



***Building a European Nursing  
Research Strategy***

**Salamanca 13-17 Marzo 1999**

# **FINAL REPORT**

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## PREFACE

"Building a European Nursing Research Strategy" was the title of the Euroconference that took place in the "Arzobispo Fonseca College", Salamanca, Spain, from 13<sup>th</sup> to 17<sup>th</sup> March 1999. This Euroconference was organised by the Investen-isciii Working Group and the Carlos III Institute of Public Health (*Instituto de Salud Carlos III*), which comes under the aegis of the Ministry of Health and Consumer Affairs. Representatives from 14 European countries attended the Conference. Altogether, 92 persons participated, including one guest from the United States and one from Canada. A total of 26 of these participants were Young Researcher Grant recipients.

### Background

#### *Nursing Research in Europe*

In the majority of European countries, nurses form the workforce that provides the greatest proportion of direct patient-care services. These services are defined in the health policies of all member countries as promoting health, assisting people to recuperate following an episode of acute illness or treatment, and caring for those who are chronically ill or disabled. Although it is evident that nurses make a crucial contribution to the delivery of healthcare services, they -like other healthcare providers- are coming under increasing pressure to demonstrate the end results of their work.

In this context, nursing research is indeed called for, to safeguard and reinforce the quest for excellence, and to justify the need for nurses to maintain the quality of care for populations throughout Europe. Nurses should be committed to providing services that are derived from sound research-based knowledge and empirical evidence.

Europe has seen steady development in this direction over the past 30 years. By the 1970s, nursing research had become established in a few university departments and nursing research units, but was still in the early stages of development in Europe as a whole. Currently, nursing research is still in its formative years in most European countries. The support and promotion of nursing research in many countries has been sporadic or very limited. Nevertheless, a 1997 study provides some hope for the future. Tierney (1997) has shown that there is no region in Europe where there is not at least some investment in nursing research.

In the particular case of Spain, the last decade has been marked by increased potential for the development of nursing research. For instance, in 1987 the Spanish Health Research Fund (*Fondo de Investigación Sanitaria – FIS*) eased the formal requirements for research applications, thereby making nurses eligible and enabling them to figure as principal investigators in research projects. In addition, the FIS invited nurses to become members of Technical Assessment Committees, and financed a National Nursing Research Project. At present, Spain's Carlos III Institute of Public Health is leading the way, having set up a Working Group (Investen-isciii) in 1996 tasked with drawing up national guidelines for the Nursing Research Programme.

### *Recommendations from the Council of Europe*

In 1996, the Council of Europe initiated a study on nursing research, involving seven European countries (Cyprus, Denmark, France, Germany, Ireland, Spain and the United Kingdom). Based on this study, the committee of experts formulated recommendations regarding nursing research that were adopted by the Committee of Ministers on 15<sup>th</sup> February 1996 at the 558<sup>th</sup> meeting of Ministers' Deputies (Recommendation n. (96) 1 - 1996). In the wake of this landmark event for nursing, no European meeting has been organised with the exclusive goal of furthering discussion on nursing research.

### *Establishing European Priorities*

A wide variety of phenomena, problems and issues of interest to nurses call for research. Yet the growing awareness of the need for research has to be harmonised with limited research resources. This, in turn, means that allocation of research funds should be on the basis of priorities. Hence, the scientific nursing community in Europe should face the challenge of identifying needs and establishing priorities through policies capable of guiding the future of nursing research.

In view of the above and the Council of Europe's recommendations, we strongly believed that it was time to hold a conference which involved all European Union member states as well as other associated states, and to update the report drawn up in 1996. These are the reasons that prompted the Investen-isciii Working Group to apply for EC funds to host this Conference. The main purpose was to strengthen cross-border collaboration among European nursing researchers, in order to promote and develop nursing research into the next century.

The **main reasons** for holding a Euroconference are:

- to provide a discussion forum, in which leading researchers active in different scientific areas can explore updated research outcomes, trends and innovative ideas in a stimulating, informal environment, thereby encouraging new contacts and new collaborative engagements;
- to provide young scientists with an opportunity to meet leading researchers in their fields of interest, to participate in high-level discussions and to acquire insight into the most promising research trends, which may critically influence their own of research; and,
- to create an integrated European community of nurse-researchers engaged in different research areas, through the holding of periodical meetings -typically biennial events- which would broadly focus on the same topics (mainly addressing European participation) and enjoy balanced representation of active research groups from all countries.

The **main objectives of this Euroconference** in particular, were:

- to promote further development of European nursing research;
- to promote development of research projects that enable nurses to base their practice on scientific knowledge;
- to strengthen and promote nursing research on the implications of health policies for nursing workforce development, with stress on management of services and clinical and educational needs. Attention shall be also given to the use of advanced technology in healthcare; and,
- to develop the existing network of nursing research centres and to promote links between the present centres, so that they act as policy-making advisory boards in Europe

In order to broaden the scope of this Euroconference, plenary sessions were relayed by videoconference, a strategy that made for greater participation by researchers in the discussions. Videoconferencing proved particularly useful for reaching Young Researcher Grant applicants who could not be funded owing to the 30-grant limit. During the Conference, 162 Internet users participated in the plenary sessions using this method.

### **Conference Programme**

The Euroconference was organised in such a way that most of the activities would be developed through group work (65% of total time). The timetable was the same every day:

8:00 a.m. Plenary session conducted by experts who presented different topics on nursing practice and nursing research.

9:15 a.m. - 1:00 p.m. and 2:30 p.m. - 4:30 p.m. Five simultaneous working group sessions took place. The participants were divided into the following working groups:

1. Structure and organisation of research
2. Integrating nursing research into practice
3. Education for nursing research
4. Financing nursing research
5. Priorities in nursing research

4:30 p.m. - 6:30 p.m. Plenary session to provide a discussion forum in which the interim conclusions of the working groups were presented.

The last day (18<sup>th</sup> March 1999) was dedicated to drawing up the final conclusions and recommendations.

### **Scientific and Organising Committee**

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## SECTION 1

### The current state of Nursing Research in Europe

#### **Introduction**

Prior to the conference, the Organising Committee sent a questionnaire to all potential EU participants in order to gather information on the current situation of nursing research in their respective countries. The replies to this questionnaire and the discussions of the 5 Working Groups during the Conference are reported in this Section. Jointly, the reports of the different Working Groups provide an updated description of action taken so far and trends in nursing research in Europe.

#### **1.1 Structure and organisation of research**

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#### **Historical background**

In our questionnaire, we inquired about the history, structure and organisation of nursing education (public and private) and practice level, and finally, the current situation and perspectives as regards nursing research. The replies are detailed below.

**QUESTION 1.-** Please provide a brief historical overview of the structure and organisation of the institutions that have been promoting nursing research in your country.

##### **Belgium:**

- 1966: nursing research started in the Department of Hospital Administration at the Catholic University in Louvain.
- There have been professors of nursing science since 1980. The nursing schools with a programme for executive nurses (*Ecole des Cadres*) promote nursing research.
- There is a national group for nursing research (*Gras*)

##### **Finland:**

- Nursing education was switched from nursing colleges to a polytechnic system in the period, 1995 - 1998. There are 25 polytechnics with a nursing programme in Finland. Teachers are expected to have a master's degree. There are also posts for senior lecturers which require a postgraduate or doctoral qualification. Polytechnics imply enhanced research orientation in the curriculum.
- Five universities offer master's and doctoral programmes. Both polytechnics and universities belong to the higher education system.

##### **Portugal:**

- **1960-1970**  
Nursing Schools include Nursing Research in their curricula.

- Portuguese Nursing Association founded in 1968.
- **1970-1980**  
1972 – initial contacts between Nursing Schools and Universities to transfer the teaching of nursing to the university.  
1977 – publication of first nursing research papers, produced during the course of the Public Health Nursing specialisation course.
- **1980-1990**  
Portuguese Nursing Association takes part in the European Nursing Research Group  
During the 70's and 80's many nurses complete other types of university courses, such as sociology, anthropology, psychology, law, etc.
- **1990-the present**  
A great number of nurses obtain a Master's degree and some complete or begin a Doctoral programme.

**Denmark:**

- 1938: The School of Advanced Nursing Education was established at Aarhus University (DSH). Since then, it has been the centre of nursing development in Denmark.
- 1980: Establishment of the Danish Nurses' Organisation as an independent research institute and as a WHO Collaborating Centre for nursing research.
- 1990: Establishment of the University Hospitals' Centre for Nursing and Care Research (UCSF). A total of 10 hospitals in Copenhagen contribute to the running of the Centre.
- 1998: Establishment of a research unit for nursing research at the Health Science Faculty at Aarhus University; at the same time, establishment of a permanent professorship in clinical nursing.

**Israel:**

- 1968: Nursing Department was established at Tel Aviv University.
- Last decade, research units were initiated in major medical centres.
- 1990s: Research groups were established in conjunction with nursing services, professional and multiprofessional organisations. By this time, Nurses Association supports nursing research.

**Netherlands:**

- Since 1980, nursing research has had a formal place within the university structure. The University of Maastricht was the pioneer in establishing Nursing Science as a study programme at the Master's and PhD levels. In addition, it was the first university in the Netherlands to provide academic supervision for conducting research at a PhD level.
- In 1989, two Nursing Science satellite sites were established for Maastricht, basically in Utrecht and Groningen.
- Currently, nursing research is a well-established entity, not only within university settings but also in a number of academic teaching hospitals and research institutes around the country.  
Currently, stress is being laid on establishing a nursing research strategy, initiated by the Centre for Nursing and Care and possibly steered by the Ministry of Health.

**Spain:**

- 1977: all nursing students required to take a first degree at university.
- 1987: the Health Research Fund (FIS), in its capacity as a National Health System agency for assessment and funding, placed nurses on technical evaluation committees. At this time, research units began incorporating nurses as research staff.
- 1995: the FIS supports a multidisciplinary working group (the Investes-isciii Working Group) for the development of nursing research.

- By 1999, regional authority health departments and the national nursing council have given a strong boost to the development of nursing research projects.

**United Kingdom:**

- 1959: a Nursing Research Discussion Group was formed in the Royal College of Nursing.
- 1960s: the Department of Health appointed a nursing research officer. The first nursing degree programmes started at universities. During the 1980s and 1990s, research activity has grown steadily and we now have knowledge of nurses who hold a PhD
- 1993: The Strategy for Research in Nursing, Midwifery and Health Visiting (integrated into and steered by the government's health service R&D strategy) provide the framework for ongoing development, improvement and co-ordination of nursing and health services research.

***Structure and Organisation of Nursing Education (public and private)***

Generalisations about nursing-research support structure and organisation in the context of European education are rendered difficult due to the differences in educational systems in the respective countries.

QUESTION 2- Is there an opportunity for nursing undergraduate students to be involved in research? How?

In basic nursing education (3-year diploma courses), almost all students receive a basic introduction to research theory and method. This varies across Europe: countries such as the United Kingdom, Finland, Israel, Portugal, Denmark and Belgium have nursing education at university, and research-related subjects are included in the basic syllabus; other countries, such as the Netherlands and Germany have an intermediate system, with the first level being taught outside university in Institutes for Higher Occupational Training; lastly, there are countries with no provision for nurses to take a higher degree (MSc. and PhD), such as Spain or Italy, where research is not included in the curriculum and must be taught within the ambit of other subjects e.g., public health, statistics, etc.

Opportunities for students to be involved in ongoing research projects are limited in all countries, and where students do take part, they usually do so as data gatherers. Nursing education is undergoing reform in some European countries and research will feature more strongly in the basic syllabus (e.g., increasing critical appraisal skills).

QUESTION 3- Is there an opportunity for nursing graduate students (MSc, PhD) to participate in research (other than their own projects)? How?

At the postgraduate level (MSc. and PhD), students are expected to develop their own research projects under supervision. There are few opportunities for them to be included in projects other than their own. Once again, there are differences between countries: Spain and Italy, for example, have no provision for education beyond a diploma level, whilst some countries have a well-established postgraduate programme. In the Netherlands, MSc and PhD students are expected to conduct small- and large-scale research projects respectively within an established research programme at the University. Furthermore, PhD candidates are expected to participate in multidisciplinary research projects within and possibly outside the university.

QUESTION 4- What is the structure supporting research development among professors of faculties/schools of nursing in your country?

In the Netherlands, nursing research is even brought within research institutes and graduate research schools, and multidisciplinary collaboration is encouraged and applied. The establishment of a research unit at Tel Aviv University

in 1982 helped nursing research to expand and develop, thereby leading to fruitful co-operation between researchers in the National Health Service and other institutions. Denmark is now developing this type of structure. There are no formal structures like this in the UK but nursing research, like research in all disciplines, is supported by the research infrastructure integral to the university system. The Academy of Finland funds posts for professors

There are no structures designed to support and develop nursing research among nursing schools in the remainder of the participant countries. In the best cases, there is an organisation -usually with no representation of nurses- that lays down the basic lines of health-science research.

### ***Structure and organisation at the practice level***

QUESTION 5.- How are the governmental and provincial institutions that support and/or promote nursing research structured?

#### **Belgium:**

- Support and promotion by Federal Ministry of Health :
  - Quality of care
  - Minimal Nursing Data
  - Pathology related cost

#### **Denmark:**

- The Danish Medical Research Council approved a grant of DKK 5 million for nursing research initiatives over a five-year period. The grant has been applied to establishing 2 assistant professorships at the Danish School of Advanced Nursing Education at Aarhus University: it was spent to create faculty positions and a PhD course.

#### **Portugal:**

- There is no formal institution that supports and promotes nursing research. Application can be made to different governmental or private institutions for funding for nursing research projects, in the same way as other health-related projects.

#### **Finland:**

- The Ministry of Education
- The Ministry of Social Affairs and Health
- The Academy of Finland
- Stakes
- Universities
- Hospitals
- Polytechnics
- Health Centres

#### **Israel:**

- Health research in Israel, including nursing research, is conducted within two basic frameworks: intra-institutional and inter-institutional.
- Intra-institutional research is conducted mainly within nursing departments of the universities, the major medical centres and the nursing divisions of the various sick funds.
- Inter-institutional research is conducted within the Ministry of Health, as well as by the Ministries of Education and Transport. Within these frameworks, most research projects have research funding available for which nurses can apply.
- During the past decade, the Ministry of Health established a number of health research institutes, namely the Gertner Institute for Epidemiology and Health Policy and the Israeli National Institute for Health Policy. These institutes conduct research on the basis of permanent research teams, and have also funded research projects. In one of these institutes, a nurse is a permanent team member.

**Netherlands:**

- To support initiatives designed to promote nursing in the Netherlands, the government funds the National Centre for Nursing and Care. Nursing research constituted one of the Centre's designated objectives and the Centre consequently funded a number of projects. Efforts are currently under way to establish national nursing research priorities. The National Centre spearheads this effort for Nursing and Care in collaboration with the Ministry of Health.
- Many funding agencies, such as the Dutch Foundation for Scientific Research and the Foundation for Care Research in the Netherlands, also support nursing research. In addition many funding agencies and national charities have been instrumental in including nursing research within their research priorities.

**Spain:**

- The Ministry of Health incorporates the Carlos III Institute of Public Health (ISCIII) which supports health research. As part of the ISCIII, the Health Research Fund (FIS) is the main agency for financing research. At present, there are 42 research units in Spain. These have four basic functions: production of in-house research, which in turn contributes to self-funding; provision of methodological advice; promotion of dissemination and clinical application of research results; co-ordination of research resources in health areas.
- At a Regional level, almost all Autonomous Regions offer financing and education for research via their respective Regional Health Authorities, yet in most cases the main researcher is required to have an MSc or PhD degree, thereby excluding nurses. All have ethics committees.

**United Kingdom:**

- The vast majority of nursing research is supported and promoted by the Departments of Health at national, regional, and local levels. The national R&D programmes focus largely on multidisciplinary health services research and increasing by include nurse researchers. The four statutory national boards for nursing, midwifery and health visiting education also support and promote research.

QUESTION 6.- How are the non-government organisations that support and/or promote nursing research structured? (foundations, private companies, professional organisations, etc.)

**Belgium:**

- Some hospital organisations support and/or promote nursing research.

**Denmark:**

- The Danish Institute for Health and Nursing Research (DIHNR) is proposing to conduct research and research-oriented educational and consultative activities within the context of health and nursing. Part of the DIHNR's objective is to promote the development of relevant education of nurses at a basic, post-basic and advanced level.

