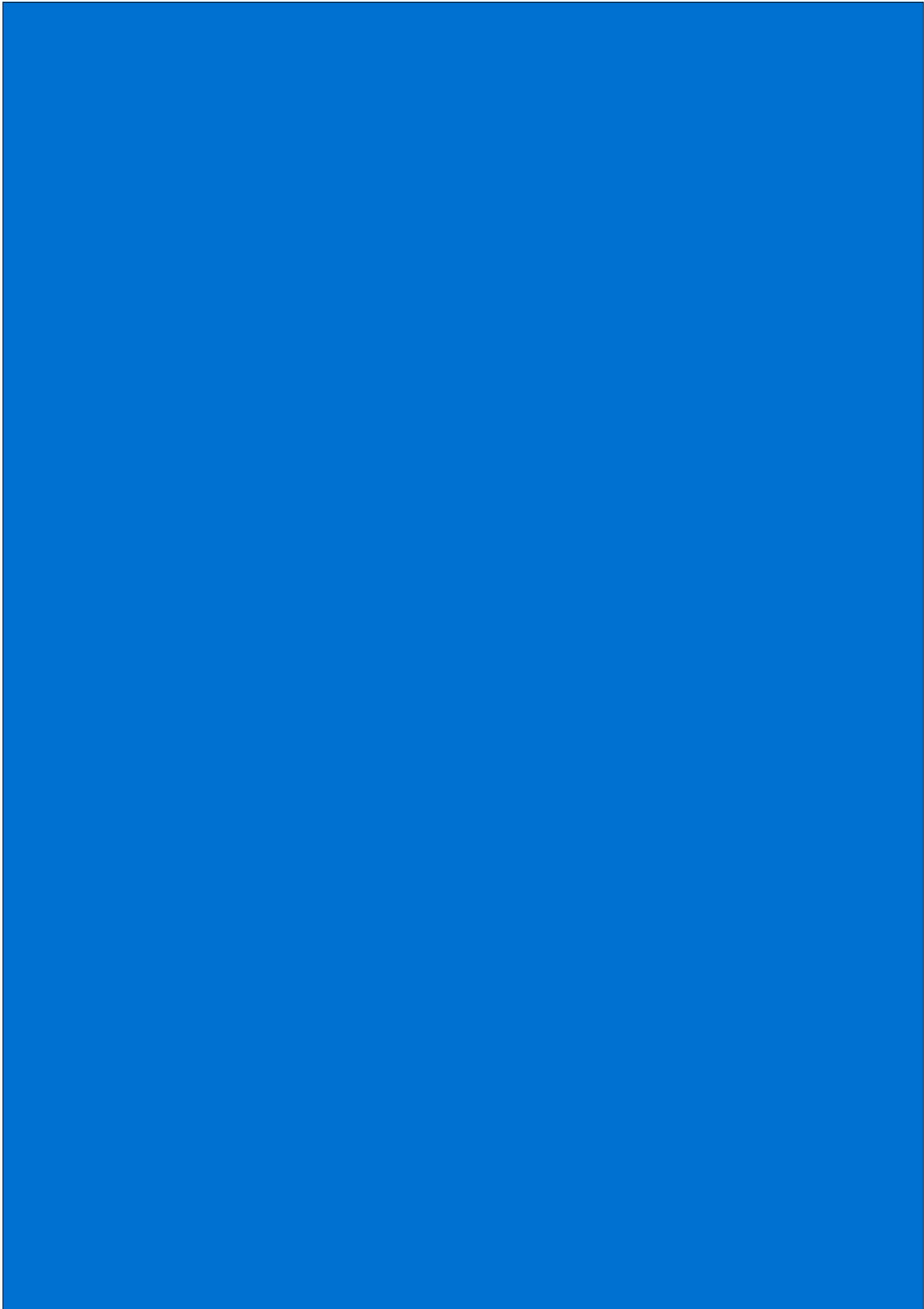
Consell de Col·legis d'Infermeres i Infermers de Catalunya



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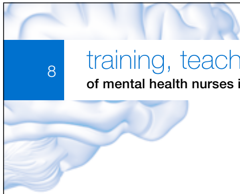

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Prologue

Montserrat Teixidor Freixa
Dean of the Council of Nursing Colleges of Catalonia

In this year's Health Plan Day, "Let's take stock in order to continue making headway", the president of the Generalitat (Catalan Government) pointed out that, in spite of the difficulties that the health system has suffered in recent times, there has been progress in achieving many of the objectives laid down in the Health Plan, stressing, however, that in the field of mental health in Catalonia a lot of effort still had to be made in order for us to be on track.

Some time back now we, the Council of Nursing Colleges of Catalonia, set in motion certain actions aimed at identifying, through a study, the needs of the nursing environment in the field of mental health in Catalonia, and also a piece of research, that today I am pleased to be writing the prologue for, on the training, teaching and research of mental health nurses in Catalonia. Both studies should make it possible to identify the improvement measures, as much in the organisational area and in clinical practice, in training and in nursing research, with the aim of being able to make headway in the personal and professional development of male and female mental health nurses and to ensure best practices alongside those affected, helping them to live through their own health situation.

The following pages are the fruit of the culmination of the effort carried out by the team led by Mr Jordi Torralbas and Mr Alberto Granero, nurses committed to the development of the nursing profession and to people. Their work, performed with competence, dedication and knowledge of daily practice, demonstrates the need to truly activate the nursing specialisation in Mental Health,

specifically by calling for more EIR (Internal Resident Nurse according to the initials in Spanish, henceforth referred to by its Spanish initials) places and by proposing —in full agreement with the Council— the advisability of acknowledging, in practice, the category of mental health nurse specialist. Moreover, the study makes it quite clear that mental health nurses show a good level of motivation as regards training, teaching and research, key issues for the profession. In this sense, L. Aiken (2014) and M. Subirana (2012) highlight the importance of well-dimensioned workforces, but ones which are also made up of well-trained professionals, so as to achieve health results.

We at the Council are very satisfied with the good level of participation in the training that, according to this research, the Colleges offer, which is rated positively. On the other hand, we can glean from this study the need to listen to the voice of the professionals in all those areas in which they participate; this is something which the Council has already forwarded on both to the Department of Health and to the Catalan Parliament through certain interventions (2012-2015). In the section on improvement measures, the study poses the need to include the attitude and practice of research into the daily work of nursing care, providing the teams with the resources, tools and the time necessary to do so. Thus, congratulations should be extended to all those male and female nurses who, up to now, and under unfavourable conditions, have undertaken the challenges of research and training as key elements to their activity of caring, thereby taking on the responsibility for their own professional development.

Likewise, I should also point out that in order to develop research it is also necessary to have institutional support and to be equipped with competent senior researchers who lead the research and give support to the professionals in service, as well as encouraging alliances between research, teaching and care. It is also necessary for the nurse, once having internalised the intervention model, within the framework of nursing thought, to receive professional and institutional support so as to be able to carry out a process of continuous reflection on action. In this sense, the managers have to develop skills and competences in accompaniment so as to provide proper and enriching supervision and to ensure the personal and professional development of the nurses.

Humanism entails ensuring care for the nurses themselves given that it is not possible to humanise care if one does not work within humanised settings.

All these efforts make sense if they are placed within the framework of the values of care, always at the service of people, and if they focus on the promotion of health and the prevention of illness, such that they help one to live through and survive crisis situations, with a clear will towards humanising care.

Humanising care requires institutional and professional commitment, commitment to reflective practice imbued with scientific rigour and humanity together with work on attitude. We are talking about understanding the importance of the ends that we seek, which are health, quality of life and the well-being of people and their families, people who are immersed in situations of great suffering and who sometimes find themselves in circumstances of rejection and dependence, for which reason they need support and solidarity, which, with great sensitivity and respecting their singularity, helps them to truly live through and understand their own situation. They are people and families who need competent professionals, accompaniment, empathy and respect, because what is important is for them to feel acknowledged by the other as an equal: the person has to perceive those of us taking care of them as being genuine, that they truly matters to us. It is only from this position that that one can accompany the other in his emotions and can establish bonds of trust, fundamental bonds, because without trust it is not possible to help the person who is suffering to make his own way, to strengthen his attitude to life.

I should not like to end this prologue without having expressed my gratitude to all the nurses working in mental health for the work they carry out and for their professional commitment. Likewise, I should like to congratulate and pass on my gratitude to all those people who, with their competence and dedication, have made this study possible. I would like to encourage them to continue working with the same rigour and enthusiasm they have shown thus far.

1 Introduction

The Nursing curricula have changed over time, adapting their training programmes and expanding and developing the nursing competences.

In the year 1953 the qualifications and curricula of practitioners, midwives and nurses were unified into that of the Ajudant Tècnic Sanitari (henceforth ATS – the equivalent of a State Registered Nurse), which ended up having new specialisations, including that of Psychiatry (1, 2).

Currently the **qualifications that qualify one to practise nursing throughout the whole of Spain** are ATS (1953-1979), Diploma in Nursing (1977-2012) and Degree in Nursing (from 2009 up to the present day). The step from ATS to Diploma in Nursing meant a very important change in direction and university recognition of nursing studies. On the other hand, the step from nursing diploma to nursing degree has been a relevant milestone for the professional development of nurses[1], for more in-depth disciplinary knowledge and research, which is carried out in the first cycle (degree), as well as in order to be able to continue training with a second cycle (Master's degree) and a third cycle (Doctorate) (3).

The **nursing specialties** originally linked to the training of the ATS stopped being given in the year 1987. The Nursing specialisation in Obstetric-Gynaecological began to be taught again in the year 1994 and that of Mental Health in the year 1998. In the year 2005 the Royal Decree 450/2005 of the 22nd

1 **Nurses.** As with the International Council of Nurses, in this document when we refer to "nurses" it has to be understood that we are alluding to professionals of both the masculine gender and the feminine gender.

April (4) recognises the 7 currently existing specialties[2], amongst which that of Mental Health Nursing.

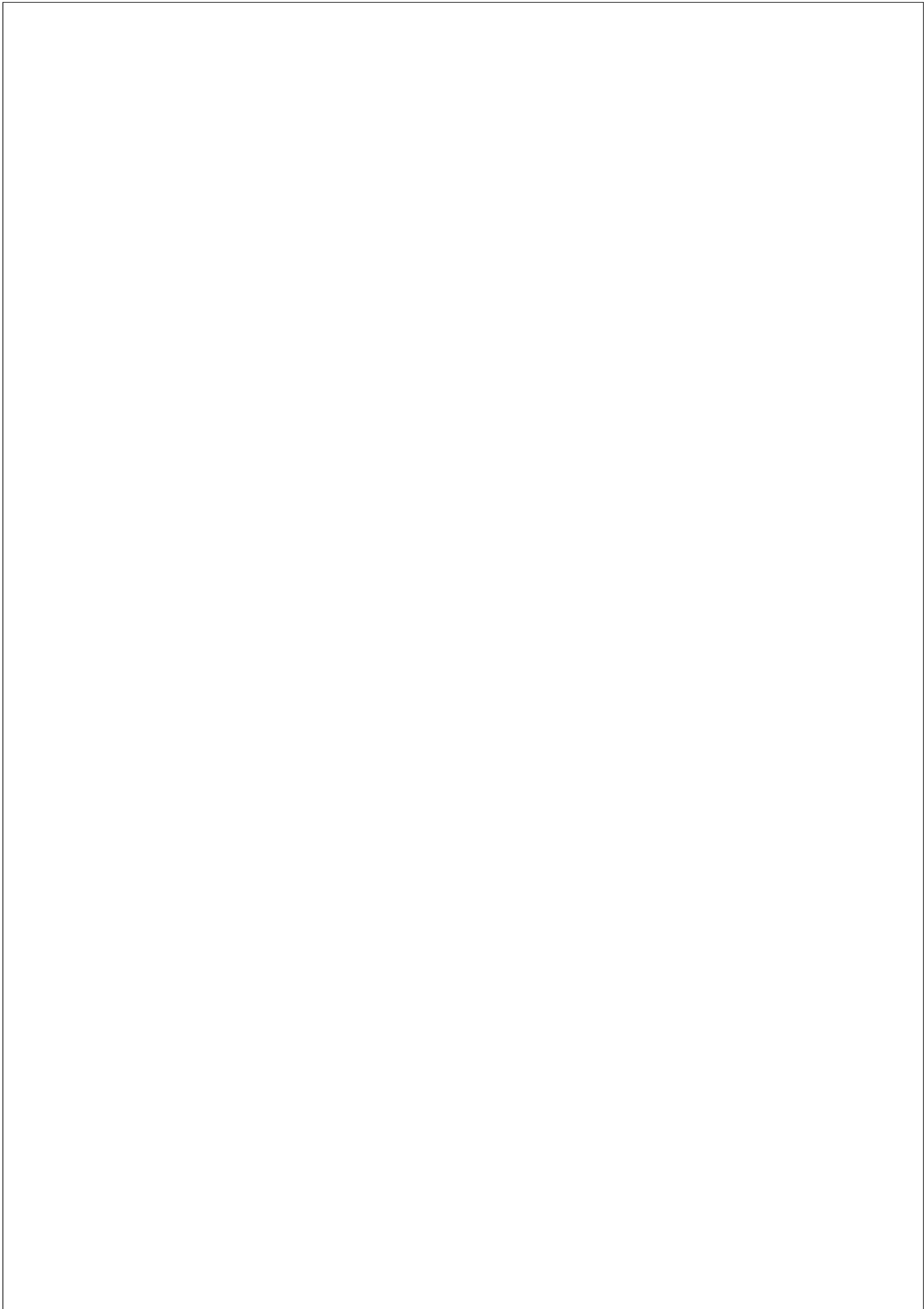
The **changes produced in the degree, postgraduate, doctorate and specialty** training have favoured the development of the profession and nursing competences on all levels (care, teaching, research and managerial).

The modifications incorporated into the first cycle and specialisation training programmes, and the implementation of second and third cycle qualifications, are relatively recent, for which reason it is difficult to analyse, at this time, the impact that they will have on the development of the profession and of the professionals, although it is obvious that it is and will be beneficial.

The academic changes in the nursing qualifications, particularly the implementation of second and third cycle and specialist training, have meant that currently in Mental Health there is a convergence of nurses with different academic profiles and professional career paths.

It is the aim of this piece of research to carry out a diagnosis of the situation thus allowing one to find out what the professional profile of mental health nurses in Catalonia is, what their motivation and participation in training, teaching and research is, and what the resources, limitations, needs, interests or concerns that they have are, so as to be able to draw up proposals, recommendations or improvement measures that are coherent with the current context.

2 The **nursing specialties** currently recognised by the Royal Decree 450/2005 of 22nd April are: Obstetric-Gynaecological Nursing, Mental Health Nursing, Geriatric Nursing, Occupational Health Nursing, Medical-Surgical Nursing, Family and Community Health Nursing and Paediatric Nursing. The training programmes and specific competences of all of the specialties have been developed and implemented with the exception of those pertaining to Medical-Surgical Nursing.



2 Training

Nursing training has evolved over time, adapting, improving and expanding so as to provide a response to the needs of the professionals, institutions, users, families and citizens.

Degree, postgraduate, specialist and ongoing training all show the evolution that the profession has experienced, which has adapted to new teaching spaces and has fostered nurses with the ability for great adaptability to the new scenarios, who give an adequate response to the changing needs of society in relation to health (5), bearing in mind the experience provided for the patient (6).

The basic nursing studies qualify nurses to practise the profession, however nursing training continues throughout the whole professional career, being key to their development. The nurse has to continue training in order to be able to develop professionally, to attain expertise and/or specialisation and to have updated knowledge that allow her to provide personalised, comprehensive and quality care for users and their families.

The *Code of Ethics for Nurses in Catalonia* itself reminds us that “the nurse is committed to the updating of her own competences throughout the whole of her professional career... and to the training of nurses at all levels” (7).

Ongoing training (OT) sets itself up as a constant up-dating tool of this professional commitment, as a right and an obligation, according to the LOPS (Law on the Regulation of Health Professionals - 44/2003 of 21st November) (8), but also as one of the requisites for the shaping of the nurse’s identity (9) within the health system.

Training is a key element in the professional development of the nurse, which will accompany her throughout her professional career path, and which pivots and has a bearing on any of the areas of competence (care, teaching, research and management) (10).

2.1. Degree, Master's degree and Doctorate Training

The European Higher Education Area, through the **Bologna Process** (11), has established a system of comparable qualifications across Europe based on two levels (degree and postgraduate) which are structured into three cycles (degree, Master's degree and doctorate) and which have a common system of credits (ECTS) or European credits.

The current **Nursing curricula** allows one to undertake first cycle (degree), second cycle (Official Master's degree) and third cycle (doctorate) (3) training.

The **Nursing degree** is a 4-year university training course which has 240 recognised ECTS credits, as opposed to the Diploma in Nursing, which lasts 3 years and has, recognised by the Inter-University Council of Catalonia[3], 180 ECTS credits. The degree was introduced in the 2009-2010 academic year and the first class graduated in the year 2013.

The **Master's degree** is a 1 or 2 year university training course that has between 60 and 120 recognised ECTS credits. There currently exist Official Masters which provide the option of doing a doctorate, and also Masters specialising in clinical or professionally-oriented areas.

3 The **Inter-University Council of Catalonia (CIC according to its initials in Spanish)** is the coordinating body of the university system of Catalonia and of consultation and assessment of the Catalan Government as regards universities. In the years 2009-10 it was agreed that 180 ECTS credits could be recognised for all students possessing a first cycle university qualification and that they would have to gain 60 more credits in order to obtain the degree qualification.

Access to the **doctorate** requires the possession of 300 ECTS credits for training in official university studies, of which at least 60 have to be for a university Master's degree containing research elements. The nursing specialisations that are currently being developed also facilitate access to the doctorate[4].

2.2. Specialist Training in Mental Health

2.2.1. Background and Current Context

The specialised training of nursing professionals in the field of mental health has a long history that goes back to the 70s with the creation of the specialisation in Psychiatry. This specialisation was linked to the basic training of the ATS and the training period lasted for two academic courses, which included a theoretical training programme and healthcare practice. With the step from ATS to Diploma in Nursing (1977), the nursing specialties continued to be the same ones until, in the year 1987, nursing specialties stopped being given, amongst which was the specialisation in Psychiatry.

In the year 1998 the specialisation in Mental Health Nursing started to be developed, linked to the university qualification of Diploma in Nursing and currently the Nursing Degree. The specialisation in Mental Health Nursing follows a residential system training model, which is common to the other specialisation programmes for other Health Science professionals (doctors, psychologists, chemists etc.) and it was initially made up of a 1-year training period (1998-99 a 2011-12), which was later extended to 2 years (2012-13) (12).

4 The Royal Decree 99/2011, of 28th January, establishes that university graduates who have been accepted for specialised healthcare training in the Health Sciences and who have passed two years' training with a positive assessment in any of the Health Science specialties are also eligible for the doctorate.

In the year 2005, the Royal Decree of 22nd April (4) recognised the currently existing specialties and it granted the opportunity of access to the **specialist qualification through the transitory secondary or Widening Access entry route** (via excepcional in Spanish), which has to do with access according to vocational training and years of experience, plus a competency assessment test. In the year 2010 the competency assessment test was carried out on the professionals who had applied to do the assessment test for the specialty of Mental Health Nursing.

In April of 2014, the Minister of Health, Social Services and Equality presented the proposal of a timeline for the creation, implementation and allocation of places for the **specialist nursing categories** in the different health services (13). In this document it was shown what the Spanish casuistry was in relation to the creation of the nursing specialist category, after the setting up of the 7 specialties defined by the Royal Decree 450/20005 of 22nd April, and a calendar was proposed for the creation of the different professional categories for the nursing specialties. At the present time the specialisation in Mental Health Nursing is recognised as a professional category in eight autonomous regions, which are: Aragon, Balearic Islands, Cantabria, Basque Country, Extremadura, Galicia, Murcia and Valencia (14).

2.2.2. Training Programme and Competences

The **programme specialising in Mental Health Nursing** is linked to the university diploma or degree training in nursing. The specialisation in Mental Health Nursing is integrated into a common structure called the Multi-professional Teaching Unit, in which the three Mental Health specialisations are grouped (Nursing, Psychology and Psychiatry). The duration of this specialisation is two years, a period in which the internal resident nurse (EIR) carries out work experience in different care centres and programmes, attends structured and planned training activities, attends and participates in clinical and bibliographical sessions and designs a research project on mental health (15).

The current training programme, derived from the new care demands, from socio-cultural changes and from scientific and technological advances, bears

in mind the modification of the concept of health, understood not as an end in itself but as an integral part of personal development, which requires a new approach to care focusing on the individual, albeit healthy or ill, on the family and on the community, also including therein the health concepts of prevention, promotion and rehabilitation.

During the training period the EIR has to develop the **specific competences of the mental health nurse** that enable her to perform the functions in healthcare, teaching, management and research areas. On a healthcare level the aim is to train nurses who provide specialised mental health attention and/or care to individuals, families, and groups, at different levels of action (promotion, prevention, treatment and rehabilitation) and mental health care (total or partial hospitalisation, mental health centres, community, primary healthcare centres, house calls, social institutions —schools, residences, shelters or safe houses— and/or rehabilitation centres).

2.2.3. Access to Resident Nurse Training

Access to residence is done by passing an exam which can be accessed by any general nurse wishing to undertake any of the currently existing specialisations. The mark obtained determines the possibility of carrying out the specialisation.

The **number of places offering specialised healthcare training** is limited. In the year 2005 there were 959 for Nursing, as opposed to 6,102 for Medicine, 264 for Pharmacy and 127 for Psychology (16). The number of registered health professionals per 1,000 inhabitants in the year 2014 was 5.9 nurses, 5.13 doctors, 1.47 chemists and 0.62 psychologists (17).

Table 1 shows the distribution of places offered (Of) and accredited (Ac) for each specialty (Obstetric-Gynaecological Nursing —OGN—, Mental Health Nursing —MHN—, Geriatric Nursing —GN—, Occupational Health Nursing —OHN—, Family and Community Health Nursing —FCHN—, and Paediatric Nursing —PN—).

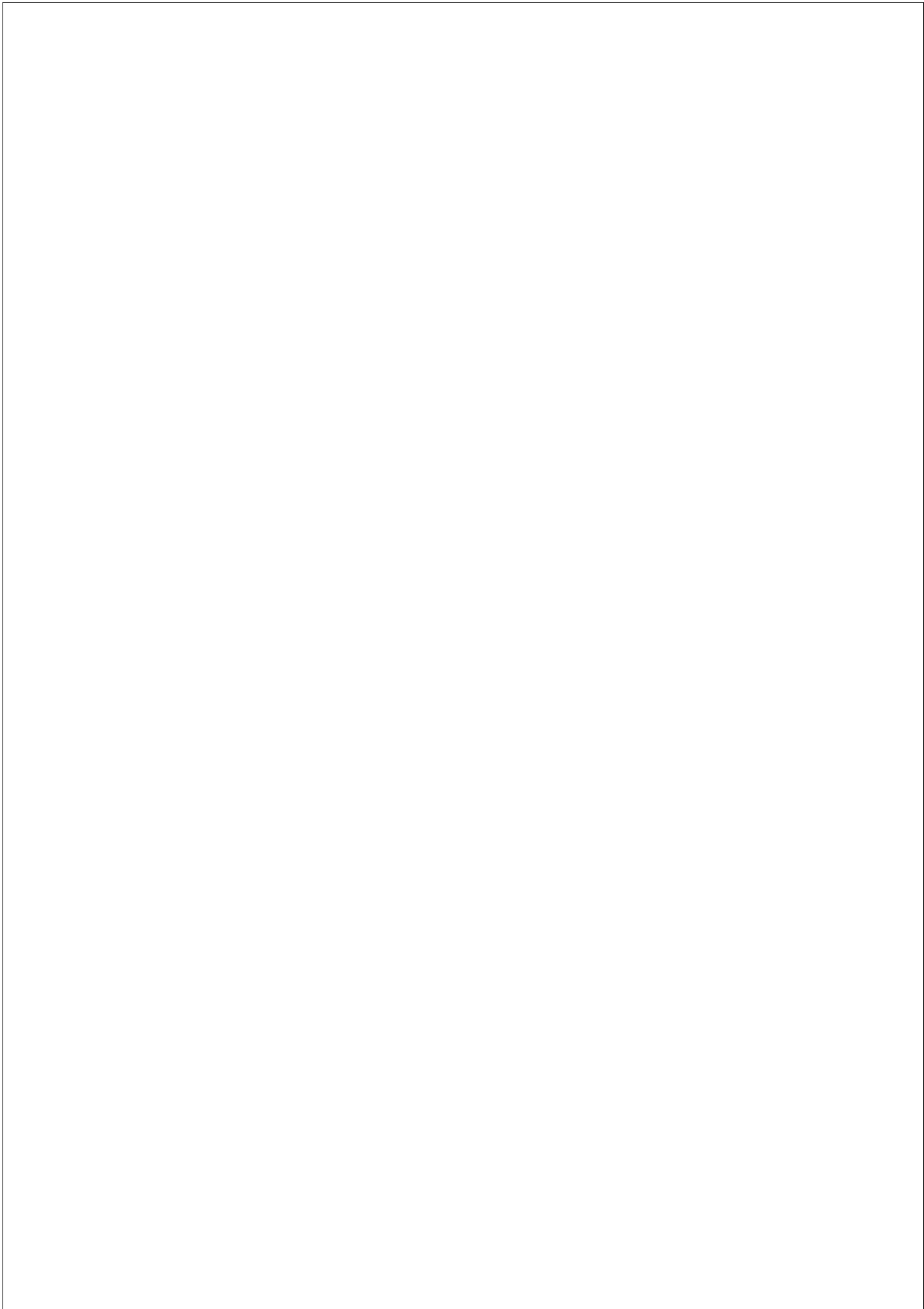
Table 1. *Places accredited and offered, EIR 2015.*

	Spain	Catalonia		Barcelona		Gerona		Lerida		Tarragona	
	Of.	Ac.	Of.	Ac.	Of.	Ac.	Of.	Ac.	Of.	Ac.	Of.
OGN	374	71	60	52	43	9	8	3	3	7	6
FCHN	267	111	37	93	29	10	6	8	2	0	0
MHN	**181**	**48**	**30**	**37**	**24**	**5**	**2**	**3**	**2**	**3**	**2**
PN	107	24	15	23	14	1	1	0	0	0	0
GN	11	2	0	2	0	0	0	0	0	0	0
OHN	19	0	0	0	0	0	0	0	0	0	0
Total	**959**	**256**	**142**	**207**	**110**	**25**	**17**	**14**	**7**	**10**	**8**

2.3. Ongoing training

Professional knowledge and competences have to be up-dated in relation to organisational and functional changes and to scientific and technical advances, in accordance with continuing professional development strategies. In this sense the ongoing training activities allow professionals to remain up-to-date and allow for their professional development (18).

