Continuing education for community pharmacists in Denmark – the case of Master of Drug Management

Birthe Søndergaard
Associate Professor
Department of Pharmacology and Pharmacotherapy, Section of Social Pharmacy
Faculty of Pharmaceutical Sciences
University of Copenhagen
Outline

- Master of Drug management
- Continuing education of community pharmacies in Denmark
- Content of the MDM 2004 programme
- Why a new curriculum on MDM?
- Challenges in medicine use
- Aim of MDM 2009 programme
- Competence profile
- Content of the courses
- Experiences to far
- Conclusions
Master of Drug Management

- Part-time masters programme
- 60 ECTS credit points (Compulsory courses: 30 ECTS, Elective courses: 15 ECTS, Master’s thesis: 15 ECTS)
- To be completed within 3-6 years
- Access requirements are a relevant three-year bachelor’s degree and at least two years of relevant postgraduate professional experience
- Costs: 14.000 – 21.000 Euro
Aim of the programme

- To integrate theories on medicine use and management in the student’s professional practice.
- To provide the master’s graduate with skills that improve patient safety, compliance, patient counselling and rational use of medicines by focus on the patient and the medication.
- After completion the master’s graduate can independently and on a scientific ground contribute to a better, safe and rational use of medicine in individual patients and in society.
Community pharmacy in Denmark

- Number of pharmacies = app. 240
- Full-time pharmacists = app. 600
- Full-time pharmacy assistants = app. 3,000
- Mean number of professional staff = 14.5 persons
Continuing education of community pharmacies in Denmark

- Traditionally been dealt with in a collaboration between Danish College of Pharmacy Practice (Pharmakon), the Faculty of Pharmaceutical Sciences, Danish Pharmaceutical Association and the Association of Pharmacists in a body called Puf-A

- Short courses, 1-3 days

- A need for longer and more structured CE programmes within community pharmacy

- Puf-A initiated in the 1990’s a development project with focus on CE in pharmacy practice in Europe

- Diploma education in pharmacy practice was started in 2001
From diploma education to master programme

- Each community pharmacist has a right to one post graduate course per year
- During the 1990’s most of the community pharmacies gathered in chains and started to offer their own courses, often with pharmacists and pharmacy assistants attending the same courses
- Master’s programmes were strategically important for the University
- This trend stimulated the desire of a certified Master’s programme in medicine use and management - 2004
Six compulsory courses

- Pharmaceuticals in health care – approaches and theories
- Counselling in medicine use
- Evaluation and documentation of medicine use
- Clinical pharmacy and therapeutics
- Leadership in health care
- From idea to project
• The programme is extensively based on interdisciplinary teaching and problem solving
• The student’s professional practice is integrated in the courses
• All courses includes a term paper, where theories are applied to daily practice
Theories on

• Professions within medicine use
• Disease prevention and health promotion
• User perspectives
• Medicine use

Pharmaceuticals in health care – approaches and theories

Det Pharmaceutiske Fakultet
Københavns Universitet
Counselling in medicine use

Theories on

- Learning, change of behaviour, counselling, teaching and communication
- Change in health, disease and medicine behaviour
- Intercultural perspectives in medicine knowledge, attitude and practice

Methods on

- Information, communication, coaching, counselling, teaching, counselling models
Evaluation and documentation of medicine use

Planning, implementation and evaluation
• Types of evaluation, design, methods, statistics, validation of instruments

Prerequisites for studies
• Ethic and law, good research practice, evidence based practice

Theories and methods
• ECHO, HTA, quality assurance, pharmacoepidemiology, health economics
Clinical pharmacy and therapeutics

- Clinical pharmaceutical perspectives based on medication profiles and patient histories
- Assessment of patient data and handling of risk patients
- Medication review and patient interviews
- Physician/pharmacist communication
- Assessment of treatment regimens
Leadership in health care

- Management and organisation
- Human resource management
- Development of organisations (vision, goals)
- Management in the health care sector
From idea to project

- Literature search
- Project planning
- Project management
- Project proposal
- Communication/publication of results
MDM – 2004 (participants)

- 32 participants in the Master programme (2004-2008)
- All but one student are pharmacists
- 27 students are working in community pharmacies
- Two are working in medical industry
- Two are working in organisations
- One is working in hospital

- 31 ‘single-course’ participants have attended in 11 courses
Master’s thesis

Gram-Hansen, Mette. Counselling in pharmacy – a study on customers expectation to the pharmacy and professional counselling. 2007

Kristoffersen, Inge Trine Svanborg, Medication review in nursing homes – a development project. 2007.