**Portugal:**

- Every year, the Portuguese Nursing Association promotes a number of events linked to nursing research, such as conventions, courses, seminars, etc.

**Finland:**

- The Nursing Research Institute, The Foundation for Nursing Education
- Trade-union and professional organisations, different funds
- The Association of Caring Sciences and Pro Nursing

**Israel:**

- Most interdisciplinary research centres are national. Their main goal is to carry out research on health services, health policy and epidemiology. The Ministry

of Health directs some collaborative research institutes and others are independent institutes, partially funded by the ministry. In some of these institutes, nurses are members of the permanent interdisciplinary research team. Nurses holding doctorates can apply for funding to the inter-institutional research institutes.

**Netherlands:**

- The National Foundation for Scientific Research, Heart Foundation, Asthma Funds, and Cancer Fund, among others, have funded a number of projects in nursing science.
- In addition, the National Centre for Nursing and Care has been instrumental in promoting and funding nursing research.
- In addition, funding is sometimes provided by academic teaching hospitals. In some cases funding is used to establish clinical professorships or joint-appointments, and in others to support clinical- and applied-research projects.

**Spain:**

- There is no solid tradition in Spain of corporate support for health research coming from private companies (drugs industry, banks and insurance companies). Contributions from these agencies normally consist of specific actions in concrete sectors, usually in the form of funding for clinical trials.
- In the last two years, a new statutory structure has been created in Spain, the so-called "Public Foundation". These endeavour, on the one hand to introduce new criteria in the management of National Health System institutions, and on the other, to diversify their sources of funding, which, until now, have been limited to the state budget. Public Foundations now manage the funds and staff of most research units.
- Professional organisations contribute by furnishing education in research methodology and advice on project development. Some of Spain's professional nursing associations award research grants, something that can act as a substantial stimulus to the development of nursing research.
- Aside from professional associations, some trade unions include methodology courses in their education programmes.
- Patients' Associations offer project funding in their specific areas, in which they usually enjoy international links, as well as research grants pertaining to members' quality of life, equality of opportunity and social integration trials.

**United Kingdom:**

- The Royal College of Nursing has a network of those involved in nursing research. Nursing research is supported and promoted by the Royal College of Nursing, particularly through its Research Society and its Institute, and by associated charitable institutions such as the Foundation for Nursing Studies, through educational initiatives and the award of grants in particular, and the Florence Nightingale Foundation, through the award of travel scholarships and fellowships. The Royal College of Nursing, through its Research Society, organises an important annual nursing research conference in the UK.

QUESTION 7.- How are the local organisations that support and/or promote nursing research structured? (in hospitals, primary healthcare, etc ... private or public.)

**Belgium:**

- Teaching hospitals are the best places to promote nursing research.

**Denmark:**

- The three large university hospitals have established nursing research units

**Israel:**

- In most Israeli institutions, nursing research activity is sporadic and is based upon final thesis papers for the Master's Degree. Nursing research units have been established in all major general hospitals and sick funds. These units

are based upon the joint activity of a single nurse responsible for: collecting research data; working with a “think tank” or internal research committee to establish that institute’s research policy and work plans; identifying research topics and questions; establishing priorities; and setting up *ad hoc* development committees on specific topics. The research nurse serves as a resource for staff nurses wishing to start research projects.

- Institution-based research units co-operate with nursing schools, nursing departments at the various universities, and their own in-house multidisciplinary research teams.

**Portugal:**

- Nowadays, nursing research is being increasingly developed by hospitals and primary healthcare centres.
- Recent years have witnessed an increase, both in quantity and quality, of nursing research papers produced by hospitals and primary healthcare centres.

**Finland:**

- Hospitals and healthcare centres through their own budgets.
- Nursing professors serve as part-time nursing services managers, with these positions being financed by the university hospitals.
- Hospital researchers are, at the very least, to be found in the university hospitals. Most of these researchers are nurses.

**Netherlands:**

- A number of hospitals have funded research chairs in nursing.

**Spain:**

- There are hospital and primary-care research committees supporting and evaluating research projects generated inside the respective centres, and ensuring compliance with ethics policies. In some hospitals there is a full-time nurse responsible for the promotion of research and the assessment of nurses interested in developing a research project. Similarly, education committees include research education in their education programmes.
- At present, we have no knowledge of the existence of other structures or organisations supporting research at a local level, but at all events such a contribution would not be significant.

**United Kingdom:**

- There are nursing research interest groups within hospitals and regions, and nurses with designated research responsibility in hospitals and other care settings. Nursing research is supported and promoted by a variety of means in hospital and community settings, including support through research units, networks, consortia and other initiatives. All research and development (R&D) activity in the UK National Health Service is funded through an annual levy on all healthcare purchasing, and the extent to which this money is used for nursing research varies enormously. All NHS trusts (i.e., service providers, both hospital and community-based) are required to have their own R&D strategy and nursing research is increasingly featuring in R&D plans and portfolios.

***Current situation and perspectives***

QUESTION 8.- What are the current needs of nurses in terms of the structure and organisation of research?

While there are needs that are specific to each country, there are also urgent shared needs:

- nursing research should be fully integrated into health services research, both inter and intra-institutional, at all levels (local, regional, national and international);
- a formal academic structure for nursing degrees at Master’s and PhD levels should be established;

- clinical positions for assistant professors/lecturers, professors and senior researchers should be established;
- there should be support for healthcare research groups, tasked with furnishing knowledge and improving health services and population healthcare, to help nurses obtain research funding;
- research which tests the effectiveness of nursing care in different patient groups should be funded, in order to ensure the quality of nursing, and to develop methods for the dissemination and implementation of nursing research findings; and,
- opportunities for intra- and interdisciplinary collaboration should be promoted.

**QUESTION 9.-** How much development has taken place in your country since the Strasbourg recommendations for structure and organisation of research? (See enclosed document, pp. 43-44).

**Belgium:**

- None, since these recommendations are not known by the different nursing research centres.

**Denmark:**

- The Danish Nurses Organisation began developing a national nursing research strategy and this will be presented in April 1999 to participants from the Ministries of Health, Education and Research, Danish Medical Research Council and representatives from the nursing profession.

**Israel:**

- The Strasbourg recommendations for research are not widely known among institutions, therefore not much has been done.

**Netherlands:**

- Not familiar with any developments.

**Portugal:**

- The Strasbourg recommendations are little known among nursing researchers.

**Finland:**

- The idea underlying the recommendations has been taken into account in drawing up and implementing the national nursing action plan, "The Direction of Nursing. A Strategy for Quality and Effectiveness".
- The recommendations have been delivered to and discussed in the universities and the Nursing Research Institute.

**Spain:**

- The Strasbourg recommendations are partially developed (Nos. 2.2, 2.1, 2.3 and 2.5). They have been published in a national journal, and the Investensciii Working Group focuses on and fosters their development. Of the recommendations, No. 2.4 (to establish co-operative agreements among academic departments, research units and nursing services to develop programmes of nursing research) is proving the hardest to implement.

**United Kingdom:**

- Recommendations 2.1, 2.2 and 2.5 have been fully implemented, and 2.3 and 2.4 partially implemented.

**QUESTION 10.-** What initiatives could improve the future development of nursing research?

The most important initiatives described by every country in response to this questionnaire are well reflected in the recommendations and suggested actions agreed upon at this Euroconference.

**Discussion**

The respective situations in the participant countries were described and reviewed. Education-related issues were discussed in great detail, confirming the

differences between participant countries, as well as the existence of common aspects and points of agreement.

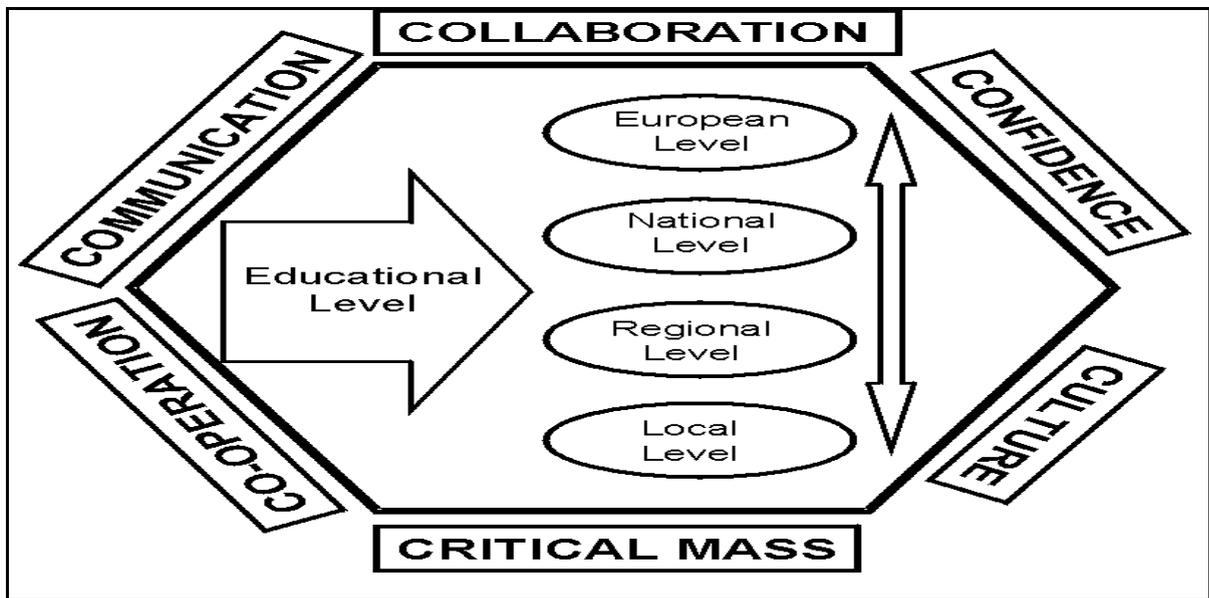
The work then focused on analysing nursing research needs from a broad perspective, at five different levels, i.e., European, National, Regional, Local, and Educational.

Once these levels had been defined, the group then proceeded, on a consensus basis, to indicate the main points to be taken into account in establishing a strategy at each level. The points considered as relevant were:

<p><b>European level</b></p> <ul style="list-style-type: none"> <li>*Committee of representatives from member states</li> <li>*Identification of key European organisations</li> <li>*Networks</li> </ul> <p><b>National Level:</b></p> <ul style="list-style-type: none"> <li>*Nurses to be represented on decision-making committees</li> <li>*Health policy (not just research)</li> <li>*Identification of health research priorities</li> <li>*Structure of dissemination</li> <li>*Funding agencies</li> <li>*Cost-effectiveness</li> <li>*Evidence-based care</li> <li>*Wider access to higher education</li> <li>*Lobby groups</li> <li>*Professional nursing groups</li> </ul>	<p><b>Regional Level:</b></p> <ul style="list-style-type: none"> <li>* Interpretation of National policy</li> <li>*Communication</li> <li>*Funding committees</li> <li>*Status of educational requirements</li> <li>*Quality assurance research</li> </ul> <p><b>Local Level:</b></p> <ul style="list-style-type: none"> <li>*Specific appointments</li> <li>*Collaboration with multidisciplinary healthcare-profession groups</li> <li>*Nursing managers to give recognition to research</li> <li>*Research facilitators</li> <li>*Networks</li> </ul> <p><b>Educational Level:</b></p> <ul style="list-style-type: none"> <li>*Research to be a core part of the curriculum</li> <li>*Resource provision</li> <li>*Professional research</li> <li>*Networks</li> <li>*Dissemination (Internet)</li> <li>*Publications</li> </ul>
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Consensus was achieved for a group of key points, namely, those which would ultimately determine both the recommendations themselves and the actions designed to facilitate application of same. During the discussion, a number of common factors -which cut across all levels- were identified as determining factors that would shape the practical development of a strategy for implementation of nursing-research. The factors in question are defined in the following figure.





The group discussed the identity of the persons and/or institutions to which the recommendations should be addressed, along with the timetable for their completion. Due to existing differences between the various countries' administrative systems, it was agreed that individual countries should address the recommendations to the respective organisation or institution having competence in the specific area. Although the group did not agree on a timetable for completion of the recommendations, a reasonable timetable would nevertheless be as follows:

- European level: Under 2 years.
- National level: 2-4 years.
- Regional level: 2-4 years.
- Local level: 1-3 years.
- Educational level: 1-3 years.

## 1.2 Integrating nursing research into practice

<p><b>Moderators:</b></p> <p>M<sup>a</sup> Concepción Martín Arribas (Spain) Rosa González Llinares (Spain) Ainna Fawcett-Henesy (WHO – DK) Clare Ann Hale (United Kingdom)</p> <p><b>Collaborators:</b></p> <p>Eva Abad Corpa (Spain) Santiago Felip Vaquer (Spain)</p>	<p><b>Participants:</b></p> <p>Anne Sofie Bomholt Pedersen (Denmark) Nicky Cullum (United Kingdom) Pilar Delgado Hito (Spain) Paul Gerits (Belgium) Maria Grypdonck (Netherlands) Amelia de León Ovejero (Spain) Victoria Medina Dieguez (Spain) M<sup>a</sup> Teresa Meneses Jiménez (Spain) Azucena Pedraz Marcos (Spain) Marja-Leena Perälä (Finland) Sotirios Plakas (Greece) Nili Tabak (Israel) Carl Thompson (United Kingdom)</p>
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### **PREAMBLE**

The questionnaire explored 6 major subjects designed to ascertain:

1. development of policies and strategies for the promotion and implementation of research in clinical practice (developed by Governments, professional associations, health institutions, nursing schools...);
2. development of collaborative research projects in conjunction with universities, hospitals, primary healthcare centres, etc.;
3. updating and review of protocols and clinical-practice guidelines in accordance with evidence-based research;
4. availability of resources that might facilitate access on the part of healthcare professionals to research findings (databases, Medline, Cochrane Library, CINAHL);
5. dissemination in each country of the recommendations on nursing research outlined by the experts and approved by the European Council in 1996; and,
6. steps to be taken in each country to improve the relationship between research findings and clinical practice.

Data collected from the questionnaires as well as further discussions of the working group provided the following information:

1. The introduction of policies focusing on the promotion and implementation of nursing research in clinical practice in Europe is both scant and inconsistent. The situation differs from country to country. In the United Kingdom, policies that affect the whole health system are being developed. Recently, the Department of Health produced a paper entitled, "A First Class Service: Quality in the new NHS". The paper provides the policy instrument for the setting-up of a National Institute for Clinical Excellence, national frameworks, clinical governance and a commission to monitor standards. This document, and the bodies to be established, will all emphasise the delivery of evidence-based healthcare. Similar policies are being carried out in other countries at autonomous regional levels (Spain) or through private institutions, universities and health centres (Belgium). In this regard, other countries have reported no official policies. In Finland however, in a policy paper entitled, 'Directions of Nursing, towards quality and effectiveness', the development of research-based nursing is emphasised.

2. We have identified only two countries in which collaborative research projects between universities and healthcare systems are increasing at both regional

and national levels. In many countries, administrative obstacles hinder collaboration between universities and healthcare centres, hampering the possibility of establishing joint research projects.

3. In most countries, clinical protocols and practice guidelines are drawn up at local, regional and national levels. The same is true for evidence-based practice programmes in nursing. Education and training for evidence-based practice varies enormously, and this is particularly so between "academic" and "practitioner" nurses, thereby hampering research processes. Many practitioners, and even nursing students, are not trained to read the literature critically. Moreover, in several countries, nursing training is still imparted by physicians.

In the United Kingdom there is a Centre for Evidence-based Nursing, that is undertaking systematic reviews of nursing research, delivering training workshops to clinical nurses, developing evidence-based clinical-practice guidelines and researching how best to implement research into practice. CASP-based activities (Critical Appraisal Skill Programme) have begun.

A major problem highlighted by this working group was the difficulty posed by the lack of translation into languages other than English of reliable systematic reviews, clinical-practice guidelines and evidence-based journals. The creation of a network that would allow for co-ordination and dissemination of translations of evidence-based information relevant to nursing was well supported.

