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Academic and professional development of Nursing in Spain: a decade for change

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1. Historic background of Nursing in Spain

Overall, Nursing development in Spain has been similar to other countries. In fact, Nursing and Medicine were not considered an art or a science before the X century, it was considered a knowledge transferred by tradition and it was carried out by people who had a certain ability; this fact let them have essential skills within their society to facilitate life continuity, through the satisfaction of basic needs.

Social and political events and the historical flow in Spain in the latest years produced a negative effect in the professionalization of the care. The waking up of the professional independence that in other countries happened at the beginning of the century did not start in Spain until hardly two decades ago. Within the facilitating factors and reinforced this situation, can be mentioned the following:

Poor recognition of women in the Spanish society and, consequently, of their role.

The marked religious character of the care, focussed on charity and the service to the others, logic consequence of a deeply catholic Spain where religious institutions never left the care of the sick.

The variety of groups dedicated to carry out activities related to care, with different objectives and operational contends, and with a technical approach.

The lack of written information. According to Collière: "Until writing appeared the way of transmission of knowledge and habits was exclusively by oral tradition. With writing, all written knowledge was considered supreme reference" (Collière, 1993).

The training process of healthcare professionals was mainly organised and taught by doctors, promoting submissions patterns and delegated functional contends, subjugated to different interests to Nursing.

The delay in the appearance of Nightingale´s conception in our country, reason why Spain did not have the advantages of the Nursing professionalization.

The Spanish Civil War paralysed all the formative activity and changed the country healthcare needs.

In Spain, it was the religious movement and the pressure of the medical collective which had a strong influence in the beginning of professional Nursing in Spain.

1.1 Legalisation of Nursing in Spain

Although there is not a specific time where Nursing has a clear recognition as profession, it is obvious that there were people dedicated to care.

In the XIX century started a progress in the healthcare assistance and started to secularize the practice of care. Until this moment, healthcare legislation is quite poor. In 1820 the Organic law of Health was promulgated, in 1847 the General Direction of Criminal establishments, Charity and Health was created and the Royal Council of Health (L.O.S, 1820).

In 1855 the Organic law of Health was promulgated, consolidating the General Direction of Health. This law would last during a lengthy period of time because of the difficulties to get an agreement about the new text (L.O.S, 1855). This law does not have any specific references to healthcare professionals until the 9 of September of 1957, through the Law of Public Instruction, specifically on the articles 40 and 41, where for the first time appeared within the legal framework the denominations of Practitioner and Midwifery o "delivery helper" (L.I.P, 1957).

In the Royal Order of the 26 of June of 1986 was determined the studies required to get the Official Qualification. The majority of textbooks used by the first Practitioners were written by doctors of that period, who were also responsible for the accreditation of that knowledge. There were in Spain different manuals orientated to the Medicine auxiliary staff. One of them was especially popular for the Practitioner training: "Practitioner´s Vademecum: manual of minor surgery", written by Juan de Marsillach y Parera, Doctor in Medicine, and edited in 1961 (Marshillach, 1961). It included basic notions of human anatomy, minor surgery, wounds, dentist art and podiatry. This manual was adapted to the orientation set by law.

In 1888, and specifically, in the Royal Decree of 16 of November, was agreed the rules for the careers of Practitioner and Midwifery. On these articles it was specified the condition of auxiliary profession of Medicine for Practitioners, who could still perform some minor surgical interventions and the authorisation of Midwifery professionals to assist only in natural deliveries (R.D, 1888). From this law promulgation and with the Royal Decree of the 10th of August of 1904, the Practitioner and Midwifery studies were organised, specifying that women could access to practitioner training if the meet the requirements set by law (R.D, 1904). The 7th of May of 1915, as a answer to the request performed by the religious order dedicated to carry out nursing care "Congregación de las Siervas de María" and it was recognised the professional activity of those religious or laywomen who had were able to perform nurse care, after having passed an exam of seventy topics related to their studies (R.D, 1915). This was the beginning of a healthcare occupation (Nursing) which differed from the one created in 1857 (the practitioner).

The nurse and the practitioner´s role had similar professional responsibilities and, in theory, a similar training if we compare the programs of this period. Nevertheless, nurses take their studies in Nursing Schools which were generally linked to hospitals and practitioners did their training in Medicine Faculties. On the other hand, midwives had their own centres for training

1.2 Unification of academic qualifications

At the beginning of the fifties, started in Spain a progressive growing at hospital level which caused a big demand of healthcare professionals. To be able to fulfil these new requirements most hospitals created their own Nursing School with the aim of being self-sufficient. It is quite likely that this situation made the national Education Ministry considering the need of organising the Nursing studies. With this purpose they elaborated a decree with date 27 of June of 1952 where the Nursing studies where organised for first time in Spain (R.D, 1952). This decree establishes the unique qualification of healthcare auxiliary facultative, with a fixed duration of three years and with an internship program of practice. In addition, it was described the schools´ regulations in relation to their activity to be able to get the official recognition of the Education Ministry. It was decided that the direction of the Nursing Schools had to be a doctor or University professor, they had to include a person "in-charged" of the School and a secretary of studies, doctors teaching the different subjects, nurses "instructors", an administrator and a chaplain. The official legislation, at the time, supported the subordination and institutionalisation of the Nursing studies in relation to Medicine.

In August of 1953, the study program of the Nursing career was structured. A few months afterwards, a new decree was promulgated the 4 of December of 1953, unifying the studies of the three professions in one to obtain the certificate of A.T.S (or S.T.S, Sanitary Technical Assistant) (R.D, 1953). The Official College of Nursing was still known as "Official College of Sanitary Auxiliaries".