Ongoing training for nursing is broad and diverse. It is organised in healthcare and university areas, professional colleges, scientific societies and other educational centres. The White Paper on Healthcare Professions in Catalonia indicates the advisability of reaching an agreement on accreditation systems for activities and for provider centres, as well as boosting learning methodologies aimed at the improvement of knowledge, skills and attitudes, prioritising active and global training methods (19). The types of ongoing training have evolved. Currently professionals have classroom-based, blended-learning and online activities at their fingertips.



3 Teaching

3.1. Background and Current Context

Teaching is one of the four pillars of nursing, together with care, research and management. Teaching has two dimensions, the training of professionals and/or nursing students and healthcare education for users, the family and the community.

Delivering university education has, for decades, been a difficult challenge to attain for nurses because they were not graduates. This meant that nurses sought alternative training possibilities in order to be able to participate in university teaching (20). Nowadays the possibility of undertaking degree, Master's degree and doctorate training eliminates the difficulties and limitations that have previously existed.

The teaching participation of nurses has a wide range of possibilities. The most common is the teaching given to nursing degree and/or postgraduate students during clinical practice; however they also intervene as educators in ongoing training activities and in graduate and postgraduate university teaching.

Participating in the teaching of any nursing training activity, whether it be university teaching or not, **allows for and guarantees the transmission of nursing knowledge** with the unique vision that the profession offers us, with an exclusive view that helps to uphold the motivation for learning in the discipline itself and in its development.

The current social, economic and scientific changes have forced the educational transformation, with the aim of guaranteeing its quality and pertinence

(21-24). These changes have led to **modifications in the teaching paradigm**. Since the establishment of the Bologna Process (25), there has been a change of direction in university teaching in general. The educators have ceased to exercise their traditional role of transmission and instruction in order to go on to become knowledge managers and conflict mediators. The role of educators currently goes way beyond being learning facilitators, such that they have to incorporate new strategies that allow pupils to learn from different kinds of knowledge, that they assimilate it and reach free thought which increases their critical and reflective ability in order to be able to build what they want to be and do in the future (26-29). This change in the teaching paradigm is applicable to the training of professionals, patients, families and citizens.

The adoption of this new approach and the fact of working in a dynamic environment in which man is understood as a holistic and ever-changing being, means breaking with educational traditions and with individual training, going over to an inter-disciplinary training that helps to face complex problems (30-32). **Teaching tools** have, therefore, also changed and now the master class, in which the educator transmits his knowledge unidirectionally, is not the only thing used, but rather there is an exchange between the teacher and the pupil, in which more proactive and gratifying teaching methods than the simple transmission of information from the transmitter to the receiver are employed (30, 33-36).

These techniques can be used with pupils, patients or professionals. What they have in common is that they are more interactive learning techniques, where the educator is not the generator of knowledge. In teaching, employing standardised patients (37), simulation (38), case resolution (39, 40), debate forums, the use of images (videos and films etc.) and clinical practice are tools the use of which is spreading due to their flexibility, utility and because they permit the acceleration of the learning process (38). In health education (as much individually as in groups or in communities), the use of the new technologies (Twitter, Facebook, YouTube, Skype and so on), educational workshops, the use of images, debates, role playing and simulation are tools that are being employed in the teaching-learning process. Lastly, one must not forget that nurses also develop the teaching function amongst the professionals themselves, both of the team and of the profession, through clinical nursing sessions (41) or within ongoing training courses.

3.2. Teaching Mental Health Nursing

The teaching intervention of mental health nurses in healthcare education activities, aimed at users and families, are commonplace interventions.

University teaching (degree and postgraduate) and in ongoing training activities is a defined and valued aspect for the professional promotion and development of nurses. Even so, the participation of mental health nurses in university teaching and in ongoing training activities is not usual in a large part of these areas, a fact that is attributed to various different reasons, like for instance the lack of motivation, of opportunities, of knowledge, of skills and so forth. Whereas there is a long tradition in the practical training of degree, postgraduate, specialisation and vocational training students.

4 Research

4.1. Background and Current Context

Nursing research, in the same way as teaching, is one of the four basic pillars of nursing, because it is a tool for the professional and an intrinsic and necessary competence for the development of their day-to-day work. Research allows one to go more in-depth into and to consolidate core aspects of the profession, to construct one's own specialised knowledge, to qualitatively improve nursing practice, and to contribute towards the development of professionals and towards the growth of the profession. Research helps nurses to understand the reality around them better, to act reflectively and with knowledge, to resolve everyday problems, to provide a response to needs, to guide decision-making and to innovate (42, 43).

Nursing research also contributes towards improving the social image of the profession itself. The collaborative role that nurses have adopted in the past has often masked the indispensable contribution that they have made, such that the successes achieved have only been recognised on a handful of occasions. This situation began to change when nurses started to lead, carry out and disseminate nursing research, with which one could visualise the positive impact that nursing practice and care have on the improvement of the quality of life of the population, as well as its positive repercussion on an economic and social level (44, 45).

Research learning and practice are key elements in the training of nurses, as necessary instruments for professional practice. Nurses have to investigate in order to know more, to understand better, to expand upon and improve the body of scientific knowledge, and to go more in-depth into an

autonomous professional practice that contributes towards the improvement in the health of citizens (46).

Nurses are the professionals who have to generate the knowledge necessary for nursing practice, not separating practice from investigation, because it is precisely the nursing practice that is the object and the end goal of research. Nursing research has to grow within the heart of healthcare, teaching and management, consuming and generating new knowledge that permit the construction of a portfolio of services based on the best evidence possible (45).

Nursing research, which for years has been making headway amongst nurses, **is currently a tangible reality**; fruit of the effort and work carried out by universities, professional colleges, scientific societies, healthcare research institutes, research groups and networks and professionals (47, 48). On the other hand, the possibility that over the last few years nurses have been able to undertake second cycle (Master's degree) training with access to the third cycle (doctorate), without the need to carry out other university degree studies that permit this access, has contributed to the development of the investigative function of nurses.

Nurses are becoming more and more aware of the need to generate and consume scientific knowledge, abandoning the simple construction of the body of knowledge stemming from tradition and experience, which constitutes a source of internal evidence. Individual research carried out in the past is becoming more and more scarce: for several years now the need and opportunity has been seen to set up **research networks with nursing care research groups** that permit the joining of forces and resources, the centralising and dissemination of information and scientific nursing knowledge, the broadening of participation and the exploiting of synergies. These networks and research groups have grown and consolidated over time (49).

In spite of all the advantages and opportunities that nursing research generates, different authors identify **difficulties, barriers and drawbacks**, like for instance the lack of time, motivation, support of the management structures of the organisations, backing of co-workers, financing, staff and methodological knowledge (50-54). Dr Carme Fuentelsaz is of the opinion that "the only way

to face up to these obstacles is to firmly believe in the need for research, in the need for results that can be translated into clinical practice" (55).

Even though a consensus exists and the need for nurses to provide quality, cost-effective healthcare can be seen, **limitations** are shown that do not favour nursing research and the integration of this activity into the usual healthcare work is seen to be lacking (56).

This makes one think that, if one wishes to overcome the existing obstacles and to manage to boost nursing research, **what is required is that the institutions and their managers improve the existing resources and the infrastructures for carrying out research and that they give support to the development of research projects**. On the other hand, motivated and interested professionals are needed to continue investigating and advancing in the management of nursing care with the aim of being able to achieve high levels of efficiency and of quality in nursing practice (57).

The **type of research** carried out in which nurses have traditionally participated has, fundamentally, been quantitative, but over recent years a progressive increase has been observed in qualitative and mixed research. The use of one or the other or of both methodologies depends on the dimension that we aim to approach, more quantitative if we wish to analyse the facts and more qualitative if we wish to analyse the meanings (58-60).

The dissemination of the scientific nursing output is an aspect to be improved. A great part of this output is limited to dissemination in areas with reduced audiences, such as the bibliographical sessions and/or clinical sessions of institutions, oral communication and/or poster sessions in open days and congresses, round tables, papers and conferences etc. A small part of the scientific nursing output is published in Spanish nursing journals, the majority lacking in an impact factor (IF), such that the publications carried out in specific nursing journals, or of other fields, with an impact factor (61-63), are scarce or practically null.

If we want nursing research to be known, valued and to have an impact on the scientific community, it will have to reach a greater number of people, and to

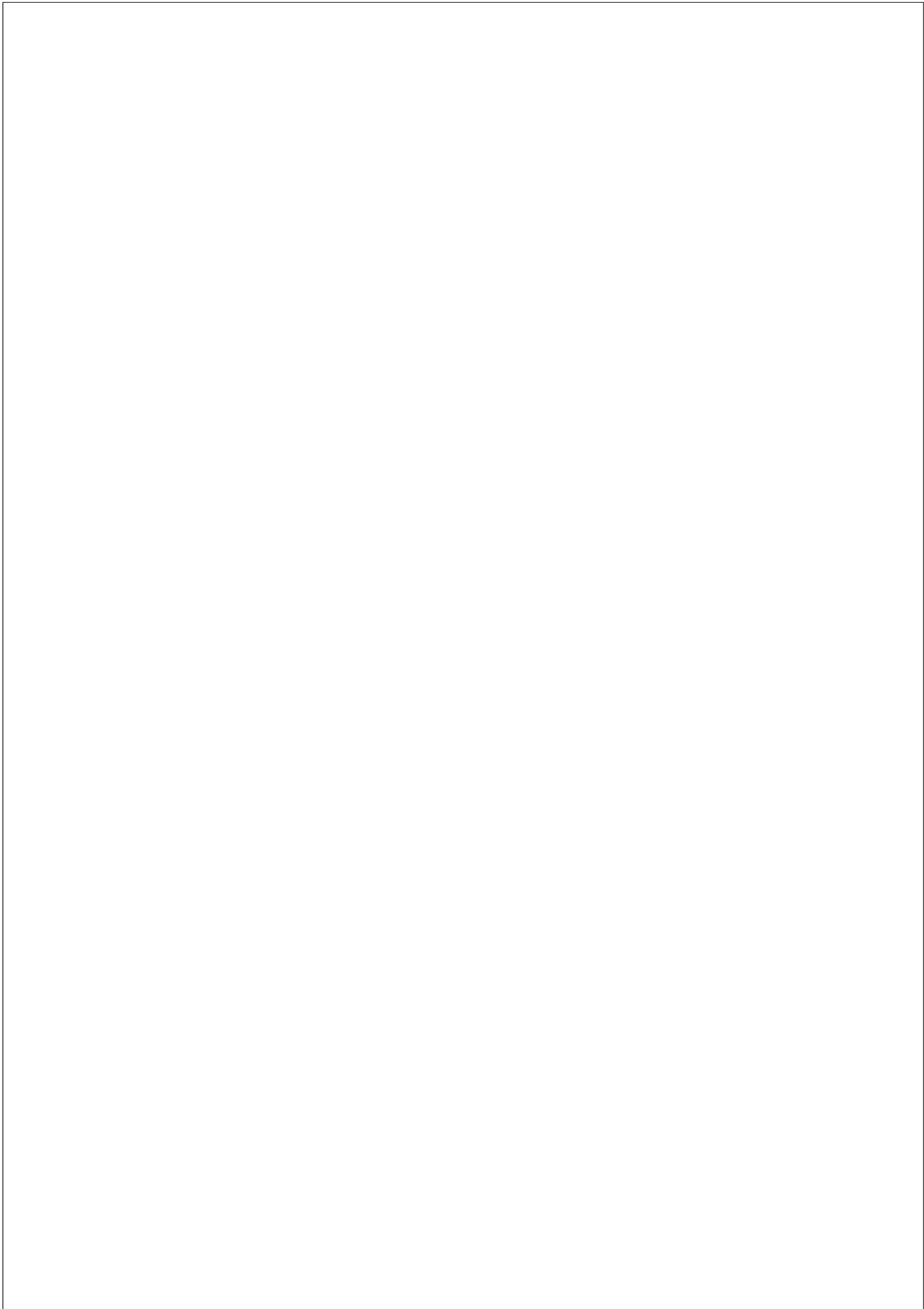
achieve this it needs to be published in scientific journals of great circulation and widespread impact. Another aspect that needs to be borne in mind when publishing is that of seeking journals with high visibility, specific to nursing or not, according to the subject matter and content dealt with and the public they are addressed to.

4.2. Nursing Research on Mental Health

A large part of scientific research output is disseminated in **scientific acts for mental health nurses**, in the following formats: oral communication or poster sessions, round tables, papers and conferences. The scientific acts through which scientific output is normally disseminated tend to be specific to their own field of specialisation, however there is also participation in other spaces not linked to the specialisation (63, 64).

Scientific dissemination in journals is essentially carried out in Spanish ones, but also in foreign journals, the majority of which are of specific nursing content, albeit particular to the specialisation or not. Nevertheless, there are also many publications in general journals and in those of other disciplines (64-67).

With regards to **research networks**, one should emphasise the existence of the “Mental Health and Addictions Nursing Care Research Network”, which is a research network set up in the year 2004. It is a research grouping which, organised into groups, works with the common objective of contributing scientific evidence regarding the effectiveness, utility and efficiency of nursing care in the field of mental health and addictions. As a dynamic network for research, innovation and development, it has two important challenges: to make scientific inputs that contribute towards improving the quality of nursing care and to promote the development of nursing as a science.



5 Objectives

5.1. General Objective

To carry out a diagnosis of the training, teaching and research situation of mental health nurses in the current context.

5.2. Specific Objectives

- To describe the professional and academic profile of mental health nurses.
- To analyse the motivation and the participation of mental health nurses in training, teaching and research.
- To get to know the training needs and/or interests of mental health nurses.
- To define the resources, opportunities, limitations or difficulties perceived by mental health nurses in terms of training, teaching and research.
- To identify what the degree of participation of mental health nurses is in the different stages of research.
- To draw up proposals, recommendations and improvement measures to be implemented in the training, teaching and research of mental health nurses.

6 Method

6.1. Design

An observational, cross-sectional and descriptive study.

6.2. Population

The number of registered nurses in Catalonia is 49,042 (INE —Spanish National Institute of Statistics— December 2014). In table 2 the distribution of the number of registered nurses in Catalonia in terms of the province and gender is shown.

Table 2. *Professional College registered nurses in Catalonia (INE December 2014).*

	Women	Men	Total
Barcelona	34,692 (87.48%)	4,963 (12.52%)	39,655 (80.86%)
Gerona	2,979 (90.08%)	328 (9.92%)	3,307 (6.74%)
Lerida	2,064 (89.54%)	241 (10.46%)	2,305 (4.70%)
Tarragona	3,420 (90.60%)	355 (9.40%)	3,775 (7.70%)
Catalonia	43,155 (88%)	5,887 (12%)	49,042 (100%)

The **population studied** are all the mental health nurses who work in Catalonia and who are developing their profession in any of the fields of action (care, teaching, management or research).

6.3. Participants: Inclusion and Exclusion Criteria

The **defined inclusion** criteria are nurses with professional activities currently linked to care, teaching, research or management in the area of mental health.

The following have been established as **exclusion criteria**:

- The development of the professional activity outside of Catalonia.
- Duplication in the participation record.

6.4. Sample

There is no current data available identifying the number of nurses working in the field of mental health, for which reason it has not been possible to make a sample calculation.

The **sample** is of 235 mental health nurses who work in different fields of action in Catalonia. A total of 263 responses have been registered, of which 25 have been excluded because they were not from mental health nurses in active employment and 3 because of duplication in the records.

6.4.1. Sampling Types

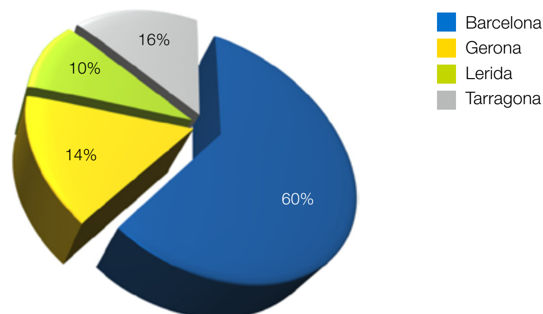
Convenience sampling has been carried out. The sample was a non-probability one and is made up of all the mental health nurses who have participated by filling in the research questionnaire in the period comprising the 14th March 2015 to 28th May 2015.

6.4.2. Characteristics of the Sample

The main characteristics defining the nurses who have participated in this research are detailed below.

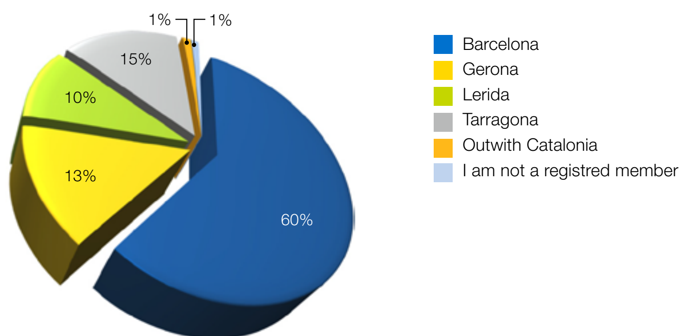
- The distribution and number of professionals according to the **province of the workplace** is: 141 Barcelona, 33 Gerona, 24 Lerida and 37 Tarragona

Chart 1. Province of the workplace (n=235).



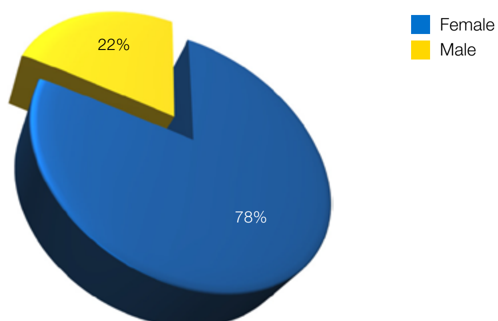
- The distribution and number of professionals per p**rovince of the nursing association** is: 140 Barcelona, 31 Gerona, 24 Lerida, 35 Tarragona, 2 out-side of Catalonia and 3 non-members.

Chart 2. *Province of the professional association (n=235).*



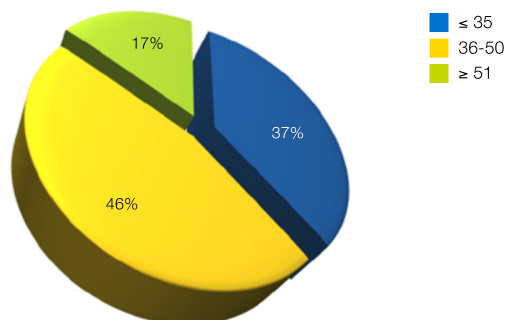
- The distribution according to **gender** is 183 women and 52 men.

Chart 3. *Distribution according to gender (n=235).*



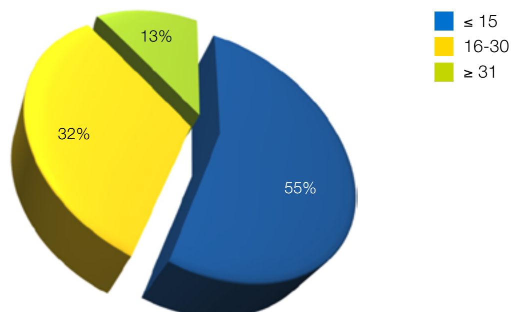
- The average **age** is 39.94 (SD 9.49) years old, being 39.7 (SD 9.7) years of age in women and 40.6 (SD 8.8) years of age in men. The distribution according to age group is: 87 professionals ≤ 35 years of age, 108 between 36 and 50, and 40 ≥ 51 years of age.

Chart 4. Distribution according to age group (n=235).



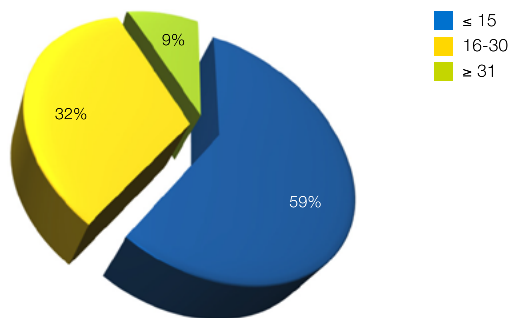
- The average number of **years since obtaining the nursing qualification** is 16.36 (SD 9.69) years. The distribution according to groups is: 128 professionals ≤ 15 years, 76 between 16 and 30 years of age and 31 ≥ 31 years of age.

Chart 5. Years as a qualified nurse (n=235).



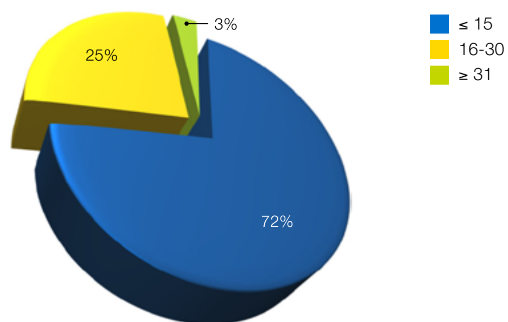
- The average number of **years worked as a nurse** is 15.24 (SD 9.43) years. The distribution according to groups is: 138 professionals ≤ 15, 76 between 16 and 30 years and 21 ≥ 31 years.

Chart 6. *Years worked as a nurse (n=235).*



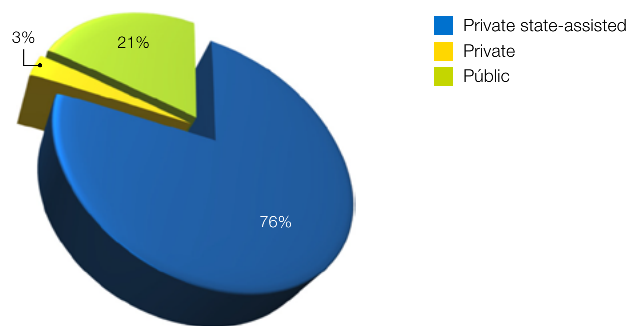
- The average number of **years worked as a mental health nurse** is 12.22 (SD 8.19) years. The distribution according to groups is: 169 professionals ≤ 15, 59 between 16 and 30 years and 7 ≥ 31 years.

Chart 7. *Years worked as a mental health nurse (n=235).*



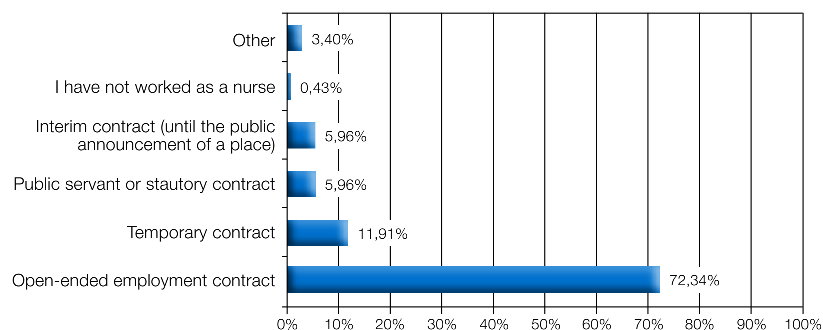
- The distribution of professionals in relation to the **nature of the work centre** is: 179 professionals work in private state-assisted centres, 48 in public ones and 8 in private ones.

Chart 8. Nature of the work centre (n=235).



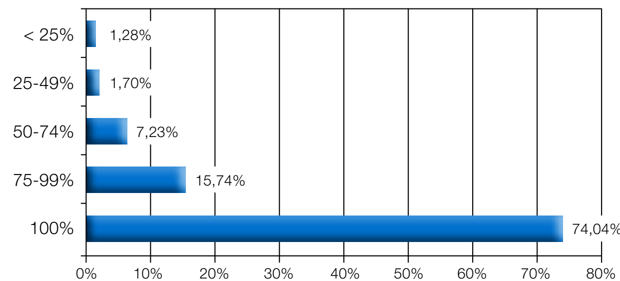
- The **contractual situation in the last year** is: 170 professionals have open-ended employment contracts, 28 have temporary contracts, 14 have public servant or statutory contracts and 14 have interim employment contracts. There is 1 nurse who did not work and 8 in other situations.

Chart 9. Contractual situation (n=235).