4. Availability of resources is also very uneven throughout Europe. Nurses in some countries have access to human and material resources (Medline, CINAHL, and Cochrane Library) in universities, healthcare centres and research units at national, regional and local levels. In other countries however, such resources are concentrated at universities. Nurses in primary care have more difficulty accessing evidence-based information than those in acute care. Support for the development and implementation of nursing research is lacking in some countries. Hence, although nurses in universities are proceeding with research studies, there is no proper implementation in clinical practice.

The general opinion is that more collaboration between researchers and practitioners is needed; such partnerships should keep nursing services managers posted and so facilitate integration of research findings into practice. Structural mechanisms are also required to channel reliable research findings to those involved in clinical practice.

5. Dissemination of European Council recommendations on ways to strengthen nursing research has been very limited in all European countries. Only in Spain and Finland were these recommendations translated into other languages and disseminated via state nursing journals. In the UK these recommendations have had little effect. However, most of the recommendations contained in the European Report were also covered by the recommendations of the Taskforce for Research in Nursing, Midwifery and Health Visiting (1993), and these were widely circulated at all levels, with many being actively implemented within the framework of the NHS R&D strategy.

#### **METHODS:**

This working group comprised 20 members from 7 countries (Denmark, Greece, Belgium, United Kingdom, Finland, Israel and Spain), 9 of whom were young investigators aided by European Commission grants.

Objectives and methods to be accomplished over the 3-day sessions were proposed at the outset.

#### **WORKING GROUP OBJECTIVES:**

1. To review the results of the survey covering the following subjects:
  - existing policies and initiatives
  - preparation of protocols, clinical-practice guidelines, etc.
  - availability of existing resources, such as research databases, methodological advice, computer systems, etc
  - degree of integration of research into practice

The opinion of countries not represented in the survey was also requested. Differences of opinion were observed among the different countries with regard to the development of policies to start integrating nursing research into practice.

2. To identify the most significant barriers to the integration of reliable research findings into practice; and,

3. To make recommendations to improve the integration of research into practice.

To achieve these goals, it was agreed to use a participatory, consensus-based approach, with the aim of involving all participants.

To enable participation, it was established that each group member should give his/her opinion on any questions that might arise, within a framework of respect and goodwill. Language was one of the main bars to communication.

#### **PREREQUISITES:**

After analysing the situations prevailing in the respective countries, it was agreed that it was necessary to clarify what was meant by the "integration of nursing research into practice". The group therefore agreed on the following working definition: *Implementation of the findings of high-quality research shown to improve outcomes for patients, families, communities, and to improve processes that are directly related to such outcomes.*

In agreeing on this definition, it was also noted that the group would take account of the following:

- the importance of the context of care, i.e., most care does not take place in a hospital setting;
- the existence of a growing body of evidence on implementation strategies which do and do not work (e.g., the systematic reviews of the Cochrane Collaboration on Effective Practice and Organisation of Care – EPOC);
- cross-cultural similarities and diversities, and the fact that most research has not been replicated to allow for cross-cultural comparisons; and,
- the group's concern should extend, not merely to implementation of research but also to theories and models of nursing, which should not be implemented in clinical practice without prior validation at all levels, including cross-cultural.

#### **DISCUSSION:**

The conclusions of the group with respect to steps to be taken to improve the integration of research into practice are shown below:

1. Clinical-practice guidelines, protocols and care pathways should be based on scientific evidence and should render the evidence database explicit. It was also noted that clinical-practice guidelines are not sufficient *per se*, and require local adaptation and sponsorship;
2. The development and availability of systematic reviews of relevance to nursing practice varies enormously throughout Europe, and there are relatively few available even in English. The need to create joint European policies for the dissemination of systematic reviews was emphasised, and the creation of a Pan-European network to facilitate translation and dissemination of systematic reviews and high-quality, reliable, relevant nursing-research evidence was regarded as extremely important. All members agreed that the translation of high-quality (e.g., Cochrane) systematic reviews into different languages would facilitate the implementation of research;

3. Existing inequalities in human, material and educational resources for the purpose of promoting the implementation of research are a major issue. Some hospital-based nurses have direct access to databases, such as CINAHL and MEDLINE, together with education, training and support from experts, but most do not. Primary Care nurses are at a greater disadvantage. Without the information resources and the skills to access the information, nurses cannot integrate research into clinical practice;
4. The divergence between "academic" and "practitioner" nurses is widely acknowledged and strategies must be developed to close this gap. Although research is applicable to all nurses, abundant experience goes to show that integration of research into clinical practice is hindered by a complex series of aspects. In this regard, motivation, training, leading role, knowledge (whether personal or institutional), and language were just some of the issues discussed by the group.
5. The group agreed that different levels of research literacy were appropriate to different levels of nurse education. As a first step, all nurses should be able to critically appraise research literature and make decisions on its relevance to their practice. After advanced training (Master's and Doctorate levels), nurses should be able to plan and conduct primary research projects and systematic reviews.
6. Liaison between research leaders and nurses in clinical practice is likely to facilitate both the conduct and the dissemination and implementation of research, and to raise awareness among care professionals and healthcare managers in these areas; and,
7. In some countries, healthcare research is unidisciplinary, and nurses collect data for medical research. In other countries, research is multidisciplinary and it is sometimes difficult to identify the elements that are specific to nursing.

### 1.3. EDUCATION FOR NURSING RESEARCH

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#### INTRODUCTION

The discussion of the "Education for Nursing Research" Working Group will be presented here in three parts, and will keep to the same chronological order as that followed by the group during the conference. On the first day, representatives outlined the structure of their respective nurse training systems, with particular emphasis on educational opportunities for research. On the second day, discussion concentrated on the difficulties experienced in each country in preparing researchers, as well as on alternatives created to promote education for nursing research. The third day was divided into three phases: the group started by commenting on the particularities of nursing education from the point of view of young researchers (six members of the group had received a Young Researcher Grant from the European Commission); later, the group worked on general recommendations; and to conclude the working session, Professor Rosemary Crow presented information on an initiative set on foot by some European universities and known as the Academy of Nursing Science.

#### DESCRIPTION OF EDUCATION FOR NURSING RESEARCH IN EUROPE

Before the Conference, a questionnaire was sent to nurse-representatives in the various European countries to help them structure the information that they were to bring to the working groups. The participants in this Working Group came from Belgium, Finland, Greece, Israel, Spain and the United Kingdom. Representatives from Israel and Belgium returned their questionnaires before the Conference; the Netherlands did likewise, even though it had no representative in this Working Group. Those from other countries answered the questionnaire at the Euroconference.

#### Education for Nursing Research Questionnaire

The questionnaire completed by the respective national representatives served, in great part, to shape the discussions of the group during the Conference. To guide the reader on the issues that it raised, the questionnaire is now shown below.

- *Undergraduate Education*

What kind of educational training does one have to have to become a nurse in your country?

Is nursing research an optional or compulsory course in the curriculum?

How many credits or hours does the nursing research course(s) constitute, and what are its contents?

- *Graduate Studies*

What are the options of study for nurses after they complete basic training?

Is there a formal system of research education such as the MSc or PhD? Are these higher degree programmes in nursing or in other fields of knowledge?

What is the standard in terms of research content for graduate studies? (e.g., emphasis on quantitative or qualitative methodology, number of credits or hours).

Are those who teach research in these courses, nurses or other professionals?

How many nurses hold MSc or PhD degrees in your country?

- *Other Initiatives for Training for Research*

Please provide a brief description of continuing education initiatives in research in your country (e.g., initiatives of nurses' associations, hospitals, health centres, etc.).

What are the prospects for the future of nursing education on research at these three levels?

## **Questionnaire Replies by Country**

### ***Finland***

Nurses are trained at polytechnics (higher education in a 3½-year programme). The three study options include nursing, public health nursing and midwifery (midwifery is the only one that lasts 4½ years).

Recently, the undergraduate courses have been transferred from nursing colleges to polytechnics (1995-1998). Graduate studies in nursing have been offered since 1979. The MSc course is 3½ years long, and the PhD lasts from 4 to 5 years. Five universities offer graduate studies.

Professionals are registered at the National Register of Healthcare Professionals (no board exam) by the National Board of Medico-Legal Affairs, which comes under the Ministry of Social Affairs and Health.

In general, lecturers have a minimum of a MSc to teach at the undergraduate level.

Research and education strategies are defined in a national document entitled "National Action Plan for Nursing: The Direction of Nursing".

Undergraduate students attend a 10-week study course (5 days a week; 1 study week = 40 hours) on research methodology. The objective of this course is to enable students to carry out development projects, critically appraise research articles, and use research in practice.

At the MSc level, students have 40 weeks of study, 20 of which being devoted to research methodology (quantitative and qualitative); the remaining 20 weeks are for the production of a master's thesis. All teachers are nurses, but some other experts are used in certain subjects (e.g., statistics).

At the clinical level, nurses have the opportunity to learn about research through Open University courses offered to practitioners, and through hospital and health-centre initiatives.

Specialist courses are not available at the moment, but the Ministry of Education is planning these.

Two percent of Finnish nurses (public health nurses and midwives) have graduate degrees (approximately 1,500, with PhD's accounting for 60 of these).

The challenges for the future are: to develop a system for research funding; to produce more nurses trained in research; to increase the number of publications in

refereed journals; and to promote evidence-based research projects and comprehensive long-term projects.

### **Greece**

In Greece two categories of nurses are responsible for general nursing care: graduates from the University of Athens School of Nursing; and graduates from the Department of Nursing in the Faculty of Health and Caring Professions at the country's Technological Educational Institutes (TEI). Both of these educational programmes meet the requirements of the EC directives, namely, 12 years of general education and 4 years of higher education for University and TEI graduates. All educational programmes are provided and financed by the public sector. In 1991 there were 170 university graduates and 9000 TEI graduates employed in the nation's general hospitals.

The University of Athens School of Nursing covers all aspects of the science of nursing and comprises health along with medical, dental, and pharmaceutical sciences. Studies at the School of Nursing conclude with the award of a university degree that qualifies the graduate to practice as a professional nurse or to follow an academic career. Each year, approximately 50 high-school graduates are admitted to the University of Athens School of Nursing. All of these are products of the general secondary-school system. The students are admitted through the National Exam system.

The nursing science educational programme has the following objectives:

1. to provide an integrated education for professional nurses; and,
2. to ensure active participation by nurses in the development of new knowledge within the field of healthcare research.

The School of Nursing curriculum, which is drawn up by the General Committee, consists of 8 semesters. The Department's General Committee has requested permission (from the Ministry of Education and Religion) to extend the duration of studies from 8 to 10 semesters in order to increase the hours of clinical experience.

Within the School of Nursing, a 2-year postgraduate programme with 6 avenues of specialisation has been established. An MSc and a PhD programme are also available for university nursing graduates.

Along with the Universities, the Technological Educational Institutions are, by law, part of the higher education system in Greece. In all, there are 14 TEIs in Greece, with branches in Athens and in 17 other cities across the country. Studies in each department conclude with the award of a degree that qualifies graduates to practice the relevant profession.

The Department of Nursing, which was founded in 1983, has approximately 2,000 students. Each year about 400 high-school graduates are admitted to the Department via the National Exam system. Since the 1995-1996 academic year, the Department has applied a new 8-semester-long curriculum, which follows World Health Organisation and European Union guidelines.

Teaching methods focus on developing analytical and critical thinking. The teacher, who acts as the student's tutor, counsellor and guide, is him/herself a lifelong student and researcher. The learning environment encourages student autonomy and provides learning opportunities for all.

The Department of Nursing organised a Master's programme in collaboration with the University of Wales. Successful participants are awarded the degree, Master of Science in Nursing.

### **Israel**

Two levels of basic nursing education are available in Israel: undergraduate programmes (BA, BSc); and Diploma Schools (RN). The undergraduate programmes are 4 years in length; those in the Diploma Schools are 3-4 years long. Both programmes culminate in the student's sitting for the Ministry of Health Registered Nurse Examination.

The undergraduate programmes are taught at a university level. The number of credits required for these programmes, which varies amongst the different universities, ranges from 1,300 to 1,850 hours for theoretical courses and from 2,300 to 2,600 hours for clinical experience. The total hours required for a BA in Nursing range from 3,573 to 4,437.

In schools offering an RN diploma, the number of hours required for completion are 2,000-2,200 for theoretical courses and 2,000-3,000 for clinical experience. In most of these programmes, the students are required to take a few courses at a BA level for accreditation. The course on Research Methods and Statistics is one of these and is compulsory in all programmes.

The research course consists of 42 hours, in addition to a 42-hour course in statistics (or including epidemiology). At the undergraduate or diploma level, the content includes the research process and ethical issues. The goal of the course is to prepare the nurse to become a knowledgeable consumer of research. At the BA level, in certain universities, an additional 14-hour course in critical reading is compulsory.

Nurses who graduate from Diploma Schools have several educational options:

1. to continue at a university for a post-basic BA in nursing (2 years of study); or
2. to continue at a college for a BA in nursing or in health systems (1 year).

Nurses who have earned their BA in nursing also have a few options:

1. to continue at a university for an MA in Nursing (2 years of study); or,
2. to continue at a college for an MA in Health Systems Administration (1 year).

An MA in Nursing can be earned at two universities in Israel (at a third, the MA programme is in the process of accreditation). In addition, nurses can choose to study for a university MA degree in any other field. A PhD in Nursing can be undertaken only at Tel Aviv University. Currently, most of the nurses with a PhD have received their degree either in other disciplines, such as education, health services or social work, or from a university abroad.

Two programmes are given at the universities at the graduate level (MA in Nursing):

1. Tel Aviv University offers a 42-hour course in research, which is compulsory, in addition to a 42-hour course in statistics and an optional semester course in critical reading. The research course is devoted mainly to quantitative methods, with some exposure to the qualitative approach. An optional 28-hour course in qualitative methods is available.
2. At Beer Sheba University, a 42-hour course in epidemiology, including quantitative research methods, is compulsory for all students. Those who intend to write a thesis are required to take an additional advanced course in epidemiology.

Lecturers' backgrounds vary according to university policy. Mostly, nurses teach nursing research, but occasionally teachers from other social sciences are involved.

The total number of registered nurses in Israel is 26,633. There are 3,972 holding a BA (14.9%), 942 nurses with a MA (3.5%) and 38 nurses with a PhD (0.1%).

Beyond academic education, other research training initiatives have been developed:

1. The position of nursing research co-ordinator is becoming standard at the large medical centres. The aim of incumbents is to promote the execution of research projects among nurses in their institutions.
2. Journal clubs, where nurses present and participate in critical group discussions about recent nursing research, exist in most medical centres and schools of nursing.
3. Recently Kupat Holim Clalit, the major health insurance carrier in Israel, has offered financial support for nursing research.

4. Once a year, the Department of Nursing at Tel Aviv University hosts a Research Day for nurses from all over the country, where several research projects are presented and discussion encouraged.

5. The Israeli Nurses Association has initiated certain Research Day meetings where the promotion and application of research is discussed.

Nursing education in research is moving in new directions in Israel:

1. In the future, qualitative methods will be more accepted because they are suitable for some nursing issues. More qualitative research and combined qualitative and quantitative research will be undertaken.

2. More nurses will be considered qualified to conduct research independently and to teach this topic at all levels of education.

3. Nursing research education at the graduate level should include preparation of research proposals for grants, as well as preparation of manuscripts for publication. Exercises in public presentations of papers will also be part of the course content for MA and PhD students.

4. Future course content will suit new trends in the profession, such as measurement of outcomes, special ethical considerations, application of research findings, and collaborative research.

### **Belgium**

Information in this section has been gathered from: the Centre for Health Services and Nursing Research, Catholic University of Louvain; the Department of Nursing Science, University of Ghent; the Department of Medical Sociology and Health Sciences, Free University of Brussels; and the Brussels School of Public Health (ULB).

To become a graduate nurse in the Flemish part of Belgium takes 3 years of higher non-university education, including a specialisation or so-called "option" year. The qualifications that can be obtained include "graduate nurse, general option", "graduate nurse, paediatrics option", "graduate nurse, psychiatry option", "graduate nurse, social option" and "graduate nurse, geriatrics option". Midwives have their own separate 3-year programme, likewise at a non-university level.