Regarding this new professionals´ orientation, it was mainly focussed on an auxiliary service of the Medicine, highlighting tasks derived from doctors´ role and directly linked to the technical development of that period. Their main tasks were:

1. Drugs´ administration.
2. Assisting Doctors in surgical interventions.
3. Cleaning and assessing surgical wounds
4. Providing support in emergency cases until the arrival of a doctor.
5. Assisting in normal babies´ deliveries, only when there was not a specialist.

According to their role, their training had the following characteristics:

Their basic curriculum was organised by subjects, with a maximum duration of 3 academic years.

The theoretical- practical part of their teaching was obligatory, in the same way than it was emphasised the importance of the clinical practice, being the 80 per cent of the total amount of hours of the program. The three academic years had a total duration of 4797 hours.

The subjects of the curriculum had important differentiations which were linked with the traditional roles assignation to men/women. Men used to study medical- legal autopsies while women were training in household tasks.

During the period that the A.T.S study program lasted, not very long from a historical perspective, it is necessary to highlight the many changes suffered in the formative program, mainly from the curative and technical point of view, organised by doctors with little participation of nurses on their own general training. On the other hand, there was a wide variety of A.T.S Schools, with different tendencies. Despite of the fact that "officially" they follow the same program (according to the ministerial order from 4 of July of 1955 established the criteria for admission and the working rules on each centre), there were

obvious differences in teaching quality in the schools for a wide variety of reasons (O.M, 1955).

In first place, coeducation was banded, existing A.T.S Schools for men and for women, following a regime of internship and a strict control of the practical hours. There were also important differences between the clinical teaching, depending on the healthcare provision and quality of each hospital.

1.3 Consequences of the implementation of the A.T.S studies

The unification of Nursing studies had negative consequences but also positive implications as the following:

The unification of all the professional providing care in only one career

There were higher requirements to get access to these studies, being fixed a minimum of four years of basic high school studies.

Dependency on the Medicine Faculties as professional Schools, considering afterwards, A.T.S studies as the intermediate level (Order of 24 of May, 1963).

The high level of technical competence that the new professionals acquired implied a high value of the profession at the time, which helped to separate the vocational component of it.

Gradually the profession became secular and mixed because the increment in the number of students and the growing demands of the healthcare system.

It was established an obligatory content for the theoretical-practical training.

There was a possibility to continue further studies through the specialization.

After these changes, a number of specialities appeared which development was depending on the medical specialities, including Midwifery, which was a specialisation of the A.T.S studies.

Various decrees regulated the specialities of the Sanitary Technical Assistant:

Obstetric assistance, Midwife (1957)
Physiotherapist (1957)
Radiology and electrology (1961)
Paediatrics and baby-care (1964)
Neurology (1970)
Psychiatry (1970)
Laboratory analysis (1971)
Urology- Nephrology (1975)
Chiropodist (1962)

Although these specialities were developed at academic level, most of them did not have a professional recognition, consequently the specialities training was gradually stopped from 1975.

Between the negative consequences, it can be summarized as follows:

The name used for the new profession (A.T.S), which implied a role centred in helping another professional, rather than having their own responsibilities. This fact caused a step back, highlighting the technical component and losing the own body of knowledge focussed on the person care.

The wide variety of Schools (official, semi-official, privates…) and the diversity of teaching contents and methodology.

The medical approach and orientation of the studies became a doctors´ monopoly.

1.4 Nursing at University

Reaching the University level meant for Nursing to follow a long and complex path, not free from difficulties which lasted approximately during seven years. The General law of Education from 4 of August of 1970, offered two possibilities for its further development: to adopt the Higher Education model of a first cycle of three years or the second option via professional training of second degree (L.G.E, 1970). To resolve this problem, an Inter-Ministerial Commission was created, where all the different Nursing collectives were represented. Their reports were decisive and Nursing profession was more organized and joined than ever, reclaiming a University option. For this purpose, a National A.T.S Coordinator was created.

After this progress, a historical event took place with the publication of a Royal Decree 2128/1977, regarding the integration of the A.T.S Schools as part of the University system as University Schools of Nursing. From this moment, the certificate obtain at the end of the studies changed to Nursing Diploma, recovering by law the initial name that should have not been changed. Entering at University was an enormous challenge for the profession of care, and only from this context was possible to improve the training and to facilitate the scientific and professional development (R.D, 1977).

The immediate consequences of this new situation were:

Elimination of gender discriminations within students.
Increment of the study level required for getting access to the studies.
Possibility of assuming their own roles in relation to research and teaching in Nursing.
Wider and more rationalised contends, re-focussed on Nursing care.
Integration of theoretical and practical more adequate according to Educative demands.
The field of Nursing knowledge was created.

It was decided the number of subjects and the objectives to be included over the three academic years. Each University had enough freedom to design their specific study program with different duration and contends, adapted to the requirements of each region. Overall, the program was provided with a scientific perspective in theory and in practice, facilitating professional training to perform their activity in and out hospital settings. In the same line, a new integral and holistic view of the person was promoted through the study of Human Sciences, including new disciplines related to the person care. The integration of the Nursing studies within the Higher Education System warranted the provision of more resources with the subsequent incorporation of nurses in the teaching field, assuming their responsibility on the training of new professionals, participating also in politics and management of general education.

