





Introduction to the EURACT Educational Agenda

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Family medicine is being recognised as an increasingly important element of modern health-care systems, being popular with patients able to retain a personal relationship with their doctor in the increasingly impersonal world of health-care delivery, and with politicians because of its inherent cost effectiveness (1). This has been highlighted by the WHO Europe in its work on healthcare provision in Europe (2)

In 2002 WONCA Europe published the new European Definition of Family Medicine. This work had come about as a result of revisiting previous definitions, as it had been felt that these had become outdated and needed revising for the 21st century. These were predominantly descriptions of the tasks of the family doctor, of which the most widely known was that produced by the Leeuwenhorst Group back in 1974 (3). At the outset it was recognised that a different approach was required and that the essential elements of the discipline of general practice/family medicine needed to be defined first; only when this had been done could the role definition of the family doctor be derived from them.

The definition contains the eleven characteristics which are fundamental to the discipline and are, or should be, generalisable to all health-care systems regardless of contextual differences. These were then combined into a role description of the family doctor. It is important to understand that the full benefits of general practice/family medicine to patients and to healthcare systems will not be achieved unless all of these eleven fundamental characteristics are in place.

The document does not stop there, but goes on to explore the competencies that are required to become a skilled exponent of the discipline. In the Miller (4) terminology, competence is related to what the learner can show when asked or assessed for, and performance to what the learner is doing in daily practice settings. It describes how these characteristics can be grouped together into six core competencies, and how the acquisition of these can be converted into abilities to perform, and eventually into actual performance in caring for patients. The deliberate choice was not to define the actual elements of performance, because performance is very much related to working conditions in the real practice, which is largely dependent on the definite place of GP/FM in the national healthcare system.

Having spent two years producing the definition and gaining the necessary consensus, EURACT council has continued to work: another three years are spent on defining the educational consequences out of it. Six core competencies lead to the definition of 25 first level and 80 second level educational objectives. The implications for education and research in family medicine that this work has produced are profound. EURACT has continued to work on the education issues that have arisen, and, as a first step, has produced this “educational agenda”. For the WONCA 2004 meeting in Amsterdam, EURACT produced a first draft of its “Educational Agenda” as “work in progress”. Having received comments from different persons and on differing approaches, it is now appropriate to produce, for the WONCA 2005 meeting in KOS, a more definitive version

“General practice is the easiest job in the world to do badly, but the most difficult to do well.”

Professor Sir Denis Pereira Gray

that can stand at least for some years. Calling this an “agenda” is deliberate. By this it is meant that it is both a dynamic review of where we are now in family medicine teaching and learning in Europe and a marker of where work has still to be done - the other element in “agenda”. It is hoped that it will lead to discussions, reflections and amendments, and will stimulate groups of experts to discuss some of the themes, and the production of further papers on the issues raised. After some years, this may lead to revised versions.

Why an educational agenda?

For those involved in delivering general practice education and in developing programmes of teaching general practice, it is designed to provide a framework to teach the core competencies. For those who learn the discipline, it aims to offer an educational framework for setting the learning aims, and monitoring their achievement. For those involved in curriculum building, it should be used to determine priorities in teaching and learning general practice. For healthcare developers, it is meant to contribute to national policy development. For the whole medical profession, it is conceived to define what specific competencies can be expected from the specific discipline called General Practice/Family Medicine as a crucial contribution to healthcare.

A background for recommendations to curriculum developers

For the last 30 years family medicine has led the way in developing education methodology, educational processes and assessment. This has occurred in spite of working in education systems designed for the training of other disciplines and in institutions where family medicine is not practised. With increasing pressure on the medical curriculum it is important that we address these issues. In a number of countries training programmes are being extended and the locus of training is changing towards general practice placements and away from hospital attachments, although the situation is very variable. UEMO (5) has produced a policy statement on specific training suggesting that a minimum of 50% of training should be in general practice, that all doctors should be exposed to training in general practice both in their undergraduate training and as part of the postgraduate training before entering specific training, and, crucially, that the purpose of specific training is to produce a general practitioner who has obtained a level of clinical competence sufficient for independent practice. However politicians have to be convinced that increasing investment in general practice education is required.

A background for recommendations to researchers

The EURACT Educational Agenda is also needed to define the research agenda, related to these competencies. We need to find the evidence to support the widely held view of family doctors that family medicine is best learnt in family practice. We need to review the state-of-the-art of general practice education which will lead to an agenda for further development. We need to know what questions remain to be answered, where evidence needs to be sought, and where education research needs to be focused. It is important that we determine how general practice is learnt as a specialty, and also what place general practice education has in the medical curriculum overall. Specifically the discipline needs to establish:

- How is family medicine best learnt?
- Where should it be taught?
- When should it be taught?
- What should be taught?
- What should family medicine be teaching learners from other disciplines?

A guide for basic medical education

General practice has a contribution to make to the education of all doctors at all stages in their training. Changes in attitudes of medical learners generally occur after learners have an opportunity to grapple with primary care problems themselves and observe their teachers coping successfully with problems presented. Early clinical exposure of medical learners for brief periods from several days to weeks at the beginning of medical school can lay the groundwork for the medical student to help make sense of all medical training, learning about people in the context of their health problems. Lectures or small group seminars in the pre-clinical period can be effective in providing

some of the knowledge required before starting work with patients. All students should be able to learn primary care management of patients through a student clerkship in general practice, lasting several weeks during the later years of medical school.

The new definition of the discipline in 2002 sets out the core competencies that have to be acquired to be called a trained GP/FP. Therefore the EURACT Educational Agenda must support and underpin the content of the GP/FM specialty training in Europe. The six core competencies for the discipline are the starting point. In a seventh chapter the three essential application features of the trained doctor are explored, and finally the crucial added value of the synthesis which makes this profession unique. The present document uses these elements as the framework for its eight agenda-chapters. They can be seen as the hallmark of a GP/FM educational program, and should be at its centre. In each of the chapters we identify the specific educational objectives, and from these derive appropriate learning and assessment methods, and the specific options for the setting and the timeframe within the curriculum.

In this document we have decided to stay at a global conceptual level and have not outlined in too much detail statements on such things as time and place. As a discipline we should promote a move from time- and discipline-based to competence- and outcome-based learning. All too often the curriculum for general practice training consists of fixed periods of service in narrow specialties - three months paediatrics; four months gynaecology; etc. - with no consideration of the educational issues raised earlier. We need to move away from this time- and institution-based curriculum setup, towards producing a relevant education programme that is mainly competence driven. General practice is best learned in a GP-setting, although specific competences and skills can be learned in environments of other disciplines. It should also be remembered that learning is a lifelong issue, which does not stop at the moment of graduation of specialty diploma.

In this document we decided to accept the complexity of the real practice as the main focus and complexity learning as the educational paradigm. Family medicine is holistic in outlook, dealing with illness and disease in the context of the patient and their family. Constructivism (6) is the educational model that puts "the learning process of the student" as the central point. Learning is seen as a process, highly dependent on pre-knowledge and on the learning context (7). Teachers are mainly architects of the stimulating learning environment. Individual variety in learning strategies are stimulated. Not the acquisition of a list of defined knowledge and skills, but "Action in wisdom" (8) is the final aim.

It involves the use of specialised knowledge, but central to it is judgement in specific situations, with conflicting values about which problems need to be solved and how to solve them. It involves knowing-in-action, reflection-in-action, and reflection-about-action, using repertoires of examples, images, and understandings learned through experience. It involves using prototypes in memory of frequently encountered situations to construct interpretations of related situations. That's why "the tree of wisdom" became the final logo of this EURACT Educational Agenda.

Harmonization of the different learning programs in Europe at the level of common European competency aims and learning outcomes is probably the best we can achieve. The European Union is expanding, recently to 25 member states, and almost 500 million people. The European Union wants to stress harmonization of the content and the level of the training all over the area. Since 1993 the European Directive on mutual recognition of medical qualifications (9) tried to harmonise the quality by harmonizing the length of vocational training, the setting where it has to take place, and the national supervising authority. The Directive contains no descriptions of content or competence issues and is regarded as unsatisfactory in this regard, promoting free movement of doctors rather than ensuring quality of care for patients.

There is an academic alternative, defined in the Bologna Declaration of 1999 (10) to develop one exchangeable "European Higher Education Area" by 2010, based on the achievements of the

The central focus in general practice vocational (specialty) training

From time- and discipline-based to competence- and outcome based learning; from objectivism to constructivism as the learning paradigm

Harmonization in Europe at the level of competency aims and learning outcomes

“European Credit Transfer System”, which has been in place since 1988. Specialty training in the medical field is a professional and an academic issue. In both logics there is a need for harmony, equal quality standards and exchangeability. In a statement put forward recently from a Socrates project (the TUNING project, 11) it was suggested that: *“Harmonization can be limited to finding points of convergence and common understanding, so that transparency is promoted in the development of professional profiles and desired learning outcomes. Harmony on the endpoint competencies and the learning outcomes probably is the highest achievable level”*.

This EURACT Educational Agenda wishes to contribute to the harmonization of the learning outcomes of the different educational programs all over Europe at this level. Perhaps it is sufficient to achieve an optimal “tuning” of the national specialty training programs, by moving towards more and more convergence and common understanding. EURACT hopes that this educational agenda, derived from the core competencies accepted by all European GP/FM academies during the WONCA Europe meeting in London 2002, completed with the learning options defined in this educational agenda and presented at the WONCA Europe meeting in KOS-Greece 2005, can lead to an acceptable harmonization instrument for the content of vocational training all over Europe.

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Overview of the CORE competencies, from the definition document, Short version, EURACT 2005

1. Primary Care Management

Includes the ability:

- to manage primary contact with patients, dealing with unselected problems;
- to cover the full range of health conditions;
- to co-ordinate care with other professionals in primary care and with other specialists;
- to master effective and appropriate care provision and health service utilisation;
- to make available to the patient the appropriate services within the health care system;
- to act as advocate for the patient.

2. Person-centred Care

Includes the ability:

- to adopt a person-centred approach in dealing with patients and problems in the context of the patient's circumstances;
- to develop and apply the general practice consultation to bring about an effective doctor-patient relationship, with respect for the patient's autonomy;
- to communicate, set priorities and act in partnership;
- to provide longitudinal continuity of care as determined by the needs of the patient, referring to continuing and co-ordinated care management.

3. Specific Problem Solving Skills

Includes the ability:

- to relate specific decision making processes to the prevalence and incidence of illness in the community;
- to selectively gather and interpret information from history-taking, physical examination, and investigations and apply it to an appropriate management plan in collaboration with the patient;
- to adopt appropriate working principles. e.g. incremental investigation, using time as a tool and to tolerate uncertainty;
- to intervene urgently when necessary;
- to manage conditions which may present early and in an undifferentiated way;
- to make effective and efficient use of diagnostic and therapeutic interventions.

4. Comprehensive Approach

Includes the ability:

- to manage simultaneously multiple complaints and pathologies, both acute and chronic health problems in the individual;
- to promote health and well being by applying health promotion and disease prevention strategies appropriately;
- to manage and co-ordinate health promotion, prevention, cure, care and palliation and rehabilitation.

The definition of the discipline of general practice/family medicine and of the specialist family doctor must lead directly to the core competencies of the general practitioner/family doctor.

Core means essential to the discipline, irrespective of the health care system in which the competencies are applied.

The eleven characteristics of the discipline relate to eleven abilities that every specialist family doctor should master. Because of their interrelationship, they are clustered into six independent categories of core competencies. Each cluster is described by its main aspects.