Agerholm, Helene, Development of the pharmacy through registration of drug related problems at the counter – an action research project. 2006.
Why a new curriculum on MDM?

- Attract a broader group of students
- Make an inter-disciplinary education, with different professions from different sectors to strengthen corporation and synergy between them
- Make a more clear profile: focus on patient and society aspects of medicine use and management after marketing of the medicine
- Wanted to gather theories and relevant methods in the same course
- Less focus on general method components – evaluation, leadership, project planning - and more focus on medicine use related issues
- Fewer and larger courses to make room for a more in-depth learning, discussion and reflection and to improve the concrete use of the theories and methods in daily professional practice
What challenges in medicine management should the MDM graduates be able to solve?

- Costs of medicine are still rising despite many attempts to regulate use and costs
- Marketing of new and very expensive biological drugs – which can make prioritizing even more necessary
- Discussion on liberalisation of medicine supply and distribution and increased access to medicine on the Internet
- Discussion of the use of certain groups of medication ea. benzodiazepines, antidepressants to children, pain killers OTC, preventive treatment (statin)
Challenges

- Involvement of the patients in decisions about medicine treatment and use (concordance and adherence)
- Patients attitude to medicine use and risks assessment influences patients adherence and should be integrated in decisions about treatment
- The enormous amount of information about medicine demands knowledge on how to communicate with professional, patients and society
- Knowledge on critical evaluation and selection of information about medicine
Challenges

- Implementation of new electronic information systems about medicine introduces new type of errors
- High frequency of drug related problems and adverse drug events
- Increased focus on patient safety and medicine safety
- Great problems with seamless care and continuity in medicine use
Challenges

- Increased demands on quality assurance and development and documentation of medicine use
- Increased focus on chronic diseases and poly pharmacy patients
- Increased demand for quality assurance and documentation of effect of cognitive services
- Diffusion of tasks between different health care professionals (prescribing pharmacists, expert nurses, clinical pharmacists)
Target groups

- Employees in public administration (Ministries, administration, Counties, Communities) working with pharmaceutical policy, medicine and medicine use, evidence based medicine and information about medicine
- Employees in private sector working with pharmaceutical policy, medicine supply and distribution, drug utilization (pharmaceutical industry)
- Employees in hospitals working with medicine administration, distribution and use and quality assured medicine use (nurses, physicians, pharmacists)
- Employees in primary health care (community pharmacy, nursing homes, general practice, community health care)
Access requirements

- Relevant natural scientific, health care scientific or social scientific education on minimum bachelor/diploma level
- Access educations like pharmacist, medical doctor, nurse, dentist, economist, political scientist, lawyer
- At least two years of relevant postgraduate professional experience
Focus of the MDM programme

- The MDM programme has focus on the patient related and society related aspects of medicine and medicine use after marketing from a natural-, health care-, social scientific perspective
- The education involve theories, methods and practice
- Focus areas are pharmaceutical policy, medicine supply and use, information, communication and information about medicine use and evidence based medicine in practice
Content in new curriculum

Four compulsory courses (7.5 ECTS credit points)
- Pharmaceutical policy and the implication on medicine use (in English)
- Around medicine use – from producer to patient
- Communication, counselling and information on medicine use
- Evidence based medicine use in practice

- Clinical pharmacy and therapeutics (elective course)

- Elective courses (15 ECTS)
- Master’s thesis (15 ECTS)
## Example of study plan