Nursing schools are free to organise their educational programmes within certain guidelines governing course duration, course time and number of credits. The entire programme has to consist of a minimum of one third and maximum of two thirds of general courses and a minimum of one third and a maximum of two thirds of courses within the option. Moreover, the nursing schools have to adhere to the principle of 50% theoretical education and 50% clinical education, which is usually divided as 33% clinical - 66% theoretical education in the 1<sup>st</sup> year, 50% - 50% in the 2<sup>nd</sup> year and 66% clinical - 33% theoretical education in the 3<sup>rd</sup> year. Courses are taught at a rate of 30 hours a week, on average. A 4<sup>th</sup> year (optional and completely self-financed) may be taken, leading to the diploma of specialist nurse in intensive care, neonatal care, operative care, social healthcare or geriatric care. Not all of these qualifications are officially recognised as yet.

It also takes 3 years of higher education at a non-university level to become a graduate nurse in the Walloon, French-speaking part of Belgium, yet this education does not include options for specialisation. It takes a 4<sup>th</sup> optional year (with subsidy) to become a midwife or psychiatric nurse.

It is still possible for students to take the so-called Fourth Degree course, comprising 3 years of vocational training education leading to the qualification of certified nurse. However, the federal government has issued a policy in favour of one (undergraduate) educational programme for nursing, and the Fourth Degree will disappear in time.

Though an optional course in the curriculum, nursing research is nevertheless included in the curriculum of most nursing schools. The number of hours may vary; in one nursing school, for example, it constitutes 5% of the hours taught. Usually such a course consists of basic principles of nursing research, such as introduction to methodology, introduction to statistics, and introduction to how to read and evaluate nursing research literature.

Nurses can continue their education within or outside the university. In universities, they can study nursing science, healthcare management, health education or other fields, such as criminology. Outside the university, the main option is a specialisation in nursing, which leads to a specialist qualification.

Master's education comprises required courses and a dissertation. Students have to undertake a research study of considerable volume. Master's students can continue towards a PhD, which consists of research training. A very limited number of students are accepted at each university. Both Master's and PhD degrees are conferred in nursing science.

Graduate students are taught both quantitative and qualitative research methods (the former more so than the latter), though qualitative studies are conducted at both universities. In addition, students have fairly extensive courses in statistics. The number of credits per course cannot be easily estimated owing to the specific ways in which courses are structured. At the Master's level, research is an important topic.

At the Catholic University of Louvain (Centre for Health Services and Nursing Research), the emphasis remains on quantitative methodology, though qualitative studies have been conducted for a few years and the development of separate courses on qualitative methods is under consideration. No general rules apply for research content in graduate studies. Most lecturers are nurses, but certain outside experts are also invited to teach (statisticians, medical doctors, epidemiologists, etc.).

At the University of Louvain, 3-4% of nurses follow graduate programmes. At the University of Ghent, about 30-40 students, on average, have taken graduate programmes in the last 4 years, but the number is rising.

Several initiatives are under way to make nurses aware of the value of research, to communicate research-based knowledge and to enhance competence in reading nursing research. In Ghent, the School of Nursing organises study days and has opened Master's-programme research courses to teachers in non-university education who do not have a Master's level education. Professors also publish articles on research in "popular" nursing journals.

At Louvain, the Centre for Health Services and Nursing Research has taken the following initiatives. It has:

1. developed a graduate level course for quality managers (quality co-ordinator) with a strong emphasis on research methodology;
2. initiated a graduate course in nursing research (25 hours); and,
3. enabled PhD students to participate in a European PhD educational programme.

Initiatives taken by the University Hospitals of Louvain include:

1. a 16-hour course in nursing research methodology;
2. lunchtime seminars on nursing science presented on a monthly basis (dissemination of the methodology and results of nursing research projects).

Other initiatives have involved courses on nursing research at the GRASI with the Catholic Professional Nursing Organisation and the Circle of Nursing and Obstetrical Science (WVVV), and the option of courses on qualitative research for mental healthcare co-ordinators, among others.

In future, nursing research education at all levels should continue to grow, given the demand for evidence-based nursing. Internationalisation of education (e.g., at the PhD level) is another perspective for the future of nursing education in research.

### **Spain**

In order to reply to the questionnaire sent to all representatives of European countries, Spain conducted a national survey to gather updated information. The data that follows represents the findings of this national study.

Nursing education takes place at the university level. Courses last 3 years and lead to a Diploma, which is recognised by the Ministry of Education. The total

credits required for nursing studies are 234 (3,600 hours). The ratio of theoretical to practical credits is 50:50.

There are 98 nursing schools in Spain, 75% publicly and 25% privately funded. Some are private, some are associated with universities and some belong to a university. All lead to a University Nursing Diploma qualification (*Diplomado Universitario de Enfermería*).

No national board exam is required for nurses, but national or regional jobs are awarded on the basis of highest test scores. Currently, only two specialisations are officially acknowledged, namely, midwifery and mental health.

With regard to undergraduate educational programmes, of the 74 schools that responded to the national survey: 15 (23%) did not teach research methodology as a subject; 38 schools (58%) had one course in research methodology; 12 schools (18%) offered two courses; and one school offered three courses. In 20 schools, research methodology was an obligatory course, and in 37 it was optional. Aside from research methodology, courses in statistics, epidemiology and computer software were offered. The median number of credits for these subjects is 5 (min.=1, max.=16, where 1 credit=10 hours) and the median number of nursing diploma students in schools is 70 (min.=30, max.=300). These courses, which can be taken in nursing schools and in other institutions (professional associations), can be used at the former for master's, postgraduate courses or other types of short courses.

At present, no MSc's or PhD's in nursing are awarded in Spain, although nurses can earn doctorates in other fields if they have an MA or MSc (*Licenciado*) in that field. One school of nursing has started an MSc programme in Nursing (*Licenciatura*), but it is not yet recognised by the Ministry of Education.

To address the lack of graduate studies in nursing (MSc, PhD), the alternative created by nursing schools was to develop a series of specialisation courses which, while considered postgraduate studies, cannot lead to the MSc title. Usually, nurses will earn a specialisation at the so-called master's level. Not all master's level courses teach research content; some concentrate on nursing specialisations. Seven of the schools studied teach some master's level courses and 29 teach postgraduate courses. Six schools provide specific postgraduate nursing research courses. In 30 of the schools that teach master's or postgraduate courses, qualitative and quantitative methods are taught, though quantitative methods predominate. In 21 schools offering postgraduate studies, the courses have a median of 20 hours duration (min.=6, max.=60). In most schools, the lecturers teaching research methodology are nurses. The median number of students attending postgraduate courses in each school is 55 (min.=17, max.=700).

Other opportunities for training in research are afforded by the healthcare system and professional associations. The most important initiatives in this field are normally undertaken in the Continuing Professional Development Units in hospitals. Questionnaires were sent to all 168 Spanish hospitals in order to ascertain their activities; 89 replied.

Fifty-eight hospitals had organised nursing research courses in the last 5 years; 95% taught quantitative methods. Course duration was as follows: forty-three of the courses, 30 hours; 19, 30-60 hours; 30, 60-180 hours; and 3, in excess of 180 hours. Approximately 2,880 nurses undertook these professional-training courses. Twenty-three percent of the teachers were nurses, and 77% were health science professionals.

In nursing schools, the real development of nursing research should take place in graduate schools. Master's and doctoral degrees in nursing are essential for the future development of nursing research in Spain. Nurses should learn about research through compulsory courses. Respondents to the questionnaire considered it essential in future that: application of research to practice be improved; research links between research and practice be facilitated; and nursing research units be created within hospitals and public health services.

### **United Kingdom**

Research training is undertaken either in universities or in other independent institutes of higher education (e.g., RCN Institute). In the U.K., these institutes of higher education deliver professional education and training for healthcare practitioners, such as nurses and doctors. Research training is given in all programmes, but with increasing specialisation as the student advances from undergraduate to graduate studies.

In the U.K., the basic level of nurse education leads to a Diploma (3 years). At the BSc level (3-4 years full-time or equivalent part-time study), basic research methods are taught as part of the Bachelor's programme. Often, but not always, study culminates in the student's undertaking a small research project. This BSc research project is essentially a first-level training exercise in research so that students have the experience of seeing how a question is answered using systematic enquiry.

All Master's level programmes are graduate degrees that can be taken either in 1 year (full-time), over 2 years (part-time) or, in some cases, through a system of credit accumulation (maximum period of 5 years). Courses devoted entirely to research (e.g., Master's in Research Methods) or courses focused on specific topic areas (e.g., MSc in Nursing, Advanced Clinical Practice, Rehabilitation) are available. In courses that are devoted entirely to research methods, students gain a thorough grounding in a variety of research methodologies. Courses devoted to specific topic areas include the teaching of research methods, but these courses tend to focus on methodologies appropriate to the topic area.

All MSc students carry out a research project; however, a MSc research dissertation is expected to illustrate deeper understanding of the subject and more advanced critical ability than a BSc monograph. Constraints of time limit the breadth of the study.

Research degrees (as opposed to those earned primarily through taught courses) can also be taken at the Master's level (MPhil) and doctoral level (PhD, D.Phil., D.Clin.Prac.). Doctoral programmes comprising taught courses have not been the tradition in the U.K., although increasingly doctoral programmes will include taught components, particularly on research methods. The European Network of Doctoral Programmes in Nursing now provides a taught module, which adds a European perspective to doctoral students' work, with a supervisor (sometimes in combination with a panel) on a research question. Students' work is expected to make a contribution to knowledge, be it theoretical, methodological, or clinical. The first course of the European Network was held in February/March 1999 at the University of Surrey, U.K.

Examination is by thesis, and the work presented should lead to publications in high-quality peer-reviewed scientific journals. In the United Kingdom, the defence of the research is undertaken through a *viva voce* examination by an external examiner with a track record in the student's field and by a comparable internal examiner. Students are not, however, expected to give a public lecture as they do in other European universities.

Postdoctoral training is undertaken within established research groups. These may be in university departments or independent research institutes. Postdoctoral training provides the following opportunities: experience in writing proposals and training in advanced research techniques (e.g., health services research, clinical trials, evaluation research, clinical judgement research, etc.).

Research training for nurses is therefore well established in the U.K. Many opportunities exist, including the opportunity to train with students from other disciplines. Furthermore, the creation of a skilled research workforce is a major priority for the National Health Service in the U.K., which is currently funding many opportunities for nurses and researchers in primary care to increase their skills and training in research.

### **Netherlands**

Undergraduate nursing education takes place within institutes for higher professional education rather than at the university level. Nurses with a professional degree from one of the institutes for higher professional education may study towards a MSc and PhD in nursing science. At the University of Maastricht, nurses may earn a Master's degree in nursing science.

Research courses are an integral part of all academic level preparation in nursing. At the Master's level, a number of research courses are offered in addition to statistics. At the PhD level, a large number of advanced research and statistics courses are offered to all PhD students within the Faculties of Medicine and Health Sciences. In addition, PhD students in Nursing Science can take advanced courses in their area of specialisation at nationally recognised graduate research schools in the country. Emphasis is placed on multidisciplinary and multiprofessional collaboration in developing and conducting research and publishing results. Courses are usually taught by lecturers in nursing, as well as by lecturers in other disciplines.

Currently, over 1,400 nurses have received an MSc degree in Nursing Science from the University of Maastricht. In addition, around 25 nurses have already obtained a PhD degree and a large number are currently working on their PhD's, many through nationally funded research projects and a few based on university funding.

### **DISCUSSION REGARDING THE INFORMATION PROVIDED BY EACH COUNTRY**

A first topic of general interest for this Working Group was whether nurses should earn a PhD in Nursing or in other disciplines. It was clear that in places where the PhD in Nursing is unavailable, those seeking a research education have no choice but to attend whatever courses are available. It was through such an approach that most countries had made the transition from offering no nursing graduate studies to opening MSc/PhD programmes. Many nurses who enrolled in PhD programmes in education, anthropology, sociology, and public health later helped to create the first nursing programmes.

However, the participants commented that, since most countries represented in our group had specific MSc/PhD programmes in nursing, there was a preference for professionals with this kind of training. Some of the participants who had obtained their PhD's in other fields felt that they had received a very good training as researchers. Furthermore, they valued a different way of understanding nursing issues through an interdisciplinary perspective. Nevertheless, in some institutions not having a MSc or PhD in Nursing became "less acceptable".

A second issue discussed was the question of the type of person teaching research in nursing courses. In some cases, for example in some schools in Israel, nurses teach all research courses including statistics, but more commonly, nurses work in collaboration with professionals from other disciplines, such as medicine, statistics, etc. The problem experienced by some institutions is that other professionals fail to set their research teaching within a nursing context, with the ensuing danger that research courses then become uninteresting and irrelevant to nursing students. This becomes especially problematic if one is seeking to generate an awareness among students undertaking a degree or diploma in nursing as to the relevance of research for the development of the profession.

Commenting more specifically on undergraduate education, the group suggested that, at this level, course content/courses on research should aim at preparing the student for reading articles and understanding basic principles of research methodology. The group also stated that in some countries, research courses were compulsory, while in others they were optional. In some cases, some information was just included within a major course. In general, both qualitative and quantitative methodologies are taught, but quantitative-method studies prevail.

Another element in the debate was the difference between nursing education offered at universities versus technical schools. The terminology is not self-explanatory and the group had to struggle to understand the peculiarities of each country. For instance, although Greeks attending a technical institute do not have automatic access to a university MSc or PhD programme, Finnish nurses completing courses at technical schools can then continue studying in graduate programmes at the university.

Currently, some European countries are debating whether all nursing education should be imparted at university. The group argued that nurses who attend university study to the same standard as other professionals with whom they will subsequently work in clinical and academic settings. This was perceived as positive for the status of the profession. Moreover, the group pointed out that when undergraduate education takes place at the university level, the quota of nursing research in the curriculum rises.

The last point on the first day was that all countries represented in the group seem to be motivated to create and expand MSc and PhD programmes. Moreover, there was an interest in advancing the profession and the social image of nursing through these programmes. Finally, the group believed that the quality of care would be improved through research.

#### **RETHINKING GUIDELINES AND PRACTICES CONCERNING EDUCATION FOR NURSING RESEARCH**

The Strasbourg Guidelines on Education for Nursing Research constituted the point of departure for the discussions of the Working Group on the second day of the Conference. Most participants reported that awareness of the guidelines' existence was extremely low in their countries. Spain and Finland had discussed the document in professional forums. Spain had also published a translated version of the document in scientific journals.

Two criticisms of the Strasbourg document were that in Europe a wide variety of strategies were already in place to foster nursing research education and that the document was too general. Furthermore, one participant called attention to the fact that universities do not necessarily appreciate being told what to teach. However, a different perspective emerged from the group, namely, that guidelines are important to unify strategies among centres promoting and developing research, such as health services, universities and nursing associations. Moreover, European guidelines can be of help to nurses in countries where there has been resistance towards initiatives designed to promote research and graduate studies for nurses. In order to make guidelines more effective, progress should be monitored after the launch of such documents, and the results of the implementation of recommendations should be evaluated a couple of years after the guidelines had been initiated.

A second topic of debate centred on the situation in Spain, where nurses do not have access to graduate studies in nursing. For Spanish nurses, access to research education outside the university is especially important, since university initiatives such as master's programmes are few in number and are not recognised by the Ministry of Education. Another problem experienced in Spain resides in the fact that, since nurses cannot study at a graduate level, research is not covered in the curriculum. Instead, it has to be taught as part of the syllabus of other courses, such as Community Health Nursing or History of Contemporary Thought.

The group moved on from discussing Spain's particular case to a general debate about whether research was a fundamental activity for nursing practice. Consensus was reached on the need to develop evidence-based practice. This conclusion does not mean that most nurses should conduct research. High quality research demands many years of preparation, but clinicians have other objectives in their work, such as providing quality care. However, being able to deliver such care also depends on a permanent search for information to support improvements to such practice. Since the undergraduate educational level does not offer the necessary expertise for nurses to embark upon research projects, becoming a

researcher requires further training at a postgraduate level. In the quest for excellence in nursing research, clinicians and researchers should therefore liaise to provide mutual feedback on aspects emerging from their practice and research that could improve the quality of care.

The group also examined the specifics of developing educational strategies to foster nursing research. Two facts were acknowledged: (a) that educating and training a researcher is a long process which is costly in terms of economic investment and number of years of education, and (b) that the particular features of nursing as a discipline should be taken into account at all levels of research education.