A new Ministerial order was published the 13 of December of 1978 habilitating this professionals as teachers through a "Venia Docenci", which as a contractual mode provide them permission to teach during one year with options to renovate it. In 1983, the Law of University Reform (L.R.U) had a significant incidence on teachers and on the orientation of the different careers, appearing for first time the figure of University School lecturer, accessing with the Nursing Diploma (L.R.U, 1983). This made possible for nurses who where teaching at that time at the Nursing Schools and had the marked criteria to take a "competence exam". From this moment onwards there were options for nurses to access to teaching posts in the Nursing Schools, being regularly arranged.

Within this context, another significant event of high interest was the Course for exemption from A.T.S studies to Nursing Diploma. This course aimed to solve the differences between

the A.T.S and the Nursing Diploma study program contends and it was provided by the National University of Distance Education (U.N.E.D). This system received many critics from certain professional bodies, which saw the process more as a simple administrative formality rather than a new door opened to new possibilities to teaching and professional development. This process let more than eighty thousand nurses had an University certificate supporting their professional qualification through an innovative teaching method not exempt of problems. Even though, without this method the process would have been slower and more limited.

The presence of Nursing in National structures did not happen until the beginning of the eighties. This meant an important progress because it started a way of participation of nurses in decisions regarding their own future. However, the situation of Nursing in the organizational structure is varied and it has suffered many ups and downs over the last few years, what make us believe that it is necessary more changes, making this participation of nurses in decisive commissions a real fact, as being the more numerous group within the healthcare professions of the health service.

Regarding the post-graduate qualifications, and despite the integration of Nursing Schools in the University structure and the change of the study program, a Ministerial order of the 9 of October of 1980 authorised qualified nurses (Nursing Diploma) to access to the already existing specialities for A.T.S. This was a rare fact of academic organisation which required a re-structured system. Simultaneously, Spain accessed to the European Economic Community, what justified even more the need for reorganizing the number, content and denomination for this Nursing specialities (O.M, 1980). With this purpose, professional bodies and organisations began a national campaign in order to request a solution for the situation from academic authorities.

Finally, through the Royal Decree 992/1987 from the 3 of July (B.O.E 1 of August) the requirements for accessing to the different specialities were set, creating the following:

Gynaecologist- obstetric Nursing (Midwife).
Paediatric Nursing.
Mental Health Nursing.
Public Health/ Community Nursing.
Geriatric Nursing.
Management and administration in Nursing.

In spite of this, during more than twenty five years there were not any directives regarding the study programs of the specialities, excepting for Midwifery (80/154 and 80/156) and Mental Health (which still has not their own professional competences determined) , which were the only two regulated by the directives of the European Committee. As consequence, these Diploma qualification was a finalist study, not having access to a second grade of University studies or Doctorate, what meant an important limitation for the Nursing discipline academic and professional development. As a way to respond to the professional demands, a large number of courses, post-grade, expert courses, masters, etc…started to grow. This was an attempt to cover the need of a specialized training of the Nursing collective.

One of the main objectives of the Law of University Reform (L.R.U) was the adaptation of the Spanish Nursing studies to the new social demands. For this reason, a new process began, finishing with the publication of the Royal Decree 1466/1990 of 26 of October, where

the certificate of Nursing Diploma was established and all the directives related to the requirements to access its consecution.

2. Nursing based on the own discipline

Since more than 5 decades ago, healthcare in the westernized world has made an unbelievable progress demanding the development of important material and human resources, setting priorities in costs´ orientation. This fact makes us wondering about the characteristics that will orientate the health system in the future and which will be the space for Nursing care.

Nursing professionals constitutes a human and social force of a big impact; the number of members is tremendously bigger than other healthcare professionals and their competencies include a wide variety in all the fields related to health. Nurses look after people, manage and research in a flexible and polyvalent way, from an interdisciplinary approach and providing a special, specific and necessary service.

Nowadays, a new way of thinking is possible and accessible to us, orientating a changing world towards a holistic approach. Considering this change, it is important to clarify that the focus of Nursing Discipline is the person´s care (subject, family, group or community) that live health experiences in interaction with their environment and, in line with this, to introduce the wide field of Nursing activities such as practice, training, research and management. Nursing practice is organized around a base of a conceptualization of the discipline orientated to the person´s need: activities performed with the person o for the person, more than activities performed to the person (Kerouac, 1996). These principles are the essence of a new way of care, personalized and adapted to the individual person´s experiences, specific needs of care within their context.

In addition, standardized care can be used as a guide but individualized care adapted to personal characteristics and needs are essential. The creation of a standardized care involves a continued and dynamic data collection to update new and significant health experiences within their environment where they take place, including a reflective analysis to clarify data and to work jointly to design with the client the health objectives. The care offered to a person within a context or where the technologies is highly sophisticated or the services are very specific needs a focused Nursing care, centered on the person recipient of this ultra specific measures, guaranteeing its suitability and managing the different technologies (Mariscal, 1999).

On the other hand, care needs can be demanded by users or named people outside the healthcare settings or even could be offered from the public or private services. It can be extended during a period of time and it can be provided by the same professional and in the same place or by other professionals and within other settings. This is way the importance of promoting its continuity.

Nursing practice, on line with its origin, requires a collaborative work within Nursing professionals and non-professional (auxiliary staff, logistic support, voluntary services, etc) and with family or social network members. For this reason, it is important to determine who and how the different activities are delivered, considering that qualified professionals should be responsible according to their training and the overall needs.

