragmentation on clinical time costs[41] and generic outcomes. If the clinical generalist is to be an endangered species in UK primary care we have a responsibility to describe the aetiological factors carefully while there is still some insight into the events.

Conclusion

Three conceptual models have been used here: general systems theory, an algebraic model of primary care team growth and the consultation framework published in 1979. As our discipline advances we need the development and application of models to help understand, question and re-assemble the processes that dissect integrated clinical practices. The discipline of the clinical generalist is surely the business of the Royal College of General Practitioners and our task must be to understand the core scientific principles in relation to an increasingly reductionist market place. Reductionist science needs to be balanced by re-assembling science.

Conceptual modelling is only one way to study our scientific roots, but the international face validity of two of the models presented is a marker of our progress since William Pickles published his first book.[42] The antagonists to mathematical or conceptual models often prefer clear cut data from the real world, but what is the real world? Even engineers and physicists find models helpful and their worlds are commonly regarded as fairly concrete. Progress towards a clearer understanding of a discipline means repeated clarification of core concepts in order to anchor scientific progress to a series of conceptual milestones. Even constructions like taxonomies or classifications of morbidity can become constraining or fragmenting until they are set

YEAR	PROGRESSION
1952	a
	a + ½b
	a + b
	a.*n* + b
	a.*n* + b.2*n*
	a.*n* + b.2*n* + (c)
	a.*n* + b.2*n* + (c) + (d)
	a.*n* + b.2*n* + (c.*m*) + (d) + (e)
	a.*n* + b.2*n* + (c.*m*) + (d.*m*) + (e.*m*) + c
	a.*n* + b.*m* + (c.*m*) + (d.*m*) + (e.*m*) + c + (f.*m*)
	a.*n* + b.*m* + (c.*m*) + (d.*m*) + (e.*m*) + c.*m* + (f.*m*) + g.*m*
2002	a.*n* + b.*m* + (c.*m*) + (d.*m*) + (e.*m*) + c.*m* + (f.*m*) + g.*m*

Figure 1. *Growth and development of a type II primary care team, where a = general practitioner, b = receptionist, c = nurse, d = nurse assistant, e = health visitor, f = other professions allied to medicine, g = practice manager,* n *= medical practices committee factor, and* m *= multiple external management factor. Parentheses indicate attached staff.*

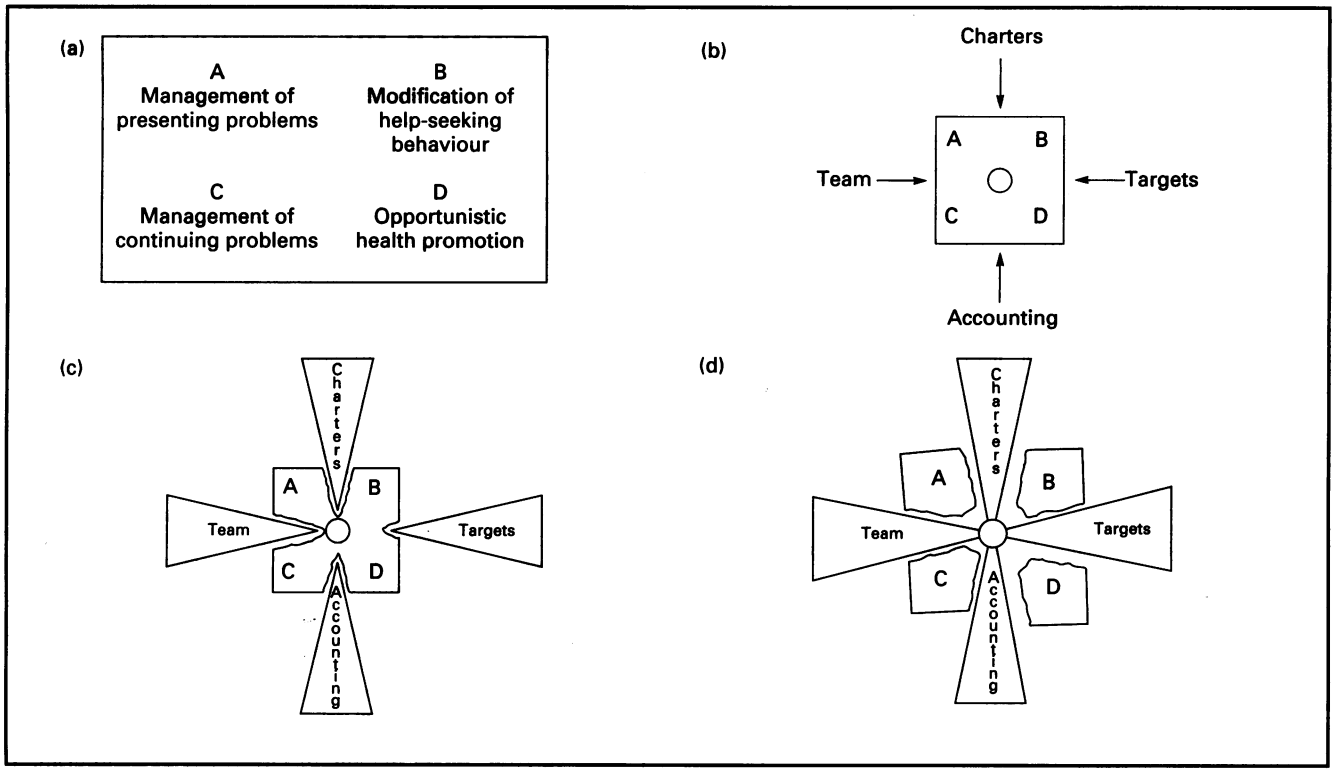

Figure 2. *(a) The exceptional potential in every consultation in primary care.*[15] *(b) The external factors that impact on every consultation during the 1990s. (c) The growth of external impact on each consultation in primary care. (d) Expansion of the exceptional potential or fragmentation by external forces?*

within broader models of understanding and interpretation. Concepts as inherently good as health gain, accountability, teamwork, comprehensive care and basic clinical skills can become inhibiting to progress if they are seen as focused goals outwith a broader scientific context for the discipline. I must conclude that when something is good, more of the same is not always better.

Conceptual models are one way to separate the wood from the trees at a time when rapid politically inspired change distracts us from core issues. Change is inevitable but the fundamental professional values and the scientific roots of our discipline are not disposable. The best of the clinical generalist is a pearl for protection and improvement: not a pearl without price, but a highly cost effective pearl that has not been sufficiently valued by general managers or politicians.

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