The members of the group asked themselves the question, "Why should we teach research methods to nurses?" The answers were numerous, but concentrated around the idea that "without research, nursing cannot advance as a profession and as a science". To teach research only at the postgraduate level would constitute an elitist approach because only a few students would see the potential of research as a career. Furthermore, teaching research solely to undergraduate students would divide nurses into those who could have access to graduate studies (nurses holding a bachelor's degree) and those who could not (nurses holding a diploma), which would be discrimination. Nurses should enjoy career mobility. They should, if they so desire, be able to take courses that bridge the differences between diplomas and degrees and allow them to pursue a career as researchers.

In terms of teaching methods, the group emphasised that offering a research course for undergraduates was not enough; students should have the opportunity to participate in research projects as well. Currently, research is taught in a concentrated manner, in one or a few courses at the undergraduate level; and sometimes even less is offered to students. The educational experience of learning the importance of research, how to read papers and how to put evidence into practice requires more than a single course. The scientific approach underlying research methodologies represents a critical way of thinking that should be nourished throughout the course of nursing education. It requires analytical skills that ought rightly to have repercussions in the everyday practice of professionals.

Another positive effect of teaching research in a broader way is the possibility of generating the awareness that professionals need to update their knowledge. At a basic level, students should learn from research courses how to access the most recent research publications and systematic reviews. This pragmatic level of teaching can create an important tool for future professionals. All nurses should be prepared to be excellent consumers of research. Teaching research geared to nurses thus democratises access to knowledge.

A difficulty perceived in the process of using research is that, in order to be critical about the quality of the information provided, nurses should properly have training beyond an undergraduate level. At the MSc level, students should be able to criticise the quality of a publication. Critical perusal of a paper demands expertise.

The group commented that with more nurses prepared as researchers, nursing research should become widespread in the healthcare system. If clinical nurses are involved in research, they can generate research questions directly related to practice, and develop projects that respond to the specific needs of patients and professionals. Research-based practice is quality practice. Research should also have an impact on local, mid- and macro-policies, providing information capable of influencing decisions affecting the healthcare system.

The group agreed that the path to such a diversity of settings for research development and the integration of clinical practice, policy-making and research projects, required a permanent link between nursing education and research. Some of the initiatives capable of promoting nursing research include an availability of research courses at all levels of education, opportunity for students to participate in research projects, counselling in planning a research career, development of research centres at health institutions to lend support to clinicians' initiatives, and integration of the community, clinicians and researchers in projects.

## **DISCUSSING YOUNG RESEARCHERS' NEEDS AND FORMULATING RECOMMENDATIONS**

On the third day of activities, the group concentrated on education for nursing research, taking into account the needs of young researchers (defined by the European Commission as those under 35 years of age). The group's perception was that the lack of work opportunities for young researchers would mean that many young professionals in nursing would combine clinical work and occasional part-time research activities. In such situations, it would be important for research topics to be included in the continuing education activities of hospitals and health centres. In addition, the participation of clinicians in research projects might be a strategy to nurture interest in research. Overall, the idea was to narrow the gap between the academic and clinical worlds, so that the fact of being a clinical nurse would not represent a barrier to the development of a career as a researcher.

At the educational level, research should be taught as something closely related to nursing practice. Institutional support should be offered to foster the emergence of young researchers (e.g., grants for students collaborating on research projects). For some countries with recently created PhD programmes, support for young researchers faces an additional difficulty: there are not enough teachers and experienced researchers in nursing to offer guidance to new researchers. One possible solution might perhaps be to have co-operative agreements between European universities over a certain period of time, so that they could share senior tutors and develop collaborative research projects. Another alternative would be to work with professionals that were active in other disciplines in the same country, on interdisciplinary MSc/PhD programmes.

In the case of international co-operation, the group pointed out that language is an important barrier. Usually, nurses do not come from the wealthiest social strata, and many cannot afford language courses. Some faculties translate books and articles for their students, whilst others expect the students to read course work in English. In some countries, the teachers themselves do not read English, and therefore are unable to use major databases to consult the international literature in their fields. Moreover, it is not wise to restrict possibilities of collaboration to English (e.g., Portugal, Spain and Italy could work together by choosing a common language). The U.K. representatives commented that English speakers are poorly prepared to speak a second language.

The group foresaw an easier future insofar as language was concerned, since most countries are now teaching English at school from a much earlier age. The group voiced criticisms of the monopoly of English in science, the way in which non-English speakers were excluded from projects and how difficult it was for speakers of English as a second language to publish in English journals. Nevertheless, they acknowledged that, at the present time, there is no way to prepare young researchers without the use of English.

Another topic of concern to young researchers was that, in some countries, nursing has not been perceived as a science for very long. Thus, some "young researchers" in nursing science are in fact older than 35. Furthermore, many nurses do not begin research training until they have some years of experience as a clinician. Accordingly, the cut-off point of 35 years of age used by the European Commission to provide grants is unfair when applied to nursing.

The group emphasised that a key issue for preparing young researchers is mobility throughout Europe. Nurses should search for centres of excellence in education according to their fields of interest. National barriers should be lowered as far as possible when the education and training of scientists was at stake.

This mobility depends on different initiatives. The first need which the group mentioned was to identify educational institutions according to their designated fields of expertise, quality of education for research, languages accepted for academic work, etc. A Europe-wide survey could generate important information to

those looking for training in research. The second step would be to make the results of this survey widely available via the Internet, universities, research centres, nursing associations, etc. The third step would be to minimise the bureaucratic barriers between countries regarding titles and qualifications, the idea being to compare qualifications rather than degree titles. During the plenary session, a member of a European study group on nursing curricula said that they had concluded that qualifications, number of credits and course content were very similar in all European countries. The differences resided in the title obtained and the place where the course was given, i.e., university versus technical school. Comparing qualifications between universities is also an alternative that would permit cross-border recognition and transfer of credits. Going beyond education, but of equal importance to fostering mobility, was the existence of grants for nurses to pursue education abroad. Studying in a foreign country is expensive and unaffordable for most young researchers.

After educational preparation, young researchers should be incorporated into a national network that would afford them career opportunities. Already existing national and European networks should be attentive to the needs of young researchers. Faculties and research centres should offer post-doctoral positions and fellowships to foster research and job opportunities.

The group expressed concern regarding the agencies that fund research and provide scholarships in the health field. Some mentioned prejudice against nursing research (e.g., projects are not funded when the principal investigator is a nurse). Others commented on the narrow focus pinpointing biomedical projects as the only acceptable form of research project. In addition, qualitative studies seem to experience prejudice from funding agencies. The participants said that because nurses are not represented on many funding agencies, projects relating to nursing research are not taken seriously. Funding agencies are medically dominated and have a very limited understanding of notions of care.

Finally, researchers' mobility depends on the recognition of foreign qualifications once they are back in their home countries, where they are supposed to work. In Spain for instance, nurses holding an MSc or PhD obtained abroad have no recourse to any equivalent Spanish qualification because such degrees simply do not exist in the nursing field.

In order to formulate their recommendations, the group reviewed the three days of discussions with the aim of producing four recommendations on nursing research education. For these recommendations, the group selected issues linked to opportunities for graduate studies in nursing in all European countries, the need for research training at all levels of nursing education and the possibility of collaboration for nursing education among all EU countries (see the Recommendation Section for details).

#### 1.4 Financing nursing research

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#### **PREAMBLE**

The items included in the questionnaire were as follows:

1. Provide a brief historical overview of the trends on funding nursing research in your country.
2. Are there work opportunities for nurse researchers?
3. Considering the main sources of funding for health research, what is the current share of nursing research funds in your country?
4. Which are the most important funding organisations for nursing research? (European/International agencies, national agencies, regional or local agencies, private foundations, alternative sources)
5. What themes/areas are priorities for funding agencies in your country?
6. What are the most frequent themes of nursing research in funded research projects?
7. What has been the impact of the Strasbourg recommendations on the system of funding nursing research?
8. How do you perceive the near future of nursing research funding in your country?
9. What should be recommended so that the current difficulties could be overcome?

The countries that answered the questionnaire were Belgium, Denmark, Finland, Israel, Italy, Spain, Ireland and the UK. A brief summary follows:

#### **Belgium:**

The federal government and the Flemish and Walloon authorities are an important source of nursing-research funding. Usually, the funded research projects are not limited strictly to nursing, but focus on the broader concept of care.

The European Union also funds nursing research projects and, more recently, industry -the pharmaceutical industry in particular- has become an important source of funding for nursing research.

There are very few opportunities for nursing researchers. Within the context of hospitals and home-care, opportunities for working as a clinical nurse specialist, i.e., combining research and clinical work, are rare. At university too, opportunities to work as a researcher are limited, especially as an academic assistant researcher (usually within the realm of preparing a Ph.D.). Nurses (holding a Master's) may be employed as researchers for university or university hospital research projects. Within the government, there are also some nurse researchers employed for the preparation and follow-up of research projects.

Nursing research is funded by the so-called "first money stream", i.e., money allocated to the university for research purposes.

Nurses and nursing teachers can apply for funding to the regionally organised Scientific Research Fund. Committees judge proposals on their scientific value. Medical doctors, who make up these committees, are not familiar with the different methods used in nursing research and tend to overvalue randomised controlled trials, which may not always be the right answer to nursing research questions. No nurses sit on the committees, as there are only a maximum of two places per university.

The most important funding organisations for nursing research in Belgium are:

- The Ministry of Public Health
- Universities
- Health Departments
- Scientific Research Fund

Many foundations specify their domain of allocation as "medicine". The domains were defined at a time when there was no nursing research. Sometimes, they will accept nursing research, but most of the time the specification is such that nursing falls outside the realm of what is financed by the foundation.

In order to secure equal opportunities for funding, it would be advisable for the more neutral research funds, such as the Scientific Research Fund, to have a nursing scholar on committees judging the scientific value of nursing research projects. Concerted actions are called for to raise awareness as to the existence and value of nursing research.

#### **Denmark:**

The Danish Medical Research Council approved a grant of DKK 5 million for nursing research over a five-year period. The grant has been applied to the establishment of two assistant positions at the Danish School of Advanced Nursing.

It has been common for nurses engaged in research to apply for funding from private sources or directly at their place of work.

The Danish Nurses Organisation has funded an MSc. degree and today supports nursing research by granting Ph.D. stipends to nurses.

Lecturers and senior researchers have good research opportunities, but the problem lies in the fact that there are very few nurses with these higher degrees.

The main sources of funding are:

#### **National level**

- The Danish Nurses Organisation
- The Danish Medical Research Council
- The Institute for Technology Assessment: National Board of Health
- The Danish Research Council
- Private funding
- Medical industry

#### **International level**

The Danish Institute for Health and Nursing Research (DINHR), which has been funded by the EU Telematics Programme in Medicine, has developed the INCP project (Classification on Nursing Diagnosis) at a national and local level. The immediate future of nursing research funding in Denmark is positive, thanks to the development of a coherent national strategy for nursing research. The National Strategy for Nursing Research comes up for evaluation in the year 2002.

Recommendations to overcome current difficulties should be as follows:

- Education and funding to assist nurses in gaining research competence
- Increase in the number of Ph.D. nursing students, drawn from the pool of nurses holding Master's degrees in nursing science at health science faculties and research institutions.
- Representation of nurse researchers on research councils, committees and other decision-making research bodies at a local and national level.
- Special possibilities for financing Ph.D. studies through public grants for nurses at the Master's level.

**Finland:**

Possibilities of obtaining funds have improved slightly in Finland. Nursing research is mainly undertaken at five universities with nursing programmes and is funded by the state as part of the university budget. The Academy of Finland funds university-based research. One of the nursing science teachers is a member of the Academy's funding committee.

- Several funds and foundations
- International funding: Nordic and EU funds
- Professional organisations and the trade unions
- Healthcare organisations
- Special state subsidy for developing healthcare systems

Nurse researchers work at five universities. In the National Research and Development Centre for Welfare and Health (*Stakes*), not only are there several nurses working as researchers but there are some leading research groups as research directors. In the biggest hospitals, nurses are to be found working as hospital researchers.

- Some researchers in non-governmental organisations

The number of nurse researchers is smaller than that of some other healthcare professionals.

The most important funding organisations in Finland are:

**European level**

EU

**National level**

The Academy of Finland

**Regional, local level**

Hospitals and healthcare centres, polytechnics, funds and foundations

The immediate future of nursing research funding in Finland: better possibilities to obtain funding for nursing research than before. We have more experienced, better qualified research groups.

Our own funding sources for nursing research are only marginal.

Nurses' funding applications have to compete with other healthcare professionals for the same funds.

Recommendations to overcome current difficulties should be as follows:

- Better applications and research plans
- Larger research groups
- Multidisciplinary research
- Improved introduction of research into practice
- Enhanced dissemination to the public of information on research results

**Ireland:**

Nursing research has a very brief history in Ireland. The main provider of funding for healthcare research is the Health Research Board (HRB), which awards government funding for research. It has an annual budget of 5 million pounds. A very small amount of private funding has been sought for nurses to undertake PhD's (2 nurses). Our regulatory body has sponsored 5 nurses to undertake PhD's in 1998. These awards varied from 7000 to 20000 pounds. The report of the Commission on Nursing (1998) has recommended that specific funding for nursing research be made available (75000 pounds will become available in 1999). The HRB is to appoint a consultant in Nursing Research to assist in promoting nursing research.

There are only 3 nurses in Ireland working as nurse researchers in the Department of Health: one in the Nursing Policy Unit and two on the Nursing Board. There are no Nursing Research Units in Ireland, but 2 academic institutions are developing them. Most research carried out in Ireland is through MSc and PhD studies, the majority not funded. The Health Research Board has awarded small amounts of funding towards MSc nursing students, in that their academic fees are paid.

No nursing research project has been funded through the HRB. At all events, applications for the funding of nursing research projects are few in number. The focus and quality of the proposals have been identified by the HRB as reasons for not funding nursing research. There is no nurse representative on the HRB.

Nurse educators undertake most of the PhD projects, and these tend to have an educational focus as opposed to clinical research.

The different possible sources of funding for research are:

- International funds: Welcome Trust Fund, which in fact gives no funding.
- European Agencies: one project funded by the European Union.
- National Agencies: Department of Health, Health Research Board and North-South Fellowship for Healthcare Research.
- Private Trust Funds: small amount of funding for single projects, and the Nursing Board (*An Bord Altranais*).
- No regional or local agencies fund nursing research.
- Charities not explored for funding.

Nursing in Ireland is undergoing rapid change. From 1994, nurse education moved in the space of 4 years from an apprenticeship model of education to Diploma level. By 2002, basic nurse education will be at Degree level. There has been an explosion of nurses undertaking academic education at Degree and MSc levels. In 1999, there are 10 nurses undertaking PhD's and there is 1 Professor of Nursing.

#### **Israel:**

The history of funding for nursing research projects is rather brief. Over the past ten years, several isolated students received funding for research projects related to their graduate studies. Nurses affiliated to universities have also received funding from their institutions in the form of "start-up" research funds. Within the past five years the Ministry of Health, non-governmental organisations or foundations funded several nursing research projects. However, the number of such studies is rather small.

The vast majority of funding for nursing research is carried out by the department in which the research is being conducted.

Two of the four universities with academic programmes in nursing engage nurses to act as consultants for nursing research projects within their university. Most universities also have university-wide Research and Development Departments, which can theoretically provide support for nurse researchers in finding available funding. However, since the number of nurse researchers is rather small, most of these departments are not familiar with nursing research and are of little help in assisting with locating sources of research funding.

Furthermore, approximately five of the larger hospitals in Israel have also hired nurses to act as in-house nursing research co-ordinators. However there are no dedicated or designated "Nurse Researcher" positions.

Almost all healthcare workers in Israel, including physicians and nurses, are hired by one of the three major institutions which provide healthcare services to the population, namely: the government (through the Ministry of Health); the Sick Funds; and private organisations, such as the Hadassah Medical Organisation. Therefore, whilst basic and clinical research is encouraged, it is considered to be of secondary importance.

The amount of money available for medical research in Israel is comparatively small. In 1997, the Ministry of Health, the largest sponsor of medical research within the country, allotted only \$ 2.1 million to all biomedical research. Few nurses have attempted to apply for external funding. Therefore, the current share of nursing research funds from the main sources of health research in Israel is negligible.

Actual sources of funding at this point in time are rather few in number. However, a list of potential funding sources would read as follows:

#### ***European/International***

Binational Foundations (for example, Germany and Israel), European Union Fifth Framework Programme, National Institute of Nursing Research (United States).

