DEVELOPING COURSES IN THE BEHAVIOURAL AND SOCIAL SCIENCES FOR MEDICAL STUDENTS: NEW PROSPECTS FOR AN OLD PROBLEM

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INTRODUCTION

Medical schools throughout the world are now including courses in the social and behavioural sciences for their students. These courses, like all others in the medical curriculum, vary qualitatively and quantitatively; some medical schools provide for an extensive and deep coverage of these subject-areas, beginning them in the first year and continuing them throughout the whole of undergraduate study. Other medical schools make little more than a genuflection towards these subject areas and attempt to do no more than provide "mini-courses" in, say, Psychology, Sociology and Anthropology.

One writer has captured the mood of the times quite clearly (cf. Bloom, 1963). He affirms, cogently in my view, that the early years of this century, particularly under the impact of the Flexner Report,

...we are experiencing today a joining of the sciences of psychology and of social behaviour to medical education that compares with the events of many years ago (Ibid.: 15).

There is every reason to expect that this trend towards the inclusion of the social and behavioural sciences will accelerate, and this has and will continue to raise problems and difficulties for all the inhabitants of medical schools.

When a medical school makes a major alteration in its curriculum by including a new course of studies, or changes its practice governing the choice of course content — and the inclusion of the social/behavioural sciences implies both of these changes — then repercussions effects, questions and divisions of opinion will nearly always occur. Inevitably, questions such as the following will arise: "Why should we change the curriculum at all?" "What value are studies in these sciences for medical doctors?" "How much time and resources should be devoted to studies in these areas?" "Should we create a separate Department or graft them on to an existing structure?" And, possibly the most explosive, practical question of all: "Who is going to give up some of their curriculum time — or are we proposing to lengthen the medical school course?"

1) The author is attached as a Consultant in Medical Education to the Consortium of Medical Schools, Jakarta, Republic of Indonesia; and a member of staff of the South East Asia Region of the World Health Organisation.

2) There is no universal agreement as to precisely which subjects are included in the concept of the Social & Behavioural Sciences, but I would certainly consider aspects of the function of Anthropology, Economics, History, Psychology and Sociology to be relevant to medical studies.
All of the above questions are generative of a dilemma in a medical student's career. They are at our disposal methods of curriculum design which permit questions which have been made to state curriculum content in terms of "instructional objectives" (cf. Magr, 1962), and this approach is frequently being applied to medical education (cf. Blunt, 1976; Finkle, 1976). "Instructional objectives" will briefly describe the ideas inherent in the formula approach to curriculum planning and design that might be applied to the teaching of students in the social and behavioral sciences. The principal aim of this paper is to help teachers understand the need to acquire some curriculum planning skills so that they can be more productive in the social and behavioral sciences. The development of a selective, relevant, and integrated curriculum is presented.

WHAT ARE "INSTRUCTIONAL OBJECTIVES"?

The available literature on instructional objectives is large and there is a diversity of levels varying from the "quite specific" and, in general, the more specific objectives for the whole of a Faculty of Medicine; these are essentially general in nature. The same can be said of a School or Department of a Faculty. Finally, we can state objectives for particular aspects of a course of studies, within a school or a Department - those should be objectives. These at the faculty level should guide the Department. They should reflect a basic skill which students need to acquire.

Instructional objectives are stated in terms of observable, measurable behavior, in order to define teaching and objectives to determine whether, or to what extent to which the skill has been acquired. They should be clear and explicit, and ambiguity should be kept to a minimum, or, better still, eliminated altogether. Stating instructional objectives (at least three of the above levels) can be expected to yield a number of benefits in curriculum design, implementation and evaluation. Instructional objectives:

(i) Enable teachers to agree as to the basic skills that they wish to help students develop - and teachers can then choose a curriculum which fosters these skills.

(ii) Can bring about the possibility that the teaching staff in a school or department are all proceeding in the same direction on the basis of known and explicit assumptions - but this can only occur if all teachers are involved in the construction of the objectives in the first instance.

(iii) Materially assist in the development of vertically and horizontally integrated curricula, since if all (or most) departments in a medical school have defined their objectives, then it is possible to see where different components fit together and reinforce one another.