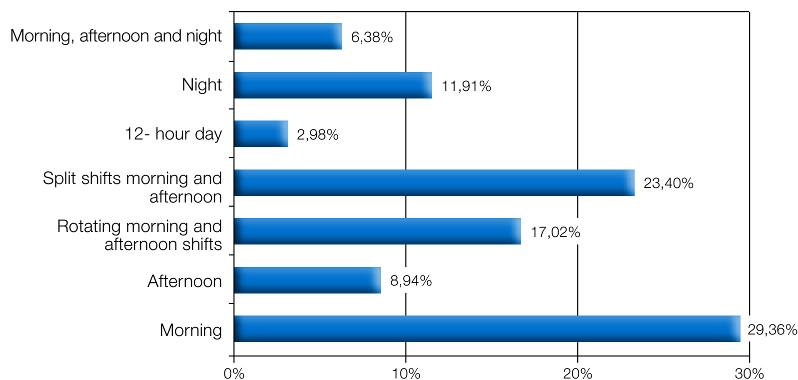
- The percentage of the **working day** that the nurses were contracted last year is: 100% (174), 75-99% (37), 50-74% (17), 25-49% (4) and < 25% (3).

Chart 10. Working day (n=235).



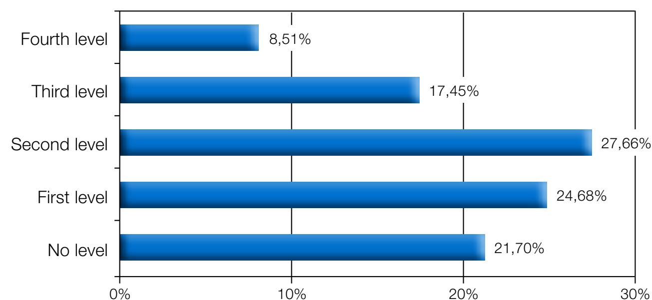
- The distribution of nurses per **work shift** is: morning (69), afternoon (21), rotating morning and afternoon shifts (40), split shifts morning and afternoon (55), 12-hour day (7), night shift (28) and morning-afternoon-night (15).

Chart 11. Work shift (n=235).



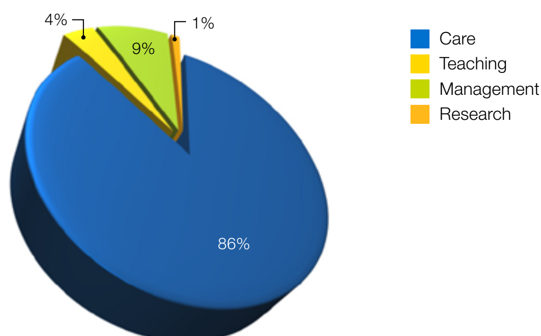
- The **level of the professional career**, in an ascending scale from 0 to 4, in which 0 represents no level and 4 the fourth level, is 1.66 (SD 1.23). The distribution of professionals according to their professional level is the following: no level (51), first level (58), second level (65), third level (41) and fourth level (20).

Chart 12. Professional career (n=235).



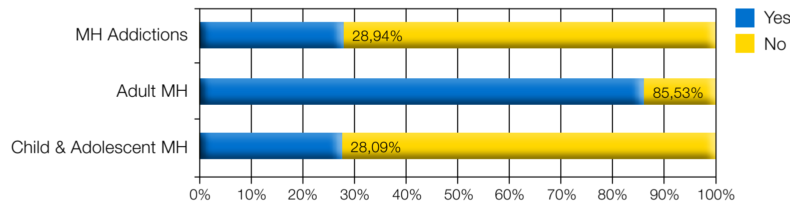
- The **field of work** in which the nurses mainly carry out their professional activity is: care (203), teaching (9), management (22) and research (1).

Chart 13. Field of work (n=235).



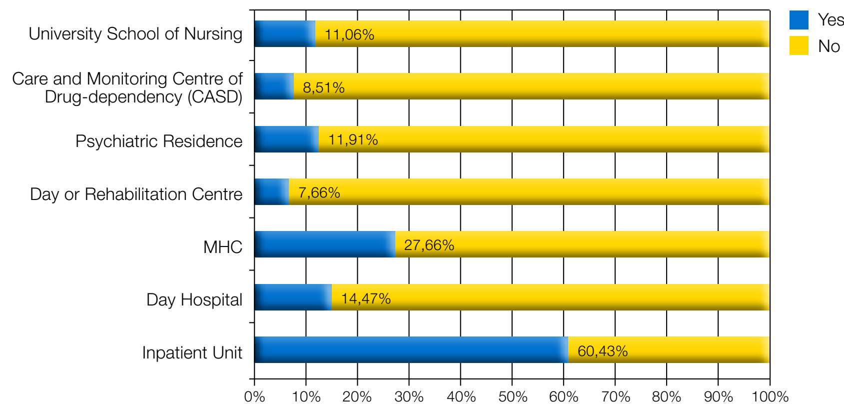
- The nurses' **work area** is currently: children and adolescents (66), adults (201) and addictions (68).

Chart 14. Work area (n=235).



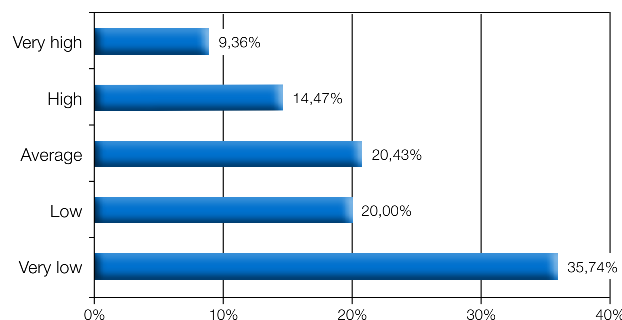
- The **workplace** where the nurses carry out their professional activity is: Inpatient Psychiatric Unit (142), day hospital (34), Mental Health Centre —MHC— (65), day centre or rehabilitation centre (18), psychiatric home (28), care and monitoring centre for drug-dependency —CASD according to its initials in Spanish— (20) and University School of Nursing —EUI according to its initials in Spanish— (26).

Chart 15. Workplace (n=235).



- The **family burden** rated on a scale of 1 (very low) to 5 (very high) is 2.42 (SD 1.34), the distribution according to groups being: very low (84), low (47), average (47), high (48) and very high (22).

Chart 16. Family burden (n=235).



6.5. Instrument

A questionnaire was specifically designed (Annex 1) for this piece of research. The questionnaire was preceded by an **information sheet**, in which a brief presentation of the study is given specifying the objective, the voluntary nature of participation, the confidentiality and the anonymity of the participants and work centres, the approximate time for its completion and the dissemination that will be made of the results to the scientific community.

The **questionnaire** is made up of 61 questions, the first of which indicates the inclusion or exclusion of the participants in the study depending on the compliance or non-compliance with the inclusion criteria. The remaining 60 questions are divided into 4 blocks aimed at obtaining information regarding census data and data on the training, teaching and research of mental health nurses.

The questions in the questionnaire are essentially closed-ended ones with multiple-choice, dichotomous or Likert scale (5 levels from low to high) response formats; there are also 4 open-ended questions allowing for free text answers.

The questionnaire was designed by researchers and revised by nurses with expertise in training, teaching or research in mental health. On the basis of the amendments made, modifications were introduced into the initial questionnaire. Then a **pilot test** was carried out with 10 nurses from different fields of knowledge and expertise, who passed on to the researchers the difficulties detected in its understanding and completion, the deficiencies identified and proposals for its improvement, on the basis of which the questionnaire that was used in the study was devised.

6.6. Variables

The variables studied are divided into four blocks:

1. **Block a: Census data**
   This includes data that defines the profile of the mental health nurses who have participated in the study, such as age, gender, professional experience, academic qualification and place of work etc.

2. **Block b: Training**
   This collates information on the motivation, availability and participation in training activities, sources of financing, the interests and concerns regarding training aspects, and ongoing training in work centres and in professional colleges.

3. **Block c: Teaching**
   This includes aspects relating to teaching motivation and participation as well as the limitations and opportunities for participating as educators.

4. **Block d: Research**
   This collates information on the motivation and participation in research, the output and scientific dissemination, the limitations and existing resources, and the knowledge and use of advisory areas of the professional colleges and of the grants for nursing research.

6.7. Statistical Analysis

The data gathered together from the questionnaire was validated by two members of the research team independently, withdrawing by consensus double-entries or any entries not meeting the criteria for inclusion.

The **statistical processing** of the data was carried out using the IBM SPSS Statistics software version 19.

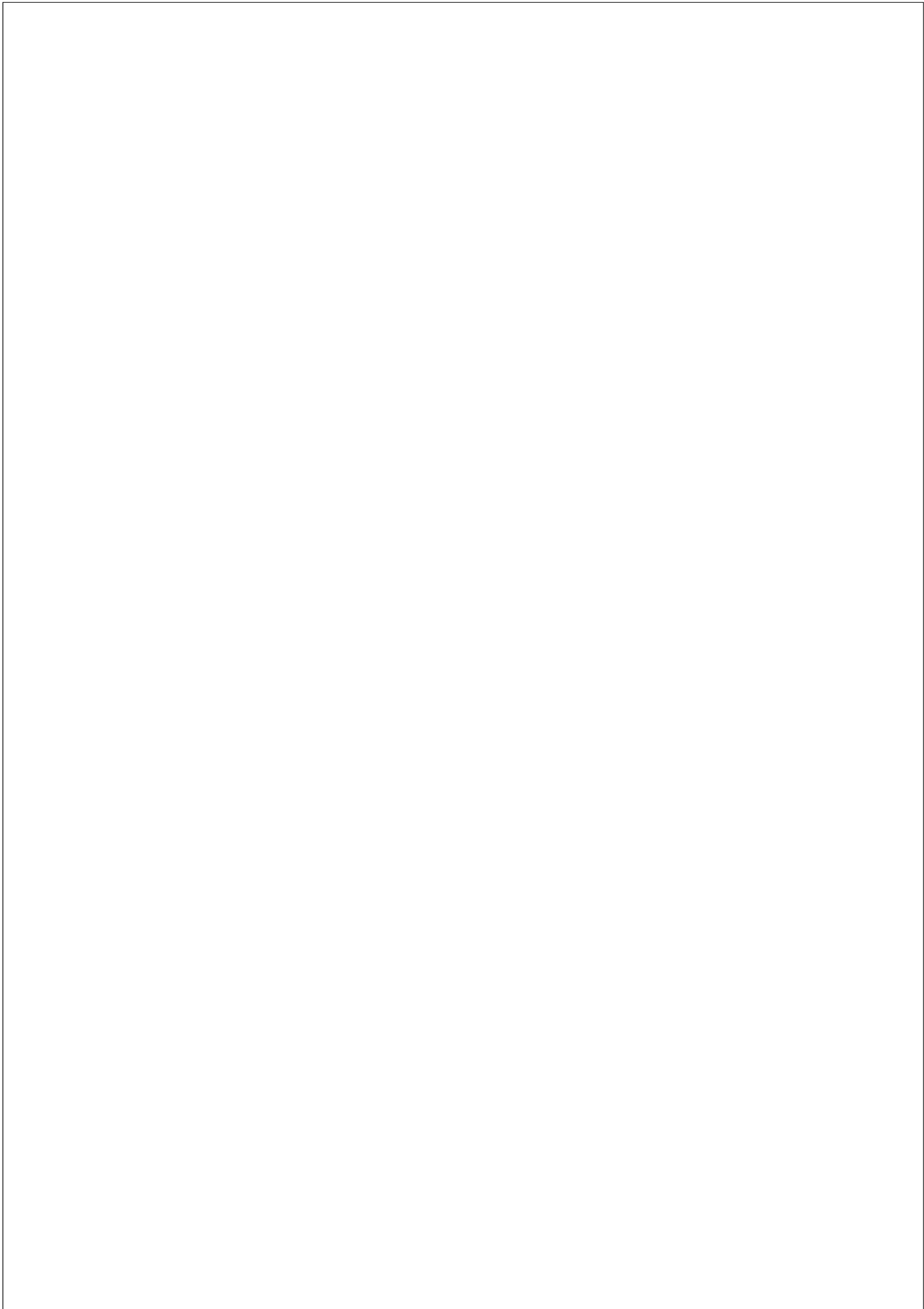
The **descriptive analysis** of the variables was carried out using measures of central tendency and dispersion, mainly mean and standard deviation (SD) in the quantitative variables, and absolute and relative frequencies in the qualitative variables. As regards the variables of the open text, the opinions of the participants were categorised.

The **inferential analysis** of the variables was carried out using the chi-square (χ^2) test for the analysis of qualitative variables, the Student's t-test (t) for the comparison of means of two independent groups, and analysis of variance commonly known as ANOVA (F) for more than two independent samples, always given that the application requirements had been met. In order to measure the association between two quantitative variables the Pearson correlation coefficient (r) was used. The level of p being less than or equal to 0.05 has been considered significant.

6.8. Ethical Aspects

This research study guarantees the confidentiality and security of the personal data of the participants and complies with the provisions of the Constitutional Law 15/1999, of 13th December, on the Protection of Personal Data (LOPD according to the Spanish initials) and of the Regulation pursuant to this Act, of 21st December (BOE —Official Sate Bulletin— 19th January 2008). None of the information collected on the form identifies either the person responding or the work centre. The study was developed in accordance with the protocol and the standard operating procedures that ensure compliance with the standards of good scientific practice.

The study protocol was evaluated by the clinical research ethics committee of the corporation Parc Taulí, which gave the go-ahead for it to be carried out in May 2014.



7 Results

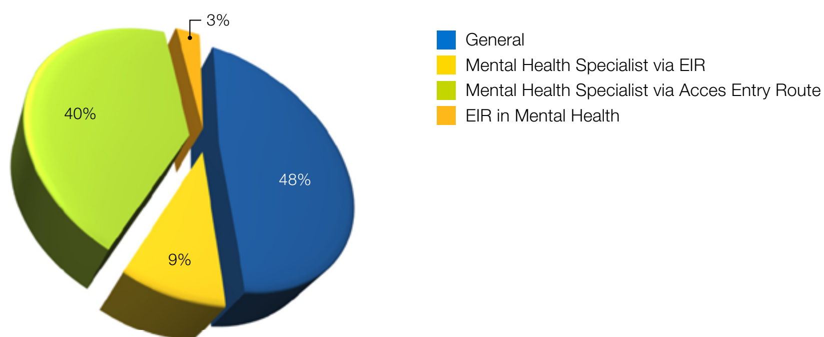
7.1. Descriptive Analysis

7.1.1. Training

The most relevant aspects linked to the **training** of mental health nurses in Catalonia are detailed below.

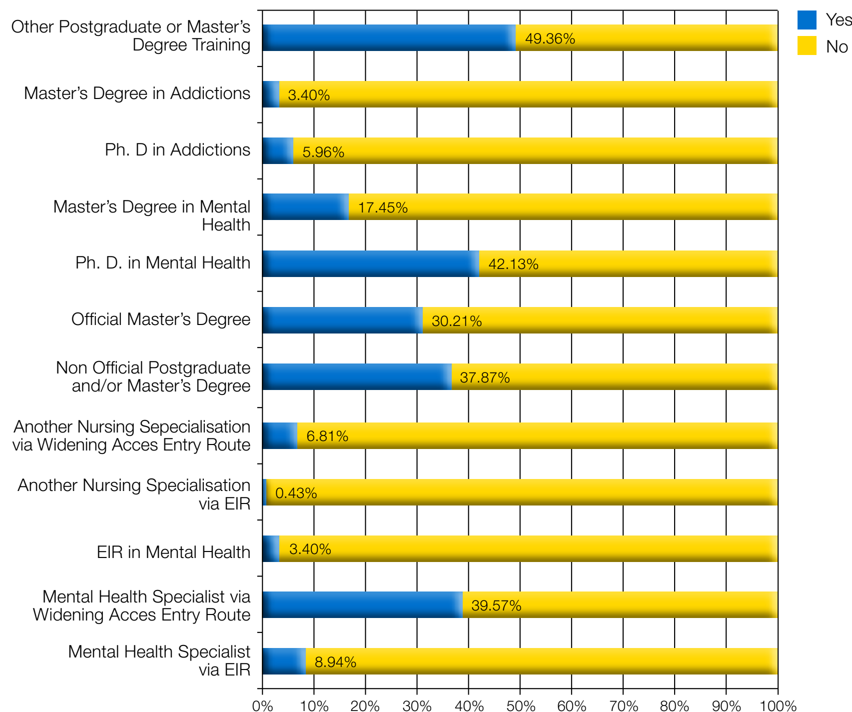
- Of the 235 nurses who have participated in this study, 114 are mental health specialists (93 via the Widening Access entry route and 21 via EIR) and 8 are currently studying the EIR specialty. There are 113 participants who are general nurses without Mental Health specialisation.

Chart 17. *General and specialist nurses (n=235).*



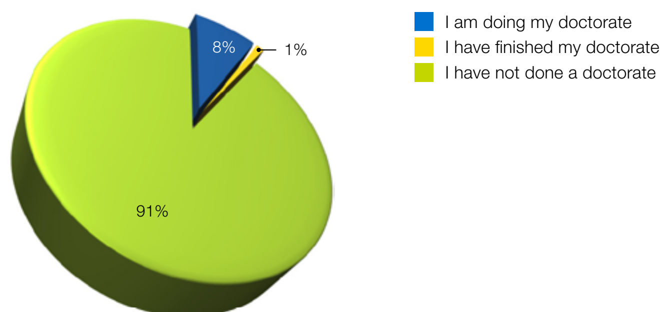
- The **postgraduate, Master's degree and specialist training** carried out by the participants is: specialist mental health nurses via EIR ("internal resident nurse" according to the initials in Spanish) (21), and via the Widening Access entry route (93); EIR in Mental Health (8); another nursing specialisation via EIR (1), and via the Widening Access entry route (16); postgraduate and/or unofficial Master's degree (89), official Master's degree (71); postgraduate in Mental Health (99) or Master in Mental Health (41); postgraduate in Addictions (14) or Master in Addictions (8); other postgraduate or Master's degree training (116).

Chart 18. *Postgraduate, Master's degree and specialist training (n=235).*



- At the present time 3 nurses have completed their **doctorates** while 18 are still doing theirs.

Chart 19. *Doctorate (n=235).*



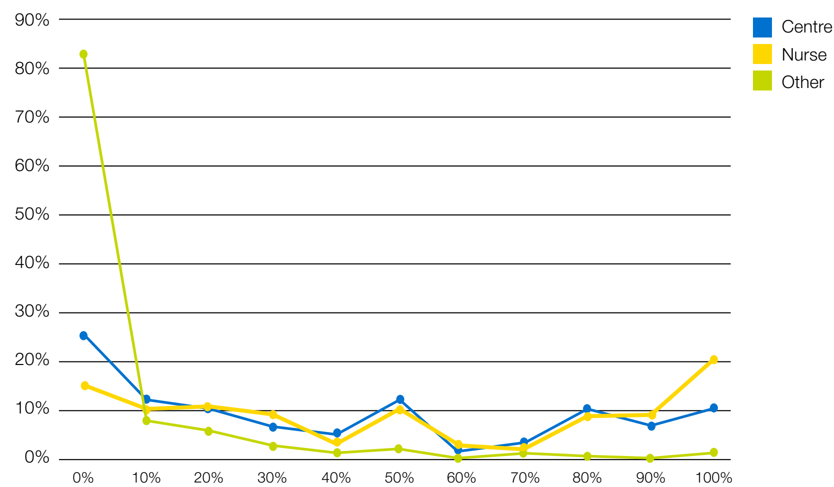
- The **average number of annual training hours** that nurses carry out is 85.13 (SD 140.75). Of these, the professionals estimate that 27.73 hours (SD 40.23) are **under the responsibility of the company**, either because substitutions are provided or because they are compensated with time off.

- The **economic financing of the training** is the responsibility of the nurses themselves for 51.6% (SD 37.4); of the work centres for 40.26% (SD 35.48); and through other channels of financing (grants etc.) for 5.32% (SD 15.58). In table 3 one can see the percentages and the sources of financing of the training undertaken by the nurses.

Table 3. *Economic financing of the training (n=235).*

	Centre	Nurse	Other
0%	57	34	193
10%	27	23	16
20%	22	23	10
30%	13	19	4
40%	10	5	2
50%	31	26	4
60%	3	7	0
70%	12	8	3
80%	25	21	1
90%	11	20	0
100%	24	49	2

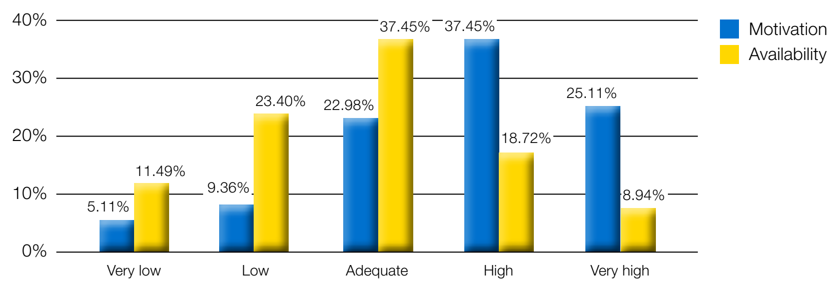
Chart 20. *Economic financing of the training (n=235).*



- The **degree of motivation to undertake training** has an average of 3.7 (SD 1.1). On a scale from 1 (very low) to 5 (very high) the results are: very low (12), low (22), adequate (54), high (88) and very high (59).

- The **degree of availability to undertake training** has an average of 2.9 (SD 1.1). On a scale of 1 to 5, in which 1 is very low and 5 very high, the results are: very low (27), low (55), adequate (88), high (44) and very high (21).

Chart 21. *Motivation and availability for training (n=235).*

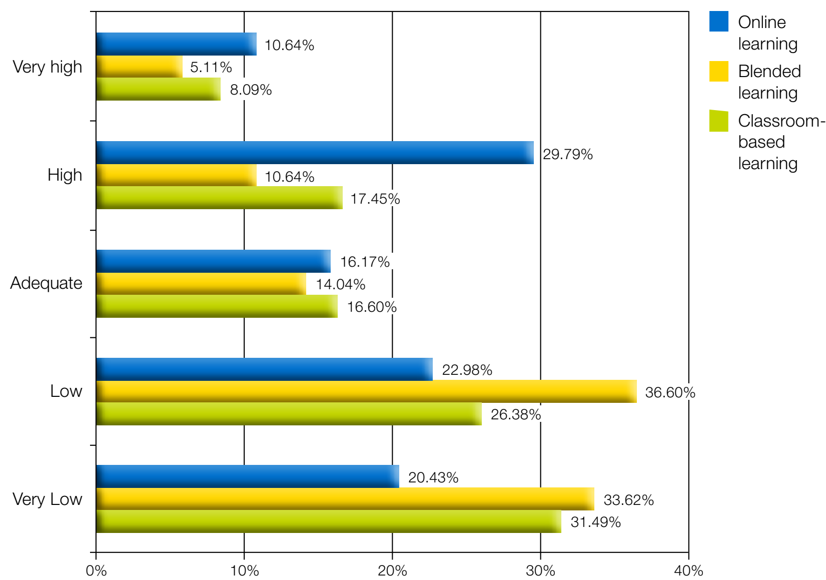


- The **interest in the types of training (classroom-based, blended and on-line)**, on a scale of 1 (very low) to 5 (very high), is shown in table 4.

Table 4. *Interest in classroom-based, blended and online training (n=235).*

	Classroom-based	Blended	Online
Very low	74	79	48
Low	62	86	54
Adequate	39	33	38
High	41	25	70
Very high	19	12	25

Chart 22. *Interest in classroom-based, blended and online training (n=235).*

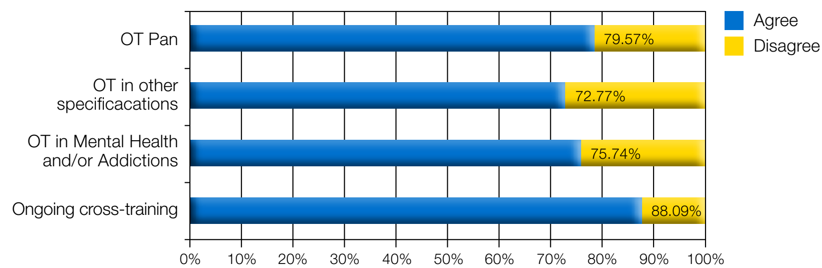


- The evaluation that the nurses make of the existence of an **ongoing training (OT) plan in the work centre** and the type of training organised (cross-training, specific to Mental Health and Addictions or other specialisations) is shown in table 5.

Table 5. *Plan and types of training in the work centre (n=235).*

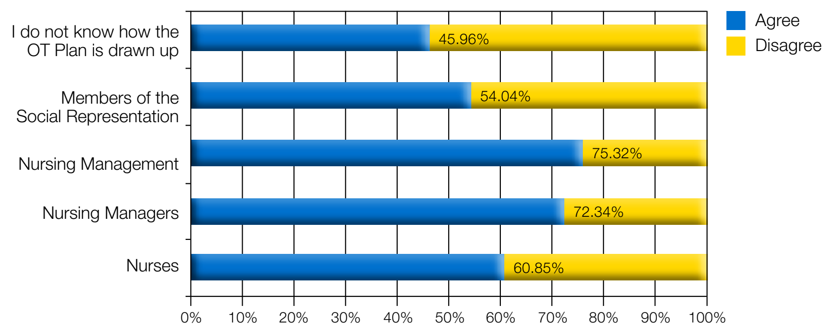
	Agree	Disagree
Existence of an OT plan	187	48
OT in other specialisations	171	64
OT in Mental Health and Addictions	178	57
OT cross-training	207	28

Chart 23. Plan and types of training organised in the work centre (n=235).