### **National Agencies**

National Health Institute, National Science Foundation, Ministry of Science, Ministry of Education, Israel Cancer Association, National Lottery, Ministry of Defence, Ministry of Environmental Quality.

### **Regional or Local Agencies**

Local municipalities

### **Private Foundations/Alternative Sources**

Other private foundations and private companies such as drug or healthcare supply companies.

In 1998, there was a moratorium of several months during which the Ministry of Health did not transfer funds to research projects that it had already agreed to fund. Therefore, while the demand for nursing research funding will increase, it is believed that the supply of domestic funds from public and private sources may fall. An effort must be made to increase funding on several fronts:

- Nursing leaders in Israel need to approach the managers of known funding sources in Israel and increase their awareness about nursing research.
- Nursing leaders need to organise a clearing house for nursing research within the country.
- Nurses in Israel must collaborate with their colleagues within Israel to create inter-disciplinary teams, which compete for traditional biomedical funding.
- Nurses within Israel must collaborate with nurses throughout Europe and the world, so that they can compete for international sources of funding, such as those to be proposed by the Fifth Programme of the European Union.

### **Italy:**

There are no public funds for nursing research. Some private institutions, the National Federation of Nurses (ISPAVI) or specialist nursing associations sometimes give money for research.

The opportunities that exist are few and are limited exclusively to private organisations. Even so, research is not well financed in any field.

The most important sources of funding for nursing research in Italy are private foundations.

### **Spain:**

Nursing research in Spain has been promoted only recently.

In 1987, the Health Research Fund (*Fondo de Investigación Sanitaria*, FIS), in its role as the main national agency for evaluation and financing, implemented two initiatives to involve nurses in the research field: firstly, the placing of nurses on technical valuation committees; and secondly, the financing of a working group on nursing research. At the same time, the research unit model, designed to boost the research unit network (REUNI), envisages the integration of nurses as basic research staff.

In particular, between 1989 and 1998, 451 nursing research projects (3.13% of the total) were submitted, and of these 34.7% were financed. It has to be noted that the number of nursing research projects submitted for funding has risen during this period, from 55 projects in 1995 to 108 in 1998.

Regional Health Authorities are making efforts in nursing research education and funding. Since the last ICN (International Council of Nursing Congress), the National Nursing Council has given a strong impetus to the development of research projects.

While there are nurses working in a number of research units, they are usually viewed as support staff, doing "technical work" on projects being undertaken by the unit on behalf of other researchers. There are also a few hospitals that have

nursing research managers, but they are usually attached to the education departments.

In the main, research is carried out as an ancillary to patient care, by both nurses and doctors.

Nursing research is not expensive, the mean cost of such projects being lower than that of health research projects.

Roughly 2% of all health research funding is destined to nursing research, and nursing research projects represent over 3% of the financed projects.

The most important funding organisations in Spain are:

**International structures**

There are no available quantitative data on this source of financing, but it can be considered almost negligible.

**National structures**

The Carlos III Institute of Public Health (*Instituto de Salud Carlos III* -ISCIII), which comes under the Ministry of Health, funds health research. As part of the ISCIII, the Health Research Fund (FIS) is the main agency responsible for evaluation and financing of research, although it also carries out methodological support and educational activities. At present, most research projects in Spain are channelled through the FIS but increasing numbers of other financing agencies are beginning to take part in the financing process.

**Regional structures**

Almost all of Spain's Autonomous Regions offer research project financing through their Health Authorities. In certain regions only physicians are eligible for this funding, yet ever more regions are accepting fund applications in cases where nurses feature as the main researchers.

Both national and regional structures are linked to the National Health Service and are financed from public resources.

**Other structures**

Opportunities for funding are also available through professional boards, the drugs industry, health foundations, scientific societies, banking associations and/or other financial entities.

The future of nursing research funding basically depends on the initiative shown by the nursing community itself. Nurses will have to apply for financial help for research projects that, not only meet the necessary standard of methodological quality, but also provide answers to the population's health problems.

Account must also be taken of funding agencies' growing interest in multidisciplinary and multicentre-type projects. Nursing projects will have to be up to the challenge.

**United Kingdom:**

The earliest research projects in nursing within the UK were funded by the Rockefeller Foundation (USA) and commercial companies such as Boots pharmaceuticals. The first two doctorates in nursing within the UK were funded by the Rockefeller Foundation in 1959 and 1961 respectively. Two Boots Fellowships in Nursing Research were awarded shortly afterwards, culminating in the award of a third PhD in 1961 to Margaret Scott Wright at the University of Edinburgh. These were non-recurrent, and little support for research was forthcoming until the Nuffield Provincial Hospitals Trust funded an experimental project in nursing education in 1970, and the Departments of Health introduced Nursing Research Training Fellowships for small numbers of nurses, most of whom completed research degrees.

Shortly afterwards the Scottish Home and Health Department funded the first Nursing Research Unit in the UK in 1971, for an initial period of seven years. This ushered in a phase of government-sponsored support for nursing research development, which was reflected in the first review of research funding in nursing, published in 1985. This revealed that government funding from the Department of Health dominated the funding of nursing research, although the overall allocation was small in comparison with other fields.

Other points were noted: the poor profile of nursing within funding council funding and underexploited 'custom' with research charities. A similar pattern was evident from a more recent survey of doctorates between 1976 and 1993 within the UK. Here the most striking finding is the high proportion of PhD's with no source of acknowledged funding.

Data from a bibliometric study of research publications within nursing between 1988 and 1995 shows reinforcement of this trend. The volume of research with no acknowledged source of funding has remained static at almost 70%, whilst that which has been government-funded has dipped slightly, dropping from almost 20% to 19%. Thus the 'market share' of funding by different agencies has remained relatively static for the period 1988-95. The rise of a national R&D strategy within the NHS may have shifted the position slightly. Nursing has attracted a small proportion of funding. Of more than 6,000 projects on the national project register in 1997, around 91 could be classified as nursing. Taken as a proportion of overall activity, the nursing share represents approximately 1.4% of such projects.

The supply of researchers and research-active and -oriented nurses, depends not only upon funding opportunities but also upon its graduate base and the history of higher education for nurses. Graduates currently represent approximately 6% of the workforce within nursing. University education for nursing has a relatively short history, the first degrees only being established in the early 1960s at Edinburgh, and then Manchester Universities. The numbers who are likely to pursue a career in research are likely to be small and most would combine research with academic and other kinds of positions. Opportunities for training are available however through education and training fellowships provided in each region of the NHS as part of the R&D programme. Some regions have encouraged applications from non-medically qualified staff, and nurses have been successful. Research Councils, such as the Medical Research Council, offer fellowships, which are highly competitive and rarely aspired to by nurses as yet. Work opportunities are also shaped by policy within higher education. The recent 'massive' expansion of higher education for nurses has generated pressure for staff to pursue research degrees. Such pressure is not necessarily matched by a corresponding expansion of funding opportunities or supervision capability. Much depends upon the quality of the local institutional infrastructure. Within the NHS a number of Trusts have established posts for R&D nurses to encourage research activity and appreciation. There are now upwards of 500 such posts and there are several Chairs in Nursing funded by Trusts to encourage research collaboration (between the academic, clinical and managerial arms of nursing) as well as fostering a research- and evidence-based culture.

The main nursing research funders and their relative shares are discussed above. Beyond relative proportions derived from bibliometric analysis, it is not possible to calculate the market share of research funds allocated to nursing in any precise way. Further results will be published in the autumn from the Centre for Policy in Nursing Research, in a Working Paper series entitled 'Performance and Profile of Research in Nursing'.

For further details see: <http://www.lshtm.ac.uk/php/hsru/cpnr/cpnrcont.htm>

### ***General conclusions on the situation in the different countries***

Each country delegate presented answers to the questionnaire. Discussion followed and the main conclusions were:

- it was difficult to establish a direct relationship between the Strasbourg recommendations and funding, and the impact on each country which these recommendations represented;
- what was far clearer was their impact as a lobbying tool for developing and funding nursing research;
- the impact on the different countries was evident at various levels, namely,
  - a) increased awareness; and,
  - b) as a starting point for developing national strategy;

- The most important funding organisations for nursing research were:

***International level***

- To date, the EU Fourth Framework Telematics Programme.
- Henceforth, the EU Fifth Framework Programme
- Many other instances of bilateral co-operation among participating countries e.g., USA with England

***National level***

- This level is the major source of funding
- In general it is open to nurses though some countries have restrictions e.g., PhD.
- Some countries have identified priorities
- Ireland is allocating specific funds for Nursing Research strategies starting later this year

***Regional level***

Some countries that have regional government structures also have funds available for health research, including nursing research

***Private level***

At present, funding from such sources for nursing research was not used to its full potential, probably due to poor knowledge among nurses, and this was in some way matched by under-recognition of the potential of nursing research.

The increasing number of foundations and other private financing organisations should be taken into consideration as potential funding sources, with applications not being limited to public funds.

### 1.5 Priorities in nursing research

<b>Moderators:</b> Pilar Comet (Spain) Isabel Orts (Spain) Ada Sue Hinshaw (USA) Alison Tierney (UK)  <b>Collaborators:</b> Elisabet Gallart i Vivé (Spain) M <sup>a</sup> Jesús Pascau Gonzalez-Garzón (Spain)	<b>Participants:</b> Doris Bohman (Sweden) Mally Ehrenfeld (Israel) Ana Giménez Maroto (Spain) Pilar González Carrión (Spain) Huda Huyer Abu-Saad (Netherlands) Tanya McCance (UK) Ann McMahan (UK) Susana Navalpotro Pascual (Spain) Amaia Sáenz de Ormijana (Spain) Alessandra Zampieron (Italy) Anna Zysberg (Israel)
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#### PREAMBLE

Due to the fact that representatives from all EU member states were not on the Working Group, we are fully aware that the priorities determined at this Euroconference may not necessarily reflect the priorities of all countries in Europe. On the other hand, we nevertheless feel that this Working Group did have a representative panel of experts on the methodology for setting nursing research priorities.

The working group's aims were:

- to build on the Council of Europe report;
- to identify priorities for collaborative nursing research in Europe; and,
- specifically, to focus on priorities likely to attract European Commission funding.

The documentation sent by most of the participant countries, together with additional information provided during the first day of work, furnished knowledge of the current situation in European countries vis-à-vis their nursing research priorities. The situation was analysed around the following series of questions:

**QUESTION 1.** -In your country which institutions have defined research policies and established priorities for nursing research?

Few European countries have defined national nursing research priorities. In most cases, different institutions, mainly universities and hospitals and, sometimes, health ministries, have defined their own priorities relating to their policies, training programmes and so forth.

In the UK, an initiative to establish national priorities for nursing research was started in 1997. The Royal College of Nursing, in partnership with the Centre for Policy in Nursing Research at the London School of Hygiene and Tropical Medicine, introduced an initiative to identify common priorities for research across the nursing, midwifery and health visiting professions. This became known as 'The Nursing Professions R&D Priority-setting Initiative', is being taken forward as a strategic alliance of professional organisations and will be known as the Strategic Alliance for Research in Nursing, Midwifery and Health Visiting (SARN). Perhaps more importantly, in the UK by far the majority of research funds within the NHS budget are devolved to healthcare providers (i.e., hospitals and primary care trusts) to spend on research that is relevant to their local needs. It is therefore essential that nurses are involved in research priority-setting at this local level. In addition to this devolved research funding, large national R&D programmes are funded. These health-related research programmes address issues of multidisciplinary importance, such as Service Delivery and Organisation (a national research programme managed by a nurse) and Health

Technology Assessment (HTA). The HTA programme undertakes a national consultation on research priorities every year and anybody is entitled to participate in this, including individual nurses, nurse researchers and nursing organisations. The HTA programme does not just focus on "technology" but on any intervention aimed at improving health.

In Spain, the Health Ministry's Carlos III Institute of Public Health, working in conjunction with a group of research nurses (Investen-isciii) representing the country's different autonomous regions, has established national nursing research priorities.

In the Netherlands initiatives are under way to develop and consolidate national nursing research priorities. These initiatives are spearheaded by the Centre for Nursing and Care and supported by national authorities dealing with nursing research.

Few other countries in Europe have engaged in national priority-setting initiatives for nursing research.

QUESTION 2 - Which methods have been used to establish priorities in nursing research?

Those countries that have established research priorities have used similar methods, namely, Delphi surveys and consensus and expert conferences. In other countries where a national research policy has not been defined, the local research priorities have been defined in relation to available resources, health policies, demographic changes and technological advances. In certain countries, the medical members of some hospital research committees have defined basic lines of enquiry, which often do not accord with the research projects being developed by nurses.

QUESTION 3 -What are the current research priorities in your country?

The priorities specified by the different European countries are similar, though in many cases the priorities selected are responsive to the agenda of the funding institutions. The common priorities enumerated by most of the countries are: clinical priorities, such as palliative care, chronic diseases, home care, prevention and treatment of pressure sores and leg ulcers; and issues relating to quality of life of vulnerable populations (especially children, women, elderly people). Non-clinical priorities relate to managerial and professional issues, such as continuity of care, ethical and legal issues, in-patient care, effectiveness (cost-benefit balance) and information systems.

QUESTION 4 -What impact have the above-mentioned priorities had on your country?

In most of the countries, the impact of the designated priorities has not been systematically evaluated.

The Nordic countries have detected an increase in the number of researchers, along with growing participation in priority-issue-related research programmes and projects.

Belgium is developing governmental projects with the participation of research nurses, and several hospitals have participated in European projects connected with the quality of nursing care.

One of the consequences of the nursing profession R&D priority-setting initiative in United Kingdom has been a growing consensus as to the methods employed in identifying research priorities. Incorporation of nurses on research committees has increased nursing participation in decision-making affecting health research policy and funding. In the Netherlands, greater stress is being laid on nurse involvement in research programme committees and in the decision-making process regarding the selection and funding of research projects. More nurse researchers are competing for funding and some are proving successful in winning large grants.

QUESTION 5 -What has been produced in terms of research in your country with respect to the proposed priority topics?

Most European countries have increased their level of research training, as reflected in the growing number of doctoral and masters theses and degrees.

In the UK, the English National Board has developed 22 projects based on their defined priorities, and SARN has published a series of research reviews dealing with the targeted priority research areas.

QUESTION 6. - Do funding agencies take into account these priorities or do they tend to establish their own priorities?

Limited research resources in most European countries plus the traditional dominance of medical research have together limited the prominence of nursing research priorities.

In the Nordic countries, there are agencies and national foundations that are increasingly supportive of nursing research priorities.

In the UK, the National Board for Nursing has funded research based on what it sees as its priorities, and the Nursing Research Initiative for Scotland (NRIS) has included nursing research priorities responding to health department consultation exercises.

In Spain, the Health Research Fund (FIS), which falls within the purview of the Health Ministry, will take nursing research priorities into account in the near future.

In the Netherlands, major funding agencies develop their own research agendas, taking national nursing and care issues into consideration. In some cases guest lectures and conferences are organised and nursing input is taken into account in drawing up the agendas.

QUESTION 7. - Please comment on the relationship between national priorities and the European Health Committee Recommendations (Strasbourg, 29<sup>th</sup> April 1996).

There appears to be a limited relationship between the nursing research priorities enumerated in the 1996 Council of Europe recommendations and those being pursued in European countries. This might be due to the fact that the CoE Report has been inadequately disseminated within member states, or simply that member states have not had enough time to implement the recommendations in question.

The Working Group agreed that the CoE Report might arguably focus too narrowly around the WHO "Health for All" agenda, and that while "**promoting health**" and "**self-care**" must clearly be supported as priorities for nursing research in the Pan-European context, it was also essential for nursing research priorities to relate to the nursing care and support of people with **health problems** and to episodes of **illness and hospitalisation**.

For the purpose of this Conference, the Working Group agreed that the boundaries of our priority-setting exercise should not be too wide. It was therefore agreed to **focus on research relating to nursing practice** (including delivery systems) but to **exclude** the fields of education research and management research. It was likewise agreed that methodological and philosophical research should not be considered as priority fields in their own right but, where required, might be included as necessary aspects of substantive priorities in the nursing practice/service field in which we had decided to focus the current priority-setting exercise. The justification for these agreements lay in the view that identified priorities must be seen by practising nurses -and by patients, families and communities alike- as meaningful and credible, and must target, as their primary goal, the attainment of improvements in nursing care quality and outcomes.