(iv) Finally, and of ultimate significance, statements of objectives are specific. Therefore, they define teaching and students to determine whether, or to what extent, the skill has been acquired. They should be clear and explicit, and ambiguity should be kept to a minimum, or, better still, eliminated altogether. Stating instructional objectives (at least three of the above levels) can be expected to yield a number of benefits in curriculum design, implementation and evaluation.

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Thus far, the discussion has been largely academic, in that no actual examples of instructional objectives have been provided. Furthermore, a number of rather important claims have been made on their behalf — i.e., that they enable staff to choose curricula content more rationally, and that they turn enable students to acquire and retain what they have learned more effectively. This omission will now be remedied, and this approach to the planning of courses in the social and behavioral sciences for medical students will be considered.

THE POTENTIAL OF INSTRUCTIONAL OBJECTIVES IN THE PLANNING OF COURSES IN THE SOCIAL AND BEHAVIOURAL SCIENCES FOR MEDICAL STUDENTS

Section of the paper will attempt to clarify three important questions regarding the contribution of the social and behavioral sciences to the education of (future) doctors, and to the planning of these courses.

1. To identify some of the basic skills inherent in the social and behavioral sciences which are also basic skills for the practice of medicine.

2. To identify possible Departmental and Instructional Objectives in terms of these basic skills — here we aim to provide examples and not a panacea or statement.

3. To bring out into the open some critical issues in the planning and design of courses in the social and behavioral sciences as these relate to the needs of medical students.

WHAT BASIC SKILLS ARE INVOLVED?

Two assumptions underlying this paper are that the social and behavioral sciences do help students develop basic skills, and that some of these basic skills are useful to (future) doctors. If either of these assumptions could be shown to be false, there would be no case for the inclusion of these disciplines in curricula in an already large medical curriculum. These assumptions will be tested against examples. In a recent study (cf. Blizard & Alexander, 1970), following an earlier work (cf. Price et al., 1971) an attempt has been made to identify many of the basic skills required by a doctor who is destined to practice medicine in a "front-line" low-technology context. A similar approach has been taken to our present problem, and in Table 1, below, an attempt has been made to isolate some of the basic skills in the social and behavioral sciences and which are relevant to the practice of medicine.

Table 1

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Section II: Managerial & Teamwork Skills

1) How to work and communicate effectively with others in the health team so as to secure their full cooperation.

2) How to collect, analyse, and evaluate statistical and epidemiological data in relation to the diagnosis of health problems in an area or a community.

Section III: Preventive Health Care

1) Methods for helping doctors to understand the "lay" and "folk" definitions of illness, how these differ from "scientific" definitions, and to use these definitions in diagnosis and treatment.

2) Ability to assist in the planning, design and implementation of programs to cope with specific, preventable diseases.

3) How to separate information from a hostile, distrustful, upset or uncooperative patient.

4) Skill and ability in adapting to and being at ease with persons who by behaviour or appearance are threatening (e.g., some alcoholics, drug users, mentally ill persons, etc.).

5) Skill in being able to apply effective communication between people, verbal and non-verbal & to use these skills as a doctor.

6) Comprehension of the social factors which produce disease, & of the effects of disease on the processes of social behaviour in, say, the family.

10) How to, and the need for, sufficient sympathetic listening to a patient's problems from the perspective of the patient.

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TABLE 1.—Continued

3) How to identify "high-risk" individuals & groups living in the vicinity of a health center.
4) How to identify the most appropriate "target-audiences" for a specific health education program.
5) Understanding of selective aspects of how people's attitudes & behavior change, and an ability to apply this to the provision of health education programs.
6) Understanding of the factors which motivate people to change their behavior in relation to the promotion of health & the prevention of illness.

The list of skills in TABLE 1 is not intended to be exhaustive, but illustrative. It is quite possible that other basic skills could be added to the list. In the next section we will use the contents of TABLE 1 to develop a possible set of Departmental Objectives, and illustrative instructional objectives, but before doing so one or two important disclaimers ought to be made.

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In relation to the content of TABLE 1 readers are requested to ask themselves a series of fairly plain questions:
(i) Are the skills shown in that TABLE important for practicing doctors?
(ii) Which of them are "important" and which of them "highest importance"?
(iii) In your present medical curriculum are students assisted to acquire these skills in TABLE 1 which you think are important?
(iv) Can social and behavioral scientists help students, in conjunction with others in the medical school, to acquire these skills?