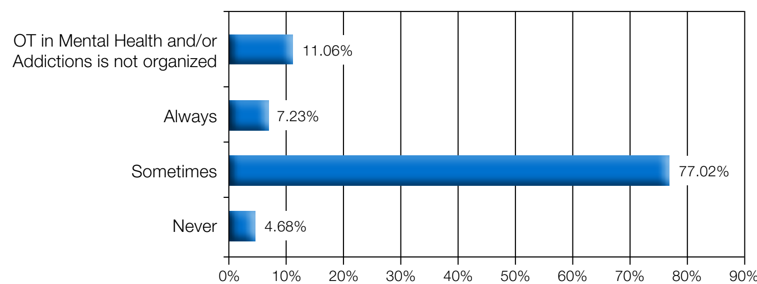
- In the devising of the **training plan in the work centre**, taken into consideration is the opinion of the nurses (143), of nursing managers (170), nursing management (177) and members of the social representation (127). There are 108 nurses who claim not to know how the OT plan is drawn up.

Chart 24. Participation in the devising of the work centre's training plan (n=235).



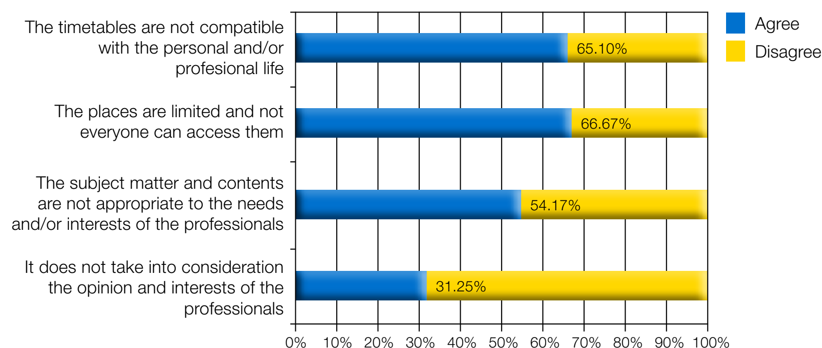
- The o**ngoing training in Mental Health and/or Addictions that is organised in the work centre responds to the training needs**: always (17), sometimes (181) and never (11). A total of 26 nurses state that this kind of OT is not organised.

***Chart 25.** Suitability of ongoing training in Mental Health and/or Addictions (n=235).*



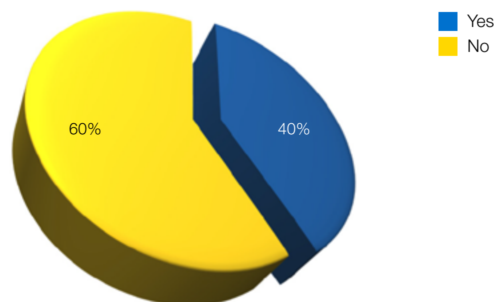
- The **ongoing training in Mental Health and/or Addictions that is organised in the work centre does not respond to the training needs** because:
  - It does not take into consideration the opinion and interests of the professionals (60).
  - The subject matter and contents are not appropriate to the needs and / or interests of the professionals (104).
  - The places are limited and not everyone can access them (128).
  - The timetables are not compatible with the personal and/or professional life (125).

***Chart 26.** Reasons why the ongoing training of the workplace does not respond to the needs of the professionals (n=235).*



- A total of 94 nurses have undertaken **specific courses in Mental Health and/or Addictions in the professional college**.

Chart 27. Participation in Mental Health and/or Addictions courses in the professional college (n=235).

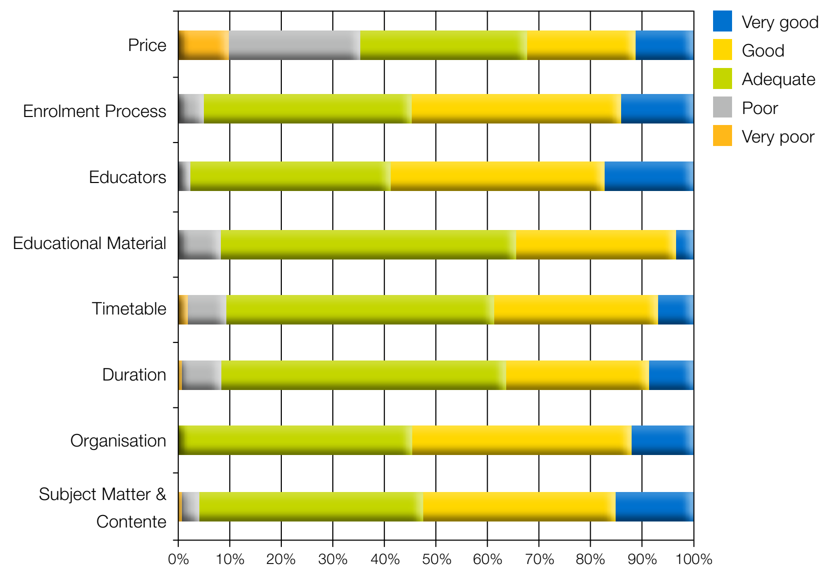


- The **assessment made of the courses carried out in the professional college** is shown in the following table: .

Table 6. Assessment of the professional college courses (n=94).

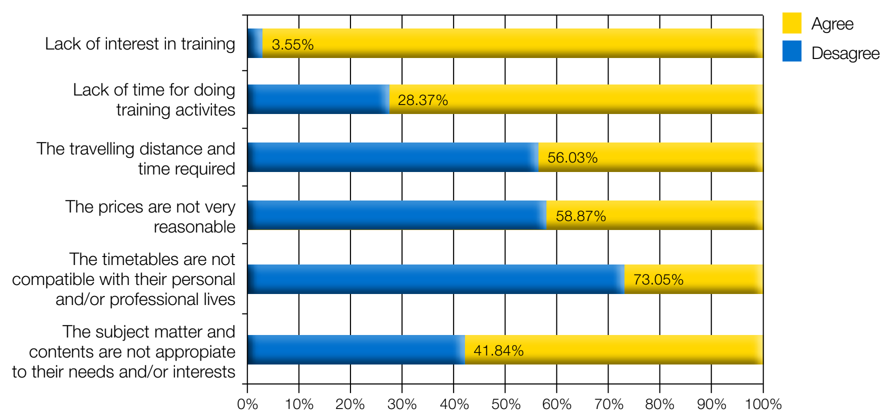
	Very Poor	Poor	Adequate	Good	Very Good
Subject Matter and Content	1.06%	3.19%	43.62%	37.23%	14.89%
Organisation	0.00%	0.00%	45.74%	42.55%	11.70%
Duration	1.06%	7.45%	55.32%	27.66%	8.51%
Timetable	2.13%	7.45%	52.13%	31.91%	6.38%
Educational Material	0.00%	8.51%	57.45%	30.85%	3.19%
Educators	0.00%	2.13%	39.36%	41.49%	17.02%
Enrolment Process	0.00%	5.32%	40.43%	40.43%	13.83%
Price	10.64%	21.28%	36.17%	21.28%	10.64%

Chart 28. *Assessment of the professional college courses (n=94).*



- The **nurses who have not carried out any course in the professional college** attribute this to:
  - The subject matter and contents are not appropriate to their needs and / or interests (59).
  - The timetables are not compatible with their personal and/or professional lives (103).
  - The prices are not very reasonable (83).
  - The travelling distance and time required (79).
  - Not having the time to do training activities (40).
  - Not being interested in training (5).

Chart 29. Reasons for the lack of ongoing training being carried out in the professional college (n=141).



- **Needs perceived as regards ongoing training in Mental Health and/or Addictions**

In answer to the open question "Which subjects related to Mental Health and Addictions do you think would be of interest to you in an ongoing training activity?" 225 nurses answered with a total of 408 comments, which have been categorised into groups according to the subject matter and arranged in order of priority (annex 2).

The categories established in relation to the subject matter were:

a) **Mental disorders, diagnosis and treatment**
The subject matters that have emerged make reference to addictions, borderline personality disorder, dual pathology, eating disorders, suicide, organic comorbidity of psychiatric disorders and childhood and adolescent disorders.

b) **Nursing management of users' conduct and behaviour**
The subject matters that have emerged make reference to containment

in crisis situations, management of behavioural problems in childhood and adolescence and specific nursing interventions.

c) **Self-care in order to provide care**
The subject matters that have emerged make reference to emotional management and stress management, burnout, workplace violence and teamwork.

d) **Management of nursing services**
The subject matters that have emerged make reference to the management of nursing services, ethical and legal aspects of nursing interventions and case management.

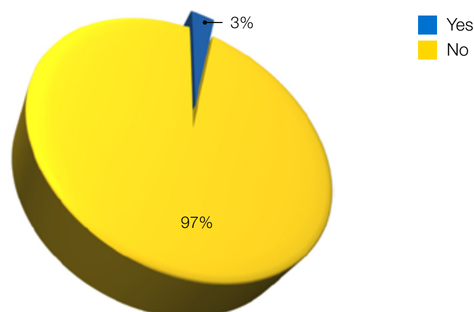
e) **Cross-training**
The subject matters that have emerged make reference to training in research, care plans and nursing diagnoses, evidence-based interventions, the new technologies and innovation, and transculturality.

7.1.2. Teaching

The most relevant aspects linked to teaching for mental health nurses in Catalonia are detailed below.

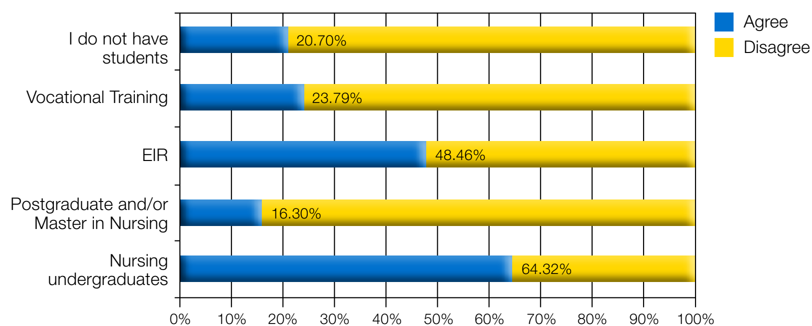
- A total of 8 participants are **full-time educators**.

Chart 30. *Full-time educators (n=235).*



- A total of 180 nurses are responsible for undergraduate (146), postgraduate (37), EIR (110) and/or vocational training (54) **students**.

Chart 31. Practical teaching for students (n=227)..



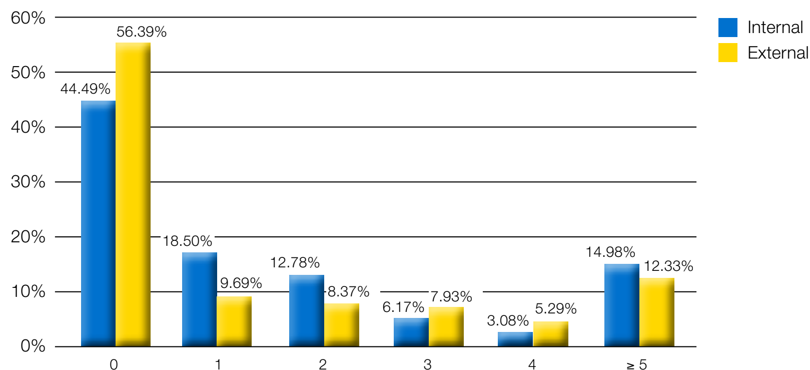
- The average number of **teaching hours**, excluding the time devoted to work-experience students, is 63.64 (SD 237.17).

- The **participation in teaching activities** over the last 5 years has been 1.50 (SD 1.80) in internal activities (in the centre itself) and 1.33 (SD 1.82) in external activities. In table 7 one can see the number of professionals and the level of teaching participation in internal and external training activities.

Table 7. Participation in teaching activities (n=227).

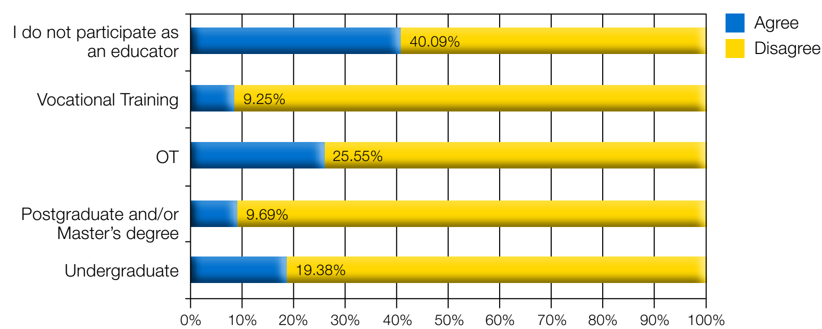
	Internal Activities	External Activities
0	101	128
1	42	22
2	29	19
3	14	18
4	7	12
≥ 5	34	28

Chart 32. Level of participation in teaching activities (n=227).



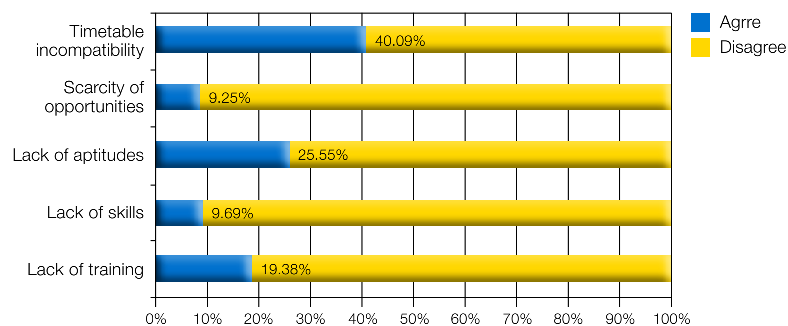
- The **teaching activities in which the nurses have participated** are: undergraduate (44), postgraduate and/or Master's degree (22), ongoing training (58) and/or vocational training (21). There are 91 professionals who have not participated as educators.

Chart 33. Teaching activities in which nurses participate (n=227).



- The nurses state that the limitations that they have for participating as educators are: the lack of training (44), the lack of skills (22), the lack of aptitudes (58), the scarcity of opportunities (21) and/or timetable incompatibility (91).

Chart 34. Limitations for teaching participation (n=227).



- The **participation in scientific activities** over the last 5 years is shown in table 8.

Table 8. Participation in scientific activities (n=235).

	0	1	2	3	4	≥ 5
Oral Communication Session (chief researcher -CR-)	133	33	25	14	6	24
Oral Communication Session (collaborator)	123	40	25	14	6	27
Poster Session (CR)	131	52	17	11	3	21
Poster Session (collaborator)	91	48	34	12	11	39
Round Table (speaker)	172	32	14	7	3	7
Paper / Conference (speaker)	181	25	12	3	3	11
Clinical Session (speaker)	119	35	32	14	13	22
Table of Communications Moderator	209	13	7	0	1	5
Round Table Moderator	204	12	11	3	0	5
Paper / Conference Moderator	215	10	4	2	0	4

Chart 35. *Participation in oral communication and/or poster sessions (n=235).*

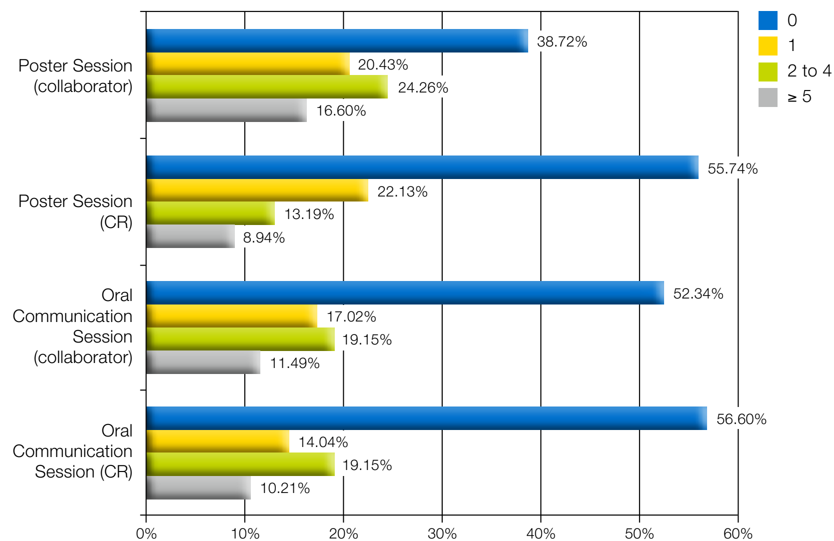


Chart 36. *Participation in round tables, papers, conferences and/or clinical sessions (n=235).*

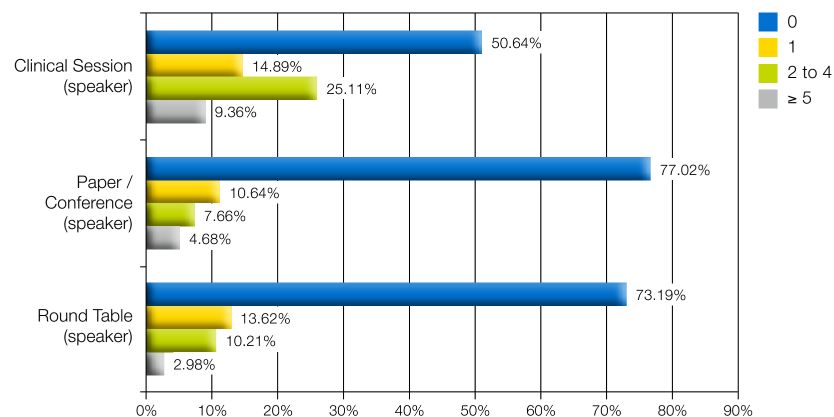
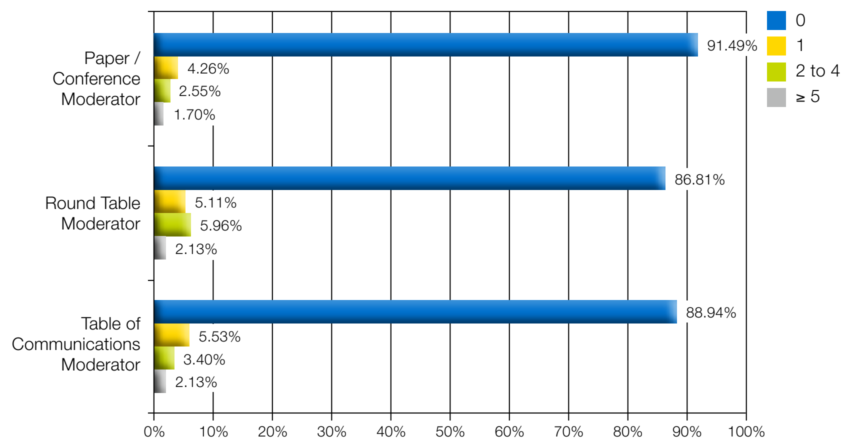
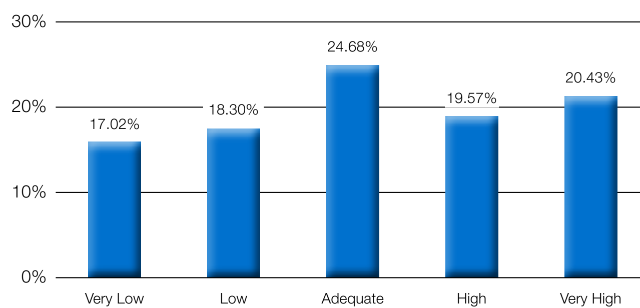


Chart 37. Participation as a moderator of scientific activities (n=235).



- The **degree of motivation** of nurses for participating as an educator, on a scale of 1 (very low) to 5 (very high), is 3.08 (SD1.37).

Chart 38. Motivation for teaching (n=235).

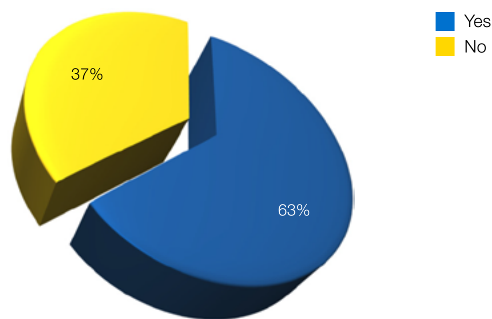


7.1.3. Research

The most relevant aspects linked to research for mental health nurses in Catalonia are detailed below.

- 149 nurses have participated in **research projects**.

Chart 39. Participation in research projects (n=235).

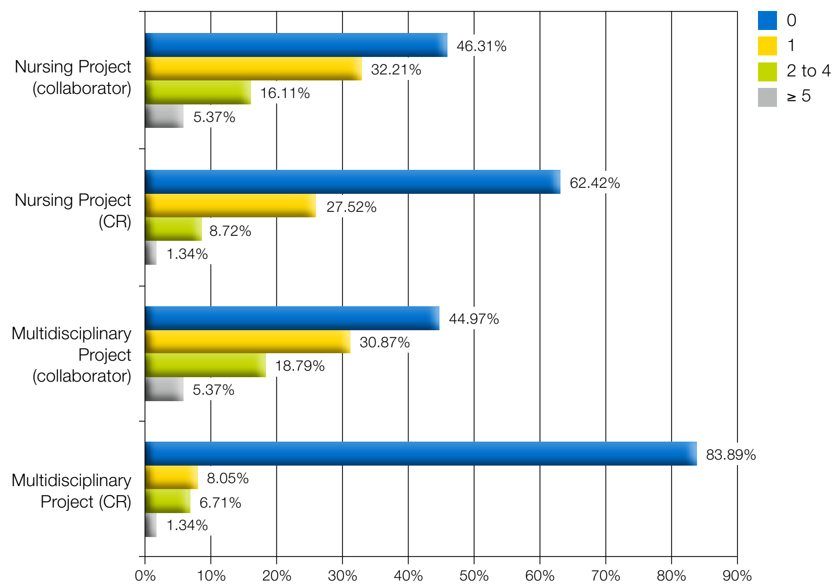


- The **participation in multidisciplinary and nursing research projects** is shown in table 9.

Table 9. Participation in multidisciplinary and nursing research projects (n=149).

	0	1	2	3	4	≥ 5
Multidisciplinary Project (CR)	125	12	6	3	1	2
Multidisciplinary Project (collaborator)	67	46	19	8	1	8
Nursing Project (CR)	93	41	10	2	1	2
Nursing Project (collaborator)	69	48	18	3	3	8

Chart 40. Participation in multidisciplinary and nursing research projects (n=149).

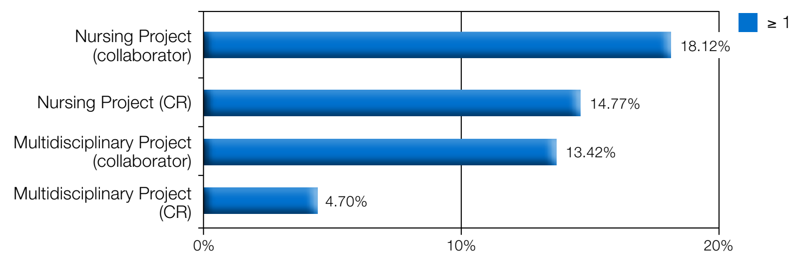


- The number of nurses who have received grants or aid for the development of research projects is shown in table 10.

Table 10. Grants and aid for the development of research projects (n=149).

	0	1	2	3	4	≥ 5
Multidisciplinary Project (CR)	142	3	3	1	0	0
Multidisciplinary Project (collaborator)	129	13	3	2	1	1
Nursing Project (CR)	127	15	4	2	0	1
Nursing Project (collaborator)	122	15	5	3	1	3

Chart 41. Grants and aid for the development of research projects (n=149).

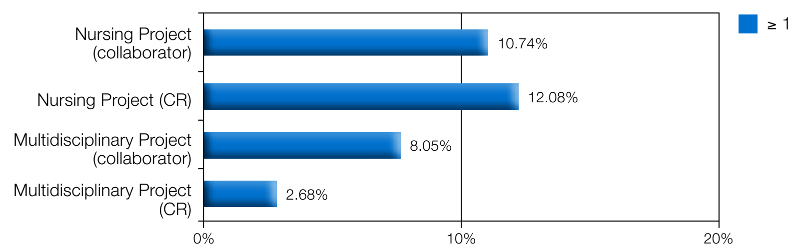


- The **prizes or awards** conferred on completion of the research projects is shown in Table 11.

Table 11. Prizes and awards on the completion of the research project (n=149).

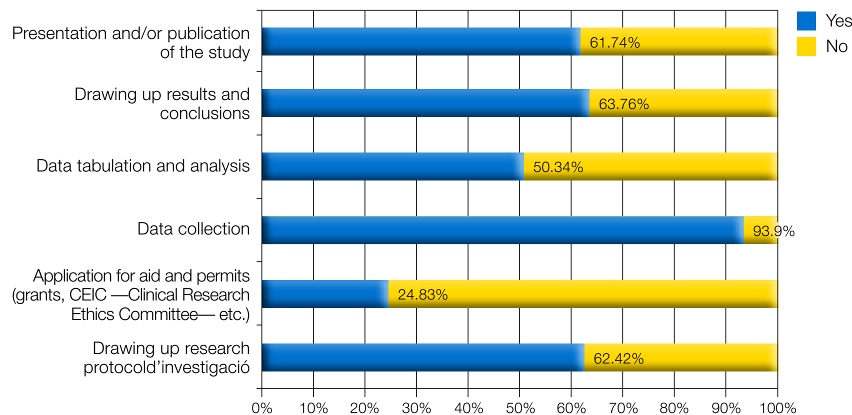
	0	1	2	3	4	≥ 5
Multidisciplinary Project (CR)	145	3	0	1	0	0
Multidisciplinary Project (colaborator)	137	8	1	2	0	1
Nursing Project (CR)	131	14	1	3	0	0
Nursing Project (collaborator)	133	11	2	3	0	0

Chart 42. Prizes and awards on the completion of the research project (n=149).