5. Community Orientation

Includes the ability:

- to reconcile the health needs of individual patients and the health needs of the community in which they live in balance with available resources.

6. Holistic Approach

Includes the ability:

- to use a bio-psycho-social model taking into account cultural and existential dimensions.

ESSENTIAL APPLICATION FEATURES

In applying the competences to the teaching, learning and practice of family medicine it is necessary to consider three essential additional features; contextual, attitudinal and scientific. They are concerned with features of doctors, and determine their ability to apply the core competences in real life in the work setting. In general practice these may have a greater impact because of the close relationship between the family doctor and the people with whom they work, but they relate to all doctors and are not specific to general practice.

1. Contextual Aspects

(Understanding the context of doctors themselves and the environment in which they work, including their working conditions, community, culture, financial and regulatory frameworks)

- Having an understanding of the impact of the local community, including socio-economic factors, geography and culture, on the workplace and patient care.
- Being aware of the impact of overall workload on the care given to the individual patient, and the facilities (eg staff, equipment) available to deliver that care.
- Having an understanding of the financial and legal frameworks in which health care is given at practice level
- Having an understanding of the impact of the doctor's personal housing and working environment on the care that s/he provides

2. Attitudinal Aspects

(Based on the doctor's professional capabilities, values and ethics)

- Being aware of one's own capabilities and values - identifying ethical aspects of clinical practice (prevention/diagnosis/therapy/factors influencing lifestyles);
- Having an awareness of self: an understanding that one's own attitudes and feelings are important determinants of how they practice
- Justifying and clarifying personal ethics;
- Being aware of the mutual interaction of work and private life and striving for a good balance between them.

3. Scientific Aspects

(Adopting a critical and research based approach to practice and maintaining this through continuing learning and quality improvement)

- Being familiar with the general principles, methods, concepts of scientific research, and the fundamentals of statistics (incidence, prevalence, predicted value etc.);
- Having a thorough knowledge of the scientific backgrounds of pathology, symptoms and diagnosis, therapy and prognosis, epidemiology, decision theory, theories of the forming of hypotheses and problem-solving, preventive health care;
- Being able to access, read and assess medical literature critically;
- Developing and maintaining continuing learning and quality improvement.

The interrelation of core competencies, and essential application features characterises the discipline and underlines the complexity of the specialty. It is this complex interrelationship that should guide and be reflected in the development of related agendas for teaching, research and quality improvement.

Referencing the EURACT Educational Agenda to other internationally used competency frameworks

Teachers, people responsible for the curriculum and professional or academic staff always have been in search for good frameworks to design and format the educational program including all the content that should be part of it. The present EURACT Educational Agenda aims to offer an international framework for the conception, the harmonisation or at least the convergence of specific training programs for General Practice/Family Medicine in Europe. It is good to position this agenda in relation to other similar exercises that have raised great interest in the teaching community in Europe and beyond. We will focus on two examples of it, the Dutch Blueprint, published in 1994 and the Canadian CanMEDS project, developed from 1993 on, which received its first large evaluation around 2000. It will help to understand what the EURACT Educational Agenda is, and what it deliberately is not, and thus how it can be used.

The "Dutch Blueprint", published by Metz et al in 1994, consisted of 180 educational endpoints that would guarantee the necessary medical knowledge and skills needed in the context of medical practice. They were divided in 4 subgroups:

- knowledge and skills in relation with all medical processes from complaints, to diagnosis, treatment and reporting
- knowledge on the scientific basis of medicine and skills to maintain scientific knowledge and professional skills updated
- personal requirements in the patient contacts and the professional attitude
- knowledge on the structural and financial aspects of healthcare organisation, ethics and legal conditions

The blueprint was very much task-related: what is the job of a medical professional, and what is knowledge and skills that should support the content and the quality of these tasks. The blueprint was meant to steer the basic medical curriculum. But different medical disciplines used the framework to derive their specific teaching endpoints in relation to it. General Practice in the Netherlands and in Belgium for instance defined their "basic task description" from these lists, and adapted the specific educational endpoints accordingly. The basic task description also used 4 categories: tasks derived from the categories of patient problems, tasks derived from the care-giving process itself, supporting tasks like collaboration, lifelong learning or practice management and personal functioning.

The CanMEDS project started in 1993, "to ensure that postgraduate specialty training programs are fully responsive to societal needs- John Wade '93". With systematic implementation in all Canadian faculties from 2002 on, and with a lot of interest in Australia, the Netherlands, Denmark and the UK, it became an international trendsetter. The overall goal was to "represent the generic competencies common to all specialists". The nice thing is that it starts from seven roles, that each physician should master, because that is what society needs: the medical expert as the central role, but surrounded by six other roles: the communicator, the collaborator, the health advocate, the manager, the scholar and the professional. Core competencies are derived from these seven roles. By the end of residency training, all specialists should have a grounding in

each role and have the background to develop expertise as needed any time in their future career. For each of these seven roles, key competencies are derived, and specific learning objectives, teaching methods, evaluation methods and relevant issues for faculty development are defined.

The CanMEDS project conceptually is very close to the options, made independently in this EURACT Educational Agenda. However the basic focus is different: CanMEDS is an overarching set of competencies, common for all specialists. It does not specify the discipline specific competencies; these have to be defined by the discipline concerned in relation to it. In contrast the EURACT Educational Agenda is on specialty training for GP/FM, and is specialty/discipline specific. The individual competencies in the Agenda may not always be unique to general practice, but their combination and synthesis in use are what defines the discipline.

The EURACT Educational Agenda is derived from the new definition document, adopted in 2002 by the European GP/FM academic society, which defined the eleven characteristics of the discipline, and derived six core competences and three essential application features from it. Like CanMEDS for each of the competencies the Agenda defines learning objectives, teaching and assessment methods, and makes some notes on time and setting in the curriculum. It is normal that General Practice/Family Medicine, as a discipline with specific tasks in healthcare in society, makes a different emphasis on different roles and competencies. But, as CanMEDS stated in its positioning document, all specialties should always cover all the seven basic roles, albeit in a different order, priority and emphasis.

In the next table, we did a simple exercise to compare the seven CanMEDS roles and their derived core competencies to the eight EURACT competence chapters and their first level specifications. At a global level it fits rather well. But even at that level, going into more detail makes it clear that the clustering is different. Not one of the 8 competence chapters fits completely with one CanMEDS role. Yes, the primary care management chapter has a lot of management role elements, but also role elements as collaborator and health advocate. The person-centredness chapter requires a lot of the communicator role, and the specific problem solving chapter relates very much to the central role of the medical expert. But the chapters on comprehensive approach, community orientation and holistic approach do practically not relate to any of the defined CanMEDS roles. Is this normal? Probably yes, because these competencies are almost specific to the GP/FM task and specialty discipline. The EURACT educational agenda is clearly a reference frame for the specialty of GP/FM, its vocational training program with links to Continuing Professional Development and lifelong learning. It should be seen as working within the frameworks of CanMEDS, and can be cross referenced to it, but is separate and coherent for this discipline.

EURACT Educational Agenda match to CanMEDS

EURACT Chapters	EURACT Competences	CanMEDS competences	CanMEDS roles
1. Primary Care Management			Manager
	1.a first contact unselected problems		
	1.b all conditions	efficient information technology	
	1.c care coordination	efficient in organisation	
	1.d effective care utilisation	manage finite resources	
	1.e care availability to pt	contribute to team	Collaborator
	1.d pt advocate	advocacy for patients	Health Advocate
2. Person Centredness	2.a Person centred approach	elicit & synthesize relevant inform.	Communicator
	2.b Person centred consultation	discuss appropriate information	
	2.c Partnership relation	therapeutic relation	
	2.d longitudinal care		
3. Specific Problem Solving skills			Medical Expert
	3.a specific decision making		
	3.b gather & interpret medical information	access & apply medical information	
	3.c adopt typical diagnostic strategies		
	3.d intervene urgently		
	3.e manage early & indifferent conditions		
	3.f efficient use of diagn.&therap interventions	diagn & therapeutic skills medical expert outside direct pt care	
		effective consultations skills recognise personal limits	
4. Comprehensive approach			Health Advocate
	4.a simultaneous multipathology	identify determinants of health	
	4.b promotion health & wellbeing		
	4.c manage complete spectrum		
5. Community orientation	5.a reconcile health & community needs		
6. Holistic Approach	6.a bio-psycho-social model + culture/existenz		
7. Central application features		ethical responsibility	Professional
	7.a contextual	appropriate personal behaviour	Scolar
	7.b attitude : personal limits, ethics	integrity, honesty & compassion	
	7.c scientific	personal continuing education	
		critical appraisal of resources	
		facilitate learning of patients	
		contribute to new knowledge	
		development	
8. Integration and implementation			
	8.a accept complexity		
	8.b skills to implement in practice		

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Chapter 1. Primary Care Management

Includes the ability:

- to manage primary contact with patients, dealing with unselected problems;
- to cover the full range of health conditions;
- to co-ordinate care with other professionals in primary care and with other specialists;
- to master effective and appropriate care provision and health service utilisation;
- to make available to the patient the appropriate services within the health care system;
- to act as advocate for the patient.

Introduction

Teaching the knowledge, skills and attitudes required for the effective management of patients in primary care is the basis of the educational agenda for family medicine/general practice.

The content and theoretical background of the academic discipline of family medicine have been well-defined in a number of textbooks and the reader is encouraged to refer to these texts (1,2,3) for a detailed description of the content of the speciality. This opening chapter of the EURACT Educational Agenda will describe the tasks determined by the new European definition of the profession, focussing on the concepts of first contact of the physician with patients, comprehensiveness, coordinated care, cost-effectiveness and patient advocacy.

The work of the primary care physician primarily is focussed on “open access to all individual problems”, leading to a practice population with a high level of complex complaints and a low prevalence of serious disease. Thus the physician must develop concepts of health, function and quality of life in the populations served, as well as models of disease. This finds expression in the preventive and health promotion activities of physicians and in risk factor management. It is also expressed in decisions made in palliative and terminal care. Primary care physicians are also increasingly challenged by the need to be conscious of health care costs. An understanding of cost-efficiency is therefore a learning issue for physicians in training. Many primary care physicians work with professionals from other medical disciplines. Thus the context of primary care education may promote learning to integrate different disciplines into a team for optimal primary care management.

Objectives of primary care management

Aim 1.1: At the end of the training programme the learner will be able to manage the primary contact with patients.

This will require:

- 1.1.1-knowledge of the epidemiology of problems and complaints presenting in primary care
- 1.1.2-knowledge of typical presenting symptoms and complaints, as encountered in primary care especially in early stages, and their signs and symptoms, their diagnostic and therapeutic possibilities
- 1.1.3-mastering an approach which allows easy accessibility for patients with unselected problems,
- 1.1.4-an organizational approach to the management of chronic conditions,

Aim 1.2: At the end of the training programme the learner will be able to cover the full range of health conditions.

This will require:

- 1.2.1- knowledge of preventive activities required in the practice of primary care,
- 1.2.2- medical skills in acute, chronic, preventive, palliative and emergency care,
- 1.2.3- clinical skills in history taking, physical examination and use of ancillary tests to diagnose conditions presented by patients in primary care,
- 1.2.4- skills in therapeutics including drug and non-drug approaches to treatment of these conditions,
- 1.2.5- ability to prioritize problems.

Aim 1.3: At the end of the training program the learner will be able to co-ordinate care with other professionals in primary care and with other specialists.