If the reader answers "yes" to these questions, then we have cleared up, at least to some extent, two important matters. We have established that the social and behavioral sciences do have an effective role in medical training. We have also started to clarify and specify what that role might be, place might be, and this has been achieved by stating some basic skills inherent in the social behavioral sciences and needed by practicing doctors.

Let us now take the next step and see how these basic skills might be used as a framework for developing a coherent course (or set of courses) based on carefully stated instructional objectives.

DEVELOPING DEPARTMENTAL OBJECTIVES, CHOOSING COURSE CONTENT, AND WRITING INSTRUCTIONAL OBJECTIVES IN THE SOCIAL, AND BEHAVIOURAL SCIENCES WHICH ARE SUITABLE TO THE NEED OF MEDICAL STUDENTS

The preceding section of this paper identified, (some of) the basic skills needed for the effective practice of medicine. Some of these skills related to the practice of clinical medicine, some to the ability to work effectively as a member of a health team, and some to the ability to provide effective preventive medical care. It was then suggested that an understanding of aspects of the social and behavioral sciences might help students to acquire, retain and be able to use these basic skills. In this section we will "translate" these basic skills into a (possible) set of Departmental Objectives for a social/behavioral sciences department within a medical school, and provide examples of the type of course content which would be needed to enable students to fulfill the departmental objectives; this course content will be stated in terms of observable, measurable and hopefully relevant instructional objectives.

DEVELOPING A SET OF DEPARTMENTAL OBJECTIVES: All the members of staff of a department should participate in the construction of "their" Departmental Objectives. This is so because all members of staff will be required to assist in the development of the teaching programme; and this teaching programme has to be based directly on the departmental objectives. The set of Departmental Objectives which finally emerges will help your department in three distinct ways:
(i) It will enable you to choose and select the most relevant course content and this is very important in the area of the social and behavioral sciences since the volume of potential course content is immense, but only some will be relevant to the needs of future doctors.
(ii) It will provide for a unified sense of direction and purpose within the Department—i.e., all of you are moving towards known and agreed objectives. Again, this is of particular importance in the social and behavioral sciences because, often, these studies are spread over several years of the medical course, and as a consequence it is often difficult to coordinate the course content of one year of study with that of subsequent years. The aim should be to develop a course which is cumulative in its impact.

(iii) These objectives should enable you to integrate your curriculum with that of other subjects to which it is closely related. This potential benefit is also of particular importance to studies in the social and behavioral sciences, because these studies will "feed into" many other aspects of the medical school curriculum. Ideally, as noted, the teaching of the social and behavioral sciences should be a collaborative venture, parti-
TABLE 2—Continued

7) Demonstrate a familiarity with some of the outstanding contemporary unresolved problems in the social and behavioural sciences as these relate to:
   (i) The organisation and delivery of effective medical care;
   (ii) Hospitals as "social institutions"; and,
   (iii) The changing roles of professionals in the health sciences.

It would not be desirable to discuss this set of objectives (or each one individually) in any detail. They have in any event only been presented as an illustrative example of what a possible set of objectives might look like. However two relevant comments can be made, not about the objectives themselves, but their formulation. First, it should be made quite explicit that a set of Departmental Objectives represents a set of value judgements—in this particular case they represent the value judgements of the writer, and others he has spoken with, concerning the "most significant" contributions that the social sciences might have for the preparation of doctors. Not merely do they represent a set of value judgements, but they also represent a set of priorities—i.e., some (possible) objectives are thought to be more important than are others, thus they have been: included and those of lesser importance excluded. Second, with particular reference to the set of objectives in TABLE 2 an effort has been made to indicate where a "theoretical aspect" of the social sciences might help medical students—thus the objective was not formulated as to "display an understanding of the social and cultural factors which affect an individual's responses to the presence of illness" (No. 5), but explicit guidelines were then added as to how this understanding might then be applied. These additions make the statement of Departmental Objectives a little more complex to write, but they at the same time help teachers to be more selective regarding subsequent choice of curriculum content. Let us now take the next step, and see how a set of Departmental objectives might help in choosing a selective curriculum, and stating that curriculum in terms of instructional objectives.