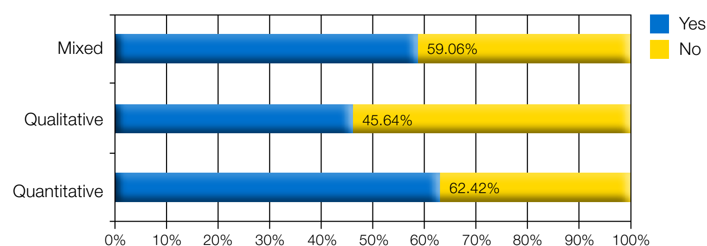
- The **participation of the nurses in the different stages of research** has been: the drawing up of research protocol (93), application for grants and permits (37), data collection (139), tabulation and analysis of data (75), the drawing up of results and conclusions (95) and presentation and/or publication of the study (92).

Chart 43. *Stages of participation in research (n=149).*



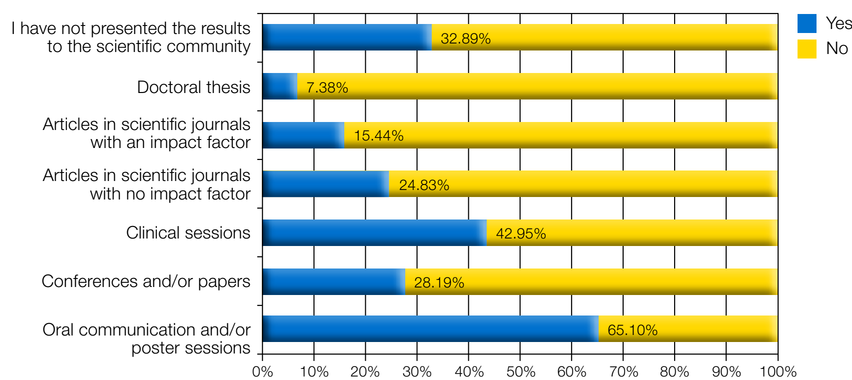
- The nurses have participated in **quantitative** (93), **qualitative** (68) and mixed (88) **research methods.**

Chart 44. *Participation in quantitative, qualitative and mixed research (n=149).*



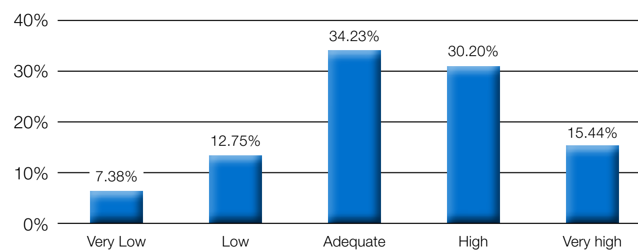
- The **presentation of the research projects to the scientific community** has been carried out in the following formats: oral communication and/or poster sessions (97), conferences and/or papers (42), clinical sessions (64), articles in scientific journals with no impact factor (37), articles in scientific journals with an impact factor (23) and doctoral theses (11). 49 nurses have not presented the results to the scientific community.

***Chart 45.** Presentation of the research to the scientific community (n=149).*



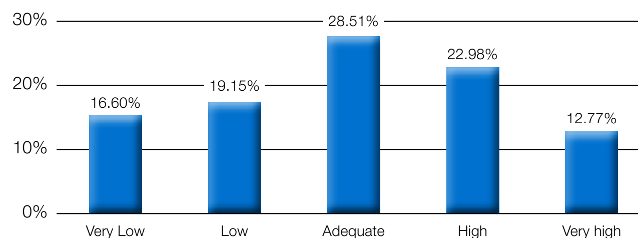
- The level of **satisfaction reached upon completion of the research**, rated on a scale from 1 (very low) to 5 (very high), was 3.34 (SD 1.11).

***Chart 46.** Satisfaction with the research (n=149).*



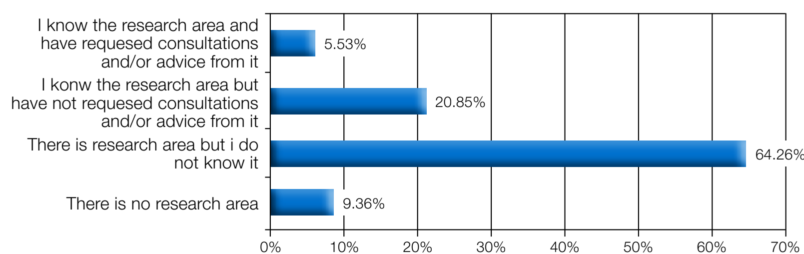
- The level of **motivation for research**, rated on a scale from 1 (very low) to 5 (very high), was 2.96 (SD 1.26).

Chart 47. Motivation for research (n=235).



- With regards to the **knowledge of the research area of the professional college,** the nurses say that: there is no research area (22); there is a research area but they do not know it (151); they know the research area but have not requested consultations and/or advice from it (49); they know the research area and have requested consultations and/or advice from it (13).

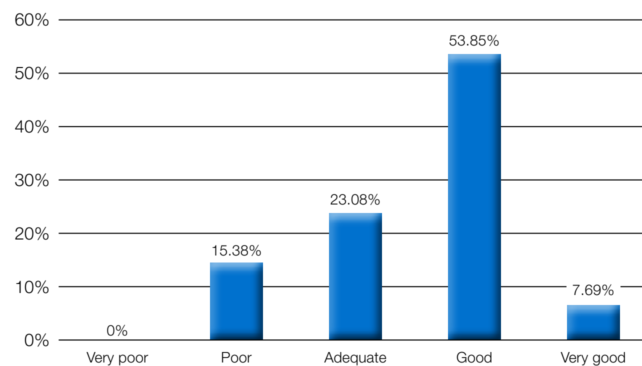
Chart 48. Knowledge of the research area of the professional college (n=235).



- **The average assessment of the research area of the professional colleges,** on a scale from 1 (very poor) to 5 (very good), carried out by nurses

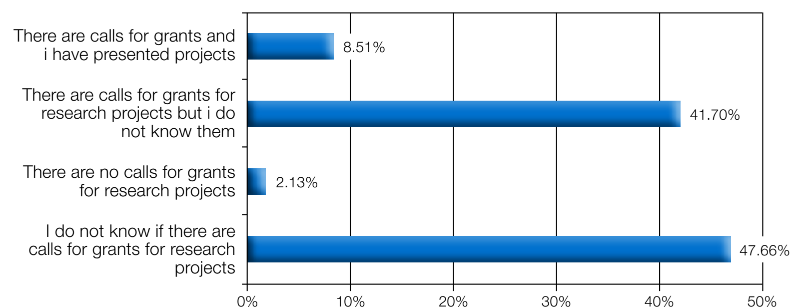
who know it and who have carried out consultations and/or requested advice from it, was 3.54 (SD 0.87).

Chart 49. Assessment of the research area of the professional college (n=235).



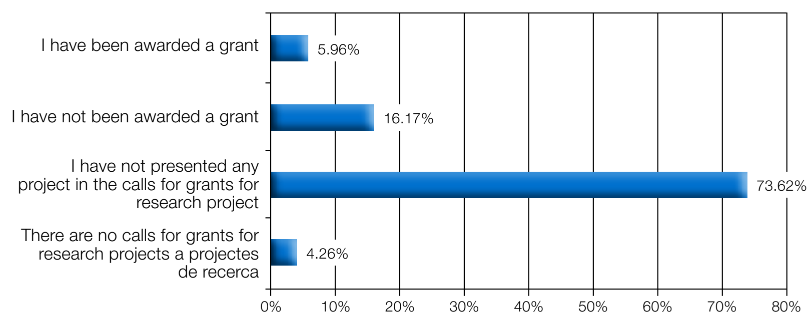
- Insofar as the existence of **calls for research grants in the professional college**, the nurses state that: they do not know if there is a call (122); there is no call (5); there is a call, but they have not presented projects (98); and there is a call and they have presented projects (13).

Chart 50. Call for research grants in the professional college (n=235).



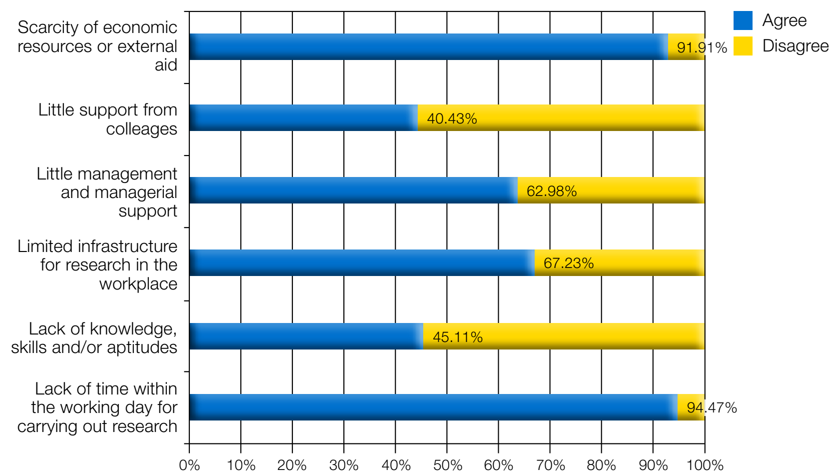
- As to whether they have won **a grant in the call for research projects of the professional college**, the nurses state that: there is no call for grants in research projects (10), they have not presented any project in the call (173), they have not won a grant (38) and, yes, they been awarded a grant (10).

Chart 51. Grants awarded in the call for research projects in the professional college (n=235).



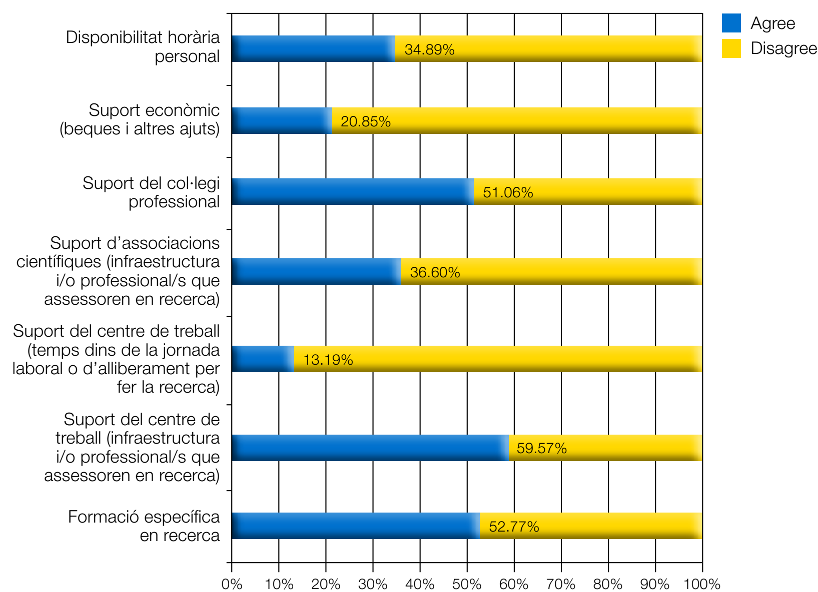
- The **limitations identified by mental health nurses for carrying out research** are: a lack of time within the working day for carrying out research (222); a lack of knowledge, skills and/or aptitudes (106); the limited infrastructure for research in the workplace (158); little management and managerial support (148); little support from colleagues (95); and the scarcity of economic resources or external aid (216).

***Chart 52.** Limitations for carrying out research (n=235).*



- The **resources available to nurses for carrying out research** are: specific training in research (124); support of the work centre with infrastructure and/or professionals providing advice on research (140); support of the work centre with the provision of time within the working day or by freeing up time to carry out research (31); support from scientific associations with infrastructure and/or professionals providing advice on research (86); support from the professional college (120); economic support with grants and other aid (49); personal schedule availability (82).

Chart 53. Resources for carrying out research (n=235).



7.2. Inferential Analysis

7.2.1. Age

Age is one of the variables with the greatest influence over the rest of the variables studied. The most relevant results obtained when relating the age groups (≤ 35 years of age, 36 to 50 years of age and ≥ 51 years of age) to the rest of variables are shown below:

- There is a high correlation between the **years of professional experience** as a nurse (r=0.855; p<0.001) and as a mental health nurse (r=0.744; p<0.001).

Comparing the results of these variables with regards to the “age group” variable shows no important variations.

- 25.3% of the nurses ≤ 35 years of age have **temporary contracts**, as compared to 3.7% of those from 36 to 50 years of age and 5% of those ≥ 51 years of age (χ^2=65.01; gl=10; p<0.001).

- The **level of professional development**, on a scale of 0 (no level) to 4 (the highest level), in relation to the age group, shows significant differences (F=18.33; gl=2; p<0.001).

Table 12. Professional development versus age (n=235).

Age	n	Average	SD
≤ 35	87	1.13	1.17
36-50	108	1.77	0.96
≥ 51	40	2.55	1.45

- The **development of the professional activity in management and teaching** increases with age: it is developed by 1.1% of the nurses ≤ 35 years of age, versus 18.5% of those from 36 a 50 years of age and 25% of those ≥ 51 years of age (χ^2=20.45; gl=6; p=0.002).

- The **perception of family burden**, on a scale of 1 (very low) to 5 (very high), is greater in nurses between the ages of 36 and 50 (F=24.37; gl=2; p<0.001).

Table 13. Family burden versus age (n=235).

Age	n	Average	SD
<35	87	1.76	1.07
36-50	108	2.99	1.39
>51	40	2.30	1.07

- **Postgraduate training in Mental Health** has been carried out by 55.6% of the nurses from 36 to 50 years of age; 40% of those ≥ 51 years of age; and 26.4% of those ≤ 35 years of age (χ^2=16.85; gl=2; p<0.001). Whereas, **Postgraduate training in Addictions** has been carried out by 12.5% of those ≥ 51 years of age; 7.4% of those from 36 to 50; and 1.1% of those ≤ 35 years of age (χ^2=7.05; gl=2; p=0.029).

- 16.4% (12) of the nurses ≤ 35 years of age; 6.6% (8) from 36 to 50 years of age; and 2.5% ≥ 51 years of age are **Mental Health specialists through the EIR entry route** (χ^2=7.94; gl=2; p=0.019). 0% (0) of the nurses ≤ 35 years of age; 51.6% (63) from 36 to 50 years of age; and 51.75% (30) ≥ 51 years of age are **Mental Health specialists through the Widening Access entry route** (χ^2=76.23; gl=2; p=0.001).

- The **motivation perceived as regards training**, rated on a scale of 1 (very low) to 5 (very high), diminishes slightly with the increase in age, with statistically important differences (F=4.21; gl=2; p=0.016). The nurses ≤ 35 years of age have an average motivation of 3.86 (SD 1.17), those from 36 to 50 years of age that of 3.71 (SD 1.01) and those ≥ 51 years of age that of 3.25 (SD 1.17).

- The **level of availability for carrying out training**, rated on a scale from 1 (very low) to 5 (very high), is lower in the group of nurses from 36 to 50 years of age, with an average of 2.69 (SD 1.05), versus 3.12 (SD 1.09) in those ≤ 35 years of age and 3.15 (SD 1.23) in those ≥ 51 years of age (F=4.85; gl=2; p=0.009).

- The **hours of training** decrease when the age increases. The nurses ≤ 35 years of age carry out an average of 116.73 hours of training (SD 132.36); those from 36 to 50 years of age do 75.59 (SD 160.57); and those ≥ 51 do 55.18 (SD 59.45) (F=2.97; gl=2; p=0.053).

- The **financing of training** for nurses decreases with the increase in age: 60.5% (SD 35.59) for nurses ≤ 35 years of age; 47.13% (SD 37.72) for those from 36 to 50 years of age; and 44% (SD 37.81) for those ≥ 51 years of age (F=4.25; gl=2; p=0.016).

- The **motivation for carrying out teaching** of undergraduate and postgraduate courses, rated on a scale from 1 (very low) to 5 (very high), is higher in the age group from 36 to 50 years of age, with an average of 3.36 (SD 1.25),

versus 2.79 (SD 1.41) in that of ≤ 35 years of age and 2.75 (SD 1.48) in that of ≥ 51 years of age ($F=5.51$; gl=2; $p=0.005$).

- The **limitation of a lack of training for carrying out teaching** diminishes with age. It is identified thus by 47.1% of the nurses ≤ 35 years of age, 25.9% of those from 36 to 50 years of age and 10% of those ≥ 51 years of age ($\chi^2=20.59$; gl=4; $p<0.001$). This limitation can be associated with the fact that participation in **postgraduate teaching** by nurses who are ≥ 51 years of age, with 27.5%, is greater than those from 36-50 years of age (10.2%) and than those who are ≤ 35 years of age, in which it is null ($\chi^2=25.36$; gl=4; $p<0.001$).

- **Participation in research** increases with age. 44.8% of the professionals who are ≤ 35 years of age, 39.5% of those from 36 to 50 years of age and 25% of those who are ≥ 51 years of age have never participated in any research project. The types and levels of participation in research over the last five years and the distribution according to age groups can be seen in table 14.

Table 14. *Type and level of participation in research versus age (n=149).*

Type of Research	≤ 35	36-50	≥ 51	χ^2	gl	*p*
Multidisciplinary (CR)	7.7%	17.5%	23.3%	3.32	2	0.190
Multidisciplinary (collaborator)	33.3%	56.3%	80%	15.03	2	0.001
Nursing (CR)	48.7%	38.8%	20%	6.06	2	0.048
Nursing (collaborator)	48.7%	56.3%	53.3%	0.60	2	0.741
Quantitative	56.4%	70%	50%	14.04	4	0.007
Qualitative	54.2%	43.7%	36.7%	7.60	4	0.107

- The **participation in research** of the nurses shows significant differences in the **presentation of results and publications**. It has been observed that 23.5% of those who are ≤ 35 years of age have actively participated, versus 45.4% of those from 36 to 50 years of age and 52.5% of those who are ≥ 51 years of age ($\chi^2=12.26$; gl=4; $p=0.016$).

- The **lack of training** is the **limitation for carrying out research** that the nurses from 36 to 50 years of age have predominantly assessed, with 56.6%, as opposed to 42.5% for those who are ≥ 51 years of age and 32.2% for those who are ≤ 35 years of age (χ^2=11.62; gl=2; p=0.003). On the other hand 50% of those who are ≥ 51 years of age identify the **lack of support of work colleagues as a limitation for carrying out research**, versus 45.4% of those from 36 to 50 years of age and 29.9% for those who are ≤ 35 years of age (χ^2=6.63; gl=2; p=0.036). The figures for the rest of the existing limitations and available resources for carrying out research remain stable in the different age groups.

7.2.2. Gender

The most relevant results obtained when relating the **gender** (male, female) to the rest of the variables are shown below:

- There are not any significant differences with the **professional experience** or the **postgraduate training**.

- The **level of family burden** perceived is similar between men and women (p=0,788).

- The **management positions** are occupied by 25% of the men and 4.9% of the women (χ^2=20.66; gl=3; p<0.001).

- The **level of professional development**, rated on a scale of 0 (no level) to 4 (the highest level), shows a statistically significant difference, men having an average of 2 (SD 1.2) as opposed to 1.6 (SD 1.6) for women (t=2.245; gl=233; p=0.026).

- The **number of hours of ongoing training** carried out annually is 92.5 (SD 155.8) for women and 59.9 (SD 62.4) for men (t=2.21; gl=204; p=0.027).

- The **teaching participation in internal activities in the work centre** is an average of 2.3 (SD 2) for women and 1.3 (SD 1.7) for men (χ^2=3.12; gl=70.4; p=0.003).

- The **teaching participation in postgraduate training** is 21.2% for men as regards 6% for women (χ^2=11.16; gl=2; p=0.004).

- The participation in **publications in journals without an impact factor** was 25% for men and 13.1% for women (χ^2=6.28; gl=2; p<0.043).

7.2.3. Province

The most relevant results obtained when relating the **province** (Barcelona, Gerona, Lerida and Tarragona) to the rest of the variables is shown below:

- The distribution of the nurses according to the **nature of the work centre** is not homogeneous in the different provinces. In Barcelona, 83.7% work in private state-assisted centres and 14.2% in public centres; in Tarragona 81.1% work in private state-assisted centres and 10.8% in public centres; in Gerona, 48.5% private state-assisted centres 51.5% in public centres; and in Lerida, 62.5% private state-assisted centres 29.2% in public centres (χ^2=31.866; gl=6; p<0.001).

- The **contractual situation** shows significant differences. Thus, 91.9% of the nurses in Tarragona have an open-ended employment contract, as opposed to 74.5% in Barcelona, 54.5% in Gerona and 54.2% in Lerida. Public servant or statutory contracts are a minority in general: 16.7% of the nurses in Lerida have one, 5.7% in Barcelona, 5.4% in Tarragona and 0% in Gerona (χ^2=45.593; gl=15; p<0.001).

- **Postgraduate Training in Mental Health** for nurses is 54.5% in Gerona, 46.1% in Barcelona, 29.2% in Lerida and 24.3% in Tarragona (χ^2=9.46; gl 3; p=0.024). **Master's degree training in Mental Health** for nurses is 22.7% in Barcelona, 13.5% in Tarragona, 12.5% in Lerida and 3% in Gerona (χ^2=8.26; gl=3; p=0.041).

- No differences are found in the number of **training hours carried out by nurses** in the four provinces, but differences are to be observed in the percentage of the **cost of training** covered by the work centres: 50.3% (SD

29.1) in Gerona, 38.3% (SD 33.2) in Lerida, 37.5% (SD 35.9) in Barcelona and 17.6% (SD 20.8) in Tarragona (F=8.61; gl=3; p<0.001).

- The professionals state that **the work centres do not draw up an ongoing training plan in Mental Health and Addictions** in 41.7% of the cases in Lerida, 37.8% in Tarragona, 21.3% in Barcelona and 9.1% in Gerona (χ^2=12.49; gl=3; p=0.006). No differences exist between provinces in the devising of a training plan within the work centres.

- **The availability for carrying out ongoing training**, rated on a scale of 1 (very low) to 5 (very high), is 3.5 (SD 0.97) in Lerida; 2.9 (SD 1) in Gerona; 2.8 (SD 1.1) in Barcelona; and 2.8 (SD 1.3) in Tarragona (F=3.15; gl=3; p=0.026).

- There are no significant differences in the assessment that nurses give of the **training of the professional colleges** in terms of subject matter, organisation, duration, timetable, material, educators, enrolment process and prices.

- The percentage of **nurses who have not undertaken training in their professional colleg**e is 87.5% in Lerida, 81.1% in Tarragona, 52.55% in Barcelona and 48.5% in Gerona, (χ^2=19.56; gl=3; p<0.001). There are differences in terms of the proportion of reasons attributed by the nurses in each province as regards the failure to undertake training in the professional college (table 15).

Table 15. Reasons for not undertaking training in the professional college versus province (n=235).

Reasons	Barc.	Gerona	Lerida	Tarrag.	χ^2	gl	*p*
Subject matter not suitable to interests	15.6%	30.3%	54.2%	37.8%	31.18	6	<0.001
Timetables not compatible	41.1%	33.3%	54.2%	56.8%	22.74	6	0.001
Unreasonable Pricing	33.3%	30.3%	45.8%	40.5%	22.05	6	0.001
Travelling distance and time	36.2%	9.1%	33.3%	45.9%	35.22	6	<0.001
Shortage of time for undertaking training	17%	15.2%	4.2%	27%	29.03	6	<0.001

- The **lack of participation in research** is observed in 56.8% of the nurses in Tarragona, 37.5% in Lerida, 33.3% in Gerona and 31.9% in Barcelona (χ^2=7.97; gl=3; p=0.047).

- The **lack of infrastructure for research in the work centres is a limitation** identified by nurses with 83.3% in Lerida, 70.3% in Tarragona, 68.1% in Barcelona and 48.5% in Gerona (χ^2=8.29; gl=3; p=0.04). Whereas the **training in research as an available resource** is endorsed by 61% of the nurses in Barcelona, 50% of those in Lerida, 42.4% of those in Gerona and 32.4% of those in Tarragona (χ^2=11.46; gl=3; p=0.009).

- The **support of the professional college as a resource for developing research projects** is rated favourably by 61.7% in Barcelona, 45.8% in Lerida, 32.4% in Tarragona and 30.3% in Gerona (χ^2=17.48; gl=3; p=0.001).

- The **satisfaction with the research projects carried out**, rated on a scale of 1 (very low) to 5 (very high), has an average of 2.73 (SD 1.5) in Lerida, 3.32 (SD 0.78) in Gerona, 3.34 (SD 1.12) in Barcelona and 3.88 (SD 0.71) in Tarragona (F=2.82; gl=3; p=0.041).

7.2.4. Field of Work

The most relevant connections between the **field of work** of the nurses and the rest of the variables are shown below:

- 66.7% of the educators, 69.6% of the managers and 35% of the care staff are **nurses specialists in Mental Health through the Widening Access entry route** (χ^2=13.21; gl=2; p=0.001).

- The **Master in Mental Health** has been carried out by 55.6% of the educators, 3.4% of the care staff and by 8.7% of the managers (χ^2=42.11; gl=2; p<0,001).