This will require

- 1.3.1- knowledge of the organization of the primary care clinic,
- 1.3.2- mastering efficient communication with other staff-members,
- 1.3.3- skills in effective teamwork.
- 1.3.4- mastering efficient collaboration with other specialists

Aim 1.4: At the end of the training program the learner will be able to master appropriate care provision and effective health service utilisation.

This will require:

- 1.4.1- knowledge of the structure of the health care system and the function of its components in relation to primary care.

Aim 1.5: At the end of the training program the learner will be able to make available to the patient the most appropriate service within the health care system.

This will require:

- 1.5.1- communications skills for counselling, teaching and treating patients and their families,
- 1.5.2- organizational skills for record keeping, information management, teamwork, running a practice and auditing the quality of care.

Aim 1.6: At the end of the training program the learner will be able to act as advocate for the patient.

This will require:

- 1.6.1- the development and maintenance of a relationship and a communication style characterized by partnership with the patient,
- 1.6.2- skills in effective leadership, negotiation and compromise.

Teaching the knowledge, skills and attitudes required by a physician to manage patient problems in primary care firstly requires that teachers be excellent family physicians/general practitioners themselves. The most effective teaching tool is often role modelling. Learners, vocational trainees and graduate physicians observe and copy the models presented by their teachers/tutors/facilitators in practice.

Observation is at the same time a method of learning and assessing. Direct observation includes real or simulated patient consultations. It can be called sit-in (real patient), SOO (simulated office oral), video-recorded/taped consultation (with real or simulated patient).

Specific methods to achieve this include:

- Direct observation by the learner of the trainer performing in general practice;
- Performance of general practice tasks by the learner during a general practice attachment;
- Simulation of general practice tasks with feedback on performance;
- Portfolio learning to encourage learners to document the performance of a wide range of learning activities in practice such as case presentations, audits, and guided reading.

Consequences on educational methods

Consequences on assessment of primary care management

Assessment of acquisition of primary care management knowledge, attitudes and skills covers the entire range of learning required by the general practitioner and hence will require a wide variety of assessment methods. Knowledge-based tests such as MCQs and essays can assess the appropriate acquisition of data required for primary care management. Management skills can be tested by tests of competence such as the OSCE and other simulations such as exams with simulated patients. Assessment of performance in the daily work of the student or trainee using repeated checklists and global ratings may also be valid and reliable for assessing primary care management skills. Acquisition of attitudes appropriate for effective primary care management can be assessed by observation, (e.g. direct observation, sit-in, video recorded), discussion or interview in summative and formative assessment, which characterises much of the teacher-student relationship in one-to-one teaching in general practice.

Learning outcomes

The learner will show:

- the ability to perform required tasks in simulation;
- the ability to perform tasks in actual practice, through direct observation or by video review of recorded consultations.

Consequences on setting and timeframe

Teaching primary care management must be done in the general practice setting. The use of role modelling, of first-hand practice of skills by learners and of the assessment of performance all require immersion in the general practice milieu. While knowledge is acquired in classical teaching in medical school, it is refined in the unique setting of general practice.

Basic Medical Education should at least include primary care and its patient- and problem management as an important contribution to health care. It should also deal with the challenge to include preventive activities in the consultation and to treat patients with problems in early stages and with chronic conditions.

In Vocational Training, the learner should learn to master the necessary primary care practice skills.

Overview framework for education in primary care management

Objectives	Learning Methods	Assessment Tools
Know the epidemiology of problems presented by patients in primary care	Lecture Small group discussion Reading	MCQ, MEQ Essay
Know and understand the role and function of the primary care team	Clinical Practice Reading Observation Discussion (one to one, small group, team, any other)	Direct observation
Know the elements of the health care system and understand its function in relation to general practice	Lecture Reading Discussion (one to one, small group, team, any other)	Essay MCQ,MEQ
Know how to diagnose patient problems through appropriate history taking, physical examination and ancillary tests	Simulation Skills lab Office demonstration Office practice	Observation OSCE
Know how to provide effective initial management for these problems with drug and non-drug approaches	Reading Discussion Observation	MCQ, MEQ Essay Discussion OSCE Observation
Demonstrate effective communication skills	Simulation Office practice	OSCE Observation
Value the primary care approach including a generalist outlook, tolerance of uncertainty, curiosity, diligence and caring.	One-to-one teaching Role modelling Small group discusssion Reflection	Observation Discusssion Essay

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Chapter 2. Person Centredness

Includes the ability:

- to adopt a person-centred approach in dealing with patients and problems in the context of the patient's circumstances;
- to develop and apply the general practice consultation to bring about an effective doctor-patient relationship, with respect for the patient's autonomy;
- to communicate, set priorities and act in partnership;
- to provide longitudinal continuity of care as determined by the needs of the patient, referring to continuing and co-ordinated care management.

Introduction

If General Practice/Family Medicine positions itself as "person-centred medicine", putting the "person centred approach" as the differentiating principle from other medical professions, the teaching and training of person centredness is a core competency. In his nine principles of family medicine, McWhinney (1) quotes three of them as basic elements: commitment to the person rather than to a particular body of knowledge, seeking to understand the illness in its personal, family and social context, and attaching importance also to the subjective aspects of medicine.

The person-centred approach is more a way of thinking than just a way of acting. It means seeing the patient always as a particular person in a particular context. It includes a total health perspective of a patient, not only the disease elements that can be recognised in the problems and complaints but also the patient resources and strengths suited to facilitate coping. In this type of medical encounter, not only the patient has its context and history in the backpack, but also the doctor involves him/herself as a person, wearing the own family rules and history, values and concepts in the doctor's backpack (1,2,13).

Taking into account patient preferences and expectations at every step in the patient-centred consultation method (3) is rather crucial here. This option can benefit from the change in options from disease orientation to goal orientation, as advocated by Mold (4).

The doctor-patient relationship is often called "sustained partnership". Sustainability in the relationship refers to a mutual and full engagement over longer periods, not necessary for a complete lifespan from birth to death. Partnership means a doctor-patient relationship based on participation and patient-responsiveness, avoiding paternalism and dominance. It relates to the "deliberative mode" of relationship, defined by Emanuel (6) as more productive than the paternalistic, the informative and the interpretative mode.

The patient-centred approach can be seen as a prerequisite to the patient centred clinical method upon which family medicine as a discipline is based. Key messages are :

- understand the person as a whole, in which all elements could be looked at separately but in fact have an added dimension as a whole, integrated human person.
- in diagnosing, always explore illness and disease in relation to the person and the context. In every illness there is a part of behaviour which is learned and culturally defined. A disease on the other hand is deliberately an average presentation trying not to taken into account the individual variations, using the average prognosis as a leading issue for generally effective therapeutic decisions. "If we are to be healers, we need to know our patients as individuals: they may have

- their diseases in common, but in their responses to disease, they are unique.” (7)
- in person-based patient care, always try to find common grounds and make mutual plans, so that the patient is kept in the centre and remains autonomous.
 - in the patient-doctor relationship, both actors form a partnership with asymmetric but defined roles and responsibilities.
 - in the patient encounter, incorporate prevention and health promotion in balance with all elements of disease management.
 - in basic attitude, be realistic, concrete and intervene with a focus on the solution .

Person-centred care puts a great importance on the continuity of the relationship process. Continuity is a large, multidimensional issue that includes a lot of different aspects. In this document, continuity will be defined as “the degree to which a series of discrete health care events is experienced as coherent and connected and consistent with the patient medical needs and personal context” (8). It covers five domains: the chronological domain of continuity over time, the geographical continuity at the one location of the clinic and the practice team, interdisciplinary cross-boundary continuity in the patient primary care team, the interpersonal continuity and the informational continuity, guaranteeing the availability of the medical information at every place where the patient is seen. It can be split up in three types of continuity (9): the “personal continuity” of seeing the same doctor, the “information continuity” of having information always available when taking over or referring, and the “care continuity” that guarantees organised care for 24 hours. McWhinney (1) stresses that the key word is responsibility, not personal availability at all times.

There is a parallelism between the doctor-patient relationship and the teacher-learner relationship. There are similarities between the person-centred approach in the professional task options and the learner-centred approach in the educational model. These can be used to sensitize and to clarify both concepts. Through the understanding of the learner’s view, examples can be generated to make the patient’s view accepted. In the ability of the learner to reflect on his/her own educational process, one can stress and assess the handling and reflection of the patient’s process.

The personal style of the doctor can make the difference. (14). Data shows that the style proves most congruent with patient-reported quality of primary care and satisfaction with care, and indicate strong support for the feasibility and value of the person-focused model.”

Aim 2.1: At the end of the training programme the learner will have developed a person-centred approach in dealing with patients and problems in the context of the patient’s circumstances.

This will require:

- 2.1.1- a basic scientific knowledge for understanding the person, and his/her growth, aims and expectations in life;
- 2.1.2- the development of a reference frame for understanding and dealing with the family dimension, the community, the social and the cultural dimension in the person’s attitude, values and beliefs;
- 2.1.3- mastering patient illness and disease concepts.

Aim 2.2: At the end of the training programme the learner will be able to apply the patient-centred consultation model, and to communicate and act in partnership.

This will require:

- 2.2.1- the ability to monitor a patient-centred consultation model that starts with exploring the patient’s agenda (e.g. ICE: ideas, concerns and expectations), that integrates the learner’s agenda, finds common grounds and negotiates a mutual plan for the future;
- 2.2.2- the ability to report findings in a adapted and understandable way, which includes informing patients on own concepts, and finding common grounds for further decision making;
- 2.2.3- the attitude to take decisions with respect for the autonomy of the patient;

Objectives of person centredness

2.2.4- the awareness of subjectivity in the medical relationship, both from the patient's side (feelings, values and preferences) as well as from the learner's perspective (self-awareness of values, attitudes and feelings).

Aim 2.3: At the end of the training programme the learner will be able to communicate, set priorities and act in partnership.

This will require:

- 2.3.1- skills and attitude to establish a partnership-relation with the patient;
- 2.3.2- skills and attitude to balance distance and proximity with the patient.

Aim 2.4: At the end of the training program the learner will be able to provide longitudinal continuity of care.

This will require:

- 2.4.1- understanding and mastery of the three aspects of continuity: personal continuity as the lifetime coach (attitude for long-term relation with one person), information continuity to make the appropriate medical information available at every moment for every necessary patient contact (personal and electronic info-exchange), and care continuity over time during day and night (working in or with out-of-hours services).

Consequences on educational methods

Self-directed learning and reflective practice should lead the learning process. Immediate "reflection in action" and "backwards" reflection on action", especially when something unexpected happened, are very instructive. General reflection on the self-impact and personal style is crucial (14). It is intimately related with, and should stimulate, critical thinking. The tutor should act in this as a facilitator, stimulating self-directed learning, critical thinking, and reflection to enhance personal and professional growth.

Knowledge on the patient as a whole can be gained not only by lecturing, but also by reading novels, discussion of patient histories and small group reflection on concrete doctor-patient interactions. Professional skills training sessions should focus on the specific communication style that is related to the role of medical partner in an intervention-focused contact, including the advocacy role. A consultation model should be conceived and taught in its different elements, the variable communication style within the consultation, and the doctor adapted role model.

Intervention training should be based on patient responsiveness, should include cognitive behaviour training, and should be solution-focused rather than problem-focused, with elements of a system-based approach to at least include the person, the family and the community dimension.

Education should explicitly emphasize the doctor as a person, developing personal strengths and trying to balance personal values and health. The so called "Balint method" (9), together with related methods implemented later, are good examples of participative reflection where one learns to accept, understand and use the person as an element in an effective person-centred approach to patients.