These should be the criteria that guide the utilization of Nursing knowledge and skills, performed by self or delegating it in other member of the team. Acknowledging that health

care cannot be fragmented, would not be appropriate to divide tasks in a static way. The feeling of belonging to a group begins from interactive relationships rather than hierarchical. Nursing interactions with other healthcare professionals are conditioned by this exchange. With the aim of finding the optimal way of promoting Nursing care, nurses are called to lead the cohesion within the members of the Nursing care team. By their specialized knowledge, based on the own discipline, nurses are responsible of the overall process of care, right from the first contact with the person or group until the care evaluation in a cyclical and continue way (Mariscal, 2001).

Traditionally, families have looked after their relatives according to their habits, experiences and culture. Afterwards, with the development of Healthcare sciences, the context where this specialized care happened changed, moving towards the hospital setting and where healthcare professionals replaced family care during their stay in hospital. Within this context, families stopped being recognized as carers and their network of exchanging knowledge disappeared. This situation, anyway, is currently changing, and the trend is to return power and responsibility related to health care to the family. Increasingly, more family members are involved in the care of a person who suffers an acute or a chronic process, fact that force us to reflect about the opportunity of a reorientation of the system towards a self care model in all the different healthcare situations. This situation implies a Nursing intervention not only orientated to the person affected but also to the main carer who frequently has not got enough knowledge and resources to face these circumstances.

The contribution of Nursing practice has been perceived for a long time as a continuity of medical care, especially on those settings where the level of specialization and the technical complexity was higher. Thus, most part of Nursing care seems to be delegated activities coming from medical prescription although as specific services are offered, it can be observed that both disciplines share a common objective: to offer a high quality healthcare services to the population. This requires a new philosophy which allows healthcare professionals to assume their responsibilities and share with competency the wide objectives which would be unreachable if this collaborative work did not happen due to the complex needs and health problems existing combined with the use of invasive technologies, setting new challenges that none of the healthcare professions would be able to overcome by itself because each discipline has their own particular center of interest. Sharing responsibility with others means "to exchange" knowledge along the decision making process and to work together to offer a health care able to fulfill population needs, although the different methods and perspectives could cause different points of view.

On the other hand, the appealing fact of developing activities directly linked with technology has caused confusion around the main object of care, and sometimes this wrong interpretation is still present and occupies most of nurses working time in different settings. Undoubtedly, due to this invisible character of the Nursing care there is a tendency to underestimate our own competencies and because of the difficulty of expressing in words our particular contribution, we see a guaranty of professional prestige in the technical abilities acquisition. Occasionally, nurses and other healthcare professionals can understand and explain the reality in a different manner. Therefore, they will be considered with different perceptions and competencies within the healthcare team. It seems to be necessary to reach an agreement about limits and capacities of each group in a context where everyone tries to share an interdependent role. This interdependency should not mean to

get profit or loss but everyone could access to a potential development and enrichment not only at individual but at collective level.

In the current context of getting the optimal quality, it is necessary to use each professional group capacity within the process. Capacity, autonomy and responsibility are the key factors that characterize each profession need a collaborative approach. This requires the will of working together in the healthcare episode of all the professionals implicated and means the acknowledgement of the interdependency of roles. The practice based on an interdisciplinary and collaborative work implies a dynamic and flexible distribution of authority and responsibilities supported by equity (acknowledgment of equality of each discipline, in an environment of respect and confidence within the professionals). The way of a collaborative work it is sometimes difficult, mainly when the work is developed in places where the tradition has an important weight and is necessary to implement the required mechanisms to support its development. The creation of an interdisciplinary team is a complex process, full of right and wrong decisions, episodes of crisis and indecision related to leadership, decision-making and task management, until an opened and dynamic interdisciplinary is completely set. To achieve this objective the roles need to be: explicit, complementary, well defined with a common orientation to promote professionals´ autonomy, responsibility, competency and positive relationships (Mariscal, 2006).

In addition, as part of the analysis of the offer and demand regarding the services provided by Nursing professionals we cannot forget the following conditioning factors: Nursing practice legislation; poor participation of Nursing in the decision-making process at socio-political level; the under and postgraduate program and its implications in the professional development of competencies; the relationships within the Nursing team members; the care facilitated from different settings and which determines significantly the users´ expectation and contributes to perpetuate old-fashioned patterns of behaviors, unsatisfactory for everyone; and the un-appropriated and extended concept regarding nurses´ role, aspect that affect negatively to our level of autonomy or it can be perceived as threatening by other disciplines (Zabalegui, 2006).

In Spain, this professional group has been forced to take alternative options to be able to fulfill social demands of Nursing services and to achieve an extra qualification, enabling them to assume a bigger responsibility in this offer. This includes new professionals training and academic development, maintaining their competency in the services created and organizing new and innovative projects. It is worth to mention the influence of the intense Nursing associative movement, scientific societies and professional associations with a decisive role in the development and organization of this type of care in all the varieties.

Now, more than ever, is obvious the need of a specific education adapted to these new requirements and social demands on their more innovative aspects, from a wide perspective of interdisciplinary dialogue, aiming to obtain a profile of:

- A generalist nurse able to integrate on their specific and general competencies the following aspects: theoretical knowledge, practical knowledge, abilities and skills, methodological knowledge, teamwork capacity and quick response capacity.
- A specialist nurse trained in the specific care needs of the different health situations, able to plan and manage the totality of specialized care.
- A higher education that guarantees Nursing development at the different academic and research level.