CHOOSE COURSE CONTENT AND CONSTRUCTING INSTRUCTIONAL OBJECTIVES: The necessary sequence of operations in choosing course content & working Instructional Objectives can be rather simplistically seen as falling into three parts:

(i) Choose the course content needed to implement each of your departmental objectives—because of ready familiarity (by teachers) it is probably convenient to state this content in terms of "topics of study".
(ii) Express each topic of study in terms of one (or more) "General Instructional Objectives", and an associated set of "Specific Instructional Objectives" (cf. Hunt, 1975; Granlund, 1971).
(iii) Carefully select those methods of learning which are likely to be most useful to students in helping them to achieve the objectives; in this section we shall look at the first two of these steps primarily. This
will be done by taking one of our Departmental Objectives, identifying
the "topics of study" that might properly fall within the compass of
that objective — and, once again, we cannot choose all the possible topics,
but have to be selective.

Following this procedure one of these topics will then be expressed in
terms of sets of illustrative objectives. Some comments on the formulation
of instructional objectives, and some difficulties which might be encountered,
will then be offered.

TABLE 3, below, re-states one of the Departmental Objectives, identifies
a possible set of "curriculum packages", or "topics" of study, and then takes
one of these "curriculum packages" and expresses it in terms of a General
Instructional Objective (G.I.O.) and an associated set of Specific Instructional
Objectives, (S.I.O.s); in presenting the data in this way it is hoped that readers
are able to appreciate the descending linear arrangement, which moves from
a general statement — the Departmental Objective — and gradually becomes
more specific.

TABLE 3 — Departmental Objective, a set of curriculum packages, and illustrative
examples of instructional objectives for aspects of a course in social &
behavioral science for medical students

<table>
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<td>&quot;DISPLAYS&quot; an understanding of some social &amp; cultural factors which affect an</td>
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<td>individual's response to illness, in order to apply (his to... (No. 1), TABLE 2).</td>
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Possible curricula' packages (i.e., curriculum packages):

a) Commonality & differences in child
    rearing across selected cultures.

d) Changes in the demography of

health & illness.

g) Cultural differences in perceptions
    of pain and the onset of illness.

b) "Illness" and alterations in social
    perception.

General objective package (g1):

COMPREHENDS some of the major sources of difficulty in interviewing
persons from different cultures, of different social groups in order to
develop an effective repertoire of responses to minimize these difficulties.

TABLE 3 — Combined instructional objectives for the SIOs:

SIOs:

a) STATUTES: types of miscommunication and misunderstandings that may arise
due to differences in language, level of education, and cultural origin, be-
tween doctors and patients.

b) PROVIDES: as to the social, cultural and psychological origins of misunder-
standing and miscommunication between doctors and patients.

c) PREDICTS: the difficulties in communication & understanding which might
arise with:

A newly-arrived single female migrant peasantry women and her children;

A newly-arrived single female migrant peasantry women and her children;

Distinguishing between "English-speaking" and non-"English-speaking" patients regarding
the management of their [illegible] children, who are diagnosed as having "Down's Syndrome";

Advising a non-Indian-speaking, well-educated male, regarding his
counselling management for hypertension;

d) STATES: the strategies that he would use to minimize the difficulties in
communication encountered in SIO (a) above.

e) IDENTIFIES: ways in which he might help the patients described in SIO (c)
to communicate more effectively with doctors as to their medical and
emotional needs.

The examples of Curriculum Packages and Instructional Objectives are,
like the Departmental Objectives which were described earlier, regarded as
illuminative and not, of course, as prescriptive. Once again it is not proposed to
cite an example of either the package or the set of objectives in any detail, but it is of
improvement that some brief comments on these objectives (and some of
the difficulties involved) should be offered. These involve the following
considerations:

First: The reader is asked to look carefully at each of the SIOs in TABLE 3
and ask himself the following questions:

(i) Is each of the behaviour stated as clearly and as explicitly as possible?
(ii) Is each SIO stated in terms of observable behavior? Can students' perfor-
mance be accurately assessed and rated?
(iii) Is each of the SIOs relevant to the student's subsequent practice of medicine?
    Are the examples of "illness" and alterations in social perception difficult to:
enumerate?...
Second: The set of specific instructional objectives in TABLE 3 is not, of course, exhaustive—that is, no attempt has been made to include all possible forms of culturally—determined miscommunication and misunderstanding between doctors and their patients, neither is it necessary to attempt an exhaustive list. Your sets of SIOs—are like the Departmental Objectives, the General Instructional Objectives, and the Curriculum Packages—should all be selective. The departmental objectives, packages and GIOs bind the width of the curriculum and the SIOs establish a limit on the depth of treatment of a particular package, for there is little point in being selective as to "width" or extent of coverage, if one is not at the same time equally selective as to depth of coverage. As regards the question of "how many" SIOs should there be for a General Instructional Objective no completely satisfactory answer can be given, but two guide-lines might be appropriate.

(i) The "more important" (basic?) the curriculum package the greater the depth of coverage that will probably be required.

(ii) It may be helpful to conceive of a set of SIOs as constituting "overall evidence of a general competency".

Thus, having constructed the GIO, the teacher would then ask a rhetorical question—viz., what, in the aggregate, are the competencies that I would expect students to display to demonstrate that they have met the requirements of the General Objective at a minimally acceptable level of performance? These competencies would then constitute your set of Specific Instructional Objectives.

Third: Having constructed your Specific Instructional Objectives, the task is not yet finished. You still have to select optimal ways of helping students to acquire the skills—that is, you have to choose modes of teaching and learning (the latter being far more significant than the former) relevant to the objectives. Taking the instances cited in TABLE 3, what types of experience might be relevant to helping students to "state and explain common forms of miscommunication," or "make the specific types of communicative errors occurring under certain stated circumstances" or "counseling patients as to ways of minimizing particular types of miscommunication" (etc.)? The possibilities are virtually limited only by your imagination, but would probably include:

(a) Reading books, articles and other relevant background information;

(b) Making and using video-tape recordings of doctors in interaction with patients from cultural or social groups other than their own;

(c) Discussions and interviews with practicing doctors as to the difficulties they experience, and the ways in which they go about resolving or reducing the impact of these difficulties—particularly as they relate to accurate diagnosis, and an ability to explain to patients the "Why's," "How's" and "Wherefore's" of their medication and treatment;

(d) Practice interviews, using role-playing, by students with either other medical students, or with students from other faculties who come from different social and cultural backgrounds. These are only a few of the possibilities, and I am sure that readers can think of others that are equally, or of superior relevance. Reference is the key point in choosing learning strategies—they should be those most relevant to the development of a predefined set of specific skills.

Fourth: Drawing Specific Instructional Objectives is probably more difficult in some subjects than others. In Gross Anatomy, for example (cf. Blunt, 1976) the task is a very challenging one, but also in some respects it may be a simpler one. The information base in Gross Anatomy is both large and more strictly identifiable. Thus, in relation to a General Objective which calls for the student to "compare the disposition of the peritoneum in relation to the viscera and body walls," appropriate specific instructional objectives might be:

(a) Define the disposition of the peritoneum in the sagittal section and in the horizontal sections through the hilus of the spleen, the epiploic foramen and the pylorus; or

(b) Define the differences between the nodes of innervation and pain sensibility of visceral and parietal peritoneum (etc.) (cf. Blunt, Ibid. p. 99).

The social and behavioral sciences, obviously, are not nearly as well mapped as in Gross Anatomy; the data base of the social sciences is much less well-understood; the quantum of information (and misinformation!), the predictive capacity of theories which are currently in use, all testify to vast areas of ignorance. It seems to the writer quite likely that there will be a very direct relationship between the volume of certain knowledge available in a field of scientific inquiry and the subsequent ability to identify genuinely specific instructional objectives—and, as much to the point, instructional objectives which are of a significant and not of a trivial nature. In the arena of the social and behavioral sciences this makes the task more difficult, but at the same time more challenging.