- The **doctorate** has been or is being carried out by 77.8% of the educators, 8.7% of the managers and 5.9% of the care staff (χ^2=54.69; gl=2; p<0.001).

- The average for the **level of professional development recognised by the work centre**, rated on a scale of 0 (no level) to 4 (the highest level), is 1.53 (SD 1.19) for care staff; 2.43 (SD 1.07) for managers; and 2.67 (SD 1.41) for educators ($F=9.22$; $gl=2$; $p<0.001$). **The level of professional development is related to the years devoted to the profession** with an average of 15.4 (SD 9.5) for care staff; 22.2 (SD 8.6) for managers; and 23.4 (SD 10.1) for educators ($F=8.03$; $gl=2$; $p<0.001$).

- The nurses state that **no training plans are organised in their work centre** according to 44.4% of the educators, 9.9% of the care staff and 8.7% of the managers ($\chi^2=19.81$; $gl=6$; $p=0.003$).

- The **training plan does not take into consideration the opinion of the nurses when being drawn up** for 42.9% of the care staff, 22.2% of the educators and 13% of the managers ($\chi^2=8.83$; $gl=2$; $p=0.012$).

- **They do not know how the training plan is devised in their work centre** according to 55.6% of the educators, 48.3% of the care staff and 21.7% of the managers ($\chi^2=6.21$; $gl=2$; $p=0.045$).

- There are no significant differences between the number of **hours devoted to training in relation to the field of work**, but there are in terms of **financing by workplaces and professionals**. The contribution of the work centre to training is 37.2% (SD 34.7) for care staff, 55.6% (SD 35.6) for educators and 60.4% (SD 33.9) for managers ($F=5.47$; $gl=2$; $p=0.005$), the reverse situation to what happens with nurses' self-funding of training.

- No significant differences have been found between the fields of work of care, teaching or management in terms of the **participation in research projects**, although it has been observed that the motivation for carrying out research is greater in teaching staff, with an average of 4 (SD 1.1), followed by 2.9 (SD 1.3) in care staff and 2.8 (SD 1.2) in managers.

- The **lack of support from nursing management for research** is identified as being 66.7% by teaching staff, 65.5% by care staff and 39.1% by managers ($\chi^2=6.22$; $gl=2$; $p=0.045$). No significant differences are found in the other limitations for research.

- The **resources that nurses have for doing research** are different according to the field of work (table 16).

Table 16. Nurses' resources for conducting research (n=235).

	Care	Teaching	Management	χ^2	gl	*p*
Training in Research	48.8%	88.9%	73.9%	10.14	2	0.006
Work Centre Support	56.2%	66.7%	87%	8.33	2	0.016
Time within the Working Day	9.9%	66.7%	21.7%	25.92	2	<0.001
Economic Support	18.7%	55.6%	21.6%	7.51	2	0.023
Personal Timetable Availability	31.5%	88.9%	43.5%	13.31	2	0.001

- 77.8% of the teaching staff, 60.9% of the managers and 35% of the care staff (χ^2=12.52; gl=4; p=0.014) **present the results of the research to the scientific community**.

- 55.6% of the teaching staff, 30.4% of the managers and 14.8% of the care staff (χ^2=12.86; gl=4; p=0.012) carry out **conferences** and **papers** to present the results of the research.

- 44.4% of the teaching staff, 13% of the managers and 7.9% of the care staff (χ^2=14.25; gl=4; p=0.007) **publish in journals with an impact factor; and without an impact factor**, 66.7% of the teaching staff, 17.4% of the managers and 13.3% of the care staff (χ^2=18.99; gl=2; p=0.001).

7.2.5. Contractual Status

The most relevant connections between the contractual status (open-ended, temporary, public servant or statutory and interim contracts) of the nurses and the rest of the variables studied are detailed below:

- There is no **nurse specialising in Mental Health through the Widening Access entry route** with a temporary contract.

- **Postgraduate training in Mental Health** has been attained by 50% of those nurses with open-ended contracts, 42.9% by those with public servant contracts, 21.4% with interim contracts and 14.3% with temporary contracts (χ^2=15.43; gl=3; p=0.001).

- There are differences in the **level of professional development.** It has been observed that the average is 1.85 (SD 1.7) for public servant or statutory contracts; 1.83 (SD 1.1) for open-ended contract staff; 1.57 (1.3) for interim contracts; and 0.96 (SD 1.4) for temporary contracts (F=4.318; gl=3; p=0.006). This data corresponds with **the amount of time worked as a nurse**, which is 23.5 years (SD 11) for public servant or statutory contracts; 16.9 years (SD8.6) for open-ended employment contracts; 9.4 years (SD 3.9) for interim contracts; and 7.18 years (SD 8.3) for temporary contracts (F=17.06; gl=3; p<0.001).

- The **family burden**, measured on a scale of 1 (very low) to 5 (very high), is 2.6 (SD 1.4) for open-ended contracts; 2.4 (SD 1.4) for public servant or statutory contracts; 2.1 (SD 1.6) in interim contracts; and 1.6 (SD 0.9) for temporary contracts (F=4.49; gl 3; p=0.004).

- No differences are seen in the **number of training hours** that are carried out annually by the nurses, but a difference is seen in the **percentage of financing effected by the professional himself**, which is 40.7% (SD 36.1) for public servant or statutory contracts; 41.4% (SD 36.5) for interim contracts; 50.7% (SD 38.1) for open-ended contracts; and 68.9% (SD 30.5) for temporary contracts (F=2.84; gl=3; p=0.039). The **funding of the training through other means** is higher for the public servant or statutory and interim contracts, with 15.7% (SD26.3) and 10.7% (SD20.6) respectively, as opposed to 5.7% (SD19.1) for temporary contracts and 4.2% (SD13.4) for open-ended contracts (F=2.91; gl=3; p=0.035).

- The **teaching participation in activities external to the workplace** is 64.3% for interim contracts, 60.7% for temporary contracts, 58.2% for open-ended contracts and 42.9% for public servant or statutory contracts (χ^2=20.34; gl 6; p=0.002). The **average number of annual teaching hours** is 274 (SD 274.6) for public servant or statutory contracts; 70 (SD116) for interim contracts; 56.6 (SD 139.3) for open-ended contracts; and 23 (SD 57.5) for temporary contracts (F=3.21; gl=3; p=0.024).

- There are differences of opinion between professionals as regards the **limitations for participating as educators** (table 17).

Table 17. Limitations in teaching versus contractual situation (n=227).

	Open-Ended	Temporary	Public Servant	Interim	χ^2	gl	*p*
Lack of training	27.6%	39.3%	14.3%	57.1%	27.25	6	<0.001
Lack of skills	22.4%	35.7%	35.7%	42.9%	26.46	6	<0.001
Lack of aptitudes	10.6%	21.4%	14.3%	21.4%	23.82	6	0.001
Scarcity of opportunities	71.2%	67.9%	42.9%	42.9%	26.17	6	<0.001
Timetable incompatibility	50.6%	60.7%	35.7%	64.3%	22.43	6	0.001

- The **participation in research projects** is 100% for public servant or statutory contracts, 62.4% for fixed contracts, 57.1% for interim contracts and 50% for temporary contracts (χ^2=10.47; g= 3; p=0.015).

- The **presentation of the results to the scientific community** has taken on different forms amongst the different groups (table 18).

Table 18. Presentation of the results to the scientific community versus contractual situation (n=235).

	Open-Ended	Temporary	Public Servant	Interim	χ^2	gl	*p*
Oral communication or poster sessions	38.8%	39.3%	92.9%	28.6%	19.89	6	0.003
Conferences	14.1%	17.9%	64.3%	28.6%	27.44	6	<0.001
Clinical Sessions	25.3%	17.9%	71.4%	21.4%	18.41	6	0.005
Articles (without IF)	15.3%	3.6%	64.3%	7.1%	30.26	6	<0.001
Articles (with IF)	8.2%	3.6%	50%	7.1%	30.66	6	<0.001

- The **research limitations** are similar in the four groups, but the **lack of knowledge, skills and aptitudes** is shown by 52.9% of open-ended contract nurses, 28.6% of those with public servant or statutory contracts, 25% with temporary contracts and 14.3% of those with interim contracts (χ^2=15.66; gl=3; p=0.001). The feeling of **little support from fellow workers** in the undertaking of research is 44.7% for open-ended contracts, 35.7% for public servant contracts, 21.4% in temporary contracts and 21.4% in interim ones (χ^2=8.09; gl=3; p=0.044).

- The **doctorate programme** is being undertaken by 35.7% of the public servant contracts, 10.7% of the temporary contracts, 7.1% of the interim contracts and 5.9% of the open-ended contracts (χ^2=15.19; gl=3; p=0.002).

7.2.6. Working Day

The most relevant connections between the **working day** (full-time working day —FT—, part-time working day of between 75% and 99% —PT 75-99— and part-time less than 75% —PT<75—) of the nurses and the rest of the variables studied is shown below:

- 52.4% of the **nurses specialising in Mental Health through EIR** is not working FT and 23.8% have PT<75. On the other hand, 80.6% of those **specialising in Mental Health through the Widening Access entry route** work FT and 17.2% PT 75-99.

- The **workplace** of the **full-time** nurses is in 85% of the cases in a day centre; 75% in a psychiatric residence; 73.9% in an inpatient unit; 70.8% MHC; 67.6% in a day hospital; and 80.8% in a University School of Nursing as an educator.

- There are differences in relation to the **province**, such that there are 94.3% **full-time workers** in Tarragona, 75% in Lerida, 71.4% in Barcelona and 58.1% in Gerona.

- The average number of **years as a nurse** is 17.7 (SD 9.6) for FT nurses; 13.9 (SD 7.8) for PT 75-99; and 11 (SD 10.3) for JP<75 (F=7.10; gl=2; p=0.001).

- There are differences in the **limitations as an educator** expressed by the professionals in relation to the working day. A **lack of skills** are referred to by 19.8% of those who are FT, by 27% who are PT 75-99 and by 69.2% who are PT<75 ($\chi^2=30.29$; gl=4; $p<0.001$). A **lack of aptitudes** for teaching is expressed by 9.9% who are FT, by 8.1% who are PT 75-99 and by 34.6% who are PT<75 ($\chi^2=15.24$; gl=4; $p=0.004$).

- No significant differences have been found in the majority of variables linked to research, except in the **publication of the results of the research in journals without an impact factor**, in which the group of professionals who are FT publish 20.3% as opposed to 2.7% of those who are PT 75-99 and 3.8% of staff who are PT<75 ($\chi^2=10.33$; gl=4; $p=0.035$). They coincide in the number of evaluations of the **limitations for carrying out research**, except in the lack of knowledge, of aptitudes and skills, because 50% of the professionals who are FT refer to this deficiency as opposed to 35% of those who are PT 75-99 and 26.9% of those who are PT<75 ($\chi^2=6.62$; gl=2; $p=0.036$).

7.2.7. Academic Qualifications

Below are detailed the most relevant connections between the different variables and the **qualification** of the nurses, categorised into four groups (general nurse —GN—, nurse specialising in Mental Health through EIR —MHNr—, nurse specialising in Mental Health via the Widening Access entry route or by validation of the previous qualification —MHNe— and internal resident nurse —EIR—).

- The **age** and the **years worked as a mental health nurse** have a strong relation to the qualification. The average number of years worked is 18.9 (SD 6.9) for the MHNe; 8.2 (SD 5.3) for the GN; 7.7 (SD 6.4) for the MHNr; and 1.8 (SD 1.1) for the EIR ($F=67.39$; gl=3; $p<0.001$).

- 66.7% of the MHNe, 29.2% of the GN and 19% of the MHNr ($\chi^2=41.12$; gl=3; $p<0.001$) have undertaken **postgraduate studies in Mental Health**. All of those who have carried out **postgraduate studies in Addictions** are MHNe.

- The nurses specialising in Mental Health who enjoy **recognition of the professional category in the work centre** are 14% of the MHNe and 9.5% of the MHNr.

- The **motivation for training**, rated on a scale of 1 (very low) to 5 (very high) is 4.6 (SD 0.5) in EIR; 3.8 (SD 0.9) in MHNr; 3.7 (SD 1.2) in GN; and 3.5 (SD 1.1) in MHNe (F=2.97; gl=3; p=0.033).

- The **availability for carrying out training**, rated on a scale of 1 (very low) to 5 (very high) is 4.1 (SD 1) in EIR; 3.10 (SD 1.1) in MHNr; 2.9 (SD 1.12) in MHNe; and 2.8 (SD 1.1) in GN.

- The f**amily burden perceived**, rated on a scale of 1 (very low) to 5 (very high) is 1.4 (SD 0.7) in EIR; 1.9 (SD 1.2) in MHNr; 2.3 (SD 1.3) in GN; and 2.8 (SD 1.3) in MHNe.

- The participation in **postgraduate teaching** is 17.2% in MHNe, 4.8% in MHNr, and 4.4% in GN (χ^2=12.74; gl=6; p=0.036), but the number of teaching hours is similar in the different groups.

- The **teaching deficiencies for training** are reported by 14% of MHNe, 28.6% of MHNr, 43.4% of GN and 62.5% of (χ^2=26.54; gl=6; p<0.001).

- The **degree of motivation for research** is similar in the four categories. Nonetheless, there are differences in the percentage of **participation in research projects** linked to mental health nursing care, which is 54% for GN, 67.7% for MHNe, 75% for EIR and 90.5% for MHNr.

- The **active involvement in the different stages of research** shows significant differences between the four groups (table 19).

Table 19. . Participation in the different stages of research versus qualification (n=149).

	NG	MHNr	MHNe	EIR	χ^2	gl	*p*
Drawing up of protocol	32.7%	52.4%	45.2%	37.5%	13.46	6	0.036
Data collection	48.7%	85.7%	66.7%	50%	23.93	6	0.001
Data Analysis	32.7%	52.4%	25.8%	37.5%	19.04	6	0.004
Drawing up of results	47.4%	57.1%	37.6%	37.5%	16.97	6	0.009
Presentation of results	33.6%	57.1%	43%	25%	14.72	6	0.023

7.2.8. Work Shift

We comment on the most relevant connections between the nurses' **work shift** (day shift —morning or afternoon—, split shift —morning to afternoon—, "substitution shift" —morning and afternoon— and night shift) and the rest of the variables studied below:

- The average number of **years worked in mental health** varies in relation to the work shift: 19.2 (SD 9.7) in the split shift; 12.26 (SD 8.6) in the day shift; 10.7 (SD 6.5) in the "substitution shift"; and 9.9 years (SD 6.6) in the night shift (χ^2=9.39; gl=3; p<0.001).

- There are no significant differences in the **level of family burden**, the **level of professional development** and the number of **training hours** that the different work-shift professionals carry out.

- The **participation in teaching and research activities** is different in relation to the work shift, as we can see in table 20.

Table 20. Participation in teaching and research versus work shift (n=235).

	Day	Night	Morning to Afternoon	Substitution	χ^2	gl	*p*
External Teaching	37.9%	39.3%	66.6%	30.9%	26.05	15	0.037
Internal Teaching	57.5%	28.6%	73.7%	47.3%	28.17	15	0.021
Conferences	24.4%	7.1%	37.1%	12.7%	26.82	15	0.030
Clinical Sessions	56.7%	10.7%	53.2%	53%	30.12	15	0.011
Research	70%	50%	71%	50.9%	9.09	3	0.028

- The **motivation for training**, rated on a scale of 1 (very low) to 5 (very high), of the different work-shift professionals is significantly different: 4 (SD 0.9) for "substitution shift" workers; 3.7 (SD 0.9) for split shift workers; 3.6 (SD 1.2) for those on the day shift; and 3.3 (SD 1.2) for those on the night shift (F=2.79; gl=3; p<0.041).

- The **availability for doing training**, rated on a scale of 1 (very low) to 5 (very high) is 3.1 points (SD 1) for those on day shifts; 3 (SD 1) for those on split shifts; 2.8 (SD 1.3) for those doing "substitution shifts"; and 2.3 (SD 0.9) for those on night shifts (F=4.34; gl=3; p=0.005).

- The **motivation for teaching**, rated on a scale of 1 (very low) to 5 (very high) is 3.4 (SD 1.3) for those on split shifts; 3.1 (SD 1.3) for those on day shifts; 3 (SD 1.4) for those doing "substitution shifts"; and 2.5 (SD 1.3) for those on night shifts (F=3.08; gl=3; p=0.028).

- No significant differences are to be observed between the groups as regards **motivation for carrying out research**

7.2.9. Professional Development

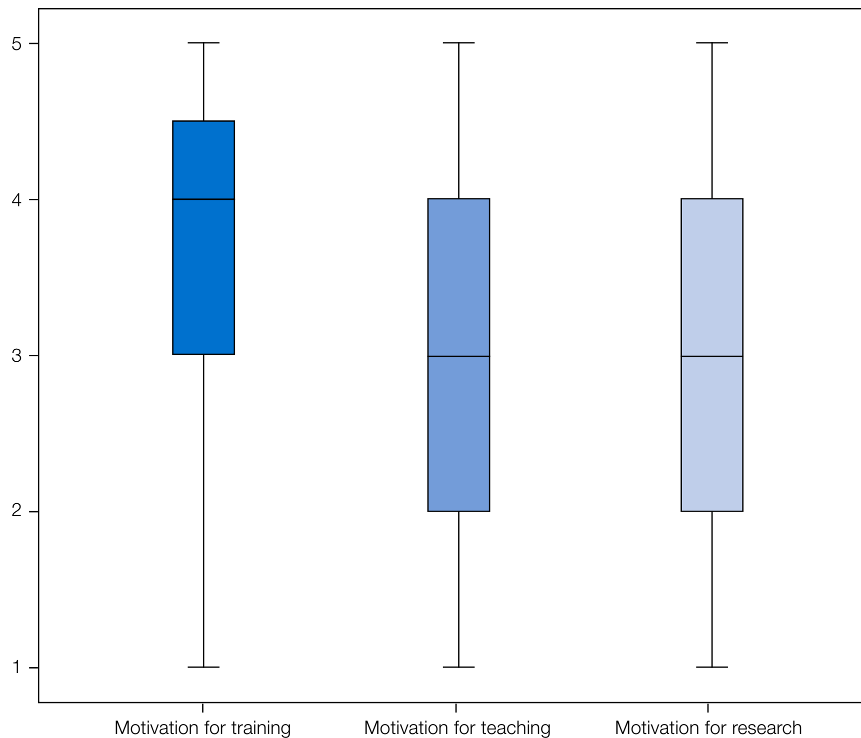
The annual **training hours** in relation to the level of **professional development** decreases progressively from the second level onwards. Those professionals with

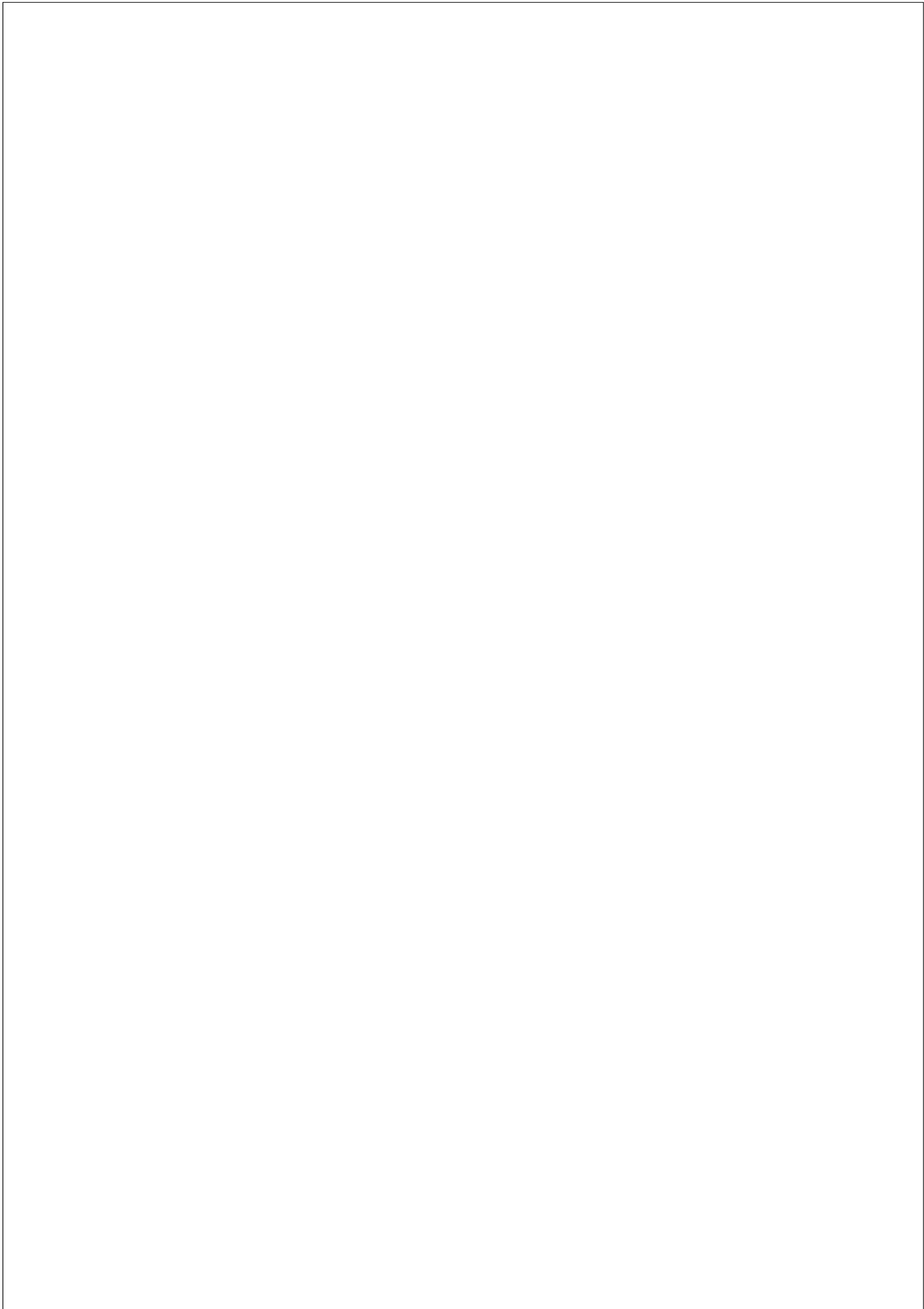
no level of development carry out 104.1 hours (SD 111.1); first level professionals 82.9 hours (SD 104.6); second level professionals 92.4 hours (SD 217.8); third level professionals 72.8 hours (SD 75.9); and fourth level professionals 40 hours (SD 32).

7.2.10. Comparison between Motivation in Training, Teaching and Research

The level of motivation in training (3.7 SD 1.1) is greater than that in teaching (3.08 SD 1.37) and research (2.96 SD 1.26).

Chart 54. *Comparison between motivation in training, teaching and research (n=235).*





8 Discussion

Updated data on the number of nurses currently working in Mental Health in Catalonia is not available. The only data of reference that we have is from a study from 2010, in which the Catalan Mental Health Nursing Association (ASCISAM according to its initials in Spanish) took a census of 593 nurses who attended to 67.75% of the adult population of Catalonia (68). Assuming that the distribution of nurses in the whole of the Catalan territory was homogeneous, we could assume that 875 mental health nurses attended to the Catalan adult population in the year 2010.

In the present study, the participation of 235 nurses and the variability of the sample suggest that it has been able to capture the diversity of opinions and/or perceptions of mental health nurses in Catalonia.

The **professional profile** that prevails and that characterises the sample studied is of women nurses (78%), with an average age of 39.94 (SD 9.49) years, who finished their nursing studies 16.36 (SD 9.69) years ago and who have been working as nurses for 15.24 (SD 9.43) years, of which 12.22 (SD 8.19) years have been in the field of mental health. They are nurses specialising in Mental Health (52%), they work in private state-assisted centres (76%), with a open-ended or statutory employment contracts (78.30%), on morning shifts (29.36%), full time (74.04%), in the care area (86%) of adults (85.53%) and in hospital inpatient units (60.43%).

The sample is predominantly of the female **sex**, an aspect that characterises the nursing profession (17). Nonetheless, the percentage of men in the sample (22%) should be highlighted, which is greater than that of the nursing population in Catalonia (12% according to the Spanish National Institute of Statistics (INE), December 2014), a situation that has already been observed in other studies (68-70).

The **family burden**[5] perceived is low; the highest appears in the group of 36 to 50 year olds, a fact that is ostensibly related to caring for minors.

The **level of professional development** of the women is less than that for men, in spite of the fact that they carry out more hours of training and internal teaching. The greater participation of men in postgraduate teaching and in publications in scientific journals without an impact factor are the only significant differences that have been identified and which could determine the difference in the level of development. On the other hand, although no significant differences in the professional experience between men and women have been identified, it should be said that the periods of temporary employment inactivity (leave of absence to take care of minors) requested mainly by women, have a bearing on the time worked and might delay the application for professional career levels.

The distribution of the participants into the different **age groups, groups of professional experience and as mental health nurses** is one of the aspects that suggest that the sample is representative of the population studied. The average age, average years practising as a nurse and as a mental health nurse are some of the aspects which are indicative of the experience and career path of the participants, who still have a long professional career ahead of them.

The fact that an elevated number of professionals work in **private state-assisted centres**, in the **area of adults** and in the **hospital inpatient units**, reproduces the current distribution of the field of mental health and coincides with the places where more mental health nurses work, despite the fact that there has been considerable participation from professionals who work in Children and Adolescent sections and Addictions, and in other care levels such as Mental Health Centres (MHC), day hospitals etc.