Consequently, the design of Nursing education should include:

To be based on the main concepts of the discipline, a wide and flexible reference framework, where theory and practice interact resolving current problems of asynchrony. Combining the knowing (theoretical knowledge) with the capacity of doing (abilities and skills) and the capacity of being (believes, values and attitudes) that facilitates the acquisition of the required competency for performing the act of caring.

To train for the development of attitudes and a critical thinking that guarantees an adequate clinical judgment and facilitates the establishment of a care system with a humanist, effective and profitable approach.

Not only focused on the knowledge acquisition but also in the professional development.

To keep a lifelong learning, starting from the basic and specialized high education and continuing with constant updating.

To be able to anticipate changes to cover current needs from a prospective point of view.

To distinguish the own and specific contribution within the interdisciplinary context identifying the utility of this service for the global society.

To develop personal autonomy.

According to this perspective, it is necessary to promote a Nursing education where technical learning (including technology and complex technique) as a tool to provide Nursing care and not only as a finality, and the application of interactive methodologies (simulations, problems resolution methods, case study analysis, etc). In summary, it is essential to have access to adequate information, focused on the community and which progressively includes from basic to complex care, from a global to a specific approach. This implies to boost an enriching interdisciplinary dialogue, necessary to resolve the current complex problems that require a wide approach from more than one discipline. In addition, there are other many challenges for the faculty of the new century such us guarantee that learning processes take place in a High education centre, being opened to an interdisciplinary philosophy, facilitating students new vision with a global training right from the beginning of their studies to make possible their future teamwork (Zabalegui, 2002).

As previously stated, the Nursing studies reorganization is well justified, facilitating in a coherent way the continuity between the different formative levels, so students who choose Nursing as career can find several possibilities of development at academic and professional level towards a specialized training, higher education or both, depending on each one expectations without difficulties or limits related to the study or research process.

3. Academic and professional development of Nursing in Spain: a decade for a change

Professional demands and the interest in giving answer to social needs in health within Nursing environment, previous analysis of Superior Nursing Studies programs in the rest of the world and supported by law (R. D. 56/2005 from 21 of January) where official studies were regulated in Spain, the Inter- University Master and Doctorate program in Nursing Science was developed. In spite of the fact that the transition to Grade category was still being discussed in Spain, in September 2006 first Official Master and Doctorate Programs where implemented in different regions, after getting approval. One of them was the Inter-University Master and Doctorate program in Nursing Science in the following universities:

Alicante, International of Cataluña, Rovira i Virgili of Tarragona, Lleida and Zaragoza, and in September of 2007 two more universities joined: Huelva and Almería.

The Master program includes 120 ECTS over two years, where students acquire different competencies basically related to these areas: research, management and leadership, education and advanced practice. It also covers other methodology aspects directly linked with the development of a Doctoral thesis, facilitating a deep analysis of current nursing practice and care as well as applied technology (Zabalegui, 2007). The training program covers objectives and competencies product of transversal learning, from a general and a specific perspective from each subject, and to respond to the current academic development of Spanish Nursing under the existing legislation within the European Space of Superior Education (EESE) framework. Transversal competencies are related to general knowledge, skills and abilities that the student will acquire during their training period, which are integrated in the overall group of subjects. Specific competencies are gradually acquired according to the level of depth provided on each subject contends. The Inter-University profile of the Master program in Nursing Science was developed through an agreement between the eight Spanish Universities which are part of the Network and the Belgian University of Leuven. Likewise, the program guarantees the mobility of professors and students within the eight Spanish Universities and the University of Leuven, obtaining a final Spanish-Belgian academic qualification (Mariscal, 2007). The Inter- University Master program has a common structure of eighty ECTS organized in four areas:

- Area I: Advanced Nursing (38,5 ECTS)
- Area II: Management and Innovation (11 ECTS)
- Area III: Research (22 ECTS)
- Area IV: Teaching (8,5 ECTS)

Each University within the Network has their own bloc of obligatory and optional subjects which represents the rest 40 ECTS. All the optional subjects have a length of 2,5 ECTS and different itineraries can be chosen in any of the Network Universities. After having completed the total 120 ECTS of the Degree, students can get access to the beginning of their researcher process, that will end with the development and reading of their Doctoral Thesis in any of the research fields in which the different Network researchers are able to work on.

Nowadays, more than 15 nurses have already finished their thesis and another 100 graduates are currently doing their Doctorate program in different Universities within the Network. It is necessary to highlight that 16 of these students are graduates from the Master in Nursing Science of the University of Huelva, and they are currently taking the Doctoral program in the University of Alicante, as part of the Network agreement. A part from that, there are around 50 more graduates doing their Doctoral thesis in other related Departments in other Spanish Universities.

The joined Doctoral program stars right from the beginning. Students can choose between any of the research fields that each research group work on in the different universities at individual or team level. The Inter-University and international profile is possible through the agreement between the Spanish Universities and the European background. There is a specific agreement with KU Leuven to recognize the Master Program in all these Universities. A part from the Inter- University Master program in Nursing Science, there are some others Master programs with a professional profile in Spain which has been recently developed in Spain and gets access to Doctorate programs too. This fact has

paradigmatically changed the academic context and the professional future of Nursing (Mariscal et al, 2007).