In this section of the paper I have attempted to move down from the general and rather abstract set of Departmental Objectives, and have concentrated attention on how sets of curriculum packages might be developed, and then devoted some attention to a set of examples of Instructional Objectives, both general and specific. This process of constructing the Instructional Objectives would, then, need to be undertaken in relation to all of the curriculum packages that go to comprise the course(s) in the social and behavioral sciences' curriculum. Finally, some attention has been devoted to the need to identify appropriate ways by which students might be assisted to reach these objectives, and to one of the principal difficulties in formulating objectives in the social and behavioral sciences. Now, in the final section of this paper, we will examine a few of the critical issues that seem to arise in relation to social and behavioral science courses for medical students. These comments will be brief as this is an area of thought that has already received a great deal of attention in the last few years. (cf. Ojikutu & Kennedy, 1972).
SOME CRITICAL ISSUES CONCERNING THE TEACHING OF SOCIAL AND BEHAVIOURAL SCIENCES TO INDONESIAN MEDICAL STUDENTS

The previous sections of this contribution have sought to identify content areas in the social and behavioural sciences, which, might, be thought to be relevant to the needs and interests of future medical practitioners in the Indonesian context. While it is true that there are a number of "critical issues" surrounding the choice of course content, that by no means exhausts the range of problems that have to be confronted. Some of the problems in the Indonesian context are those which to a greater or lesser extent, affect all developing countries; other problems relate to the methods of teaching and learning which are used; others concern the need to integrate the content in the social and behavioural sciences with other aspects of the medical curriculum. In this section I have set out with the intention of identifying and attempting to suggest relevant solutions to all of the problems which arise when a medical school is planning the introduction of a new set of course in a medical curriculum. Instead, I have merely tried to identify the more immediate and important problems as I presently see them. These are as follows:

First: Obviously it is necessary to develop courses in the social and behavioural sciences from an adequate base-line. In practice this means ensuring:

(a) That adequate reading materials are available concerning the key theoretical and practical aspects of Psychology, Sociology, Anthropology, etc.

(b) That these courses are based on research data which are relevant to the Indonesian context.

Neither does the requirements exist at present: reference materials in the social and behavioural sciences are (almost without exception) poor and in relation to their application to Medicine, virtually non-existent; very little locally-based research is being carried out.

The latter point is, of course, quite crucial. While it is quite feasible to 'import' course content in, say, Anatomy, Physiology and Pathology - this is a much more hazardous and risky procedure in the social and behavioural sciences, precisely because they deal with determined variations in human behaviour. There is no short-term solution to this problem, since you can hardly generate a valuable body of locally-relevant material in a short period of time. One long-term measure that would be useful would be to centre a considerable volume of the content of courses on the analysis of locally-relevant data, around the analysis of these data and systematic testing of hypotheses. The preceding set of Departmental Objectives will immediately suggest some of the priority targets for local research. In this way it would be possible over, say, a ten-year period to develop a useful body of information. It would have the added advantage of providing both teachers and students with practical research experience as opposed to the "second-hand" experience gained from books and journals.

Second: It will be imperative to develop ways and means of integrating the teaching of the social and behavioural sciences with other aspects of the medical curriculum (both vertically and horizontally), with the needs of the community and ultimately to integrate the training that medical students receive in these areas with the training that students in the para-medical sciences receive. These three facets of integration all pose their own difficulties.

Curriculum integration is currently in "high focus" within Indonesian medical education, both within individual medical schools and on a national basis; because of this there is some reason for hoping that content in the social and behavioural sciences could be inter-digitated with other, relevant features of the curriculum. Once again the earlier statement of Departmental Objectives suggests a number of immediate possibilities - i.e., in relation to health education concerning preventable paediatric, dental, ophthalmic and obstetrical diseases and disorders; in relation to the doctor-patient relationship; in relation to the acquisition of skills in the area of Public Health and Community Medicine.

Community-based integration poses a challenge which is currently being faced by many other department in Indonesian medical schools. Partly as a result of recent changes in Government policy medical education is now seeking to re-fashion a curriculum which emphasizes primary care as well as treatment, which emphasizes common as opposed to esoteric diseases, and which emphasizes the delivery of effective medical care to the "rural poor" as opposed to the "urban few". In practical terms this means that the content of such courses as Paediatrics, Obstetrics and Gynaecology, Ophthalmology - indeed all of the clinical subjects will be emphasizing the social and preventive aspects more than has been the case so far. In this sense now would be a very appropriate climate to begin to also introduce the social and behavioural sciences, since it would be equally evident that they too need to take the community as their starting point. This of course is implicit within the previous remarks concerning the need for local research.