#### **Method of work**

The process of priority-setting is complex and difficult and has to be transparent to others. For this reason, the Working Group began by agreeing upon the principles, basic prerequisites and criteria for reaching group consensus on what constituted a *nursing research priority*.

### **BASIC PREREQUISITES, PRINCIPLES OR PURPOSES**

It was agreed that priority subjects for nursing research should be concerned with:

1. Generating knowledge.
2. Attaining the goal of higher quality of care.
  - Meaningful to practising nurses.
3. Reflecting basic philosophical tenets of the nursing discipline.
  - Reflecting nursing's unique contribution to healthcare.
4. Where appropriate, forging explicit links with wider healthcare priorities.
5. Including both deductive and inductive approaches.

### **CRITERIA FOR PAN-EUROPEAN NURSING RESEARCH PRIORITIES**

1. Contribution to science.
2. Related to 'major' healthcare problems and issues (as defined by nursing or other priorities).
3. Related to 'major' healthcare problems and issues of multinational relevance.
4. Judged within a global healthcare context.
5. Cadre of nurse scientists with capability to address the issue.
6. Potential for research results or outcomes to be used by practising nurses or other healthcare providers.
7. Possibility of funding.

### **CRITERIA TO DEFINE A 'MAJOR' HEALTH PROBLEM**

In view of the agreed concentration on 'major' healthcare problems, the group agreed that these be defined in terms of the following criteria:

1. Long-term relevance.
2. Recurrent patterns across multiple countries.
3. Broad application to nursing, other health professionals and global health problems.
4. High percentage of population affected.
5. Impact particularly on the needs of vulnerable populations.

### **CONTEXTUALISATION**

It was also considered important to explain the context surrounding nursing research priorities, and the 'external drivers' in the European context were thus identified as:

- 1.- Reform and restructuring of healthcare systems (in particular the shift in balance from hospital- to community-based care).
- 2.- Demographic trends (particularly population ageing).
- 3.- Increasing emphasis on health promotion.
- 4.- Ongoing technological advance.
- 5.- Increasing demand for clinical and cost-effectiveness in healthcare.

### **PROCESS OF PRIORITY-SETTING**

Once the parameters had been agreed, as outlined above, the process of priority-setting began by generating a list of possible priorities, drawing on those already identified at national level in the Questionnaire or other available sources (e.g., the Nordic Symposium Reference). The list that was generated contained the following topics:

- Major health problems: HIV, CVA, cancer, accidents, mental illness, substance abuse, women's health, child health
- Nursing needs of the elderly population (especially dementia)
- Skill-mix in relation to patient outcomes
- Nursing delivery systems (case management, risk management)
- Symptom management (nursing contributions, critical patients, chronically ill patients)
- Palliative care and terminal care

- Needs and nursing assessment, and healthcare quality issues
- Information resources
- New roles for nurses
- Nursing interventions (complementary nursing therapies).
- Nursing care continuity across different levels
- Nursing support for lay carers
- Promoting healthy life-styles, illness prevention (patient/client education for "Health")
- Rehabilitation measures for patients with chronic illness
- Family nursing
- Access to service: equity (vulnerable population: mentally ill, elderly, refugees, homeless)
- Patients' experiences and end-user satisfaction
- Cost-effectiveness evaluation.
- Community health models (e.g., vulnerable populations).
- Impact of nursing intervention on acute patient's outcomes: acute hospital care, hospital/home balance shift, self-management/care (health and illness).

These priorities were then tested in turn against the agreed criteria (as above) and short-listed. After further discussion, the group finally prioritised the priority list.

These initial priorities were seen to be insufficiently defined. Concepts were excluded and/or included to clarify their meaning and were finally categorised as follows:

## **CATEGORIES**

### **1. Assessment of need**

- Patient/client experience and expectations.
- Lay caregivers

### **2. Nursing intervention**

- Symptom management
- Health promotion
- Illness prevention
- Complementary therapies
- Self-management in health and illness

### **3. Outcomes**

- Quality of care
- Patient and staff satisfaction
- Quality of life
- Clinical effectiveness

### **4. Healthcare reforms**

- Shifting balance of care; continuity of care
- Innovative models of care
- Equity of access
- Skill-mix for acute care

### **5. Major health problems** (HIV/AIDS, CA, CVA, heart accidents and substance abuse)

### **6. Population ageing**

The substantive priorities that were selected from this final list for recommendation to the Conference were chosen on the basis of being:

- broad enough for translation into multinational research;
- focused enough for a targeted, cumulative research effort;
- of evident relevance to the nursing profession and funders; and,
- clear enough to avoid language/semantic problems.



## CHAPTER 2

### SUMMARY OF THE KEY ELEMENTS PRESENTED IN THE FULL REPORT OF THE 1999 EUROCONFERENCE ON NURSING RESEARCH

Organised by Investen-isciii Working Group and Spain's Carlos III Institute of Public Health, the Euroconference entitled "Building a European Nursing Research Strategy" was held in Salamanca, Spain, on 13<sup>th</sup>-17<sup>th</sup> March 1999. The Conference was attended by 92 participants (26 of whom were Young Researcher Grant recipients) representing 14 European countries, the United States and Canada. Read jointly, the reports of the five Conference working groups provide an updated description of practice and trends in nursing research in Europe.

Nurses make a crucial contribution to the delivery of healthcare services, yet they, like other healthcare providers, are facing increasing pressure to demonstrate the end results of their work. There is a widely held feeling that nurses should be committed to providing services that are derived from sound research-based knowledge and empirical evidence. However, nursing research is still in its formative years in most parts of Europe, and in many countries it has only received sporadic or very limited support. In 1996, the Council of Europe initiated a seven-country study on nursing research, culminating in the issue of the Strasbourg Recommendations on Nursing Research.

Allocation of research funds should be on the basis of priorities, and the main purpose of the Conference was thus to strengthen cross-border collaboration among European nursing researchers, to set priorities and ensure that nursing research was in a position to meet the needs of the next century. Not only are conferences convenient discussion forums and a chance for young scientists to meet leading researchers and participate in high-level discussions, but they also provide a platform from which to create an integrated European community of nurse-researchers. As its designated goals, this particular Conference set out to: promote further development of European nursing research and projects designed to shape clinical practice; encourage research on the implications of health policies for nursing workforce development; and extend and forge links between existing nursing research networks.

#### **Current State Of Nursing Research In Europe**

Prior to the conference, a questionnaire was sent to all potential EU participants in order to gather information on the current status of nursing research in the respective countries. Items covered included:

##### **1.1 Structure and organisation of research**

Respondent countries outlined the history, structure and organisation of nursing education (public and private) and practice, as well as the current situation of and perspectives for nursing research in their territories. Differences in educational systems among European countries made difficult to create generalisations on nursing-research support structure and organisation.

A description of the institutional bodies promoting nursing research in the various European countries shed light on structure and organisation at the practice level.

There were specific needs to each country, as well as the following urgent shared needs:

- full integration of nursing research into health services research, at all levels;
- formal academic structure for nursing degrees at Master's and PhD levels;
- clinical positions for teaching staff;

- support for healthcare research groups, so as to help nurses obtain research funding;
- funding for research on effectiveness of nursing care, to ensure the quality of nursing and to develop methods for dissemination and implementation of nursing research findings; and,
- promotion of opportunities for intra- and interdisciplinary collaboration.

During the discussion session, five different levels (European, national, regional, local, and educational) were identified, along with a set of main points to be taken into account in establishing a strategy at each level. It was agreed that implementation of nursing-research would be shaped by a series of determinant factors, namely, co-operation, communication, collaboration, confidence, culture and critical mass.

The group went on to discuss the identity of the persons and/or institutions to which the recommendations should be addressed, along with the timetable for their completion. Due to existing differences between the various countries' administrative systems, it was agreed that individual countries should address the recommendations to the respective organisation or institution having competence in the specific area. Despite the fact that a final timetable for completion of the recommendations was not agreed, it was proposed that a reasonable timetable would look as follows:

European level: Under 2 years.

National level: 2-4 years.

Regional level: 2-4 years.

Local level: 1-3 years.

Educational level: 1-3 years.

## **1.2 Integrating nursing research into practice**

Here, the questionnaire addressed 6 major subjects:

- development of policies and strategies for promotion and implementation of research in clinical practice;
- development of collaborative research projects;
- updating and review of protocols and clinical-practice guidelines in accordance to evidence-based research;
- availability of resources to facilitate access by healthcare professionals to research findings;
- dissemination of the 1996 EC Recommendations; and
- steps to be taken to improve the interrelationship between research findings and clinical practice.

In Europe, policies to promote and implement nursing research in clinical practice were seen to be few in number and inconsistent. The situation differed from country to country, with only two countries where collaborative research projects between universities and healthcare systems were increasing at both regional and national levels.

In most countries, clinical protocols and practice guidelines were drawn up at local, regional and national levels. The same was true for evidence-based practice programmes in nursing. Education and training for evidence-based practice varied enormously, and particularly between "academic" and "practitioner" nurses.

A major problem highlighted by this working group was the difficulty posed by the lack of translation into languages other than English of reliable systematic reviews, clinical-practice guidelines and evidence-based journals. There was all-round support for the creation of a network that would allow for co-ordination and dissemination of translations of evidence-based information relevant to nursing.

Availability of resources was found to be very uneven and dissemination of EC Recommendations very limited in all European countries.

The Working Group's stated objectives were:

- to review the results of the survey as to existing policies and initiatives, preparation of protocols, clinical-practice guidelines, availability of existing resources, and degree of integration of nursing research into practice;
- to identify barriers to integration; and,
- to make recommendations to improve such integration.

For these purposes, the following working definition of "integration of nursing research into practice" was created, namely: *Implementation of the findings of high-quality research shown to improve outcomes for patients, families, communities, and to improve processes that are directly related to such outcomes.* Account was also taken of the context of care, efficacy of implementation strategies, and cross-cultural similarity and diversity.

To improve integration of research into practice, the group called for:

- clinical-practice guidelines, protocols and care pathways based on scientific evidence;
- creation of joint European policies for the dissemination of systematic reviews, in tandem with a Pan-European translation and dissemination network;
- translation of such reviews into different languages as an aid to implementation of research;
- elimination of existing inequalities in human, material and educational resources; and,
- development of strategies to close this gap between "academic" and "practitioner" nurses, while at the same time acknowledging that different levels of research literacy were appropriate to different levels of nurse education.

### **1.3 Education for Nursing Research**

A pre-conference questionnaire was circulated to nurse-representatives around Europe, covering undergraduate and graduate studies, and other research initiatives. Based on the replies, a description of education for nursing research in Europe was obtained.

In the discussion on the information provided by the respective countries, it was commented that the first nursing programmes owed their creation to the many nurses who had originally enrolled in PhD programmes in other fields such as education, anthropology, sociology and public health. However, since most countries now have specific MSc/PhD programmes in nursing, a certain trend had emerged in favour of professionals with this more focused kind of training.

The second issue discussed concentrated on who is in charge of nursing research education in faculties/schools of nursing. In most cases, nurses work in collaboration with professionals from other disciplines (e.g., medicine, statistics, etc.). The problem experienced by some institutions was that these other professionals failed to set their research teaching within a nursing framework.

It was suggested that undergraduate education should aim at preparing the student for reading articles and understanding basic principles of research methodology. In general, both qualitative and quantitative methodologies were being taught, but studies on quantitative methods tended to prevail.

A further element in the debate was the difference between nursing education imparted at universities versus that given at technical schools. This terminology was deceptive and the peculiarities of each country somewhat difficult to grasp. Some European countries were debating whether all nursing education should be centred at university. The group argued that nurses who attended university, studied to the same standard as other professionals with whom they would subsequently work in clinical and academic settings, and that this was positive for the status of the profession. It was also stressed that when undergraduate

education was university-based, there was a corresponding rise in the quota of nursing research in the curriculum.

#### Rethinking Guidelines and Practices Concerning Education for Nursing Research

Awareness of the guidelines was extremely low across Europe. Two criticisms of the Strasbourg document were that a wide variety of national strategies were already in place to foster nursing research education, and that the document was too general. Against this, it was conceded that guidelines were important to unify strategies among centres promoting and developing research.

A second topic of debate focused on the situation in Spain, where nurses do not have access to graduate studies in nursing.

A general debate followed on whether research was a fundamental activity for nursing practice. Consensus was reached on the need to develop evidence-based practice. It was felt that clinicians and researchers should liaise to provide mutual feedback on aspects of practice and research that could improve the quality of care.

The group also examined the specifics of developing educational strategies to foster nursing research, acknowledging this to be a long and costly process.

On asking the question as to why research methods should be taught to nurses, the answer was that, without research, nursing could not advance as a profession and as a science. Nurses should ideally enjoy career mobility; they should, if they so desired, be able to take courses that bridged the differences between diplomas and degrees, and allowed them to pursue a career as researchers.

The scientific approach underlying research methodologies represented a critical way of thinking that should be nourished throughout the duration of nursing education. Another positive effect of teaching research in a broader way was the possibility of generating awareness amongst professionals of the need to constantly update their knowledge.

In short, research-based practice was held to be quality practice.

Research, it was felt, should also have an impact on local mid- and macro-policies, providing information which could influence decisions affecting the healthcare system.

Initiatives capable of promoting nursing research included an availability of research courses at all levels of education, opportunity for students to participate in research projects, counselling in research career-planning, development of research centres at health institutions to support clinicians' initiatives, and integration of the community, clinicians and researchers in projects.

#### Discussing Young Researchers' Needs and Formulating Recommendations

Overall, the idea was to narrow the gap between the academic and clinical worlds, so that being a clinical nurse would not act as a bar to the development of a research career.

There were not enough teachers and experienced researchers in nursing to offer guidance to new researchers. One possible solution might be staff sharing co-operative agreements between European universities.

Language posed an important barrier. In the end analysis, there was still no way to prepare young researchers without the use of English.

Nursing had not been perceived as a science for very long. Consequently, some "young researchers" in nursing science were in fact older than 35, the EC cut-off point for grant eligibility, thereby making it unfair when this age limit was applied to nursing.

A key issue for training young researchers was free movement throughout Europe, which in turn required a lowering of national barriers. Linked to this was the need to identify educational institutions; a Europe-wide survey could be used for the purpose and the results made widely available over the Internet. Similarly, cross-

border bureaucratic barriers to equivalence of titles and qualifications would have to be minimised.

A European study group on nursing curricula had concluded that qualifications, and course content were very similar across Europe. The differences resided in the title obtained and the setting, i.e., university versus technical school. Moreover, true mobility depended on recognition of foreign qualifications once students returned to their home countries.

To foster mobility, more study grants were needed to enable nurses to pursue education abroad.

The group expressed concern regarding research-funding agencies. Participants felt that, due to lack of nurse representation on many such agencies, nursing research projects were not taken seriously. Funding agencies were allegedly medically dominated and had a very limited understanding of notions of care.

#### **1.4 Financing nursing research**

In this area, countries were asked to comment on trends in funding, work opportunities for nurse researchers, leading funding organisations, priorities for funding agencies, impact of the Strasbourg recommendations, immediate future of nursing research funding, and recommendations.

The general conclusions on the situation in the different countries were as a follows:

- it was difficult to establish a direct relationship between the Strasbourg recommendations and funding, and the impact had by such recommendations;
- what was far clearer was their impact as a lobbying tool for developing and funding nursing research;
- impact was evident at various levels, namely,
  - (a) increased awareness; and
  - (b) as a departure point for developing national strategy;
- The most important funding organisations for nursing research at an International level were the EU Fourth and (henceforth) Fifth Framework Telematics Programmes, plus other instances of bilateral co-operation among participating countries (e.g., USA/England).

Not only was the national level the major source of funding but, in general, it was open to nurses, though in some cases restrictions were in evidence, e.g., PhD. Some countries had identified priorities, with Ireland allocating specific funds for nursing research strategies, starting later in the year.

A number of countries with regional government structures also had funds available for health and nursing research.

At present, private level funding was not used to its full potential. This was due, on the one hand, to poor knowledge among nurses, and on the other, to under-recognition of the potential of nursing research. The growing number of foundations and other private financing organisations should be taken into consideration as potential funding sources.

#### **1.5 Priorities in nursing research**

The Working Group's expressed aims were:

- to build on the CE report;
- to identify priorities for collaborative nursing research in Europe; and,
- specifically, to focus on priorities likely to attract EC funding.