Specific methods to achieve this include:

- teaching that starts from the patient's presenting problems, giving a central place to narratives and patient stories in different educational events;
- instruments like genograms, family plots and eco-mapping that includes aspects related to work and leisure;
- training in a patient-responsive communication model as a prerequisite for the patient-centred method of clinical practice;
- thematic sessions on explicit topics like mutual decision making, respecting autonomy, giving feedback, non threatening questioning, etc.;
- lectures on defined concepts and models in relation to the topic to offer a framework for understanding and meta-cognitive interpretation of what is happening in the doctor-patient encounter;
- tutored practice and reflective learning models during practice training.

Assessment of a person-centred approach should be based on patient-case presentation. Different formats can be used: direct observation through simulated consultations, patient-based feedback ratings, chronological case progression, video patient-case recording, and also indirect methods like patient-case discussions or oral simulated patient-case reflections.

Partial skills, related to the personal aspects of the doctor and to the judgment and understanding of personal aspects of patients, can be assessed in peer review types of evaluation like group discussions, problem presentations or practice staff meetings.

New approaches can be used like the reflective educational portfolio, where the learner shows his/her person skills in personal reflection, showing a guarantee of the skill to reflect on the patient's part in the doctor-patient encounter.

Learning outcomes

The learner will show:

- the ability to deal with patient problems following the concepts of the patient-centred approach;
- the ability to lead a consultation using a patient-centred method;
- the ability to establish a patient-responsive partnership;
- mastering knowledge on longitudinal caretaking.

Basic medical education (BME) should guarantee the basic knowledge and skills needed for all the elements of a person-centred approach by introducing the background knowledge base from related sciences about personal development and growth, family, society, culture and religious influences on personal beliefs, values and behaviour.

BME should support an early focus on the patient, so that all the scientific and disease related elements in the mind of the student have a utility consequence for the care of patients.

BME education should be based on the complementarities of the patient-centred and the disease-centred approach, and should offer GP exposure to all students, also to future specialists in other fields than GP/FM.

Specific GP/FM Vocational Training should predominantly take place in a GP setting. It should focus on the patient-centred clinical method that starts from a patient-centred consultation model using patient-responsive communication skills.

Consequences on assessment of patient centredness

Consequences on setting and timeframe

Overview framework for education in person centredness

Objectives	Learning Methods	Assessment Tools
<p>See the patient as a person -ICE: ideas, concerns, expectations</p> <p>Understand the patient in context -within the family -as part of community -influenced by culture & religion</p>	<p>Concept development -thematic lectures -reading patient stories, novels & narratives</p>	<p>-Direct observation of real- / simulated-and video-recorded consultations -patient rating feedback -chronological case progression</p>
<p>Apply the Patient Centred Consultation and Communication model -patient responsive communication style -to start and end with the patient</p>	<p>Clinical practice Observation by tutor (sit-in) with feedback Video-recorded consultation Discussion (small group, one to one)</p>	<p>-Indirect observation -patient records -progress reports -patient-case discussions -simulated case reflections -Direct observation (sit-in, video-recorded consultations)</p>
<p>Show responsiveness to patient preferences, feelings and expectations</p>	<p>Teaching Goal Oriented models Exploration exercises Direct observation by tutor giving feedback Video-recorded consultation with feedback by tutor and reflection by trainee.</p>	<p>-Thematic evaluation of different sub-elements</p>
<p>Establish sustained partnership</p>	<p>Reflection on consultation -video and self-reflection time</p>	<p>Indirect evaluation of relational potentialities</p>
<p>Use the doctor as a person : using and taking care of own personal equilibrium and values -self reflection -self evaluation</p>	<p>Participative reflection groups Reflective Portfolio</p>	<p>-Reflective Portfolio with tutors opinion</p>

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Chapter 3.

Specific Problem Solving Skills

Includes the ability:

- to relate specific decision making processes to the prevalence and incidence of illness in the community;
- to selectively gather and interpret information from history-taking, physical examination, and investigations and apply it to an appropriate management plan in collaboration with the patient;
- to adopt appropriate working principles. e.g. incremental investigation, using time as a tool and to tolerate uncertainty;
- to intervene urgently when necessary;
- to manage conditions which may present early and in an undifferentiated way;
- to make effective and efficient use of diagnostic and therapeutic interventions.

Specific problem solving skills relate to the context in which the problems are encountered, the nature and natural history of the problems themselves, the personal characteristics of the patients presenting with these problems, personal characteristics of the doctors who manage them, and the resources we have at our disposal to manage these problems. Problem solving in general practice is highly context-specific.

Theoretical material which may help teachers and learners is the literature on the hypothetic-deductive model of Elstein (1). A second useful model in teaching is the concept of pattern recognition or learning scripts (2). Both can be employed in teaching about specific cases encountered to make the problem solving strategy of the doctor evident. A third key issue is the use of relevant literature in providing evidence for management decisions (3,4). A discussion of selection bias with the student is relevant here. Numerous examples exist, the literature on case series of patients with lymphadenopathy or chest pain from general practice compared to findings based on patients in tertiary care can be instructive (4).

The importance of problem solving when faced with early undifferentiated illness helps the learner to focus on a problem-based approach rather than a disease-based approach. Several good primary care textbooks are organized along these lines. Especially detecting possible problems that needs urgent action is a critical issue (5)

Use of time, incremental investigation and coping with uncertainty are part of the attitudinal change that may be necessary in those learning general practice. There is a growing body of literature on these topics to support teachers who encourage learners to reflect on these unique aspects of problem solving (6).

Both shared management of problems with the patient and the conflict over the fair use of limited resources raise ethical issues connected with problem solving. The teacher of general practice can focus attention to ethics when appropriate in specific cases or may take the initiative and present case simulations to provoke discussion of these problems and coping strategies.

Differences between general practice and hospital problem-solving strategies can be difficult for some learners to understand or accept. Conflicts should be identified and analyzed (4). There are many "teachable moments" that can be used to great advantage for training problem solving skills.

The patient-centred approach can be seen as a prerequisite to the patient centred clinical method

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Introduction

Objectives of specific problem solving skills

upon which family medicine as a discipline is based. Key messages are :
-understand the person as a whole, in which all elements could be looked at separately but in fact have an added dimension as a whole, integrated human person.
-in diagnosing, always explore illness and disease in relation to the person and the context. In every illness there is a part of behaviour which is learned and culturally defined. A disease on the other hand is deliberately an average presentation trying not to taken into account the individual variations, using the average prognosis as a leading issue for generally effective therapeutic decisions. "If we are to be healers, we need to know our patients as individuals: they may have

Aim 3.1: At the end of the training programme the learner will be able to relate the specific decision-making process to prevalence and incidence of illness in the community.

This will require:

- 3.1.1- Knowledge of illnesses and diseases in primary care, including their specific incidence and prevalence;
- 3.1.2- Knowledge of the practice population (age-sex distribution, prevalence of chronic diseases);
- Skills to apply specific decision-making (using tools such as clinical reasoning and decision rules).

Aim 3.2: At the end of the training programme the learner will be able to selectively gather and interpret information from history taking, physical examination and investigations and apply it to an appropriate management plan in collaboration with the patient

This will require:

- 3.2.1- Knowledge of the relevant questions in the history and the important cues in the physical examination and bring this in relation to the presenting problem, with special emphasis on ruling in or ruling out possible urgent problems;
- 3.2.2- Knowledge of collecting relevant context of the patient including family and social factors;
- 3.2.3- Knowledge of available investigations and treatment resources for the presenting problems;
- 3.2.4- History taking and physical examination skills and skills in interpreting data;
- 3.2.5- Willingness to involve the patient in the management plan.

Aim 3.3: At the end of the training programme the learner will be able to adopt appropriate working principles using incremental investigation, time and tolerating uncertainty.

This will require:

- 3.3.1- adapting attitudes characteristic of a generalist orientation, including curiosity, diligence and caring;
- 3.3.2- adapting a stepwise procedure in medical decision-making, using time as a diagnostic and therapeutic tool;
- 3.3.3- understanding the inevitability of uncertainty in primary care problem-solving and developing strategies to tolerate uncertainty.

Aim 3.4: At the end of the training programme the learner will be able to intervene urgently when necessary.

This will require:

- 3.4.1- specific decision-making skills for emergency situations;
- 3.4.2- specific skills in emergency procedures in primary care situations.

Aim 3.5: At the end of the training programme the learner will be able to manage conditions which may present early and in an undifferentiated way.

This will require:

- 3.5.1- knowledge when to wait and reassure and when to initiate additional diagnostic action.

Aim 3.6: At the end of the training programme the learner will be able to make effective use of diagnostic and therapeutic interventions.

This will require:

- 3.6.1- knowledge of positive and negative predictive value of symptoms and signs and findings from ancillary tests obtained in clinical data collection, and their dependency on the prevalence of the target disease;
- 3.6.2- understanding of cost-efficiency and cost-benefit of tests and treatments, and the number needed to treat or harm for specific treatments.

Much of the teaching is done by role modelling in the primary care setting. Independent practice with supervision and discussion and reflection on cases encountered is a second key teaching technique.

The special problem of teaching emergency medical skills is difficult to solve in the general practice setting especially over shorter student clerkships and even in longer vocational training attachments. Collaboration with hospital emergency departments or ambulance services in some settings may overcome this problem. Attention must be paid to the different problem-solving protocols used in the primary care clinic, in the street or on home visits compared to those used in hospital emergencies.

Specific methods to achieve this include:

- Self study on incidence and prevalence (reading, lectures);
- Creation of (or reading an existing) practice profile;
- Performance of consultations in general practice with reflection and supervision of decision making;
- At the knowledge level, reading texts of physical diagnosis and case study methods;
- At the skills level, simulation of history taking and physical examination (e.g. in a skills lab);
- Observation of student performance and feedback to the student;
- At the attitude level, discussion with the student on the value of partnership with the patient.

Assessment of problem solving skills in primary care requires a variety of methods. OSCE's can simulate rare or difficult problems that may not have been encountered during a student's brief stay in practice. Direct observation of practice using checklists and global ratings can also be used to assess problem-solving skills. Oral examination, with all of its limitations, has a place in assessing attitudes and problem-solving skills using hypothetical and developing case situations.

The knowledge of prevalence and incidence can be assessed by MCQ, MEQ and orals, the competence in decision making by OSCE and the performance of decision-making by performance review. The specific problem-solving abilities can be assessed by OSCE, observation of the student, and specific performance review. Patient interviews or questionnaires can be used to assess patient satisfaction with the student's attempts to involve them in their care.

Learning outcomes

the learner will show:

- the ability to relate the specific decision-making process to prevalence and incidence of illness in the community;
- the ability to gather and interpret information from history taking, physical examination and laboratory investigations and apply it to an appropriate management plan in collaboration with the patient.

Consequences on educational methods

Consequences on the assessment of specific problem solving skills

Consequences on setting and timeframe

In Basic Medical Education, medical management of common undifferentiated problems and the resources available should be included. It can be presented in lecture or small group discussion format early in the pre-clinical years. Clinical skills labs can be used for pre-clinical learners to introduce problem-solving methods. Problem solving is best taught in the clinical setting with actual patients followed over time to assess outcomes.

A large portion of Vocational Training is devoted to learning problem-solving skills and developing a unique personal clinical style under the guidance of a tutor over a period of several months or years.