Inter-professional integration also poses its own set of challenges. In many Western countries it is now common for nurses, medical students and other health professionals educated together. This is not uncommon in Indonesia (and possibly in other developing countries), probably because of the differences and status-gaps existing between the health professions. It should be readily evident that the social and behavioural sciences have a great deal to contribute to the effective functioning of, say, a health team; but this promise can only be translated into reality if various members of the health team receive at least some of their professional training together.

The three aspects of "integration" referred to above each require urgent attention, and each pose special problems for staff and students in medical schools.
Third: It is necessary to spend a great deal of effort and time at working out a selective, integrated and relevant curriculum. But this effort of itself is not sufficient. That curriculum then has to be implemented. Students have to be assisted to develop, to retain and to be able to use the basic skills which have been identified (cf. TABLE 1). 

This means, in practice that teachers in Indonesian medical schools have to be helped to select the most effective methods of teaching and learning—methods which are geared towards the acquisition of these skills. There is a (rapidly accumulating) body of information concerning those conditions under which learning is likely to be enhanced. These conditions would include:

(i) The provision of sets of carefully-stated objectives which are both relevant and directly related to student abilities;

(ii) The implementation of the curriculum needs to emphasise and be based on "active methods of learning";

(iii) The regular provision of feedback to students concerning their progress, an analysis of the difficulties they might be having, and methods by which they might overcome these difficulties;

(iv) The choice of learning situations which are as close to reality as possible. For example, if the basic skill concerns the ability to "respond effectively to emotionally upset patients" then students will be unlikely to acquire this skill by "reading about how to respond effectively to emotionally upset patients" (though advance reading may of course be helpful), instead teachers would elect to use either active methods of simulation which were as "close to the real thing" as possible, and, of course, provide students with the opportunity (under professional guidance) of actually trying to respond effectively to emotionally upset persons. Currently in the Indonesian context a great deal of effort is being put into the development of local resources which will make students' learning as effective as possible. As in other countries this effort is seen as a long-term process.

In this quite brief section I have merely sought to identify three of the more pressing practical problems which are posed to medical educators when they decide to expand the medical curriculum so as to include selective aspects of the social and behavioural sciences. These three problems, i.e., the need for a relevant data base; the need to integrate these courses with the community, with other courses and with other health professionals; and the need to choose effective methods of teaching and learning—will not be solved easily. Perhaps it is sufficient in the present context that they have been brought in to the open for discussion.

CONCLUSION

This paper has briefly described the values and methods of constructing instructional objectives. This approach to curriculum planning was then applied to the task of constructing a course in the Social and Behavioural Sciences for medical students in Indonesia. In this context an attempt was made to identify some of the "basic skills" which students might be helped to acquire as a result of studies in the social and behavioural sciences, and to also state a set of relevant Departmental Objectives. These data are regarded as illustrative of this approach to curriculum planning and design, and are not intended to provide an exhaustive set of basic skills or departmental objectives. Finally an attempt has been made to bring out into the open some of the specific problems and difficulties in the Indonesian context of introducing the social and behavioural sciences into the medical curriculum.

SUMMARY

This paper described methods which can be used to construct "behavioral objectives" at the level of a Department of Social and Behavioural Sciences within a Faculty of Medicine, and also in the choice of Specific curricular content. An attempt is then made to:

(i) Identify the basic skills that studies in the social and behavioural science might seek to develop in medical students;

(ii) Develop a set of Departmental Objectives which arise out of these basic skills, so that courses in these areas are as realistic and as practical as possible;

(iii) Extend this approach and show how it might be used as a method for developing a specific and measurable curriculum in the social and behavioural sciences;

(iv) Identify some basic practical problems arising from a decision, by a Faculty of Medicine, to incorporate aspects of the social and behavioural sciences into the curriculum.

For illustrative purposes each of the above tasks has been applied to the Indonesian context. It may thus be expected that have direct practical application to other, similar developing countries; but, of course, the approach to curriculum design will have more widespread application.

REFERENCES