Analysis revolved around a series of questions, such as, which institutions had defined research policies and established nursing research priorities, and the methods used to establish priorities in nursing research.

As regards current research priorities in the respective countries, priorities specified by the different European countries were apparently similar, though in many cases the priorities selected were responsive to the agenda of the funding institutions. In terms of impact, it emerged that in most countries the impact had by the priorities had not yet been systematically evaluated.

In answer to a question addressing concrete research undertaken with respect to the proposed priority topics, most European countries reported increasing their level of research training, as reflected in the growing number of doctoral and masters theses and degrees.

When asked whether funding agencies took these priorities into account or tended to establish their own priorities, countries were unanimous on the point that limited research resources in most European countries plus the traditional dominance of medical research had together limited the prominence of nursing research priorities.

The relationship between the priorities laid down by the 1996 EC Recommendations and those pursued by the different countries appeared to be limited, conceivably due to inadequate dissemination.

On the understanding that the boundaries of any priority-setting exercise should not be too wide, it was agreed to focus on research relating to nursing practice. It was further decided that priority subjects for nursing research should aim at:

- generating knowledge;
- attaining the goal of higher quality of care, and being meaningful to practising nurses;
- reflecting basic philosophical tenets of the nursing discipline, and nursing's unique contribution to healthcare;
- where appropriate, forging explicit links with wider healthcare priorities; and,
- including both deductive and inductive approaches.

The criteria for Pan-European nursing research priorities were listed as follows:

- contribution to science;
- related to 'major' healthcare problems and issues (as defined by nursing or other priorities);
- related to 'major' healthcare problems and issues of multinational relevance.
- judged within a global healthcare context;
- cadre of nurse scientists with capability to address the issue;
- potential for research results or outcomes to be used by practising nurses or other healthcare providers; and,
- possibility of funding.

#### Major Healthcare Problems – a definition

In view of the agreed concentration on 'major' healthcare problems, the group agreed that these be defined in terms of the following criteria:

- long-term relevance;
- recurrent patterns across multiple countries;
- broad application to nursing, other health professionals and global health problems;
- high percentage of population affected; and,
- impact particularly on the needs of vulnerable populations.

### Contextualisation

It was also considered important to explain the context in which nursing research priorities were set, and the forces at work in the European context were thus identified as:

- reform and restructuring of healthcare systems (in particular the shift in balance from hospital- to community-based care);
- demographic trends (particularly population ageing);
- increasing emphasis on health promotion;
- ongoing technological advance; and,
- increasing demand for clinical and cost-effectiveness in healthcare.

### Priority-Setting

Once the above parameters had been agreed, the process of priority setting began. Possible priorities were drawn up, tested against the agreed criteria and short-listed. After further discussion, the priority list was then pared down to its essentials. Nevertheless, these initial priorities were seen to be insufficiently defined. Concepts were therefore excluded and/or included to clarify their meaning, and finally categorised as follows:

#### **1. Assessment of need**

- Patient/client experience and expectations.
- Lay caregivers

#### **2. Nursing intervention**

- Symptom management
- Health promotion
- Illness prevention
- Complementary therapies
- Self-management in health and illness

#### **3. Outcomes**

- Quality of care
- Patient and staff satisfaction
- Quality of life
- Clinical effectiveness

#### **4. Healthcare reforms**

- Shifting balance of care; continuity of care
- Innovative models of care
- Equity of access
- Skill-mix for acute care

#### **5. Major health problems (HIV/AIDS, CA, CVA, heart accidents and substance abuse)**

#### **6. Population ageing**

### **Recommendations**

Based on its round-table discussions in the specific topic areas, the Euroconference drafted and passed a number of concrete recommendations to be addressed by governments, nursing associations, managers, educational institutions, quality assessment organisations, research funders, and scientific associations at a European, national, regional and local level. The complete, detailed list of these Recommendations is found in Chapter 3.

## CHAPTER 3

### Recommendations

These recommendations should be addressed to Governments, nursing associations, managers, educational bodies, quality assurance organisations, research funders, and scientific associations.

#### **3.1 Structure and organisation of research**

##### **Recommendation 1:**

###### **EUROPEAN LEVEL**

Committees of representatives from member states to formulate, co-ordinate, implement and evaluate a research strategy.

Actions:

Identifying key European organisations

Developing communication structures

Networks

##### **Recommendation 2:**

###### **NATIONAL LEVEL**

Nursing research is an integral part of the country's health research policy and nurses should be represented in all aspects of decision-making (including priority-setting, funding and capacity building)

**Actions:**

Identifying priorities at a national level

Ensuring that regional levels are represented

Establishing funding agencies in nursing research

Using lobby groups for research in nursing

Communicating the national strategy to other levels

Establishing programmes for disseminating ongoing research (e.g., annual meetings)

Setting up a national database for ongoing projects

##### **Recommendation 3:**

###### **REGIONAL LEVEL**

Identification, development and support for regional research personnel, networks and collaboration.

**Actions:**

Implementation of national policy by identifying areas for nursing research at the regional level

Developing personnel skills for research

Creating networks and collaboration between research groups

Establishing collaboration between regions or cities

Agreements between health and education institutions

##### **Recommendation 4:**

###### **LOCAL LEVEL**

Facilitation of research and the creation of alliances between research, practice, education and management.

**Actions:**

Appointment of research facilitators

Linking researchers and practitioners

Building up nursing research units

Communication between practice and education

Establishing local research committees (networks and formal committees)

Downward dissemination of information from upper levels

Facilitating access to libraries, information technology and expertise in nursing research

Developing a research culture  
Providing time for research and rewarding use of research in clinical careers  
Project quality assessment

**Recommendation 5:**  
**EDUCATIONAL LEVEL**

Research should be integral to the nursing curriculum, with opportunities being made available to those wishing to pursue research for research training and supervision, including the conducting, dissemination and implementation of same.

**Actions:**

Training in critical appraisal skills  
Upgrading the amount of nursing-research-related knowledge at all levels of education (pre- and post-qualification)  
Introducing a common curriculum across Europe.

**3.2 Integrating nursing research into practice**

**Recommendation 1:**

Consideration to be given to the establishment of centres with responsibility for evidence-based practice, which are clinically accessible, co-ordinated, networked, multidisciplinary *and responsive to clinical needs*.

1.1 As a precursor to this, it is important to undertake a scoping exercise to document existing resources in each European country.

**Recommendation 2:**

*More systematic reviews relevant to nursing topics should be undertaken.*

2.1 Education and training: all nurses should be taught how to locate and use systematic reviews. Clinical researchers should be taught to carry out systematic reviews with the involvement of clinical nurses.

2.2 Funding: Governments, organisations, managers should provide funds for undertaking, updating and disseminating systematic reviews relevant to nursing.

2.3 Awareness should be raised amongst nurses as regards the Cochrane Collaboration and other organisations that undertake systematic reviews.

**Recommendation 3:**

*Nurses in all European countries should have access to systematic reviews in their own language.*

3.1 Systematic reviews relevant to nursing should be translated into all European languages.

**Recommendation 4:**

*The effective dissemination and implementation of the findings of high-quality nursing research should be promoted.*

4.1. Countries and organisations should develop and evaluate effective mechanisms for disseminating nursing research.

**Recommendation 5:**

*Nurses should be equipped with the necessary skills for identifying and appraising research for clinical practice purposes.*

5.1. Skills-teaching programmes appropriate to each level of nursing education.

5.2. Suitably evaluated training materials made available in different languages

**Recommendation 6:**

*Governments, organisations and all those who are responsible for planning and funding health policies should promote, reward and implement high-quality research-based practice.*

- 6.1. Barriers in Governments and healthcare systems that block the implementation of research findings should be eliminated.
- 6.2. Projects for the implementation of well-established findings should be funded.
- 6.3. Expertise should be made available for the support, supervision and evaluation of such implementation projects

**Recommendation 7:**

*The development of evidence-based clinical-practice guidelines should be considered where appropriate, but should be accompanied by active implementation strategies, including local sponsorship and adaptation.*

- 7.1. Some centres, groups and institutions should be given the authority to develop and disseminate evidence-based clinical-practice guidelines
- 7.2. Dissemination strategies should be evaluated using implementation as a criterion of success.

**Recommendation 8:**

*Links between clinical-practice education and research in nursing should be enhanced.*

- 8.1. Roles: development of joint roles for practice and research.
- 8.2. Time: establishment of nursing workforce to take account of time for identifying and appraising research, and relevant education and training.
- 8.3. Location of research: encouragement for a number of clinically-based research units enjoying equal status with university units.
- 8.4. Practice development: establishment of practice-development units in clinical areas focusing on the implementation of reliable research findings.

**Recommendation 9:**

*Evidence-based information should be accessible to all nurses regardless of their workplace*

- 9.1. Human resource access to evidence-based information, electronic or otherwise (Cochrane Collaboration, Medline, evidence-based journals, etc.) should be promoted.
- 9.2. Countries should promote accessibility to evidence-based databases translated into their respective languages.

**Recommendation 10:**

*Nurse educators should be responsible for -and rewarded for- teaching research-based information.*

- 10.1. An accreditation system should be promoted for nursing educators, who ought to be experts in research.

**3.3 Education for nursing research**

**Recommendation 1:**

*Nursing research education should be an essential element in nursing education*

**Actions**

1. Courses on research methodology to be introduced within the context of professional training for nurses.
2. All countries to furnish information on nursing research education in order to promote exchange and debate on this topic across Europe.

**Targeted at**

Ministry of Education - Universities - Technical Schools

**When**

Short-term

**Recommendation 2:**

*All European nurses should have the same opportunities for graduate studies in nursing (MSc, PhD) in all countries*

**Actions**

1. All nurses to be granted access to graduate studies.
2. Creation of complementary courses for all nurses currently without access to graduate studies.
3. Scholarships to be offered for education in nursing research.
4. Access to be facilitated to national and international educational programmes for research
5. Information on MSc/PhD programmes in Europe to be systematically arranged according to fields of expertise and quality
6. Creation of strategies to minimise language barriers in nursing research education

**Targeted at**

Ministry of Education – Universities – Technical Schools – Funding Agencies

**When**

Short- and medium-term

**Recommendation 3:**

*Academic qualifications obtained in European educational programmes should be accorded equivalence in all countries.*

**Action**

On granting access to educational programmes, nurses' qualifications rather than mere titles to be compared.

**Targeted at**

Ministry of Education - Universities - Technical Schools - Funding Agencies

**When**

Short- and medium-term

**Recommendation 4:**

*Nursing research education is a progressive process comprising four stages:*

1. Degree/Diploma: promotes critical thinking, the ability to critically appraise research and awareness of the value of research for the overall quality and effectiveness of nursing care.
2. MSc/MN: prepares for the development of research under supervision.
3. PhD/Doctorate: prepares for autonomy in developing research projects.
4. Post-doctoral: consolidates research expertise and teaches how to manage research projects.

**Action**

At all four levels of education for nursing research, research leadership should be encouraged, issues proper to nursing science should be spotlighted and a strong ethical commitment should be fostered.

**Targeted at**

Ministry of Education - Universities - Technical Schools

**When**

Medium-term

**3.4 Financing nursing research****Recommendation 1:**

The European Union, national governments and national and regional nursing organisations should **enhance nurses' overall research capacity** through adequate education, training schemes and the promotion of networks. A clearing house, equipped with updated national and international databases of funding sources, could prove an important support tool in this regard.

**Recommendation 2:**

The European Union, national governments and national and regional nursing organisations should reserve **dedicated funding** -including funds to be allocated to research training and initial research projects for emerging groups- to develop a cadre of nurse researchers. This would be a transitory action, targeting countries having a poor degree of development in nursing research and designed to ensure a minimum critical mass of nurse researchers.

**Recommendation 3:**

Nursing and other research communities, in concert with funding bodies, should negotiate access for nurses to key funding and evaluation committees, and increased participation in peer review activities, in order for them to be **fully integrated into competitive funding arenas**.

**Recommendation 4:**

Nurse researchers should **heighten their profile and performance** in competitive funding, by increasing both the number and quality of applications submitted and targeting key funding bodies. The final goal is to have good quality proposals competing for funds, thereby rendering research quality rather than mere academic qualification the main ground for approval.

**Recommendation 5:**

Research and practice communities should **build coalitions and collaborations**, by establishing interdisciplinary and cross-border networks with key, influential research partners.

**3.5 Priorities in nursing research**

The recommended Pan-European Priorities for Nursing Research which were formulated by the process outlined above and subsequently presented to the Conference, are listed below. They are not shown in any particular order of priority.

- **Effective care and continuity across different settings (hospital and community) for elderly people with health problems.**

The ageing of the population and increasing needs of older people for nursing care are trends which affect all European countries and which are bound to increase over the coming years. The orientation of this research priority towards elderly people with health *problems* simply obeys the need to focus on one aspect of what is an extensive research agenda.

Future European research projects could concentrate on ways to regain and improve upon the lost effectiveness and quality of nursing care, both in the different settings and across the interface between hospital and community care.

- **Effective strategies to promote healthy lifestyles in childhood and adolescence.**

Alcohol, drugs, HIV and accidents are serious health problems in all European countries and generate a high cost for their national healthcare systems. Prevention is the most useful and effective weapon to combat these problems, and the contribution to be made by nursing towards promoting healthy lifestyles is a challenge facing all European nurses. By focusing this research priority on children and adolescents, the benefit of prioritisation will be maximised. Research needs to concentrate on nursing interventions affecting not only children and adolescents, but also those who have prolonged contact and significant influence on them (i.e. parents and educators).

- **Impact of variations in nursing skill-mix on quality, costs of care and patient outcomes.**

In all European countries the costs and impact of nursing are coming under increasing scrutiny. In some of these countries, well-qualified nurses are in short supply, whilst in others, there are adequate numbers of nurses but a considerable variation in the composition of staffing patterns, even in similar situations (i.e., the 'skill mix'). Although research undertaken in Europe to evaluate the impact of variations in nursing skill-mix will need to take account of the nursing education system and professional structure in operation in the different countries, the parameters of study can be consistent in terms of focus:

- Quality of care
- Patient satisfaction
- Quality of life

- ***Effectiveness of nursing interventions for symptom management (e.g., pain, dyspnea, fatigue, anxiety/stress).***

Symptom management is a field of nursing research that is being widely developed in most European countries. It is recommended as a Pan-European priority because early detection and suitable control of the symptoms can greatly improve the well-being of the patient, bring relief and confidence to the family, and significantly diminish hospital costs. Research projects in this area need to consider the psychological as much as the physical aspects of care.

- ***Evaluation of innovative community-based partnership models for nursing and healthcare of vulnerable populations (women, immigrants, and the homeless).***

The special social and cultural norms of some of the most vulnerable populations mean that traditional systems of health and nursing care are inaccessible and/or inappropriate. Nurses across Europe have become actively engaged in developing innovative community-based models of care, working in partnership with vulnerable groups; arguably, it is a matter of priority that the effectiveness of these new models of care be systematically evaluated.

*The priorities that have been recommended will serve no purpose without a firm commitment on the part of the various European countries to favour nursing research in these areas. The following actions are therefore proposed:*

**Action 1:**

Multinational research programmes and projects to be developed. Such development would not only provide a more comprehensive view of the issues, but the results would be more widely applicable, as would their implementation in practice.

**Action 2:**

In addition to the undertaking of new research projects, systematic, comprehensive literature priors to be produced so that available evidence can be disseminated.

**Action 3:**

Groups of researchers and collaborators to be established on a multinational basis around the recommended priorities, so that knowledge can be shared and expanded, and costs spread.

**Action 4:**

European Commission grants to be sought. The development of research on these priorities will only be possible if it is adequately funded.

**Action 5:**

A European-wide communication network to be established, so that information can be shared on projects being developed in line with European Commission research interests. Research results will be better disseminated with the aid of such a communications network, thus leading to a greater likelihood of research being used in practice.

**Action 6:**

The methodology used in the Euroconference to be developed, in order to establish nursing research priorities in those countries in which this process has not yet been addressed.

***In collaboration with:***

- Carlos III Institute of Public Health (*Instituto de Salud Carlos III*)
- Ministry of Health and Consumer Affairs
- National Council of Nursing
- Castile-León Regional Nursing Board
- Salamanca College of Nursing

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