In terms of **contracting**, the data presented by the Spanish Association of Neuropsychiatry (AEN according to its initials in Spanish) in the year 2009, which

5 The perceived family burden, related to caring for minors or dependent relatives, has been rated on a scale of 1 to 5, where 1 is very low, 2 is low, 3 is average, 4 is high and 5 is very high.

included data from the Spanish National Health Service (SNS according to its initials in Spanish) with the exception of Catalonia, Extremadura, Burgos and Soria, identified 56.04% open-ended contracts in the Spanish National Health Service (69). Comparing the data of the present study with that of AEN, there are more open-ended contracts than temporary ones. This result is surprising, bearing in mind that the economic crisis began in 2009, which was accompanied by the implementation of policies that have not contributed towards the consolidation of permanent jobs and has provoked the loss of temporary and permanent work. This suggests two possibilities: the first, that the SNS data of 2009 was not representative of nor comparable to Catalonia; and the second, that the loss of temporary work in recent years has entailed a proportional increase in opened-ended contracting in comparison with temporary contracting.

Parameters such as the contractual situation (78.30% have open-ended or statutory employment contracts), the working day (89.78% have a working day of ≥ 75%) and the work shift (76.60% have fixed shifts) currently seem to objectify **there being employment stability for the majority of mental health nurses.** On the other hand, it has been noted that temporary employment focuses primarily on nurses ≤ 35 years of age (25.3%), given that there is a very low percentage of those >35 years of age (≤5%).

8.1. Training

In the year 2010, in a study carried out in Catalonia on 593 nurses who worked in Mental Health, 51% were nurses specialising in Mental Health (68). Five years later, of the 235 nurses who participated in the present study, **52% are nurses specialising in Mental Health**; and of the 203 care nurses, 44.9%. Of the sample studied, in the following 15 years an important percentage of specialist nurses will terminate their professional practice, taking into consideration the fact that, in the ≥ 51 years age group, 77.5% of the nurses are specialists in Mental Health.

In Catalonia the professional category of mental health nurse specialist is not recognised. It is the general and specialist nurses who, regardless of their tasks and functions, provide attention and care for the patient with mental

illness. There are different opinions regarding the qualifications that nurses, occupying positions as mental health nurses, ought to have. Thus, while some believe these positions should be taken by general and specialist nurses with differentiated functions, others believe that it is the specialist nurses who ought to occupy these positions, because they are the ones with the required knowledge and competences for attending to the people correctly and for taking charge of the care of patients with mental illness.

In the year 2015 959 EIR places were officially announced in Spain, of which 181 were for Mental Health nursing, 30 of which were announced in Catalonia. It should be mentioned that **the percentage of EIR places announced annually does not correspond to those accredited**. Thus, for example, in 2015, of the 48 places accredited in Catalonia for carrying out the nursing specialty in Mental Health, 30 (62.5%) were officially announced, this is a situation which is reproduced in all the other specialties and throughout the whole of Spain.

The analysis of the current context suggests that **the number of EIR places in Mental Health that are being officially announced annually are insufficient** to guarantee generational replacement and to occupy in the medium or long term all of the places for mental health nurses. This leads us to recommend that, if one wishes to maintain the number of specialists who are currently in the mental health teams, or increase their number as has been done in other Spanish autonomous regions (71), the number of Mental Health EIR places officially announced annually should be increased.

The demand for the specialty in order to occupy the position of mental health nurse should be linked to the recognition of the professional category, but this recognition only exists in 8 autonomous regions throughout Spain (14). In Catalonia this specialty is not recognised. In April 2014 the Ministry of Health, Social Services and Equality presented a proposal for a timeline for the creation, implementation and allocation of places for the specialist nursing categories, which had to be debated with the different health services and in which the deadline proposed for the recognition of the category specializing in mental health nursing ended in May 2016 (13). Of the 235 nurses who have participated in the present study, very few have reported having their professional category as a nurse specialising in Mental Health recognised in

the workplace, as opposed to what occurs with professionals working in some autonomous regions in Spain, where it is recognised and has been established as a criterion for employment eligibility in mental health nursing positions, this is a situation which, as we have already said, is not currently happening in Catalonia (43).

For mental health nurses training is a key element in establishing its identity as a profession and as a specialty (9,18,72-75), centring on the psychosocial model, of a therapeutic relationship and of user empowerment (30,76-78). Diversified and interdisciplinary training (73) is necessary, which offers the possibility of establishing targeted training plans (79-81) that improve the attitudes and the understanding towards the needs of people with mental disorders.

All these premises are clear to almost all the mental health nurses who have participated in this research study, for the good of their own professional development and discipline. **The level of motivation regarding training reported by mental health nurses is high** and is reflected in the number of annual training hours that the nurses use to carry out ongoing training, postgraduate and Master's degree activities in Mental Health and other specialties. The training undertaken diminishes progressively with age, varies in relation to the work shift and is related to the level of professional development. On the other hand, the availability for carrying out training, a little lower than that for motivation, seems to be more connected to the perceived family burden, given that the group from 36 to 50 years of age is that which has the least availability.

The number of ongoing training hours carried out by mental health nurses is quite high in general, although differences are observed in terms of age, sex, work area, the source and/or percentage of funding and professional development. However, the average amount of training exceeds 80 hours per year; this is carried out in great part outside of the working day and is mainly financed by the professional. Having trained and up-to-date professionals is a duty shared between the work centre and the professional, in which both have to continue to insist, but organisations more so, these should facilitate the access of professionals to training even more, increase the number of hours allocated for carrying it out and increase the resources aimed at financing it.

In relation to the **types of training**, it has been observed that there is a slightly greater interest in online training as compared to the classroom-based and blended-learning types. Technological advances and the possibilities that online training currently give, with contents and tools that have increasingly been adapted towards the training needs, as well as the possibility of choosing when to carry it out, suggest that in the future online training will be the first choice. The new generations of nurses have trained using online methodologies, a fact that favours the selection and implementation of this type of training.

In the face of the **limitations** that have appeared in the development of the profession in terms of training, teaching and research (20), nurses have always made an effort to accept the new conditions and break the limits imposed, seeking new models that define the practice itself from within the discipline (82).

The European Higher Education Area, through the **Bologna Process** (11), has made it possible for nurses to have access to second and third cycle academic qualifications. Although these changes are relatively recent, the percentage of mental health nurses who, in this study, have stated that they have undertaken **Master's degree training** is high. By contrast, the number of professionals who are carrying out or have finished their doctorate is low; most of these professionals belong to the field of teaching. The implementation of the **doctorate** allows nurses to carry out the teaching activity in the academic field without the need to use alternative routes or make a request for exception.

In general the nurses believe that there is a **training plan in the work centres** in which there are cross-disciplinary activities on Mental Health and/or Addictions and on other specialties. To be highlighted is the fact that most nurses believe that only sometimes the ongoing training in Mental Health and/or Addictions suits their needs and that the opinion of the nurses is not considered when drawing it up. It is obvious that these aspects have to be improved by designing training plans that are tailored to the interests and needs of professionals and the organisations, and that involve nurses in the detection of needs and in the organisation of the training (83,84). This will allow for the optimisation and the making good use of existing resources, organising training activities that provide a response to real interests and needs and that require the involvement of professionals and organisations.

The nurses have little knowledge regarding how and by whom the work centre's training plan is drawn up, this indicates that this information does not reach the professionals. The communication channels used to disseminate aspects relating to training must be revised and improved, such that the nurses may know about and use them, as well as identifying and removing constraints to access information.

In the ongoing training organised by the professionals colleges there is an optimum level of participation by mental health nurses (40%), bearing in mind that the majority of the work centres organise training activities in Mental Health and/or Addictions. The assessment of the professionals who have participated in these training activities is, generally speaking, positive in all the aspects evaluated (subject matter, organisation, didactic material, educator, duration, timetable and enrolment process), but opinions are divided in relation to the cost of the courses, which has been considered to be poor or very poor by 31.92% of the professionals. It should be said that over recent years some of the professional colleges, but not all, have adjusted the prices of training activities for professional body members, subsidising an important percentage of training. The results of the study indicate that the two provinces in which fewer members show disagreement with the prices of the courses are those which have had greater participation in ongoing training activities, while the provinces in which more members have shown disagreement with the prices are those which have had lower participation.

The professionals who have stated that they have not participated in **training activities organised by the professional college** have essentially attributed this to a lack of interest in the subject matters and contents, to a lack of compatibility with their timetables, to the travelling distance and time required, to the lack of time for carrying out training and to the unreasonable prices. It has also been observed that there are significant differences in the training provision offered by the 4 Catalan colleges; this is an aspect which has a bearing on the percentage of nurse participation in each of the provinces. Furthermore, the training organised by the colleges is essentially classroom-based, a fact that implies that the online and blended-learning options are scarce. Some of the limitations and shortcomings identified could be resolved by establishing collaborative agreements between the 4 colleges, such that subsidised access

to training would be available to any registered nurse in Catalonia. The promotion of online and blended-learning courses, subsidised for professional body members, would minimise the impediments most mentioned in this study and would facilitate the participation of nurses in the training activities organised by the colleges.

There is growing interest in online training, but not as much for blended-learning, particularly in the younger generations. This type of training, based on the implementation of the new technologies, the interactivity of 2.0 networks and the development of new electronic resources, is perceived as an opportunity enabling one to balance the motivation for continuous learning with the difficulties in reconciling one's personal and professional life (85,86).

8.2. Teaching

Teaching is one of the fundamental pillars of nursing, very sensitive to the profession, that the nurses develop both in the care area (healthcare education for users, families and citizens) and in the area of teaching (students and professionals).

A great number of mental health nurses participate in practical teaching for undergraduate, postgraduate, specialisation and/or vocational training courses, traditionally linked to the practising of the profession and with which, both the nurses themselves and the healthcare institutions show high-level commitment and responsibility. The professionals state that they, generally speaking, have undergraduate, postgraduate, specialisation and vocational training educated students; only 20.7% claims not to have students, this is an aspect which is ostensibly related to the night shift and "substitution shifts" worked.

The participation of nurses in the teaching activity not linked to clinical practice is lower. However, 59.91% of the professionals have participated in teaching activities in the last five years. It has been observed that the qualification, the type of contract and the work shift have a bearing on the level of participation.

The professionals identify the main **limitations for carrying out teaching** as being timetable incompatibility, the lack of aptitudes, the lack of training, the lack of skills and the scarcity of opportunities. The younger nurses are those who claim to have more limitations for teaching, focusing essentially on the lack of training, but at the same time they are also the most motivated.

The nurses' level of motivation for participating in teaching should be taken advantage of (3.08 SD 1.37); this is higher in those from 36 to 50 years of age. However, some of the limitations identified have to be resolved by designing training strategies addressed towards the acquisition of knowledge, skills and aptitudes that allow professionals to develop their teaching competence. It is necessary to provide equal opportunities to all the professionals, this is something which will facilitate the involvement of nurses who have a high level of teaching motivation and a low or non-existent level of participation in internal and external projects in the work centre.

Teaching participation in scientific activities is optimum. Between 33.60% and 61.28% of the professionals have participated in oral communication and/or poster sessions, and/or clinical sessions. In general, it seems that this teaching participation is more greatly linked the professional's own initiative than to factors that are external to the professional and to the opportunities that are offered from outwith. On the other hand, participation in papers and round tables is lower —22.98% and 26.81% respectively—; they are mainly participated in by professionals from the field of teaching.

Academically, the aspects that in the past limited or impeded the participation of nurses in the field of university teaching have been seen to be overcome with the implementation of the Bologna Process (11), which has permitted nurses to carry out, within the training programme itself, the degree, the Master's degree and the doctorate. These changes offer nurses the possibility of being able to teach at university without limitations, conditions or the necessity for requesting an exception. The number of nurses who are currently undertaking a doctorate programme is negligible. Nurses have, therefore, the challenge of obtaining a PhD in Nursing.

8.3. Research

The development of the profession over recent years has meant that research has acquired an indispensable nature, focusing on the assessment of the nursing activity (49, 87) and on the search for scientific evidence.

The belief in the discipline's own resources, the best training in research and the development of Master's degree and doctorate qualifications (42, 55) have meant that nurses' participation in research has grown exponentially. This has become apparent in this study, in which **63% of the mental health nurses claim to have participated in research projects**, mainly as nursing and/or multi-disciplinary research collaborators, but also as chief researchers. The greater the age the greater the number of professionals who have participated in research, which is logical, but it has been observed that there are more professionals ≤ 35 years of age who participate in research as CRs than professionals from older age groups; this is an aspect that is directly related to the advancement of the profession and the development of nursing competence in research.

The motivation that mental health nurses show for carrying out research is slightly lower than that which they express for teaching; however, participation is slightly higher in research as opposed to teaching. It is evident that in both research and in teaching the professional's motivation carries an important weight; but research, as opposed to teaching, is less tied to opportunities that do not depend on the professional, meaning that it could be easier to carry out (88).

The promoting of evidence-based nursing and innovation in care has significantly boosted research in our immediate environment (47, 50, 56, 57). Despite poor investment in an area of recent growth (42, 89), the support and grants for research from professional colleges, scientific associations, research networks and work groups have contributed towards the development of nursing research, a growth which, it must be admitted, is mainly due to the quasi-vocational effort of the professionals themselves (44, 90).

The **aids, grants, prizes and awards** received by 149 nurses who have participated in research projects are less than 19%; this is a situation which is

related to the low number of nurses who have applied for grants and permits (24.83%) or who have participated in professional college calls for research grants (8.51%). Some authors believe that the low percentage of research grants awarded to nurses makes it necessary for there to be a more important presence of nursing research in the official calls (89).

Some authors, such as Martínez, consider that the growing participation in the different stages of research should boost the increase in research led by nurses (91) and should give them some familiarity with the procedures and circuits which nourish research. In the present study it has been observed that **the level of participation of mental health nurses in the different stages of research is very variable**. In this sense one can highlight:

- The low participation of the nurses in the application for grants and permits for carrying out research (24.83%), this is a fact that determines the low number of professionals receiving funding for research.

- The moderate participation in the stages of drawing up the research protocol, tabulation and analysis of data, drawing up of the results and conclusions, and presentation and/or publication of the study, which has fluctuated between 50.34% and 63.76%.

- The high level of participation of nurses in the collection of data (90%).

The lack of participation of the nurses in certain key stages of the research, or the high level of participation in the collection of data, are ostensibly related to the high level of participation in research in the role of collaborator, which for many decades is that which nurses have developed. However, the fact of focusing only on certain aspects of research, instead of looking at the process of continuity and the process as a whole, hinders the integration of research into the normal everyday practice of nurses.

In relation to the level of participation in the different stages of research, it should be noted that it has been observed that nurses specialising in Mental Health through EIR have a higher level of participation in all the research stages, this is an aspect that is ostensibly related to probing deeper into research during training as a specialist.

The mental health nurses have reported using both quantitative and qualitative methodology in their research. The method most used is quantitative, but the qualitative method is increasingly being used, to the extent that it has been observed in professionals who are ≤ 35 years of age that the use of one or other of the two methodologies is very similar (56.4% and 54.2% respectively). The controversy over using quantitative or qualitative research in research projects (59, 60) has been present for a long time, but experts now recognise their complementary nature and their necessity. The qualitative methodology has emerged as an ideal way of assessing the perception of the care bestowed and of the needs of the people and the professionals (54, 58, 92), however assessing the quality of care requires both research approaches so as to achieve evidence-based results and ones that centre round the people.

The presentation and dissemination of research in the scientific community is something that mental health nurses have to improve. Of the 149 nurses who have participated in research projects, more than 30% have not presented the results to the scientific community and more than 75% have not published them in scientific journals. The low dissemination of research results in journals, with or without an impact factor, prevents most of the nursing research being available to the scientific community.

Authors such Juvé and Oliveira as claim that the contribution of mental health nursing to general knowledge of the profession represents approximately 7% of all publications (65, 67). Other authors consider it necessary to increase the visibility of the scientific output in the few specialist journals, nationwide or internationally (44, 93, 94), so as to allow the continuation of these same publications and to increase the level of output and methodological rigour of the projects.

The field of work (care, management and teaching) does not establish differences in the participation in research, but it does in terms of the presentation of the results to the scientific community, the undertaking of conferences and papers, and the publication in scientific journals, with or without an impact factor, which is greater in nurse educators, followed by the managers and the care nurses; this is an aspect which seems to be related to the availability of resources in the different work areas.

The **participation of nurses in conferences and congresses**, where they presented the results of their research in the form of oral communication and/or poster sessions is customary (65.14%) for mental health nurses, but the dissemination of the knowledge acquired is reduced to a small number of participants. According to Juan-Porcar, in an analysis carried out on the communications that were presented to the National Congress on Mental Health Nursing in the year 2009, Catalonia is the community in Spain that presents the largest number of scientific papers (63), a positive situation, but one which cannot remain isolated, to this end one cannot miss any opportunity to disseminate research, the more the better, to members of the scientific community.

The **research area of the professional colleges** aims to offer material resources, support and accompaniment for any subject related to nursing research, with the objective of encouraging and promoting nursing research in all aspects. In spite of the fact that members have this service at their disposal, the results of this study indicate that the research area is underused by mental health nurses, given that only 5.53% of the participants have used it. This is partly attributable to the fact that 64.26% of the professionals claimed not to know this area of research support and advice, nor the services it offers to members. Even so, the nurses consider it to be a good resource providing support for carrying out research and the participants who have been counselled by the research area have given it a good rating.

The **calls for research grants** by the professional colleges are known about by half of the mental health nurses, who participate very little in them; however, on the other hand, proportionally speaking a considerable number of the mental health nurses have managed to be awarded grants.

The great number of professionals who claim not to know the research area and the calls for research grants of the professional colleges raises the need to review and improve the channels of communication used by the professional colleges for broadcasting this type of information. On the other hand, it should be mentioned that the professional colleges make this information available on their websites.

Some of the **limitations for participating in research** that mental health nurses identified are beyond the nurses' control and are determined by the scarcity

of resources, the lack of time for carrying out research within the working day and the lack of infrastructure in certain workplaces. As regards the **infrastructure**, it should be noted that it has been identified by the professionals as a limitation in itself, but also as a resource available for carrying out research in the work centres. On the other hand, the professional colleges, scientific associations, research networks and also the work centres themselves have professionals who advise, guide or mentor nurses in research, and who can help to minimize or solve some of these limitations by indicating what the chances of getting research grants or aids are (financial ones and those of infrastructure) and about the research networks themselves.

The **lack of knowledge, skills and attitudes** is also a limitation identified by nurses; nevertheless, more than half state that training is one of the resources available to nurses in order to conduct research. Meanwhile it has been observed that nurses ≤ 35 years of age are less likely to identify this limitation, probably because they have more developed competence in research, as a consequence of a more in-depth look at this area carried out during degree, Master's degree, specialisation and doctorate training (15, 95).

Another limitation stated by nurses is the **lack of time within the working day** to carry out research; this is an aspect that has already been identified in other studies, both national and international (50-54, 57, 64). The possibility of conducting research during the working day is a resource that few nurses have claimed to have, in spite of the fact that its integration into the daily activity would help to increase research into nursing care, and thus would have a positive impact on scientific evidence-based nursing and so nursing care and the quality of care would be improved. On the other hand, the financial aid of grants or awards, which are identified by nurses as being a resource for conducting research and which they do not apply for very often, would help to alleviate some of the research work through the recruitment of intern staff who would help to carry it out.

Choosing a research group motivated by the design and implementation of a project is the first premise for the smooth running of a research study, but it is also necessary to have the support of colleagues, managers and management to facilitate its good progress. The **lack of support from colleagues** in col-

laborating and facilitating the development of research initiatives is identified as being a limitation (40.43%) that, with the increase in age, is perceived by more professionals. The **lack of support from managers and management** is also pointed out by 62.98% of the nurses; this is an aspect that does not reflect the wishes that nursing management leaders have to encourage research, promote and support initiatives by professionals, seek synergies, take advantage of resources (care, teaching and management areas) and promote evidence-based nursing care and attention.

Training, support from the workplace, time set aside within the working day, financial support and personal timetable availability are some of the **resources that mental health nurses report could help them with regards to participation in and development of research**. However, the availability of these resources is different depending on the field of work. Thus, nurse educators are the ones who have more resources, followed by management and care nurses.

There are some authors who consider it **necessary to devise strategies and implement measures so as to help boost nursing research and to obtain financial aid in order to carry it out**, the following are such examples: to create the professional support figure for research; to establish specific lines of research and innovation in institutional, association and professional college care; to set up alliances between educators, administrators and health care staff; to improve learning in research in the various different training activities; to promote the culture of nurses who are consumers of research; and to apply the research in clinical practice generating new knowledge in the heart of a critical attitude of the role of nurses in health care (15, 46, 50, 54, 89, 90, 96-98, 61, 99).

9 Conclusions

In the present study, **52% of the nurses are specialists in Mental Health**; the rest are general nurses. The lack of recognition of the professional category of the nurse specialising in Mental Health means that the academic qualification of nursing specialist is not a prerequisite for access to specific places for nursing care specialising in mental health. On the other hand, the number of EIR places in Mental Health that are announced annually in Catalonia seem to be insufficient if we wish to guarantee generational replacement, and totally inadequate if we want to cover all the mental health nursing places.

Mental health nurses have an **optimal level of motivation for the development of training, teaching and research**, which is reflected by significant participation in the three fields.

The participation in ongoing and postgraduate training is high, mainly financed by the professional and with the partial collaboration of the work centre. The nurses carry out a considerable number of training hours per year, mostly in the professional's own personal time, but a small percentage enjoys training hours covered for by the company. The **professionals who have undertaken or are currently doing a doctorate are few** and most are nurses in the field of teaching.

The participation of nurses in the drawing up of the work centre's training plan is low and most of the professionals believe that ongoing training in Mental Health and/or Addictions does not always respond to their needs and interests.

The **professional college training**, with an optimal level of participation, is rated positively in all aspects except the price, where there is a divergence of views amongst nurses and differences between the professional colleges.

Classroom-based learning, traditionally preferred by nurses, takes a back seat given that a **growing interest in online training** has emerged.

The **participation of nurses in teaching** is high in clinical practice and moderate in the teaching of undergraduate and graduate training activities.

The main **limitation** that nurses identify for participating **as educators** is timetable incompatibility and, with a lower incidence, the lack of aptitudes, of training and of skills as well as the lack of opportunities.

The **participation in scientific activities** is moderate in the presentation of communications and clinical sessions, and low in the presentation of round tables, conferences and papers.

As regards the **participation of nurses in research** the role of the collaborative researcher has traditionally prevailed, however, over recent years the role of chief researcher has emerged with force.

The **level of participation in the different stages of the research** fluctuates: it is low in terms of applying for research grants; moderate in terms of the drawing up of protocol, tabulation and data analysis, the drawing up of results and conclusions, and its presentation and/or publication; and high in terms of collecting data.

The **dissemination of the research** is moderate in the format of communications in scientific acts and low in publications in scientific journals.

The **limitations that nurses identify for participation in research** are essentially related to the scarcity of resources, the lack of time to carry out research within the working day, the lack of infrastructure in the work centre, the lack of knowledge, and the lack of support from colleagues, managers and nursing management.

The **resources that mental health nurses report could help them in the participation and development of research** are: training, support from the work centre, time within the working day, financial support and personal timetable availability.

10 Improvement measures & lines of future action

Based on the results and conclusions obtained, the following improvement measures are proposed:

1) **Having an up-to-date census of mental health nurses**

Professional colleges currently have certain census data on registered nurses, but they do not have data, or this data is not up-to-date, on the specialisation, the work area or the specialised training. The records do not allow one to obtain data on the number of nurses working in mental health, about what their field of work is and how many have the specialisation. Having this up-to-date census data would allow us to know:

- What the number of mental health nurses is per 1,000 inhabitants.
- What the distribution of nurses in the different areas (adults, children and adolescents, addiction) is like.
- How many of the nurses working in mental health are general nurses and how many are specialist nurses.
- What the population pyramid of mental health nurses is like.

All of this information would help to:

- Identify the existing deficits and needs in relation to the number of mental health nurses and according to the healthcare areas.
- Predict the number of EIR who need to be trained so as to guarantee generational replacement and to ensure that the ratio of mental health nurses per 1,000 inhabitants is proportionate.

2) **Recognising the professional category of specialist nurse in Mental Health and demanding it as a requirement in the areas of specialised care**

It is necessary that the Ministry and health services in the different autonomous regions reach an agreement on the recognition of the professional category of nurse specialist in mental health and on the demand for this specialisation in areas where nursing care is offered to people with mental illness.

3) **Studying the needs for Mental Health EIR places**

The needs of nurses specialising in mental health in the future work market need to be studied in order to be able to predict the number of EIR places which need to be announced over the coming years. In order to make this forecast, the history and current context of specialty must be taken into account:

- The percentage of specialist nurses who occupy Mental Health places increased primarily as a result of the Widening Access entry route brought about in 2010; since then, the figures have remained at similar levels.

- The number of places officially announced for specialised healthcare training in 2015 was 959 for nursing and 6,102 for medicine; that is to say, 15.71% of nursing places have been officially announced with respect to those for medicine. On the other hand, the number of registered professionals in Spain in the year 2014 is slightly higher in nursing (5.92 nurses and 5.13 doctors per 1,000 inhabitants) (17).

- The number of accredited places in Catalonia to carry out the specialty of Mental Health Nursing is 48, of which 30 (62,5%) (16) were officially announced in the year 2015.

