A conceptual framework for the implementation of pharmacy practice research in the education of students at the K.U. Leuven, Belgium

V. Foulon, S. Simoens, G. Laekeman and P. de Witte
INTRODUCTION
PHARMACY EDUCATION IN FLANDERS

**Bachelor in Pharmaceutical Sciences**
(180 ECTS / 3 years)

- **Master in Pharmaceutical Care**
  (120 ECTS / 2 years)
- **Master in Drug Development**
  (120 ECTS / 2 years)

**START IN**
- Bachelor in Pharmaceutical Sciences: 2004-2005
- Master in Pharmaceutical Care: 2007-2008
- Master in Drug Development: 2007-2008
A NEW CURRICULUM

2. Specific objectives of the K.U.Leuven:
   Guided independent learning as ‘leitmotiv’
3. Specific principles with respect to Bachelor and Master levels

   Core features:
   Scientific specialisation
   Preparation for a scientific or professional career

MASTER THESIS
24 ECTS
AIM OF THE PROJECT

to develop a conceptual framework for a master thesis in pharmaceutical care,
along with the design of an adapted curriculum

+ integration of fundamental research and pharmacy practice
+ implementation of pharmacy practice research in Flanders
STEP 1: COMPETENCY PROFILES

- Review of recent literature
- Analysis of study programmes of different European faculties

Learning objectives for the Master in Pharmaceutical Care
(knowledge / attitudes / practices)

Focus group discussions
(community pharmacists / hospital pharmacists / students)
STEP 2: AN ADAPTED CURRICULUM

Competency profiles:
- Domain specific competencies
- General competencies

Elaboration of a specific programme
- Core group of staff members
- Discussions with (individual) professors
STEP 3: A CONCEPT FOR THE MASTER THESIS

• Building on different aspects of the existing study programme
• Oriented towards the development of research skills

4 major parts:
- literature review
- project work
- pharmacy practice research
- writing up the findings
10 groups of 6-7 students

each group supervised by one division of the Faculty

integration of fundamental research and pharmacy practice

EXAMPLE:
safety of COX-2 inhibitors and NSAIDs in the treatment of osteoarthritis in ambulatory care
<table>
<thead>
<tr>
<th>LITERATURE REVIEW</th>
<th>PROJECT WORK</th>
<th>PRACTICE RESEARCH</th>
<th>WRITING DISSERTATION</th>
</tr>
</thead>
</table>

- YEAR 1
  - Individual work
  - Addressing one issue of the theme
  - Preparation for discussions
  - Formulation of research questions

- YEAR 2

**EXAMPLE:**
- GI safety of COX-2 inhibitors and NSAIDs
- Cost–effectiveness of COX-2 inhibitors and NSAIDs
EXAMPLE:

Demographic profile of patients using COX-2 inhibitors?
Which COX-2 inhibitors are prescribed in ambulatory care?
Which co-medication for COX-2 inhibitors and NSAIDs?
conducted along with the internship
research questions based on project work
different approaches possible

EXAMPLE:
- Gaining profound data on the use of COX-2 inhibitors
- Studying ADR and compliance
- Analysing QOL in patients using COX-2 inhibitors
- Gathering data on economic aspects of using COX-2 inhibitors
RESULTS

<table>
<thead>
<tr>
<th>LITERATURE REVIEW</th>
<th>PROJECT WORK</th>
<th>PRACTICE RESEARCH</th>
<th>WRITING DISSERTATION</th>
</tr>
</thead>
</table>

YEAR 1

YEAR 2

individual work

discussion of findings in relation to literature data

education of critical pharmacists,

aspiring for a greater role in health care
Joint efforts of Flemish Faculties of Pharmacy and professional organisations through project work along with internship acceleration of the implementation of pharmaceutical care (research) in Flanders