International agreements aim to support joined projects, perform an continuous innovation of the process, basis and contend of teaching, promote an exchange program between professors and students as well as developing a reference framework to achieve quality and a mutual acknowledge of the work carried out by the students. The mentioned agreement includes the development of joined research fields to promote that graduates from the Master program continue with their academic and research career through the Doctorate program, facilitated by the joined coordination between Spanish Universities and KU Leuven, to be able o achieve the European Doctor title. The mayor impact of this program is clearly expresses by the demand obtained from its´ implementation in 1998 until our days as Official Degree program and Inter- University Network. The access profile is distributed as follows: 15,7% managers; 8,6% researchers and teachers and 75,8% clinical professionals (Macia et al, 2007).

The inter-university collaborative work is especially significant for the scientific development, and, at the same time, guarantees a national and international exchange, and it has been granted by the Spanish Ministry of Education and Science. It is necessary to highlight the importance of teaching networks for the disciplinary development (Mejías, 2006). The current reform, started by the states members of the European Union, including the Spanish system, has promoted network strategies to support knowledge exchange and discussion to facilitate the adaptation to the new ESSE philosophy, based on a comparable and acknowledged university system (Mariscal, 2007).

In the European Union environment, to generate a comparable and flexible system requires different performance strategies. In Spain this strategies are organized as follows:

- A legislative framework commenced in 2003 and finished at the beginning of 2005 with the development of Grade and Degree laws, and currently still in progress.
- An incentive program in Universities to investigate about different teaching/ learning methods to change the traditional teaching perspective at University level.
- The organization of debates and meetings.
- To encourage Inter-University network

The main purposes of this network are (Nuin et al, 2007):

- To create a program to guarantee access and participation in research at doctorate level in Nursing Sciences.
- To keep a discussion forum to promote the development of Nursing science in Spain
- To guarantee professors and students exchange between Spanish and European Universities.
- To increase Nursing´s scientific knowledge.
- To support each University part of the Network to progress in academic recognition.

Nursing discipline, at University level, has the responsibility of development through research and teaching, guaranteeing the quality of official academic programs in different areas and encouraging teaching collaboration within all the areas involved in the Nursing field at the doors of 2010.

4. Development of Nursing knowledge: towards a new paradigm

4.1 The Bologna process

The elimination of the borders among countries, the use of the Euro as a common currency and the mobility of professionals among European Union (EU) countries are some of the most relevant changes in the development of the EU. These significant social changes demand a new University structure, which is taking place through the construction of the European Higher Education Area (EHEA), also known as Bologna process.

In May 1998 the Higher Education Ministers of France, Italy, United Kingdom and Germany signed in Paris the so-called Soborne Declaration on the "harmonization of the architecture of the European Higher Education system". Other European countries also subscribed this declaration and this project was later undertaken by the Confederation of European Union Rectors Conferences and the Association of European Universities, with financial support from the European Commision (agreement nº 98-01-CER-CER-0642-00). In June 1999, 29 European Higher Education Ministers met in Bologna to lay the basis for establishing the EHEA by 2010 and promoting the European System of Higher Education (Mariscal, 2005). The Bologna Declaration involves six action lines:

Adoption of an academic degree system, easy to read and compare, including the introduction of the diploma supplement.

Adoption of a system essentially based on two cycles (undergraduate/ graduate): a first cycle geared to the employement market, and lasting three years, and a second cycle (Master and Doctorate), conditional upon the completion of the first cycle.

Establishment of a system of credits: ECTS (European Credit Transfer System)

Promotion of the mobility of students, teachers and researchers.

Promotion of cooperation in quality assurance.

Promotion of the European dimensions in higher education.

The aim of this process is to make the higher education in Europe converge towards a more transparent system, through which the different national systems would use a common framework based on three levels: Degree/ Bachelor, Master and Doctorate. At present time, the Master is the second cycle and the Doctorate is the third cycle (Maciá et al, 2006).

Within this new higher education paradigm, the Diploma Supplement is a document attached to a higher education diploma aimed at improving international "transparency" and at facilitating the academic and professional recognition of qualifications (diplomas, degrees, certificates, etc). It is designed to provide a description of the nature, level, context, contend and status of the studies that are pursued and successfully completed by the individual, named on the original qualification to which this supplement is appended (R.D, 2007). This Diploma Supplement is produced by national institutions and composed of eight sections (identification of the holder of the qualification, identification of the qualification, level of the qualification, contents and results gained, function of the qualification, additional information, certification of the Supplement, information of the national higher education system)

ECTS credits are numerical values allocated to courses to describe the student workload needed to complete them. As a general rule, one ECTS requires between 25 and 45 hours of student work; whereas, traditionally the concept of one credit has been applied to 10 hours of classroom teaching. The traditional educational methodologies were, most of the courses, focused on memorizing the contents tough in the classroom. However, the ECTS reflects the quantity of work each course unit requires to reach the objectives; that is, lectures, practical

work, seminars, tutorials, fieldwork, private study- in the library or at home- and examinations or other assessments activities. ECTS is, thus, based on the student workload and not limited to teaching classroom hours only. In the ECTS, 60 credits represent the work load of a normal undergraduate academic year of study (between 1500 And 2700 hr of student work), usually 30 credits for a semester and 20 credits for a term. A postgraduate academic year of 12 full months may have 90 credits. The new guideline indicates that classroom teaching could not be higher than 50% of the workload. This new approach poses a great challenge for curriculum development because within each course the time needed for classroom teaching and for other educational activities has to be readjusted. The main goal of this guideline is to engage the student in individual or group activities that include active literature search and analysis with emphasis on critical thinking and problem solving methodologies.