This data suggests that, if Mental Health Nursing is recognised in the future as a professional category, and the specialist qualification were a prerequisite for access to Mental Health places, there would not be enough specialists to ensure generational replacement.

4) **Improvement measures linked to nursing training**

- To guarantee the participation of nurses in the detection of training needs and in the drawing up and design of the **work centre training plans.** This would contribute towards: adapting training to the needs and interests detected by professionals and organisations; making good use of the resources allocated to training; improving the satisfaction of nurses with the training organised in the centres; and increasing the motivation to participate in training activities organised in the centres.

- To establish a **collaborative agreement between the four professional nursing colleges in Catalonia** that would allow any nurse registered in Catalonia to access the training organised by the different colleges under the same conditions. This would allow one to offer comprehensive, pluralist and homogeneous training for all nurses.

- The colleges that have not adjusted the **price of ongoing training activities** over recent years should assess the need for increased subsidised funding of training for registered members and align their prices with those of the other professional colleges.

- **To promote online training**. This training, with the new information and communication technologies of today, has proven to be an effective educational tool that facilitates the participation of professionals because they do not have to travel and because it can be done according to their timetable availability.

5) **Improvement measures linked to nursing teaching**

There are currently still professionals who are either engaged in healthcare or in university teaching. In this regard, it should be noted that each of these professional practices makes nurses acquire and develop different knowledge, skills, resources and competences in each case.

Clearly, the sum of both profiles can complement, enhance and improve teaching practice, while separating the two profiles would surely weaken it. For this reason it is considered essential to reduce the distance between the areas of care and teaching, boosting rapprochement strategies, taking advantage of synergies and establishing collaborative alliances aimed at:

- Boosting participation in the area of teaching of healthcare nurses with up-to-date knowledge of the practice.
- Boosting participation in the area of healthcare of nurse educators with more theoretical, methodological and research knowledge.
- Sharing knowledge, developing and consolidating the existing knowledge and helping the professionals and the profession to grow.

Knowledge of the healthcare and teaching environment makes one think that it would be good for nurses to be able to devote part of their working day to care and the other part to teaching. This approach would be beneficial to both areas, healthcare and teaching, which would share professionals with very well-developed healthcare, teaching and research competences.

6) **Improvement measures linked to nursing research**

As has been done in the area of teaching, it is necessary to integrate the culture of research into the everyday work of nursing care, but in order to do so support professionals, tools, and time commitment and nurses motivated by research are required. All of these things would help to lead, develop and disseminate nursing research, which is a key and essential aspect to ensuring quality care and attention.

Health organisations and the management of work centres should foster and promote the development of nursing research. The following measures can help to achieve this goal:

- Establishing the figure of the research nurse. This is a professional who is an expert in research, who is formally recognised by the institution as a professional of reference to nurses who initiate a piece of research and who need counselling, guidance and mentoring in the different stages of research.

- Organising ongoing training in nursing research.
- Partially releasing healthcare nurses to enable them to develop research in nursing care.

The scientific dissemination of nursing research is an aspect that should be improved through the publication of results in journals that are accessible to the scientific community.

11 Acronyms

AEN	Spanish Association of Neuropsychiatry
ASCISAM	Catalan Association of Mental Health Nursing
ATS	Equivalent of a State Registered Nurse
CASD	Care and Monitoring Centre for Drug-Dependency
MHC	Mental Health Centre
SD	Standard Deviation
EUI	University School of Nursing
F	Analysis of variance (ANOVA)
OT	Ongoing training
IF	Impact factor
IDESCAT	Catalan Institute of Statistics
EIR	Internal Resident Nurse
INE	Spanish National Institute of Statistics
CR	Chief Researcher
p	Level of significance
r	Pearson correlation coefficient
MH	Mental Health
SNS	Spanish National Health Service
t	Student's t-test
χ^2	Chi-squared

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13 Annexes

13.1. Annex 1: Questionnaire: "Training, teaching and research of mental health nurses in Catalonia"

PRESENTATION

The **main objective** of the present study, entitled "Training, teaching and research of mental health nurses in Catalonia", is to discover the current situation and their interests regarding the training, teaching and research of mental health nurses in Catalonia.

This study aims to help, in the future, to design and implement interventions that provide a response to the needs and interests of mental health nurses. Designed and led by the Committee of Mental Health of the Official College of Nursing of Barcelona, it is framed within the Research Programme of the College of Nursing Council in Catalonia, and participating in its development are the Official Colleges of Nursing of Barcelona, Gerona, Lerida and Tarragona.

This study's research team wishes to request your participation in a questionnaire that requires approximately 15 minutes to fill out. Participation in this study is entirely voluntary and you can withdraw your participation without the need for justification.

The information collected will be analysed globally, respecting the confidentiality and anonymity of participants and workplaces. The results obtained will be disseminated to the scientific community.

If you need further information or clarification, please get in touch with the research team by email at the following address: vocaliasalutmental@coib.cat

Thank you for your selfless and voluntary participation in responding to the questionnaire, for the time you spend and the invaluable information that you contribute.

Kind regards,

Jordi Torralbas Ortega
Chief Researcher of the Project

1. Qualification and field of work:

- ☐ I am a nurse and work in Mental Health and/or Addictions as a care nurse or educator or manager or researcher.
- ☐ The previous option is NOT correct → ***Go directly to the end of the questionnaire***

CENSUS DATA

2. I work in the province of:

- ☐ Barcelona
- ☐ Gerona
- ☐ Lerida
- ☐ Tarragona
- ☐ Another Spanish province outside Catalonia

3. Sex:

- ☐ Male
- ☐ Female

4. Year of birth:

- ☐ *Extending from 1944 to 1994*

5. Year of obtaining nursing qualification:

- ☐ *Extending from 1963 to 2015*

6. My academic qualification is:

	Yes	No
Nurse (ATS, Nursing Diploma, graduate)	☐	☐
Mental health nurse specialist via EIR (internal resident nurse)	☐	☐
Mental health nurse specialist via Widening Access entry route	☐	☐
I am currently studying the Mental Health specialisation via EIR (internal resident nurse)	☐	☐
Another official Nursing specialisation via Widening Access entry route	☐	☐
Other official Nursing specialisations via EIR (internal resident nurse)	☐	☐
Postgraduate and/or non official Master's degree	☐	☐
Official Master's degree	☐	☐

Others:

7. I have undertaken postgraduate or Master's degree training in:

	Yes	No
Postgraduate in Mental Health	☐	☐
Master in Mental Health	☐	☐
Postgraduate in Addictions	☐	☐
Master in Addictions	☐	☐
Other postgraduate or Master's degree training	☐	☐

8. Doctorate:

☐ I have not done a doctorate
☐ I am currently doing my doctorate
☐ I have completed my doctorate

9. How many years have you worked as a nurse?

☐ *Extending from 0 to 52*

10. How many years have you worked as a mental health nurse?

☐ *Extending from 0 to 52*

11. Nature of the work centre (ownership, management, use etc.) where you currently work:

☐ Private
☐ Private State-Assisted
☐ Public (Catalan Institute of Health...)

12. Contractual situation over the last year:

☐ Public servant or statutory contract
☐ Open-ended employment contract
☐ Interim contract (until the public announcement of a place)
☐ Temporary contracts
☐ I have not worked as a nurse
☐ Others ____________________

13. Percentage of the working day over the last year:

☐ 100% (Full time)
☐ 75 to 99%
☐ 50 to 74%
☐ 25 to 49%
☐ < 25%
☐ I have not worked as a nurse
☐ Other ____________________

14. Current work shift:

☐ Morning
☐ Afternoon
☐ Split shift morning and afternoon
☐ Rotating morning and afternoon
☐ 12-hour day
☐ Night
☐ Morning, afternoon and night
☐ Other ______________________________

15. In the institution in which I work I am contracted as a:

☐ Nurse
☐ Nurse specialising in Mental Health (recognition of category)
☐ University School of Nursing Lecturer
☐ Other ______________________________

16. On a scale of 0 to 4: which professional career level is yours recognised as being in your work centre?

0 = No level (the lowest); 1 = First level; 2 = Second level; 3 = Third level; 4 = Fourth level (the highest).

	0	1	2	3	4	
Lowest level	☐	☐	☐	☐	☐	Highest level

17. Area in which you mainly carry out your professional activity:

☐ Care
☐ Teaching
☐ Management
☐ Research

18. My area of work is currently:

	Yes	No
Child and Adolescent Mental Health	☐	☐
Adult Mental Health	☐	☐
Addictions	☐	☐

Others:

19. I currently work in:

	Yes	No
Inpatient Psychiatric Unit	☐	☐
Psychiatric Day Hospital	☐	☐
MHC (Mental Health Centre)	☐	☐
Day or Rehabilitation Centre	☐	☐
Psychiatric Residence	☐	☐
CASD (care and monitoring centre for drug-dependency)	☐	☐
University School of Nursing	☐	☐

Others:

20. In which nursing college are you registered?

☐ Barcelona
☐ Gerona
☐ Lerida
☐ Tarragona
☐ Another Spanish province outside Catalonia
☐ I am not a registered member

21. Assess your family burden:

Care of minors or dependent relatives...

	1	2	3	4	5	
Very low	☐	☐	☐	☐	☐	Very high

22. How many annual hours of ongoing training do you normally carry out?

Write the number of hours in one year. For example: 0, 10, 50, 200...

☐

23. How many annual hours of ongoing training are covered by your work centre because they provide substitutions or they compensate you for the hours worked with time off?

Write the number of hours that you are given off for doing training in one year. For example: 0, 10, 50, 200...

☐

24. As regards the nursing training that you have undertaken over the last five years: what is the economic percentage that has been financed by the work centre, by you and/or by other means?

The sum total of all three has to be a maximum of 100%

	0	10	20	30	40	50	60	70	80	90	100
Financed by the work centre	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
Self-financed	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
Financed by other means (grants...)	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐

25. What is your current degree of motivation for carrying out ongoing training?

	1	2	3	4	5	
Very low	☐	☐	☐	☐	☐	Very high

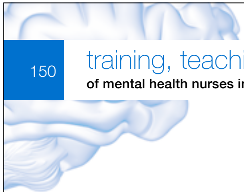
26. What is your current availability for carrying out ongoing training?

	1	2	3	4	5	
Very low	☐	☐	☐	☐	☐	Very high

27. Prioritise the type of ongoing training you are interested in:

1 = Very low; 5 = Very high.

	Very low	Low	Adequate	High	Very high
Classroom-based	☐	☐	☐	☐	☐
Blended learning	☐	☐	☐	☐	☐
Online	☐	☐	☐	☐	☐



28. Which subjects related to Mental Health and Addictions do you think could be of interest to you in an ongoing training activity?

29. My work centre annually:

	Agree	Disagree
Carries out ongoing cross-training/ general training activities (examples of courses: cardiopulmonary resuscitation (CPR), occupational health and safety, nursing methodology etc.)	☐	☐
Carries out ongoing training activities specific to Mental Health and/or Addictions	☐	☐
Carries out ongoing training activities specific to other specialisations	☐	☐
Draws up an Ongoing Training Plan	☐	☐

Others:

30. When drawing up the ongoing training plan, my work centre takes into consideration:

	Agree	Disagree
The training activity proposals made by the nurses	☐	☐
The training activity proposals made by middle management nurses	☐	☐
The training activity proposals made by the nursing management	☐	☐
The training activity proposals made by the social faction (works committee)	☐	☐
I do not know how the Training Plan in my work centre is organised	☐	☐

Others:

31. Do you believe that the ongoing training in Mental Health and/or Addictions organised in your work centre responds to your training needs?

☐ Always
☐ Sometimes
☐ Never
☐ Specific courses in Mental Health and/or Addictions are not organised in my work centre

32. The ongoing training organised in my work centre does not always respond to my needs because:

	Agree	Disagree
It does not take into consideration the opinion and interests of the professionals	☐	☐
The subject matter and content of the courses do not suit my needs and/or interests	☐	☐
There are limited places and not everyone can access the courses	☐	☐
The timetables are not compatible with my personal and/or professional life	☐	☐

Others:

33. Have you carried out courses specific Mental Health and/or Addictions in the Official College of Nursing?

☐ Yes

☐ No → *Go directly to question number 35*

34. How do you rate the course(s) that you have carried out in the Official College of Nursing?

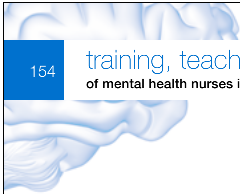
1 = Very poor; 5 = Very good.

	Very poor	Poor	Adequate	Good	Very good
Subject matter and content	☐	☐	☐	☐	☐
Organisation	☐	☐	☐	☐	☐
Duration	☐	☐	☐	☐	☐
Timetable	☐	☐	☐	☐	☐
Didactic material	☐	☐	☐	☐	☐
Educator(s)	☐	☐	☐	☐	☐
Matriculation process	☐	☐	☐	☐	☐
Price	☐	☐	☐	☐	☐

35. What are your motives for not having carried out any course in the Official College of Nursing?

	Agree	Disagree
The subject matter and contents do not suit my needs and/or interests	☐	☐
The timetables are not compatible with my personal and/or professional life	☐	☐
The current prices are not very reasonable	☐	☐
Travelling distance and time required	☐	☐
I do not have time to do training activities	☐	☐
I am not interested in training	☐	☐

Others:



36. Observations linked to ongoing training:

In this question you can add whatever comments you deem appropriate regarding continuous training.

TEACHING

37. Is your primary commitment as an educator (university lecturer etc.) full time?

☐ Yes → ***Go directly to question number 43.***

☐ No

38. Do you have work experience students under your charge in the work centre?

	Agree	Disagree
Yes: Nursing undergraduates	☐	☐
Yes: Postgraduate or Master in Nursing students	☐	☐
Yes: EIR (internal resident nurse)	☐	☐
Yes: Vocational Training students (Certified Nursing Assistant)	☐	☐
I do not have work experience students	☐	☐

39. How many hours (not including the training hours for work experience students) do you normally carry out as an educator annually?

Write the number of teaching hours given in a year. For example: 0, 10, 50, 200...

40. In how many internal and external training activities have you participated as an EDUCATOR in the last 5 years?

	0	1	2	3	4	≥ 5
Internal (organised in the work centre)	☐	☐	☐	☐	☐	☐
External (organised outside the work centre)	☐	☐	☐	☐	☐	☐

41. Do you participate in external training activities (university, Nursing Schools etc.) as an educator or in your work centre?

	Agree	Disagree
Yes: undergraduate training	☐	☐
Yes: postgraduate or Master's degree training	☐	☐
Yes: ongoing training	☐	☐
Yes: vocational training	☐	☐
I do not participate as a teacher in external training activities	☐	☐

Others:

42. What limitations do you believe yourself to have or would have for participating as a teacher?

	Agree	Disagree
Lack of training	☐	☐
Lack of skills	☐	☐
Lack of aptitudes	☐	☐
Scarcity of opportunities	☐	☐
Timetable incompatibility	☐	☐

Others:

43. In how many of the following activities have you participated over the last five years?

	0	1	2	3	4	≥ 5
Oral Communication Session (1st signatory)	☐	☐	☐	☐	☐	☐
Oral Communication Session (collaborator)	☐	☐	☐	☐	☐	☐
Poster Session (1st signatory)	☐	☐	☐	☐	☐	☐
Poster Session (collaborator)	☐	☐	☐	☐	☐	☐
Round Table (speaker)	☐	☐	☐	☐	☐	☐
Paper / Conference (speaker)	☐	☐	☐	☐	☐	☐
Clinical Session (speaker)	☐	☐	☐	☐	☐	☐
Table of Communications Moderator	☐	☐	☐	☐	☐	☐
Round Table Moderator	☐	☐	☐	☐	☐	☐
Paper / Conference Moderator	☐	☐	☐	☐	☐	☐

44. What degree of motivation do you currently have for participating in teaching?

	1	2	3	4	5	
Very low	☐	☐	☐	☐	☐	**Very high**

45. Observations linked to teaching:

In this question you can add whatever comments you deem appropriate regarding teaching.

RESEARCH

46. Have you participated in any research project?

☐ Yes

☐ No → *Go directly to question number 54.*

47. In how many research projects have you participated over the last 5 years?

	0	1	2	3	4	≥ 5
Multidisciplinary Research (1st signatory)	☐	☐	☐	☐	☐	☐
Multidisciplinary Research (collaborator)	☐	☐	☐	☐	☐	☐
Nursing Research (1st signatory)	☐	☐	☐	☐	☐	☐
Nursing Research (collaborator)	☐	☐	☐	☐	☐	☐

48. How many grants or aids have you received for the development of these projects?

	0	1	2	3	4	≥ 5
Multidisciplinary Project (1st signatory)	☐	☐	☐	☐	☐	☐
Multidisciplinary Project (collaborator)	☐	☐	☐	☐	☐	☐
Nursing Project (1st signatory)	☐	☐	☐	☐	☐	☐
Nursing Project (collaborator)	☐	☐	☐	☐	☐	☐

49. How many prizes or awards have you received on completion of these projects?

	0	1	2	3	4	≥ 5
Multidisciplinary Project (1st signatory)	☐	☐	☐	☐	☐	☐
Multidisciplinary Project (collaborator)	☐	☐	☐	☐	☐	☐
Nursing Project (1st signatory)	☐	☐	☐	☐	☐	☐
Nursing Project (collaborator)	☐	☐	☐	☐	☐	☐

50. In these research projects, you have actively participated in:

	Yes	No
Drawing up protocol	☐	☐
Grant and permit applications (grants, CEIC (Clinical Research Ethics Committee) etc.)	☐	☐
Data collection	☐	☐
Data tabulation and analysis	☐	☐
Drawing up results and conclusions	☐	☐
Presentation and/or publication of study	☐	☐

Others:

51. I have participated in the following types of research:

	Yes	No
Quantitative	☐	☐
Qualitative	☐	☐
Mixed (quantitative and qualitative)	☐	☐

52. The results of the research projects have been presented to the scientific community in the following formats:

	Agree	Disagree
Oral Communication and/or Poster Sessions	☐	☐
Conferences and Papers	☐	☐
Clinical Sessions	☐	☐
Articles in scientific journals without an impact factor	☐	☐
Articles in scientific journals with an impact factor	☐	☐
Doctoral Thesis	☐	☐
I have not presented the results of the projects to the scientific community	☐	☐

Others:

53. What degree of satisfaction have you achieved on completion of the research?

Take into consideration all your experience in research.

	1	2	3	4	5	
Very low	☐	☐	☐	☐	☐	**Very high**

54. What degree of motivation do you currently have for undertaking research?

	1	2	3	4	5	
Very low	☐	☐	☐	☐	☐	**Very high**

55. Do you know the Research Area of your Nursing College?

☐ There is no Research Area in my college → ***Go to question number 57***

☐ There is a Research Area but I do NOT know it → ***Go to question number 57***

☐ I DO know the Research Area but have NOT requested consultations or advice → ***Go to question number 57***

☐ I DO know the Research Area and HAVE requested consultations and/or advice

56. What is your appraisal of the Research Area of the Nursing College?

	1	2	3	4	5	
Very poor	☐	☐	☐	☐	☐	Very good

57. Do you know if there is a call for research grants in your nursing college?

☐ I do not know if there is a call for research grants in my college

☐ There are no calls for research grants in my college

☐ There are calls for research grants but I have not presented any project

☐ There are callsfor research grants and I have not presented a/some project(s)

58. Have you won an award in the call for research grants of the Nursing College?

☐ There are no calls for research grants in my college

☐ I have not presented any project in the calls for research grants in my college

☐ I have won a research grant award in my college

☐ I have not won a research grant award in my college

59. What limitations do you believe mental health nurses face for carrying out research?

	Yes	No
Lack of time within the working day for carrying out research	☐	☐
Lack of knowledge, skills and/or aptitudes	☐	☐
Little research infrastructure in the work centre	☐	☐
Little support from the management and the managers	☐	☐
Little support from colleagues	☐	☐
Scarcity of economic resources or external aid	☐	☐

Others:

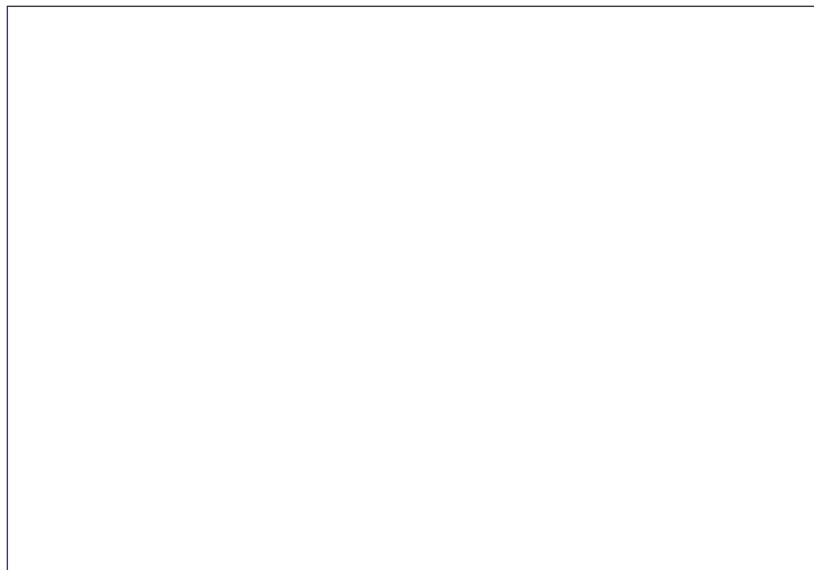
60. Which resources do you believe you have available to you as a nurse for undertaking research?

	Yes	No
Specific training in research	☐	☐
Support of the work centre (infrastructure and/or professional(s) who advise on research)	☐	☐
Support of the work centre (time provided within the working day or release for carrying out research)	☐	☐
Support of scientific associations (infrastructure and/or professional(s) who advise on research)	☐	☐
Support of the professional college (infrastructure and/or professional(s) who advise on research)	☐	☐
Economic support (grants and other aid)	☐	☐
Personal timetable availability		

Others:

61. Observations linked to research

In this question you can add whatever comments you deem appropriate regarding research.



Many thanks for your participation. Should you have any doubts or wish for clarification you may contact the COIB Mental Health Advisory Committee at the following e-mail address: vocaliasalutmental@coib.cat

13.2. Annex 2: Ongoing training needs as perceived by Mental Health and Addictions nurses

1. Mental disorders, diagnosis and treatment		
Subject Matter	**No. professionals**	**Percentage**
Addictions	40	17.0%
Borderline personality disorder	32	13.6%
Pharmacology	25	10.6%
Dual pathology	19	8.1%
Eating behaviour disorder	15	6.4%
Suicide	10	4.3%
Organic comorbidity	7	3.0%
Attention deficit disorder and hyperactivity (children/adults)	5	2.1%
Behavioural disorder in childhood	3	1.3%
Pregnancy and mental health	2	0.9%
Sensory abnormalities in autism spectrum disorder	1	0.4%
Concepts of Psychiatry	1	0.4%
Depression	1	0.4%
Diet and nutrition	1	0.4%
Intellectual disability	1	0.4%
New mental illnesses	1	0.4%
New therapies	1	0.4%
Psychogeriatrics	1	0.4%
Mental Health and HIV / HCV	1	0.4%

2. Nursing management of users' conduct and behaviour		
Subject Matter	No. professionals	Percentage
Restraint and handling	23	9.8%
Child and Adolescent Mental Health: prevention and management	14	6.0%
Integrated approach to severe mental disorder	13	5.5%
Communication	11	4.7%
Group work	11	4.7%
Motivational interview	10	4.3%
Mindfulness	8	3.4%
Individualised monitoring plan	6	2.6%
Relaxation	5	2.1%
Group therapy	5	2.1%
Intervention in autism	4	1.7%
Focused interview	3	1.3%
Promotion of health	3	1.3%
Emergencies in mental health	3	1.3%
Natural therapies	3	1.3%
Patient empowerment	2	0.9%
Community intervention	2	0.9%
Psychotherapy for nursing	2	0.9%
Positive therapy and neuro-linguistic programming	2	0.9%
Intervention in psychotic disorders	2	0.9%
Family therapy	2	0.9%
Adherence to treatment	1	0.4%
High-level capacities: intervention	1	0.4%
Illness awareness	1	0.4%
Nursing interview	1	0.4%
Methadone maintenance programme	1	0.4%
New forms of education	1	0.4%
Expert patient	1	0.4%
Psychopathy and management	1	0.4%
Psychosocial rehabilitation	1	0.4%
Helping relationship	1	0.4%
Adolescent relaxation	1	0.4%
Sexuality and intellectual disability	1	0.4%
Alternative systems of communication	1	0.4%

3. Self-care in order to care for others		
Subject Matter	No. professionals	Percentage
Emotional management	7	3.0%
Workplace violence	4	1.7%
Teamwork	3	1.3%
Coaching	2	0.9%
Burnout	1	0.4%
Stress management	1	0.4%

4. Management of nursing services		
Subject Matter	No. professionals	Percentage
Management and administration	6	2.6%
Mechanical restraint: ethical and legal aspects	5	2.1%
Legal aspects	3	1.3%
Continuity of care	2	0.9%
Case management	2	0.9%
Leadership	2	0.9%
Quality of care	2	0.9%
Patient safety	2	0.9%

5. Cross-training		
Subject Matter	No. professionals	Percentage
Research	18	7.7%
Nursing diagnoses	10	4.3%
Mental health nursing interventions	8	3.4%
Transculturality	7	3.0%
ICTs	5	2.1%
Training of trainers	1	0.4%
Guides to clinical practice	1	0.4%
Innovation and creativity	1	0.4%
Mental Health Care Plans	1	0.4%