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Objectives	Learning Methods	Assessment Tools
Know the incidence and prevalence of common problems	Lecture Seminar Reading Discussion	MCQ, MEQ Orals
Know how to conduct an efficient search to define the problem	Case simulation Observation Case discussion	OSCE Observation Medical file audit
Know how to define and manage the problem in collaboration with the patient	Case simulation Clinical practice Observation/sit-in	Observation OSCE
Know how to manage emergencies in practice	Emergency room attachment Simulation Reading Clinical Practice	MCQ OSCE Observation
Know how to manage undifferentiated problems	Case simulation Discussion Reading	Oral examination OSCE Observation/sit-in/video
Value an incremental approach, using time and accepting uncertainty	Discussion Reflection	Interview Discussion Oral examination
Value an ethical approach to fair use of limited resources	Discussion Observation Reading Reflection	Interview Discussion Oral examination

Chapter 4.

Comprehensive Approach

includes the ability :

- to manage simultaneously multiple complaints and pathologies, both acute and chronic health problems in the individual;
- to promote health and well being by applying health promotion and disease prevention strategies appropriately;
- to manage and co-ordinate health promotion, prevention, cure, care and palliation and rehabilitation.

One of the important requirements for family doctors is to be able to address multiple complaints and problems in the patients they care for, and at the same time support the individual strengths and resources to cope with these problems. When patients feel they need medical assistance, they become ill as a person and often cannot differentiate between different possible diseases they may have. The challenge to address all the multiple health issues in an individual is an important one. It requires an important skill of interpreting the issues and prioritising them in consultation with the patient. (1)

The family doctor should aim at an approach to the patient where the main focus would be in promoting their health and global well being, which is often in sharp contrast with the specialist approach in treating as many medical problems as possible. Adequate handling of risk factors by promoting self-care and empowering patients is an important task of the general practitioner. The aim of the family doctor is to minimise the impact of patient's symptoms on his well-being by taking into account his personality, family, daily life and physical and social surroundings.(2) Adoption of an evidence-based approach should provide the patient with currently best-documented treatment, and should provide the doctor with currently best-documented evidence for diagnosis and treatment.

Coordination of care also means that the family physician is adequately skilled not only in managing disease and prevention, but also in caring for the patient and providing palliative care in the end phases of the patients' lives and providing rehabilitation. The physician must be able to coordinate patient care that is provided by other health care professionals.

Aim 4.1: At the end of the training program the learner will be able to manage simultaneously multiple complaints and pathologies, both acute and chronic health problems in the individual;

This will require:

- 4.1.1-understanding of the concept and the complementarities of multi-morbidity in a single patient;
- 4.1.2-Skills to manage simultaneous health problems of a patient through identification, exploration, negotiation, acceptance and prioritisation;
- 4.1.3-Skills to properly use medical records and other information;
- 4.1.4-The ability to seek and use best evidence in practice.

Aim 4.2 : At the end of the training program the learner will be able to promote health and well being by applying health promotion and disease prevention strategies appropriately.

This will require:

- 4.2.1-understanding of the concept of health in all its facets;
- 4.2.2-integration of health promotion on an individual basis as part of the everyday encounter;
- 4.2.3-promotion of health through programmed health promotion or prevention within the primary care setting;

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Introduction

Objectives of comprehensive approach

- 4.2.4-understanding the role of the family doctor in health promotion activities in the community;
- 4.2.5-recognising the importance of ethical tensions between the needs of individual and the community and act appropriately.

Aim 4.3: At the end of the training program the learner will be able to coordinate the elements of cure, care, palliation and rehabilitation for an individual patient.

This will require:

- 4.3.1-understanding the different possibilities and contributions by members of the team;
- 4.3.2-The ability to use different approaches in a single patient;
- 4.3.3-Skills in coordinating a practice team.

Consequences on educational methods

Various educational methods can be used. Some theoretical consideration of the comprehensive approach is useful, but it must be coupled with practical experiences in order to be successful.

Specific methods to achieve this include:

- Mandatory early exposure to clinical experiences within the primary care setting;
- Short lectures in order to explain the concepts of multi-morbidity and the functioning of the health care system;
- Role-playing in teaching communication skills;
- Assignments (e.g. presentations to patients in a community health care setting);
- Case descriptions and small groups discussions in order to assess the complexity of the patient;
- Individual consultation review;
- Clinical audit;
- Continuing work and reflection in primary care setting.

Consequences on assessment of comprehensive approach

Knowledge can be assessed by tests, assessment of patient presentations and oral exams. Competences can be assessed by OSCE, assessments of videos, assessment by simulated patients.

Performance can be assessed by the tutor observing the doctor in practice while performing the tasks relevant to this chapter (constructing a problem list, assessment of a patient record, work with real patients in practice etc.) (3). Various formative and summative assessment methods can be used. In general, the patient should be the starting point in assessment.

Learning outcomes

The learner will show:

- Knowledge of the theoretical framework of multi-morbidity;
- Knowledge of the concept of health and salutogenesis (4);
- The understanding of the theoretical framework of effective health promotion;
- The ability to identify, explore, negotiate, accept and prioritise simultaneous problems and resources in an individual patient;
- The ability to use health promotion on an individual basis within the framework of a general practice consultation;
- Appropriate use of medical records and best evidence in managing problems of multi-morbidity;
- The ability to provide and coordinate care in these areas.

Consequences on setting and timeframe

The comprehensive approach can be taught at different levels of knowledge and complexity.

At the level of Basic Medical Education the student should know the theoretical background of comprehensive approach and to apply this approach in simple cases.

At the level of Vocational Training the doctor should be competent in comprehensive approach. At the level of Continuing Professional Development, the doctor should demonstrate adequate performance in this area.

Overview framework for education in comprehensive approach

Objectives	Learning Methods	Assessment Tools
To understand the concept of multi-morbidity	Lecture Case description and presentation	MCQ, MEQ Evaluation of the presentation by the tutor of group leader by tutor
	Working in practice Single case description and presentation	Evaluation of the presentation by the tutor of group leader
Management of simultaneous health problems	Construction of a problem list in balance with a strengths and coping resources list Case presentation Working in practice	OSCE patient record by tutor by tutor
Use of medical record	Construction of a problem list Working in practice	OSCE by tutor
Looking up and using best evidence	Working in practice	by tutor
Understanding the concept of health	Role-play or simulated patient Case presentation	Analysis of video Assessment in a group
	Working in practice	Self assessment, assessment by tutor
Promote health on an individual basis as part of the everyday encounter	Lecture on lifestyle change Video Role play Simulated patient Work in practice	MCQ, MEQ Analysis of video roleplay Assessment/feedback by tutor or simulated patient by tutor
Promote health through a health promotion or prevention programme within the primary care setting	Sitting in with a group	Peer assessment
Understand the role of the family doctor in health promotion activities in the community	Preparing material	assessment of the material
	Sitting in with a group Delivering a session	Peer assessment Assessment of the session
	Preparing a project	by tutor
Recognise the importance of ethical tensions between the needs of individual and the community and act appropriately	Seminar, group discussion, reading	E.g. observation of a simulated consultation, oral/discussion
To be aware of resources available within the local community and the larger healthcare system	Lecture/ seminars Discussion Study visit / practice visit Field work	MCQ/MEQ Oral Report

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Chapter 5. Community orientation

includes the ability:

- to reconcile the health needs of individual patients and the health needs of the community in which they live in balance with available resources.

Introduction

Family doctors have a responsibility for the community in which they work, which extends beyond the consultation with an individual patient. The work of the family doctor is determined by the makeup of the community and therefore the doctor must understand the potentials and limitations of the community. The family doctor is in a position where he/she can see these issues. In all societies health care systems are being rationed and doctors are being involved in the rationing decisions, and have an ethical and moral responsibility to influence health policy in the community.

Objectives of community orientation

Aim 5.1: At the end of the training program the learner will be able to reconcile the health needs of individual patients and the health needs of the community in which they live, in balance with available resources.

This will require:

- 5.1.1-Understanding the health needs of the communities through epidemiological characteristics of the population;
- 5.1.2-Understanding the interrelationships between health and social care;
- 5.1.3-Understanding the impact of poverty, ethnicity and local epidemiology on health;
- 5.1.4-Awareness of inequalities in health care;
- 5.1.5-Understanding the structure of the health care system and its economical limitations;
- 5.1.6-Working with the other professionals involved in community policy related to health and to understand their roles;
- 5.1.7-Understanding the importance of practice and community based information in the quality assurance of his/her practice;
- 5.1.8-Understanding how health care system can be used by the patient and the doctor (referral procedure, co-payments, sick leave, legal issues etc.) in their own context;
- 5.1.9-To reconcile the needs of individuals with the needs of the community in which they live.

Consequences on educational methods

Various methods can be used. Theoretical considerations should be coupled with practical work, because a clear understanding of the context in which primary care is delivered in practice and the social dynamics of the community concerned is absolutely vital. This requires direct experience in the environment.

Specific methods to achieve this include:

- Structured reflection on work-based experience (case discussion, patient records review);
- Conventional classroom methods (lectures, seminars, small group sessions, problem solving);
- Visiting health and social care institutions;
- Field work;
- Projects;
- Audit of practice;
- Facilitated personal study;

Knowledge can be assessed by knowledge tests (e.g. MCQ or MEQ), by written and oral examinations, by assessment of patient presentations and by assessments of assignments and projects. Competences can be assessed by OSCE, by assessments of video recordings with role play or by simulated patients. Performance can be assessed by the tutor observing the doctor in practice while performing the tasks relevant to this chapter.

Learning outcomes

The learner will show:

- the knowledge of the health needs of the community;
- Understanding the relationships between health and social care;
- Understanding the impact of poverty, ethnicity and local epidemiology on health;
- Understanding the structure of the health care system and its economical limitations;
- Understanding the importance of practice and community based information in the quality assurance of his/her patients;
- Understanding how the health care system can be used by the patient and the doctor;
- awareness of inequalities in health care;
- the ability to work with other professionals involved in community policy related to health;
- the ability to reconcile the needs of the individuals with the needs of the community in which they live.

The community orientation and the impact of community dimension on individual care can be taught at different levels of knowledge and complexity, but needs to be done in the practice setting.

At the level of Basic Medical Education the student should know the theoretical background of community impact on care and be able to apply it in simple cases.

At the level of Vocational Training the doctor should be competent on the impact of the community dimension on individual care in some performances, and show its community involvement in specific projects.

At the level of Continuing Medical Education/Continuing Professional Development the doctor should perform adequately in this area.

Consequences on assessment of community orientation

Consequences on setting and timeframe

Overview framework for education in community approach

Objectives	Learning Methods	Assessment Tools
Understand the health needs of communities through epidemiological characteristics of the population	Conventional classroom method Seminar Small group discussion Visiting health and social care institutions Audit Project Field work	MCQ,MEQ Written & oral examination Patient or project presentation by tutor Report Report By work-based teacher
Understand interrelationships between health and social care; Understand the impact of poverty, ethnicity and local epidemiology on health; Be aware of inequalities in health care	Visiting health and social care institutions Discussion in small groups Field work Conventional classroom methods	by tutor discussion with work-based teacher Knowledge test
Understand the structure of the health care system and its economical limitations	Structured reflection on work-based experience (case discussion, records review) Visiting health and social care institutions Field work Conventional classroom methods Seminars/discussions	discussion with work-based teacher by tutor discussion with work-based teacher Knowledge test
Work with the other professionals involved in community policy related to health and to understand their roles	Field work (working with other professionals) Structured reflection on work-based experience (case discussion, records review)	by tutor by discussion with work-based teacher
Understand the importance of practice- and community-based information in the quality assurance of his practice	Audit of practice Projects Field work Facilitated personal study	Report Report by tutor
Understand how health care system can be used by the patient and the doctor (referral procedure, co-payments, sick leave, legal issues etc.) in their own context	Facilitated personal study Use of internet resources Field work	 Tutor
reconcile the needs of individuals with the needs of the community in which they live	Structured reflection on work-based experience (case discussion, records review) Facilitated personal study Field work	discussion with work-based teacher discussion with work-based teacher

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Chapter 6. Holistic Approach

includes the ability:

- to use a bio-psycho-social model taking into account cultural and existential dimensions.