Two years later, in May 2001, 33 European ministers of Education met in Prague to follow up on the Bologna Process and to set directions and priorities for the years ahead. The signatory countries reaffirmed their commitment to the objectives of the Bologna Declaration, appreciated the active involvement of the European University Association and of the National Students´ Union in Europe, and added three more action lines, which are: lifelong learning, promoting students´ involvement in the structure of Higher Education institutions, and promoting the attractiveness and competitiveness of the EHEA to other parts of the world through transnational education.

When ministers met again in Berlin, in September 2003, the 40 participating countries defined three intermediate priorities for the next two years. The first priority was quality assurance by means of defining the responsibilities of the bodies and institutions involved in higher education; evaluation of programs or institutions through internal assessment, external review, participation of students, and publication of results: and building a system of accreditation, certification of comparable procedures, international participation, co-operation, and networking among the European countries participating in the Bologna Process. The second priority was to develop a common framework of qualification for the graduate and postgraduate levels, and the third priority was to develop a mutual recognition of degrees and study periods between participating countries (ANECA, 2005). The Ministers concluded that every graduating after 2005 should receive the Diploma Supplement.

Recently, in May 2005 the ministers met again and welcome 5 new European countries (Armenia, Azerbaijan, Georgia, Moldova and Ukraine) to participate in the Bologna Process. All 45 participating countries share the common understanding of the principles, objectives and commitments of the Process to establish the EHEA by October 1st 2010. The necessary legislative reforms are largely in place at the participating countries, as well as the structural changes on degrees and curricula, and the introduction of the innovative teaching and learning process that Europe needs. The three-cycle system was further defined in this meeting, establishing that the first cycle (degree/ Bachelor) will have between 180 to 240 ECTS credits. The second cycle (Master) will have between 90 and 120 ECTS credits, with a minimum of 60 credits at the level of the 2nd cycle. The third cycle, which leads to the Doctoral degree, will ot necessarily have credits associated with it. Generic descriptors were adopted for each cycle, based on learning outcomes and competencies, and credit ranges in the first and second cycles. Ministers committed themselves to elaborating national frameworks for qualifications comparable with the three- cycle system, and to having

started work on this issue by 2007 (from Berlin to Bergen). Next ministerial Conference was held in London in 2007.

4.2 Nursing Education in the European Union

Until now, the nursing programs designed to enable nurses to practice in their discipline have been subjected to two European Directives regarding the qualifications of "nurses responsible for general care". These are Directives 77/453/ECC of 27 of June 1977 and 89/595/EEC of 10 October 1989, which prescribe that the registration program should be of at least three years or 4600 hours. These Directives do not specify academic status requirements for registration levels and in some countries, such as Germany this registration is not accompanied by a higher education qualification.

A survey on the existing nursing education pathways within the EU (ANECA Nursing, 2005) shows the extreme complexity and diversity of curricular and degree structures in European countries. Among the EU countries the centers of higher education vary widely, including Polytechnics, University Colleges, Schools affiliated to a University, Universities, or a combination of these four structures. In most countries, there is no entrance examination to obtain a work permit, such as NCLEX-RN in the USA. The Diploma title or student´ academic records are enough to register as a nurse and to be able to work in any of the EU countries. Besides, this systems offer limited opportunities for formal academic postgraduate masters and doctoral nursing programs. Moreover, nursing formal education is, in many countries, managed through collaboration between the Ministries of Health and Education. Within the Universities, Nursing Departments may have diverse institutional links, being autonomous, or structured within Medical, Humanities or Science Faculties.

In contrast, the Bologna Process creates a great opportunity for Nursing Education development within the framework of a bachelor or degree as the entrance level, followed by master and doctoral academic recognition all over the EU countries. The European system of Nursing ECTS recognized throughout all EU countries combined with a more flexible academic structure and an increased mobility of nurses, are excellent vehicles by which some of the historical barriers for academic recognition among EU countries are being addressed at the EU level (Advisory Committee on Training Nursing at the European Nurse Regulators) which are also assumed by competent authorities at the national level (R.D, 2004).

The Bologna Declaration recommended that studies should be organized in an undergraduate and graduate levels, but did not provide an indication on their duration. The existing debate among University Rectors, Directors of Nursing Schools and Professional Nursing Associations focuses on the initially proposed model of 3-5-8 years of study and qualifications, requiring a total of 3 to 4 years for the degree level (180-240 ECTS), 5 years total for the master levels (60-120 ECTS), and 8 years total for the doctoral level (with the requirement of having at least 300ECTS before entering the PhD program).

4.3 Tuning Project

In 2000, a group of Universities took up the Bologna Process challenge collectively and designed a pilot project titled "Tuning educational structures in Europe". With funding from the European Commission, the European Universities Association and the National Conferences of Rectors, the initial group of participant Universities has widened to include

up to 16 European countries (Austria, Belgium, Denmark, Finland, France, Germany, Greece, Iceland, Ireland, Italy, Netherlands, Norway, Portugal, Spain, Sweden and The United Kingdom) including 101 university departments. It is expected that the Tunning Project accomplishment will be a land mark for curriculum development across Europe. The name Tuning was chosen for the project to reflect the idea that universities do not look for harmonization of their degree programs or any sort of unified, prescriptive of definitive European curricula, but simply for points of reference, convergence and common understanding. The protection of the rich diversity of European Education has been paramount in the Tuning project from the very start and the project does not seek to restrict the independence of academic and subject specialists, or damage local and national academic authority. Therefore, there is an agreement that allows flexibility and autonomy in the construction of the curriculum (MEC, 2006).