<table>
<thead>
<tr>
<th>1. term</th>
<th>2. term</th>
<th>3. term</th>
<th>4. term</th>
<th>5. term</th>
<th>6. term</th>
<th>7. term</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Pharmaceutical policy</strong></td>
<td>Around medicine use – from producer to patient</td>
<td>Communication, counselling and information on medicine use</td>
<td>Evidence based medicine use in practice</td>
<td>Elective courses</td>
<td>Elective courses + master’s project</td>
<td>Master’s project</td>
</tr>
<tr>
<td>7.5 ECTS</td>
<td>7.5 ECTS</td>
<td>7.5 ECTS</td>
<td>7.5 ECTS</td>
<td>10 ECTS</td>
<td>10 ECTS</td>
<td>10 ECTS</td>
</tr>
</tbody>
</table>
MDM competence profile

- Take responsibility for tasks in relation to pharmaceutical policy, medicine supply and use, communication, counselling and information on medicine use and evidence base medicine use.
- Develop, implement and evaluate projects and activities within these areas.
- Work inter-disciplinary in the health care sector with pharmaceutical policy, medicine supply and use, communication, counselling and information on medicine use, and evidence based medicine use.
MDM competence profile

- Lead quality assurance and quality development of medicine use
- Take professional, ethical and societal responsibility for quality assured medicine use
- Take responsibility for own professional development and specialisation
- Communicate research based knowledge and discuss professional and scientific subjects with both professionals and lay persons
Pharmaceutical policy and the implication for medicine use

The aim of the course is

- To give the students insight into and understanding of current developments affecting pharmaceutical policy making
- To give the students better understanding of the theories and methods available for analysing the effects of policy interventions
- Train the students in analyzing questions and appraising different approaches to policymaking on a national as well as international level
The course focus on

- How policies are made
- How regulations are formulated and administered
- Effects of the policy
- Interaction between the three areas
- EU-policy and Case studies from Denmark
Examples of content

- EU pharmaceutical policy, the role of the Commission and the Parliament
- Introduction to the EU political system – The case of revising the regulatory framework for pharmacovigilance
- Theoretical approaches to policy – economic theories
- Theoretical approaches to policy – political science theories
- The National arena – the political system in Denmark
Examples of content

- Deregulation of medicine distribution in Denmark
- Introduction and use of new medical products – the case of introducing cancer medicine
- How to measure the effects of new systems that should support rational drug use
- From regulation to effect: the case of evaluating liberalization of the pharmacy sector in Norway (economic perspective)
- The reimbursement system in Denmark and examples of evaluation of the effects on medicine consumption
The aim of the course is

- To educate the students to prevent and solve problems with loss of effect of medicine from producer to patient
- To give knowledge and understanding of the very complex medication use process and the different actors involved in the process
- To evaluate preconditions for and consequences of medicine use
The course focus on

- Supply and distribution of medicine
- Prizing and marketing of medicine
- Management of continuous medicine processes
- Health economic consequences of medicine use
- Pharmacoepidemiology
- Medicine use
- User perspective of attitudes to medicine and medicine use
- Patient adherence and compliance
The course ‘Communication, counselling and information on medicine use’ are made from element from the ‘old’ counselling course and the ‘old’ theory course.

The course ‘Evidence based medicine use in practice’ is a combination of element from the ‘old’ documentation course and the ‘old’ theory course.

Because we want to have theories and relevant methods and activities in the same course.
Experiences so far

- 21 participants in the Pharmaceutical Policy course
- Six participants were non-pharmacists
- Pharmacists from community pharmacy, organisations, public administration and pharmaceutical industry
- Participants from Norway and Sweden
- The participants were very satisfied with the interdisciplinary discussions
- The participants was satisfied with the English language
Status on MDM right now

- Eight students on the Master’s programme 2009
- Both pharmacists and non-pharmacists
- Both community pharmacists and pharmacists from other sectors
- Six students have started on their Masters’ thesis (2004 programme)
- Development and planning of the new courses
Conclusions

- We have succeeded in giving the programme a more clear profile
- We have succeeded in making the programme interdisciplinary
- We have succeeded in keeping the community pharmacists interested in the programme
Thank you for your attention

bs@farma.ku.dk