Medicine is an intrinsic part of the wider culture. It is based on a set of shared beliefs and values, as with any cultural practice. Holistic approach has been applied to various levels of medical care, and the challenge is not *whether* to apply holistic approach, but *which type* to apply (1). The term holism has many interpretations in medical practice, including alternative or complementary practices. Authors may intend one meaning, while readers understand differently. (2). The definition of holistic approach that is widely accepted for medical care, and will be used in this document, implies *“caring for the whole person in the context of the person’s values, his family beliefs, the family system, and the culture and the socio-ecological situation in the larger community, and considering a range of therapies based on the evidence of their benefits and cost”* (3). Holism, as Pietroni states, involves a *“willingness to use a wide range of interventions... an emphasis on a more participatory relationship between doctor and patient; and an awareness of the impact of the ‘health’ of the practitioner on the patient”* (4). As holistic approach is very centred around the individual, even therapies or interventions offered to the patient will have a different meaning to different people. This individual focus makes it relate so closely to family medicine. It includes the biological basis of medicine that defines the holistic nature of the organs, from a medical point of view it incorporates system approach, and as a person-centred discipline it gives a central role to whole-person holism (1). The holistic view acknowledges objective scientific explanations of physiology, but also admits that people have inner experiences that are subjective, mystical and (for some) religious, which may affect their health and health beliefs. (5).

The recognition that all illnesses have both mental and physical components and that there is a dynamic relationship between components of systems (general systems theory) led to the development of the bio-psycho-social model of modern medicine (6). The position of the bio-psycho-social model was spelt out most clearly by George L. Engel (7,8) who argued that for psychiatry to generate a fully scientific and inclusive account of mental disorder, bio-reductionist accounts should be superseded by ones which adhere to the insights of the general systems theory, developed by Ludwig von Bertalanffy and Paul Weiss. The bio-psycho-social model was proclaimed as a paradigm shift because it apparently dissolved the mind-body split (9). Understanding the illness (not disease) as a process, which gives equal importance to biological, psychological and social determinants for pathogenesis, diagnosis and therapy, forms the holistic approach with its consequent implementation to practical measures.

Using a bio-psycho-social model as the basis for cure and care implies an acceptance that many factors influence our understanding of what it is to be human. Family doctors accept a large diversity of factors to be of influence. Still there is always a limitation to the extent of influence that can be handled by one person in a therapeutic environment. Examples of factors may be:

- the natural disposition, including elements of gender, genetic constitution and typology;
- the micro-social environment such as the family and the macro-social environment, including the local community and the wider community with all its cultural and socio-ecological elements;
- the health beliefs and life experiences that make a person the entity that he/she is now;
- health-maintaining resources in a person, like the understanding of events, the acceptance of meaning, the autonomy that leads to the conviction that life is manageable;
- personal experiences including past illnesses, medical and social contacts.

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Introduction

Objectives of the holistic approach

As the list of factors grows, it is also important to stress that a basic awareness and understanding of one's own limitations as a doctor are crucial. Keeping in mind the fundamental autonomy of the patient, there is a limited opportunity for the family doctor to intervene occasionally and rather "tangentially", with an interesting but very scarce knowledge about the person's history, feelings and priorities. At the same time, the integration of influencing factors is crucial and constitutes the added value. This refers to system approach, where the whole is considered more than the sum of the parts.

Aim 6.1: At the end of the training program the learner will be able to use a bio-psycho-social model taking into account cultural and existential dimensions.

This will require:

- 6.1.1- Knowledge of the holistic concept and its implication on the patient's care;
- 6.1.2- Ability to understand a patient as a bio-psycho-social whole;
- 6.1.3- Skills to transform holistic understanding to practical measures;
- 6.1.4- Knowledge of the cultural and existential background of the patient, relevant to health care;
- 6.1.5- Tolerance and understanding of patients' experiences, beliefs, values and expectations that may affect health care delivery.

Consequences on educational methods

Various methods can be used for teaching and learning the holistic approach, starting with theoretical considerations and discussions around the holistic understanding and different levels of holism. Clarification of the bio-psycho-social model, based on reading, lectures and seminars, should form the basis for the use of other methods. To be able to handle a large variety of fields in an integrative way, further teaching and learning should be very much based on case studies, narratives, patient histories, and the global context that can be taught and learned in the practice context.

Specific methods to achieve this include:

- case studies, single case descriptions and presentations
- videotaped interviews, video analysis of clinical encounters, simulated patients,
- group discussion, one to one discussion,
- field visits, observation in practice, supervision in tutor practices.
- work with art, literature and movies. (11-12)

Consequences on assessment of holistic approach

Central to the assessment of this chapter's competences are case presentations, direct observation of consultations, video recording analysis and evaluation through long-term tutor assessment, observation in teaching practice, and peer assessment. The conceptual parts can be assessed by case simulation in an oral examination, and even by MEQ. Written reports, essays on specific focuses and aspects may also be considered very useful for evaluation of the learner's ability to take into consideration various factors and integrate them into the health care process.

Learning outcomes

the learner will show:

- the knowledge of the holistic concept and its implication on the patient's care;
- the ability to understand the patient as a bio-psycho-social whole;
- the skills to transform holistic understanding to practical measures;
- the knowledge of the cultural and existential background of the patient, relevant to health care;
- show tolerance to patients' experiences, beliefs, values and expectations that may affect health care delivery.

Basic Medical Education should include all the scientific basic knowledge and the basic skills for the complete bio-psycho-social approach and not only for the biomedical approach. The analytical way of dealing should be balanced and completed with the system approach in contributing to problem solving. Students should be offered occasions to come in contact with the patient approach where holistic integration is the basic model for diagnosis, treatment and care.

In Vocational Training case presentation, learning session, discussion forums and reflection, the bio-psycho-social dimensions should be highlighted, the cultural aspects and existential aspects should be optimally integrated. In particular the need for continuing reflective practice in this area must be emphasised. If necessary specific information on cultural and ethnic differences in attitudes to health and illness should be taught.

In Continuing Professional Development it is important to keep this viewpoint to the fore, and to ensure that this aspect of practise as a doctor is maintained and reinforced through case discussions, mentoring and feedback.

Objectives	Learning Methods	Assessment Tools
Know the holistic concept and its implication on the patient's care	Reading Discussions in small groups Observation Lecture One-to-one discussion	MCQ Oral exam Written report Essay Observation of the consultation
Demonstrate the ability to understand patient as a bio-psycho-social whole	Case studies Videotaped interviews Discussion in small groups Seminar	Video record's analysis Long-time tutor's assessment Peer's assessment
Demonstrate skills to transform holistic understanding to practical measures	Simulated patient Role modelling Problem Based Learning Supervision in practice Reflection	Observation of the consultation Tutor's assessment over time Case simulation
Know the cultural and existential background of the patient, relevant to health care	Reading Narratives Field visit	Oral exam Written report Essay Case presentation
Tolerate and understand differing patients' experiences, beliefs, values and expectations that may affect health care delivery	Role-play or simulated patient Case study Reflection Field visit Analysis of patient's history	Case presentation Tutor's assessment over time Observation of the consultation

Consequences on setting and timeframe

Overview framework for education in holistic approach

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Chapter 7.

Essential Application features

In applying the competences to the teaching, learning and practice of family medicine it is necessary to consider three essential additional features; contextual, attitudinal and scientific. They are concerned with features of *doctors*, and determine their ability to apply the core competences in real life in the work setting. In general practice these may have a greater impact because of the close relationship between the family doctor and the people with whom they work, but they relate to all doctors and are not specific to general practice.

1. Contextual Aspects

Understanding the context of doctors themselves and the environment in which they work, including their working conditions, community, culture, financial and regulatory frameworks

2. Attitudinal Aspects

Based on the doctor's professional capabilities, values and ethics

3. Scientific Aspects

Adopting a critical and research based approach to practice and maintaining this through continuing learning and quality improvement

Introduction

In this chapter, a central emphasis is put on essential application features that influence all skills, attitudes and knowledge acquisition in general practice education. They are not taught and learned as separate competencies, but they condition and format all the elements of competence.

A doctor's ability to apply the core competences and to perform in real life in the work setting is related to three essential features: contextual aspects of the working place, attitudinal aspects of the doctor and scientific aspects which include the doctor's medical training and clinical experience.

The context of doctors themselves and the environment in which they work influence what can be achieved and should be achieved. Contextual aspects include working conditions per se, work in teams of other co-workers and networks of allied disciplines. Factors influencing the professional context also include professional norms, performance incentives and targets, policies by government, financial and regulatory frameworks, financial constraints/resources etc. In addition cultural norms, societal expectations, and socio-economic factors shape the context (1) This reality is always present and interferes with daily practice.

Doctors own values, attitudes, and feelings are important determinants of how one practice medicine (2), especially in general practice and patient-centred clinical care where the doctor involves him/herself as a person in a dyadic relation with the patient, not merely as a medical provider. Education should aim at understanding and learning to use one's own attitudes, strengths and weaknesses, values and beliefs in a partnership relation with the individual patient. This requires a reflective approach and to develop an insight and an awareness of self. Personal deceit, even burnout, makes functioning as a GP/FM very difficult and needs to be prevented (3). To develop self-awareness, and to be realistic about one's own abilities (strengths and weaknesses) and priorities may assist in this.

Although a person- and family oriented discipline with importance attached to subjective aspects of medicine, GP/FM should be as much as possible based on scientific evidence that is relevant for and in general practice. Experience based functioning, which stays very important in the discipline, should wherever possible be supported by and verified against sound evidence based information, published and collected in medical literature databases. Combining and balancing the experience based and evidence based approaches in the development of practice guidelines provides an authority-based approach which completes the support from the scientific community. Education should provide the competence to search, collect, understand and interpret scientific research critically. Using evidence as much as possible, critically discussing experience and implementing authority-based guidelines in practice should become a scientific attitude that is maintained over one's complete professional career. Knowing and using the principles of lifelong learning and quality improvement should be considered as an essential competence.

Feature 1. Contextual Aspects

Aim 7.1: At the end of the training program the learner will be able to understand the context of doctors themselves and the environment in which they work, including their working conditions, community, culture, financial and regulatory frameworks

This will require:

- 7.1.1- Having an understanding of the impact of the local community, including socio-economic factors, geography and culture, on the workplace and patient care.
- 7.1.2- Being aware of the impact of overall workload on the care given to the individual patient, and the facilities (eg staff, equipment) available to deliver that care.
- 7.1.3- Having an understanding of the financial and legal frameworks in which health care is given at practice level
- 7.1.4- Having an understanding of the impact of the doctor's personal housing and working environment on the care that s/he provides

Feature 2. Attitudinal Aspects

Aim 7.2: At the end of the training program the learner will be able to deal with the own professional capabilities, values and ethics

This will require:

- 7.2.1-Being aware of one's own capabilities and values - identifying ethical aspects of clinical practice (prevention/diagnosis/therapy/factors influencing lifestyles);
- 7.2.2-Having an awareness of self: an understanding that one's own attitudes and feelings are important determinants of how they practice
- 7.2.3-Justifying and clarifying personal ethics;
- 7.2.4-Being aware of the mutual interaction of work and private life and striving for a good balance between them.