Tuning has undergone two phases. During the first phase the disciplines of Business Administration, Education Sciences, Geology, History, Physics, Mathematics and Chemistry were analyzed. During the second phase Nursing and European Studies were evaluated including as participant countries as: Hungary, Malta and The Slovak Republic in addition to the 16 countries of the first phase. The Nursing Tuning project addresses the Bologna action lines, and notably, the adoption of a system of easily readable and comparable degrees. More specifically, the project aims to identify generic and specific competencies for Nursing graduates at degree, master and doctoral levels. Fostering those competencies is the object of Nursing educational programs. For the purpose of this project, competencies were defined as elements representing a dynamic combination of attributes, abilities and attitudes. Beside, learning outcomes were described in terms of competencies: what a learner knows or is able to demonstrate after the completion of a learning process. Competencies were described as points of reference for curriculum design and evaluation, not as straightjackets.

4.4 Tuning methodology

The project is being coordinated by the University of Deusto (Spain) and the University of Groninghen (Netherlands). Tuning builds on earlier experiences of Socrates-Erasmus Thematic Networks which promote and support inter-university cooperation for the exchange of students and professors among EU universities. More than 130 institutions participated in this project, representing most European countries (Deusto, 2002). During the first phase of this study the participants included 5183 graduates, 944 employers and 998 academics.

During the development of Tuning project, a methodology was designed to understand the different nursing curricula and to make them comparable among countries. A five line approach was chosen that identified:

1. Generic (general academic) competencies such as analysis and synthesis, teamwork, problem solving and decision-making.
2. Subject- specific competencies (knowledge, understanding and skills)
3. The role of ECTS as an accumulation system
4. Strategies to learning, teaching, assessment and performance
5. Role of quality enhancement in the educational process (based on a system of an internal institutional quality culture). Each line was developed according to a defined process. The starting point was updated information about the state of the

art of Nursing education at the European level. This information was then reflected upon and discussed by teams of nursing experts. The work of these teams was validated by related European Networks, which provided understanding, context and conclusions, which could be valid at the European level. All together, this five-line approach allowed Universities to "tune" their curricula without losing their autonomy and their capacity to innovate.

First of all, a group of international nursing experts identified the generic (30) and specific (40) nursing competencies. After that, a consultation was done to nursing graduates, students, employers and academia on the importance of the generic competencies and nursing specific competencies. Each competency was evaluated in two ways, yielding a registration and an academic level of the program of study where the possible scores were: 1 (essential for registration), 2 (desirable for registration), 3 (not necessary for registration) and 4 (competence acquired after registration). Academic ranking defines the level at which each competency should be studied. Besides, the participants evaluated how well their universities develop each competency.

Within this new structure, a Bachelor in Nursing/ Nursing Science will achieve the specific competencies in an academic environment with research affiliation. The bachelor or degree program will include relevant mandatory theoretical and practical components agreed in a dialogue with the recruiters and competent authorities. Up to now, based on the European Directive, 50% of general basic nursing program is composed of clinical practice. The future graduates should possess basic knowledge of, and insight into, the central disciplines and methodologies used in the Nursing profession. These attributes should qualify the graduate to carry out her or his functions and act independently within the area targeted by the study program. Besides, the graduate should be equipped to undertake further work/ practice based learning and, where appropriate, for further study in a relevant professional, second and third cycle program (General report, 2005).

In addition to the competencies, already acquired in the first cycle or Bachelor/ Degree, a Master in Nursing Science/studies will achieve additional competencies via courses of nursing studies situated in a research environment. The graduate will then be qualified for employment in the labor market on the basis of his/her academic discipline (Nursing Science), as well as for further research engaging in PhD programs. The Master graduate will develop his or her academic knowledge and independence so as to be able to apply scientific theory and method on an independent basis in an academic or professional context. If the candidate is studying a Master in the Practice of Nursing, she or he will be able to perform advanced and specialist nursing competencies.

Finally, the competency profile for the third cycle level is defined. A graduate with a PhD in Nursing Science will achieve competencies through a course of Nursing Studies research conducted on an independent basis. Within an international context, the graduate will be able to conduct a research, develop and teach at universities, as well as in other public and private organizations where a broad and detailed knowledge of research in Nursing Science is required. A graduate PhD in Nursing Science will prove to be able to complete scholarly projects through independent analysis. This will be based on an appropriate research method in, or applied to, Nursing and thus will yield research outcomes that equal the international standard for PhDs in Nursing discipline.

5. Conclusions and trends

A process has started for implementing a significant change in Nursing education within the European Union countries, that creates a new European Higher Education structure within the framework of the Bologna Declaration consisting of:

A strong a growing governmental push towards shorter Bachelor/ Degree studies, first aimed at reducing their real duration to their official length.

A marked trend towards more autonomy of universities, coupled with new initiatives for quality control and evaluation.

Gradual adoption of the ECTS credit system. The first-degree level of professional entrance will be the Bachelor/ Degree, eliminating the three year diploma level.

A shift of paradigm: moving from a staff oriented approach to student-centered approach.

A less specialized academic education in the Degree/ Bachelor level, leaving the specialized education for the Master.

An agreement to focus not in years but in credits and competencies with the adoption of a common, but flexible frame of reference for qualifications.

The impact of this novel European higher education structure would enhance European Nursing competitiveness and, thus, help to consolidate its role and influence in the health status of our communities. In addition, it would also make the European Higher Nursing Education more understandable and attractive to students, scholars and employers within EU countries, as well as from other continents.

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