Feature 3. Scientific Aspects

Aim 7.3: At the end of the training program the learner will be able to adopt a critical and research based approach to practice and maintain this through continuing learning and quality improvement

This will require:

- 7.3.1-Being familiar with the general principles, methods, concepts of scientific research, and the fundamentals of statistics (incidence, prevalence, predicted value etc.);
- 7.3.2-Having a thorough knowledge of the scientific backgrounds of pathology, symptoms and diagnosis, therapy and prognosis, epidemiology, decision theory, theories of the forming of hypotheses and problem-solving, preventive health care;
- 7.3.3-Being able to access, read and assess medical literature critically;
-Developing and maintaining continuing learning and quality improvement.

Objectives of teaching additional features

Consequences on learning, teaching and assessing

In a constructivist curriculum, with enough learner exposure to a rich teaching environment, a lot of these additional features will be taught implicitly: relating to real practice, using personal attitudes, and combining experience and authority based functioning with scientific evidence, it happens and should happen implicitly. There is a need for tacit learning, as opposed to 'propositional' learning from books and written documents. The real case is not 'in the book'. Following DA Schön (5), 'Knowing-in-action' is 'knowing more than we can say'. The best way to learn how to cope with the typical situation in practice is not – as is the traditional view – to get a lot of theoretical or 'propositional' knowledge first and then apply this knowledge to "the swampy lowland of the messy, confusing problems in practice". The best way to prepare for this is by practicing, helped to do so by senior practitioners.

This can be described as apprenticeship, a model which has its roots in the development of craft skills in other fields. In former times an apprentice was attached to a master, and carried out menial and mundane tasks in return for the opportunity of witnessing the master at work and practising the tasks involved in the craft, with increasing complexity with time and as skills were acquired, and such apprenticeships included moral as well as skills training, and an introduction to the ethics of the craft. Skills are slowly developed until mastery is attained. To be effective apprenticeship based learning should include reference to its cultural dimensions and to socialisation into the profession (3), how it works, and the place of the professional in society. Modelling therefore must be seen in its widest sense, embracing both the culture and ethos of the profession and the attitudes and behaviours of the individual master. It provides an opportunity for the student not only to acquire skills but to practise their application in a professional setting.

The learner cannot be taught what he needs to know, but he can be coached. This tacit knowledge is implicit in the spontaneous patterns of action demonstrated in everyday life by skilled practitioners. It is composed of actions, recognitions, and judgements typically carried out spontaneously (5). This 'knowing-in-practice' tends to become increasingly tacit, spontaneous, and automatic. When a practitioner makes sense of a situation he perceives to be unique, he sees it as something already present in his repertoire as both similar to and different from the familiar one, without at first being able to say with respect to what.

Professional performance needs not only doing the good things, but also knowing why they are the good things, and having a professional concept to frame the good thing. That's where theory, modelling and concepts come in. At a certain moment they should be introduced to frame the experience, and guide the practice.

Evidence based Medicine should be a basis for evidence based practice in an evidence based healthcare system. Students should learn principles of translating clinical problems to researchable questions and have a feasible query strategy, using procedures like the PICO-system (Problem, Patient, Population / Intervention / Comparison / Outcome) and the waterfall strategy (first the guidelines, then the tertiary databases with systematic review and meta-analysis, then if needed secondary disclosure procedures like Pubmed and Embase, and only finally, if really the answers are not found, the primary publications) (6)

Learning the working context of real practice asks for a network of allied teaching practices that represents the variety of working conditions, teams that relates to field situations, and networks involved in care-giving. The quality of teaching very much relies on the quality of the teaching network.

General Practice/Family medicine is a complex task, with a very high level of personal involvement. Youngsters sometimes hesitate to get involved in a profession with a high task definition. Learning to balance professional life with other goals - personal, family and social ones - is a crucial teaching and learning topic. Learning to manage distance and involvement helps to survive. Preventing burn out starts by defining an achievable professional task and a wealth of lifelong learning opportunities that are fun.

In Basic Medical Education, practising as a doctor should be related to the working context, the community, the healthcare regulations. Cost-efficiency should be taught as a basic concern. Building the personality of the learner, bringing in contact with personal values and ethics should be a learning goal. The basics of a scientific discipline in constant evolution, with criticism and tenacity, with relativity and changing of concepts should be an important background for the learning process.

In Vocational Training, these essential application features should be focussed on their impact on the real world of working with patients as a GP/FM. It is important that training at this level takes place in a primary care setting. The development of expertise in consulting requires time to develop a full understanding of one's own attitudes and their impact on the care that one is able to give.

In Continuing Medical Education enough emphasis should go to these essential application features. In particular the need to keep up to date, and to understand the scientific advances in primary care and its delivery.

Consequences on setting and timeframe

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Chapter 8. Synthesis and integration, the unique combination

The Specialty of General Practice/Family Medicine

General practitioners/family doctors are specialist physicians trained in the principles of the discipline. They are personal doctors, primarily responsible for the provision of comprehensive and continuing care to every individual seeking medical care irrespective of age, sex and illness. They care for individuals in the context of their family, their community, and their culture, always respecting the autonomy of their patients. They recognise they will also have a professional responsibility to their community. In negotiating management plans with their patients they integrate physical, psychological, social, cultural and existential factors, utilising the knowledge and trust engendered by repeated contacts. General practitioners/family physicians exercise their professional role by promoting health, preventing disease and providing cure, care, or palliation. This is done either directly or through the services of others according to health needs and the resources available within the community they serve, assisting patients where necessary in accessing these services. They must take the responsibility for developing and maintaining their skills, personal balance and values as a basis for effective and safe patient care.

Introduction

The first European definition of the profession (Leeuwenhorst definition) (1) had already stated that “it is the synthesis ... which is unique”. It is worthwhile to emphasise also in the present document, where competencies are clustered and dealt with in different chapters, that the synthesis and integration of all competencies is put forward as an educational aim in itself. The competencies listed in the chapters 1 to 7 are specific aspects of an in fact complex reality, they highlight these separate aspects mainly for didactical reasons. The added value is in the synthesis. The whole is more than the parts. General Practice is more than a summing up of all subspecialties.

General Practice/Family Medicine, as a patient centred discipline, is a “high context discipline” (2), using in its problem definition, history taking, diagnosing as well as in the different aspects of intervention, all the subjective elements of the patient, his individual history, his previous experience, his health beliefs, life expectations and goals, including the family and cultural as well as socio-economic influences on it. Most other specialties in medicine develop as “low context discipline”, limiting if possible decision making to objective facts, measurable quantitative information and visual diagnostic techniques. Individual variety for them is only a “variety to the mean”.

This brings General Practice/Family Medicine closer to complexity theory than to linear systems procedures. Complex adaptive systems, like individual patients are, can be defined by complex internal organisation, actions based on internal rules, that are not-linear and unpredictable, but have an inherent pattern and an inherent self organisation through simple locally applied rules. The disadvantage is that this situation imposes on GP/FM an “insoluble paradox between the need for consistent and evidence based standards of care, and the unique predicament, context, priorities and choices of the individual patient. Clinical work in General Practice mainly takes place in complex situations, where there is a lot of ambiguity and uncertainty and not much certainty and agreement. The advantage of it is that the observable outcome of interventions in this field are more than the sum of the parts. (3).

Integration is a process that takes time. It is commonly said that it takes at least five years of functioning in a General Practice setting to achieve satisfying professional capability. Integration takes different parts that could be taught separately but prioritizes them, simplifies their use and

brings the elements to a more generic and abstract level. Integration helps to see the basic rules, the fundamental patterns in illness as well as in caring and different treatments. It is needed not to overcome the overwhelming number of facts and figures that changes quickly over time. It is crucial for the discipline to be able to master the complete field of human medical problems.

Integration is related to the meta-cognitive level. Meta-cognition can be described as knowledge of knowledge, thinking about thinking, cognition about cognitive processes, or knowledge and cognition about cognitive phenomena (4, 5)

Integration sets limitations to the human capacity. Because a GP works within the limits of the integration capacity of the human being, diversity of concepts, models, content, attitudes and techniques should be limited. Especially, the core content of the professional approach should be carefully selected to an achievable level.

The final endpoint of integration is the professional which combines, uses and implements different elements of the professional skills in a fluid, normal and interiorized manner, knowing at every moment what are the background options and the key features related to it. Professional behaviour is not simply doing correct things, but knowing when and why the presented behaviour is correct.

Synthesis and integration, together with personal continuity is the crux and the added value of General Practice/Family medicine within the healthcare system. Synthesis and integration is not an additional feature when all the sub-elements and parts are covered. It is a way of dealing with a large variety of sub-elements to preserve the added value of the whole.

Teaching and learning unique features like synthesis and integration are to be grounded in the practice. The learning process relates to learning of arts: freedom to learn by doing in a setting relatively low in risk, with access to coaches who initiate students into the 'traditions of the calling' and help them, by 'the right kind of telling', to see on their own behalf and in their own way what they need most to see. We ought, then, to study the experience of learning by doing and the artistry of good coaching." (6). This is the constructivist approach (7).

"The goal of practice is wisdom in action. Wisdom may involve the use of specialised knowledge, but central to it is judgement in specific situations, with conflicting values about which problems need to be solved and how to solve them" (6). It involves using prototypes in memory of frequently encountered situations to construct interpretations of related situations (8). It needs the everyday practice reality and through reflection on practice, the knowledge learned from the action is delineated, criticized, restructured, and embodied in further action.

Basic Medical Education is mainly dealing with the "different parts and elements of medicine". Opportunities should be included to understand and learn the added value of the "whole", the integration of all aspects around one patient. Contacts with real healthcare provision and with patients as the central stakeholders for healthcare should be part of the curriculum from the early beginning.

Vocational Training should use role modelling and coaching of the personal growth as a person, a professional and a scientist as main instruments. The final aim should be to create a GP/FM that is able to combine and use the different elements of professional competence in a fluid, interiorized and generic manner.

Continuing Medical Education should continue the process of meta-cognitive reflection, to keep the "tree of wisdom" growing throughout the complete medical career as a GP/FM

**Consequences
on learning,
teaching and
assessing**

**Consequences
on setting and
timeframe**

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Addendum: A Glossary on some educational terms

In the present EURACT Educational Agenda, a lot of educational terms are used. In addendum we collected a short glossary on some of these educational terms. Some of the definitions are adapted from the TUNING project “tuning educational structures in Europe”, a European Socrates project, carried out by 100 universities, under the lead of Julia Gonzales, Duesto Spain and Robert Wagenaar, Groningen Netherlands 2003

Description of types of assessment is based on David Newble and Robert Cannon, *A Handbook for Medical Teachers*, Kluwer Academic Publishers Third edition 1996

The part of the medical curriculum that relates to all medical students, to give a sound basis for further vocational or specialty training. The European Union claims a minimum of six years of BME

Following the Bologna Declaration 1999 to create a “European Higher Education Area” by 2010, the first basic part in each curriculum should preferably have 3 years and 180 study points

Any and all ways by which a graduated physician continues to learn and change in practice in a lifelong learning scheme.

A process of planned and individually tailored learning in practice with a focus on the quality of care. CPD include the identification of learning needs, construction of a learning agenda, drawing a concrete learning plan, and controlling this in an educational portfolio format.

As it relates to lifelong learning, it can become a lifelong Personal Development Plan.

Voluntary adoption of suitable policies for the achievement of a common goal.

The “currency” used to measure students’ workload in terms of the notional learning time required to achieve specified learning outcomes

A system that facilitates the measurement and comparison of learning outcomes achieved in the context of different qualifications, programs of study and learning environments

An indicator of the relative demand of learning and of learner autonomy. It can be based on the year of study and/or on course content (eg. Basic, Intermediate, Advanced, Specialized.)

An indicator of the status of course units in the programme of study. It can be described as Core (major course unit), Related (unit providing instruments/support) and Minor (optional course unit)

A high level qualification which is internationally recognized as qualifying someone for research or academic work. It will include a substantial amount of original research work which is presented in a **thesis**. It is generally referred to as the degree awarded after completion of third cycle studies

A system for increasing the transparency of educational systems and facilitating the mobility of students across Europe through credit transfer. It is based on the general assumption that the global workload of an academic year of study is equal to 60 credits. The 60 credits are then allocated to course units to describe the proportion of the learners’ workload required to achieve the related **learning outcomes**. Credit transfer is guaranteed by explicit agreements between the home institution, the host institution and the mobile learner.

First higher education qualification taken by the learner. It is awarded after successful completion of first cycle studies which, according to the Bologna Declaration should normally last a minimum of three years or 180 ECTS credits.

More GENERAL terminology

Basic Medical Education

Bachelor Degree

Continuing Medical Education

Continuing Professional Development

Convergence

Credit

Credit framework

Credit level

Credit type

Doctorate or Doctoral degree

ECTS (European Credit Transfer System)

First Degree qualification

Terminology on educational Content

(Initial) Master Degree	Following the Bologna Declaration 1999 to create a "European Higher Education Area" by 2010, after obtaining first a bachelor degree, a second part in the curriculum leads to a master degree. It should have a minimum of 2 years and 120 ECTS- study points. For medical master studies, a clinical period of 3 to 4 years is accepted in many European countries. Obtaining a master degree normally include some form of master thesis.
Master after Master or postinitial Master Degree	Following the Bologna Declaration 1999 to create a "European Higher Education Area" by 2010, after obtaining an initial master, programs can give entrance to a postinitial master program. In this logic, specialty training should be considered a postinitial master program.
Tuning	Developing agreement and harmony by combining single sound into a common "tune" or pattern of sounds. It is used in the "Tuning project" to achieve a form of harmonization by finding points of convergence and common understanding.
Vocational Training	Syn.Specialty Training : the part of the medical curriculum that comes after the common basic medical education program for all medical students, and focus on the acquisition of the competences, required for the specialty discipline and related tasks in healthcare
Attachments	A period of longer attachment in a practice setting, also called "preceptorship" or "clerkship"
Checklist	A list of competencies to be mastered at the end of a training period, formatted as a clear defined list, checkable by the learner, by the teacher or by both, providing a constant overview of what is already mastered and what is still to be learned
Competence	The capability to successfully perform discrete observational tasks in a defined assessment environment, in isolation from actual work. In the Miller terminology, it includes the level of "knowing" (basic facts), "knowing how" (able to apply knowledge) and "showing how" (able to show skills) but it excludes the "doing" level, the performance in practice
Elective course	A course to be chosen from a predetermined list
Learners	Refers to students, as well as vocational trainees and all those who take part in the training programmes
Learning outcomes	Statements on what a learner is expected to know, understand and/or be able to demonstrate after completion of a process of learning. Learning outcomes are distinct from the aims of learning , in that they are concerned with the achievements of the learner rather than the overall intentions of the teacher. Learning outcomes must be accompanied by appropriate assessment criteria which can be used to judge that the expected learning outcomes have been achieved. Learning outcomes together with assessment criteria specify the minimum requirements for the award of credit, while marking is based on attainment above or below the minimum requirements for the award of credit.
Mark	Any numerical or qualitative scale used to describe the results of assessment in an individual course unit or module
Objectivistic Learning	Traditional Education model, based on knowledge transfer from teacher to learner. It is highly teacher centred. content is structured in handbooks, teaching is mainly focused on lecturing by experienced teachers, and behaviour copied from experienced role models.
Performance	The level of actual performance in clinical care and communication with patients in daily practice. It relates in the Miller terminology to the "doing" level. It is considered highly dependent on existing healthcare conditions and requirements, financial and structural opportunities, practice opportunities and support.
Problem Based Learning	Educational model that takes the problem of the patient and the doctor as the starting point for the learning curriculum. It is highly student centred, optimizes the use of pre-existing knowledge, and stimulate self learning and search strategies.

Educational model that puts the learning process of the student as the central point. Learning is seen as a process, highly dependent on pre-existing knowledge and on learning context. Teachers are mainly architects of the stimulating learning environment. Individual variety in learning strategies are stimulated

Refers to all professionals involved in an educational event as experts

Syn. mentor, facilitator: a professional involved in the educational process as leader of the process, to guide and reflect to the benefit of the learner(s)

All learning activities required for the achievement of the learning outcomes (i.e. lectures, practical work, information retrieval, private study, etc.)

Teaching during working in clinical environment, in general practice / family practice / primary care setting. It can be organised with or without supervision.

Structured program of educational content, often presented in an oral format, supported by course material

Discussion session on a specific topic or case presentation, can be organised as a one to one session with tutor or supervisor, a peer group session, a small group session like a focus group or a Balint group, or it can be a large/temporary group session at seminars, lectures or workshops

Combination of modular reflection packages, linking case studies, focused reflection, discussion forums, library search and/or reflection in one educational process

Provision of teaching content by presentation and explanation (possibly including a demonstration) by a lecturer

Learning to perform a medical database search, including defining a clinical question, looking for medical evidence, critical reflection on evidence and implementation in practice

Learning through reflective observation by a tutor/supervisor in different educational settings: sit-in with real patients or simulated patients

Learning through video-taped consultation of real patient or simulated patient (observation by oneself, tutor/supervisor, peers, etc)

Reading books, protocols, EBM information, novels, narratives, internet etc.

On self eg by using a diary, videos, or in a participative reflection group

Using the act of playing a role as a patient, as an accompanying person, as a doctor, as a nurse etc to derived educational insight in feelings, intentions and actions

Working out a personal project or as part of a group in a defined format:

- audit project
- research project
- field work project

A period of instruction based on written or oral contributions by the learners

Learning procedural skills in adapted specific settings like:

- doing procedures eg in a skills lab
- learning consultation skills by eg role playing
- learning (medical) database searching
- learning leadership skills by running an educational or targeted meeting

Educational visit to a practice, to clinical premises, to social-welfare institutions, to health authorities etc.

Supervision involves regular, ongoing structured meetings/sessions with and feedback from personal tutor/supervisor on various topics

Social Constructivistic Learning

Teachers

Tutor

Workload

Terminology on Learning Methods

Clinical work / clinical practice under supervision

Courses

Discussion

Interactive (IT based) learning

Lecture

Literature search

Observation

Reading/studying

Reflection

Role playing

Project work

Seminar

Skills training

Study visit

Supervision

Terminology on Assessment Tools and Methods

Writing of patient studies, case studies..	Educational activity, with a given task to provide a written description and/or reflection document, to get feedback from a tutor/supervisor
Workshop	A supervised session where students work on individual tasks and receive assistance and direction when needed
Assessment	The total range of written, oral and practical tests, as well as projects and portfolios, used to decide on the learner's progress in the course unit or in a module. These measures may be mainly used by the learner to assess his/her own progress (formative assessment) or by the teacher responsible to judge whether the course unit or module has been completed satisfactorily against the learning outcomes of the unit or module (summative assessment)
Assessment criteria	Descriptions of what the learner is expected to do, in order to demonstrate that a learning outcome has been achieved
Blueprint	Bringing the relative importance of different clinical areas, covered in an assessment procedure in accordance with the large variety of cases and problems and their prevalence in real practice. In the broad range of GP problems, blueprinting is important, because of the problem of case specificity
Case specificity	Research has shown that learning in medicine is very much case-specific. Mastering a limited set of cases and/or problems does not guarantee the mastering of other cases, area's and problems, especially in a large field like GP.FM So assessment based on the handling of one or a few cases only gives a very restricted information on the competence of a candidate. Assessment with 10 small tasks of five minutes selected with a good blueprint generally gives much more valid information than one long case of 50 minutes.
Essay method	Written reflection on specific questions, in the extended response kind (describe what should be done for ...) or the restricted response kind (given this statement, describe this specific issue). Problem is the time needed and the low reliability.
MCQ – MEQ method	Multiple Choice Questionnaire: a format of objective measurement of the knowledge of the learner. Later adapted to other formats: Modified Essay Questionnaire, the Extended Matching type, etc.. MEQ includes clinical reasoning, not only knowledge testing
Objective Test method	Include a wide variety of test formats, in which the marking or the answer is objective. -true/false questions -Multiple Choice Questions -Context-dependent questions: where a degree of analysis is needed to find the answers -extended matching questions: more complex combination of themes, scenario's, wide range of possible options, sometimes in relation to specific conditions
Observation method, direct	Direct observation of performance on technical or interpersonal skills in the real, simulated or examination setting. -sit-in with real patient in clinical practice or simulated patients (SOO= simulated office oral) -video-taped consultation with real patients in clinical practice or simulated patients Valid method, but reliability is low. It can be made more objective by the use of checklists, rating forms, and training the examiners
Observation method, indirect	Simulates direct observation -by using patient records (chart audit), medical certificates, progress reports -by using patient-case discussion
Oral method	Traditionally the most used method, with an high face validity, but very time consuming and unreliable. Remedies are standardisation of the content (by clear definition, by selection of a standard set, by using standardised patients etc), or reducing examiners inconsistency (rating sheets, multiplying examiners with independent marking)

Objective Structured Clinical Examination: a format of objective evaluation, focused on (complex) skills testing through lists of wanted and unwanted features in relation to the skill.

OSCE method

Assessment is done by peers and not by tutors/supervisors. Different formats can be used. One specific is the 360 degree assessment format, where at least 10 colleagues, health personnel and staff contributes to the assessment.

Peer group assessment

A portfolio is a summary of the major teaching activities and accomplishments, in relation with a Curriculum Vitae, including products and publications. It becomes a reflective or educational portfolio by adding a reflective part, where the learner reflects on the personal learning process.

Portfolio, educational or reflective

refers to the reproducibility of the scores on the assessment; high score reliability indicates that if the test were to be repeated over time, examinees would receive about the same scores on retesting as they received the first time. Unless assessment scores are reliable and reproducible (as in an experiment) it is nearly impossible to interpret the meaning of those scores – thus, validity evidence is lacking.

Reliability

Evaluation method to help student's understanding of own ability and performance. Criteria and standards are defined in a series of small group meetings by staff and students. Then students use the criteria to judge their own performance

Self assessment method

Judging by asking specific short answers on given clinical vignettes: what is the diagnosis, list two typical symptoms, ...)

Short Answer method

After a given variable amount of patient data follows a series of options, between which the learner has to select the requested answer. Two types: the Patient Management Problem and the Modified Essay Questionnaire on a broader field of possible options.

Structured written answer method

refers to the evidence presented to support or refute the meaning or interpretation assigned to assessment results. All assessments require validity evidence and nearly all topics in assessment involve validity in some way. Validity is the sine qua non of assessment, as without evidence of validity, assessments in medical education have little or no intrinsic meaning

Validity

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